Cost Containment and Physician Autonomy: Implications for Quality of Care

Proceedings of the Twenty-Eighth Annual George Bugbee Symposium on Hospital Affairs, May 1986

CONDUCTED BY THE GRADUATE PROGRAM IN HEALTH ADMINISTRATION AND CENTER FOR HEALTH ADMINISTRATION STUDIES

GRADUATE SCHOOL OF BUSINESS
DIVISION OF BIOLOGICAL SCIENCES
UNIVERSITY OF CHICAGO

The Twenty-Eighth Annual George Bugbee Symposium on Hospital Affairs conducted by the Graduate Program in Health Administration and Center for Health Administration Studies of the Graduate School of Business, Division of Biological Sciences, University of Chicago, was held at the Ambassador West Hotel, Chicago, on May 9, 1986. These symposia are a reflection of strong concern of the Graduate Program in Health Administration with complex current issues in health care management.

The topic for this, the Twenty-Eighth Symposium, was chosen by a committee of the Alumni Association because of its relevance in this period of changing environment for health care institutions. These proceedings are published and distributed in the hope that they will prove useful to both practitioners and students of health care management.

TABLE OF CONTENTS

WELCOME

RONALD ANDERSEN: This symposium is sponsored by the Graduate Program in Health Administration and the Center for Health Administration Studies at the University of Chicago. It's directed toward alumni of our program, our colleagues interested in financing an organization of health services and our students. It's named in honor of George Bugbee, director of the Center and the Program from 1962 to 1970. We're honored to have George in attendance today. The symposium is planned by faculty and alumni of the program. Odin Anderson is the coordinator from the faculty side and Don Oder was Alumni Chairperson this year. Also, a number of other alumni participated in the program development: Phyllis Levens, Dick Johnson, Dick Gifford. Margarita O'Connell, our administrative assistant, and June Veenstra, the Program secretary are responsible for getting things done.

Our topic this year is "Cost Containment and Physician Autonomy: Implications for Quality Care." The questions we wish to address have to do with the impact of cost containment strategies such as prospective payments, competition among HMOs and PPOs, deductibles and co-insurance, pre-certification for services, and mandatory second opinions on physician autonomy in the practice of medical care and the quality of services delivered.

We'll begin our symposium with a panel representing perspectives from the practitioner's standpoint. I'd like to introduce the panel. In the middle is Norman Jensen. Norm is Associate Professor of Internal Medicine, University Hospital and Clinics, University of Wisconsin in Madison. Norm has his M.D. and his bachelors degree from the University of Wisconsin and he also has an M.S. in sociology and is working for a Ph.D in sociology. He's director of Primary Care Education for residents and the Fellowship Program in General and Internal Medicine. His research interests include training, career paths and practices of internists and doctor/patient interaction. On the left is John Schneider who is Associate Professor in the Dept. of Medicine of U. of C. John has an M.D. from U. of C. and also a Ph.D in biochemistry. John is Chairman of the Utilization Review Committee and the Medical Records Committee at U. of C. On the right is Mervin Shalowitz, M.D. He is Medical Director and Vice President of Share Health Plan of Illinois, Inc. Merv is certainly known for his innovative plans for physician incentives for increasing productivity and limiting expenditures in the field. We'll begin with Dr. Jensen. The panelists will each talk for about 20 minutes and we hope to have 15 minutes for general discussion.

A PHYSICIAN'S VIEW

NORMAN JENSEN: I am here because of the kind considerations of your conference coordinator, Professor Odin Anderson, who as my mentor has been trying to help me see the "bigger picture" for several years. Where I make some sense, the credit should go to Odin; for the nonsense I take full responsibility. If I have earned the privilege of this lectern (or will it be a PULPIT -- you be the judge), it is because I have been deeply concerned with some of the issues that will come before us today, and because I am a practicing and teaching primary care doctor currently scrambling to adjust to the new social role of double agent or "gatekeeper". The opportunity to be with this distinguished gathering overwhelmed the doubts and duties which would otherwise keep me home. I deeply appreciate the invitation.

The title of the conference is "Cost Containment and Physician Autonomy: Implications for Quality of Care". My assignment is to address these three interrelated matters from a physician's view. Odin Anderson and his associates have documented well the prime concern with the doctor-patient relationship expressed consistently by physicians interviewed in his Chicago/Twin Cities comparative HMO study recently published (Anderson 1985:185). I locate myself strongly in the mainstream of this phenomenon. It will be my main concern today. Let me offer a definition of quality. I propose here a simple linear model:

$$Qc = Dr + Pt + Dr \times Pt + Env + e$$

where Qc is quality and where Dr, Pt, and Env represent oversimplified indices of doctor, patient and environment variables. The term Dr x Pt is the interaction term called "relationship". I shall consider each of these in turn, roughly and conceptually, not operationally.

The doctor independently brings some important variables to the quality equation. For you I need not dwell on the obvious matters of knowledge, skills, personality and attitudes, nor on the needs of the doctor for role and resource exchange satisfaction. But for just a moment I would like to reflect upon the matter of incentives. Anderson and Shields (1986) assert that "physicians are typically efficient in the use of the scarce resource with which they are most concerned, that is, their own time". I would agree. They use this observation to support their contention that if we could arouse similar concern in physicians about the utilization of other health resources under their control, comparable "efficiency" would result. This prospect does not reassure me. Rather, I find this

perceptive observation troubling for two reasons. First, I observe that Americans seem uncomfortable with the way their doctors distribute time, and second, on theoretical grounds, I contend that duration of direct contact time between doctor and patient is a major determinant of satisfaction if not the healing process itself. Consider the often highly favorable response to medical students functioning in the role of doctor. Often much younger and less socially sophisticated than their patients, these inexperienced students carefully solicit every detail of the academically prescribed history and physical examination. They spend at least twice as much time as experienced clinicians would and frequently make diagnostic errors, but yet their patients regularly remark how careful and thorough the young doctor was and how the examination was one of the best they have ever had. I am worried that this typically "efficient" use of time is more an indicator of how doctors respond to incentives in the reimbursement system where "time" is the "lost leader". I strongly believe that policy must be more sensitive to the effects of variations in distribution of and reimbursement for doctor's time.

The patient is the next independent variable and of course from a doctor's point of view, always second. Once again I will not dwell on what would seem to be straightforward matters of ability to communicate and cooperate in the diagnostic and treatment process and the desire for technical and cognitive competency, a sense of fair resource exchange and satisfactory human relationships. Rather, I would call your attention once again to incentives. James Schroeder, et al, from Northwestern (1985), Groves JE (1978) and others have called our attention to a new category of patient, the "entitled demander" and the role of bureaucratic client. When competition-driven marketing inflates the expectations of a patient who is uninformed about the letter and the spirit of his/her new low-cost insurance plan, and when there are no direct incentives for the patient to conserve the resources, we unwittingly set up a situation ripe for conflict if not failure, and the gatekeeper is caught keenly in the middle. Schroeder, et al, go on to recommend that physicians screen the marketing policies and materials and participate in the orientation of all new HMO enrollees. These recommendations strike me as good sensible policy. Eisenberg (1985) elaborates on this matter of patient incentives in a state-of-the-art consideration of the "gatekeeper" function. Evans (1980) and Jensen (1982) advocate for more control to be invested in negotiated decisions by doctor and patient together.

Next let me jump to the last two terms in my equation only to let you know that I appreciate that the environment or situation is important at least in terms of equipment, space, personnel, management and services; and that I appreciate that the "e" or error term implies that much of the variance in the dependent variable (quality of care) cannot be explained very well. Having done that, let me go on now to the final term in my equation and the only interaction term I will consider today, the doctor-patient relationship. I believe doctor-patient relationship is the most unappreciated term in this equation. Perhaps it is just that main effects are inherently more noticeable in our multivariate considerations. But first, for the multivariate methodologists, let me acknowledge the other interaction terms in this quality equation (Dr x Env, Pt x Env, and Dr x Pt x Env). They are not only interesting to me but in my opinion, very fertile ground for further study. They are simply out-of-bounds for this paper.

Permit me once more to deal only nominally with the following list of needs for a successful doctor-patient relationship: Open, honest and efficient communications, shared beliefs and attitudes, satisfactory resource exchange and reasonable environmental constraints are readily apparent. The matter of trust is probably also quite apparent but in this context seems worthy of some elaboration. Anderson and Shields (1986) have cleverly identified a fiduciary function for the doctor. Webster's Collegiate Dictionary indicates that a fiduciary relationship is founded on trust and confidence. Norman Levinsky in a wonderful editorial in the New England Journal of Medicine (1984) and following an old caveat from the Bible, reminds us of the hazards of serving two masters. Levinsky takes a hard position that the doctor's duty is to do everything that he/she believes may benefit his/her patient without regard to costs or other societal considerations, serving solely as the patient's advocate. He makes the appealing analogy to the role of attorney defending a client against a criminal charge regardless of cost or the possibility that a guilty person may be acquitted through skillful advocacy. The advocacy role is further developed by Schoolman (1977), but to be clear here, doing everything technically possible is not what is being advocated; rather it is that the doctor and the patient together should decide what is best without regard for what is best for society or what it costs. It is society and not individual doctors with individual patients who bears the responsibility to limit the availability of effective but expensive types of medical care. When the patient's situation is hopeless, there is no problem, but "low-yield" medicine is not "no yield" medicine and individual patients may vary considerably and unpredictably from categorical

means in "probabilistic" medicine. As you could have expected from a doctor, a clinical case will be used here to illustrate the point. I am currently caring for a 43 year old woman who has the tragic misfortune to have several chronic diseases including obesity, hypertension, polycystic ovaries, Crohn's disease, and chronic depression. She has developed a new problem in the last two years that continues to be unexplained and unresponsive to treatment. This is a progressive neuropathy that has resulted in continuous disabling pain in her hands and feet, some loss of sensation compromising her work as a clerk, extreme cold sensitivity and continuous heavy sweating. She is miserable and considering suicide. I and my specialist colleagues are baffled about how to understand this disease. She is a member of our new HMO and lives solely on her modest income as a single person. She has exhausted her psychological benefits for the year and can't afford to buy more out of pocket. I wanted her to consult with specialists at another major midwestern medical center for another opinion. She wanted this as well. The HMO medical director reluctantly agreed but with the provision that no tests be done that could be done at home. We got what seemed like a half-hearted consultation for the price of about $700. This consultation was largely wasted because it did not give us a useful answer and it did not reassure us that a careful and thorough evaluation had been accomplished. The reasons for this failure are not all so clear. We are now trying to arrange for another consultation with another medical center with resistance from the HMO management.

The lesson I draw from this and other experience is that for a majority of HMO enrollees there will be few problems; it is they who will be recruited, for whom policies will be mainly formulated and from whom satisfaction ratings will be gratifying. They are relatively young and have common and infrequent illness where diagnostic and treatment protocols are familiar. They are low utilizers who place a higher value on technical competency and coordination of care than on continuity of relationship or comprehensiveness of service (Fletcher et al 1983). They are the ideal HMO participants from a manager's point of view. But I expect that for the minority for whom insurance was apparently created in the first place, we have serious problems. Their health problems tend to be more disabling, severe, complicated, or come in unusual "packages". Their diagnostic and treatment needs are more highly variable and less familiar to everyone. They tend to be older and place a relatively high value on continuity of relationship and comprehensiveness of service. They are high utilizing budget busters and are not well suited for HMOs as they are currently structured. Victor Fuchs (1984) in the same issue of the New England Journal of Medicine as Levinsky editorializes: "For physicians to have to face these

trade-offs explicitly every day is to assign to them an unreasonable and undesirable burden. The commitment of the individual physician to the individual patient is possibly one of the most valuable features of American medical care. It would therefore be a great mistake to turn each physician into an explicit maximizer of the social-benefit/social-cost ratio in his/her daily practice". Again, to be clear, I am not advocating a disregard for the high cost of medical care. Physicians will continue to respond to the call to conserve resources by choosing less expensive settings for procedures, clarifying the benefits of various procedures through innovative kinds of research, eliminating duplication in testing and hopefully, reducing the perceived and real need for "defensive medicine" practices. My point is only that it is possible that the fiduciary function of the doctor is critical to the success of the medical care system and if it is, we frustrate this role when we administratively set our doctors up to serve two masters.

In summary it appears that I have only made three points. Let me briefly state them:

1. We must better understand the effects of variations in distribution of doctors' time and more generally, policy makers must pay more attention to incentives that inhere subtly or otherwise in management schemes.

2. Patients as well as doctors must have personal incentives to restrain resource utilization. Let them together make the difficult but natural marketplace decisions about cost and benefit.

3. Until we learn that it does not matter much, let us be careful not to distract our doctors too much from their preoccupation with that individual patient's welfare.

REFERENCES

Anderson O. W., Herold T. E., Butler B. W., Kohman C. H., and Morrison E. M. HMO Development: Patterns and Prospects, A Comprehensive Analysis of HMOs. Pluribus Press: Chicago 1985.

Anderson O. W., and Shields M. C. The concepts and status of health maintenance organizations and competition in the United States. Journal of the Norwegian Medical Association, April 20, 1986.

Schroeder J. L., Clark J. T., and Webster J. R. Prepaid entitlements: A new challenge for physicial-patient relationships. JAMA 254 (21): 3080-3082, 1985.

Groves J. E. Taking care of the hateful patient. New Engl J Med 198 (16): 883-887, 1978.

Eisenberg J. M. The internist as Gatekeeper: Preparing the general internist for a new role. Annals of Internal Medicine 102:537-543, 1985.

Evans F. O., Jr. Physician-based group insurance: a proposal for medical cost control. New Engl J Med 302: 1280-1283, 1980.

Jensen N. M. A health policy for the U. S. A. 1982-2000. (unpublished) University of Wisconsin Center for Health Sciences. Madison: 1982.

Levinsky N. J. The doctor's master. New Engl J Med 311(24): 1573-1575, 1984.

Fuchs V. R. The "rationing" of medical care. New Engl J Med 311(24): 1572-1573, 1984.

Schoolman H. M. The role of the physician as a patient advocate. New Engl J Med 296(2): 103-105, 1977.

Fletcher R. H., O'Malley M. S., Earp J.A., et al. Patients' priorities for medical care. Medical Care XXI(2): 234-242, 1983.

JOHN SCHNEIDER: I likewise am very glad to be here this morning. Fortunately I've had the opportunity many times in the past to attend the George Bugbee Symposiums on Hospital Affairs. I've always found that the topics are extremely interesting and timely, and I hope that I in some way have been able to take away from the presentations knowledge that has helped me in my activities involving patient care.

In response to the desire to contain health care costs has come the concept of managed care, which an employer or government agency through contracting with hospitals, physicians and other suppliers of medical care, either directly or with an HMO, PPO or other comprehensive provider, seeks to obtain quality care for employees or for the group for which it is responsible at the lowest possible cost. In doing so, one eliminates the physician/patient contract by replacing it with an employer or government agency contract with the patient and another contract with the physician or other health care provider. This then becomes managed health care, because the individual paying for the services develops and defines the relationship between the patient and the physician. This morning I will give you my thoughts on how I feel this process may affect the overall quality of care for society in general, the quality of services being provided by the individual physician or practitioner and finally, expand upon the comments that Dr. Jensen has made regarding quality as judged from the perspective of the patient or the recipient of these services.

Until the recent concern with controlling costs, hospitals and physicians had been able to subsidize provision of health care to those unable to pay any or only part of their medical care expenses by transfer of those costs through higher charges to the payers able and willing to pay more. Thus, a physician by charging more for his care to wealthier patients could subsidize free or minimal cost care to others. The AMA has estimated that in 1983 some 77% of physicians provided free or reduced fee care which equaled 9% of their gross incomes. Hospitals, through cost shifting, have in the past been able to provide care for those without government or adequate private insurance by charging other payers more than the actual costs of services provided to them. Surveys by the AMA indicated that the average hospital in 1982 had charity care costs equal to 1.6% and bad debt to 3.6% of its overall costs. The percentage was higher in public hospitals and the highest in the major teaching hospitals, which provided almost 50% of charity care while containing only 5% of the total hospital beds.

By contrast, an HMO restricts care to those who are enrolled. The physician members or employees of the group,

or physicians who have contracted with the group, have neither the opportunity nor the ability to provide care to those who lack insurance or who have no financial resources. Likewise, an employer wishing to control health care costs would clearly be unwilling to enter into a managed health care program that would require him to subsidize care for others than his employees and in particular, not employees of other, possibly smaller, competing firms electing not to provide health benefits to their employees, since conceivably these firms' competitive position would be improved as a result of not incurring these costs.

Medicare has made it quite clear through the prospective payment system that it likewise views the federal government as having no responsibility for other than the elderly who are enrolled in the program. This is in contrast to the previous willingness to share the costs of bad debt and charity care incurred by hospitals caring for those covered by Medicare.

Many have described what is expected to be the astronomical growth of this kind of managed health care, both through HMOs, PPOs and direct employer contracts for care for their employees. The result of this growth in response to the efforts to contain costs will mean that there will be considerably fewer physicians and hospitals willing, or more importantly, able to provide free subsidized care. In 1984 24-37% of the population lacked adequate health insurance, 9% all of the year because they're unemployed, 9.5% part of the year as they move in and out of the labor market and the remainder being individuals with inadequate private insurance, defined as having at least a 1% chance in any given year of out-of-pocket expenses exceeding 10% of their income.

This population is not the poor as we usually define them. They include instead the recently unemployed and spouses under 65 of retired persons covered by Medicare. Probably as much as 75% of those lacking adequate or any insurance are either dependents of or employees working either seasonally or for small firms unable or unwilling to provide adequate health benefits. A study in Tennessee in 1984 indicated that of the inadequately insured, 45% of those advised to seek hospital care did not because they could not afford it. Of those who did seek care, 10% who sought admission were rejected. The result will be the increased transfer of this group who are not fortunate enough to be participants in managed care, who are not in HMOs and who do not have employers contracting for their care from the private hospitals and physicians to the public facilities. This must necessarily decrease, at least in the short run,

their access through increased travel time and waiting time, and will result in a lower quality of care for this one-quarter to one-third of our population.

By contrast, however, if one ignores this group, certainly for the individuals making up the 75% of the population who are and will be potentially participating in managed health care programs and HMOs, PPOs and other contracted care, there may be benefits. In spite of the concern by many fee-for-service physicians and those who view the physicians' practice and behavior as somehow changing in response to the mechanism of reimbursement, I believe that the quality of care provided by a physician results from a combination of the physician's native ability and years of training. At least for the moment, I think there is still enough professionalism in the practice of medicine, that only if a physician lacks the ability to choose among fee-for-service, HMO, or other contracted health care, would one expect the physician to practice other than at the highest quality level that he or she is capable.

Furthermore, at least in the competitive market, any program of contractive care would be expected to seek participation of the highest quality physicians available. The ability of an individual to select a physician may be improved through such managed health care programs. The presumption is that at the present time a patient, by selecting his physician on an autonomous basis in the fee-for-service practice, will make the best choice. However much of medical care now provided is extremely complex and requires the use of other physicians, hospitals and other providers, often on an urgent basis where neither the information nor the time is available to enable even the most astute patient to select the best combination of care, let alone the best physician. With hospitals at the present time emphasizing short length of stay and intensive care, patients frequently comment that even though they tried to understand what was going on and make choices, things moved too fast.

By contrast, an established HMO, particularly if required to provide information on the quality of its physicians and the quality and types of services available, should simplify selection for a patient. In a similar fashion, an employer may be presumed to make selections through contracting with physicians and hospitals based upon quality as well as cost. Certainly the business coalitions place strong emphasis on the element of quality in their programs to assist employers in contracting for care. As long as options exist for the patient to select among several varieties of care, both managed and fee-for-service, I believe that managed care can result, at least for some

individuals, in being able to obtain care by quality physicians more easily than if they had to do this through their own selection. Thus, although lower quality of care may be the fate of the 24-37% of the population who are left out of the managed health care programs because of their lack of resources, those who have coverage may benefit by receiving care from physicians, hospitals and other practitioners of higher quality than they might have been able to select or arrange through their own efforts.

Now I will expand on some of the comments that Dr. Jensen has made. To the consumer or the patient, quality encompasses not only the quality of the physician and the quality of the individual services provided, but also the quantity of services that he or she receives. Finally, quality of course must be viewed from a given perspective. To the provider, the physician, an individual test or other item of service may be perceived as being of little or minimal medical quality, but from the perspective of the patient it may be of high value. The best example I believe that relates to this is simply how care is provided in the hospital. Previous to the increase in monies expended on medical care, care in the typical hospital was provided to a patient in an open ward -- 16 beds, 18 beds, 24 beds. The quality of care that can be provided to a patient on an open ward is dependent upon the nurses, physicians and ancillary facilities available. Yet these services can be provided at lower cost in an open ward than to the same number of patients in private rooms. So from a medical standpoint it would make no difference, yet if you go to an individual patient, it does make a difference. There is a perceived higher quality by that individual to being treated in a private or semi-private room than in an open ward.

The same kind of example comes out of the concern that one now hears with Medicare patients being sent home quicker and sicker. If I have a patient with pneumococcal pneumonia, I know that after the first dose of penicillin and certainly within the first 24 hours in the hospital, I've effectively eliminated the pathogen. I know that within 48 hours the patient's temperature will be down to close to normal, and the extreme respiratory distress that the patient had when admitted will have begun to resolve. Furthermore, I know then that nothing that I do as a physician will influence the continued recovery of that patient. Therefore, from the medical standpoint, that patient can go home. But from the patient's standpoint, they will view this, quite correctly, as being discharged from the hospital sicker, because they are sicker than if they remained in the hospital for another two or three days. So one has transferred the services typically provided in the past by the hospital and viewed as

being of value to the patient, to the home and to the family environment.

There are even some more striking examples. Marcia Angell in JAMA in 1985 suggested that the value of many medical services provided may be minimal and in some cases possibly even detrimental to the patient. She felt that fee-for-service provided an incentive to the physician, to continue providing services and care even in the face of minimal medical value and perhaps even detrimental value. As I've mentioned, unfortunately, what may be unnecessary, of no value to one patient from a medical standpoint, may be valuable to another patient. In the article she uses the example of a patient maintained on a respirator in the intensive care unit after a diagnosis of incurable lung cancer. This patient wanted intervention stopped. The hospital insisted on continuing to provide care because of what it viewed as legal responsibility and ultimately the case went to court. Her point is that it would have been less costly and more humane to maximize comfort in the care of this patient, rather than aggressive intensive care.

Unfortunately, not all patients are like this particular individual. Many patients or patient's families, would find considerable value in being maintained on a respirator, or in an intensive care unit. Frequently patients or families, recognizing that the chances for recovery are slim or essentially nil, will still want, or even insist that everything possible be done. Contracted care with an emphasis on cost containment will no doubt lessen the response to patient and their families desires.

I do however, feel that regardless of the payment system, the point made in this article in JAMA, that detrimental care is being provided, should not occur either under a fee-for-service or a managed health care program. I do not believe that physicians would intentionally harm a patient through excessive provision of service, even though it may be viewed as being of some financial benefit. Certainly the whole concern with the legal lawsuit, malpractice crisis, stands in opposition to this.

My concern however, is with those services of some or minimal value as viewed by the M.D., but considered to be of value to the patient. Successful cost containment through managed health care is dependent upon elimination of those services and those items of care in which the medical value, not the value to the patient, is perceived to be less than the marginal value and perhaps even those in which the value only slightly exceeds the marginal value. In addition, the incentive is to ignore the value placed upon the service by

the individual who is the recipient. One way, of course, of doing this and one sees this in the changes which are taking place in health insurance, is by requiring direct payment by the patient for services that may be viewed as value to the patient but not medical value.

A further concern that I have that is in addition to low cost, low value items like laboratory tests, that HMOs and employers through a contractive care may also eliminate certain high cost or high risk items such as organ transplant. Liver transplant is not covered at the present time by a number of HMOs and is expressly excluded in one employer-contracted care program in Peoria. An increasing emphasis as one sees among the automobile industry on wellness - discouragement of smoking, alcohol or drug use - can, in the interest of cost containment, lead to the exclusion of coverage for care of illnesses resulting to a person engaging in what may be considered such self-destructive habits. Limitations upon the quantities of psychiatric care, especially for chronic conditions, is something that can easily be implemented in the efforts of an employer or HMO to lower costs.

To put it simply, in the physician/patient autonomous relationship with the decisions made without consideration for cost, will push toward the provision of care, even if it's of minimal medical value, if the patient or the physician perceives it to be a value. Cost containment through managed care, by contrast, will push in the opposite direction toward the elimination of care until its value exceeds that of the marginal medical costs, ignoring value as perceived by the patient. The result must be less quantity and less total quality for the individual patient, certainly from that patient's perception, but relatively more quality or value per dollar expended by the employer, PPO, or other agent responsible for managing the care of this group of patients.

Thus, cost containment through managed health care can be expected to affect the quality of care in this country, both for those individuals who are excluded, the approximate one-third of our population, and directly for the individuals who are also included in the managed health care program. Although I am unable to provide hard data to support these claims, the recently announced $8 million national study of medical care outcome by the Rand Corporation with funding from the Robert Wood Johnson Foundation and the Kaiser Foundation, through its efforts to determine the effects on outcome for patients with chronic illnesses of diabetes, hypertension, heart disease or depression, as provided by HMOs, large group practices, or individual fee-for-service

physicians, may provide some information that will enable us to judge whether what I've predicted is truly going to have a significant impact on quality of care.

MERVIN SHALOWITZ: I'm very pleased to be here today. My association with the school began back in 1972 or '73 when Odin and Joel May invited me to speak to a class about this new emerging phenomenon called an HMO. They didn't know really much about what it was. They thought I did, only because I had been in the field about a year before anybody else. That made me an expert. This system is evolving so rapidly and is moving at such a great speed that we have not had time to sit back and reflect on the changes that are happening. One of the greatest changes, as just pointed out, is the concern about resource management on the final outcome of health care and health status to the population we serve. We have some ideas about it, but nobody truly knows what that's all about.

I'd like to tell you my perspectives as an operational person and not as a theoretician. I'm a practicing internist. About 30% of my time in clinical practice is in an internal medicine office. Most of my time is spent though, as a physician manager and it's in this role that I'd like to speak to you, having been engaged in this activity now for over 16 years. We're changing from what we used to call "blank check" medicine where the more we did the more we earned. We didn't have to be concerned about cost. Everything was reimbursed on a so-called "cost plus" basis and it was very easy to make decisions. The decisions were whatever the public wants, whatever the public will bear and whatever I feel I need to take home in terms of my earnings. I hate to put it so crassly, but that's just the fact of life. I'm not against fee-for-service, I still do some fee-for-service practice, it suits a lot of people. Those of you who are physicians, don't give up fee-for-service.

But can a managed system be a responsive? Ron, I don't like the term cost containment in the policy issue you were asked to address. Does cost containment erode the quality of care? If you're going to try and contain costs, the answer is probably yes. I would translate that to mean does a managed system of care erode the quality of care, and I would answer no. I'd like to tell you why that is so. We have to learn how to use resources, something that we have never been taught in medical school or through any of our professional careers. Again, this is a challenge to the educators.

First of all, there are our materials and methods. I'm the Medical Director and Vice-President of a relatively new HMO in the state, Share Health Plan of Illinois. We've been in operation a little over two years. We are a federally qualified HMO, operational in a six county northern Illinois area. We are an IPA type model, using existing health care providers and facilities. We are a primary care, capitated

gatekeeper model. And by the way, Dr. Jensen, I look at the gate not a fence; it has hinges and it opens channels and controls things, so it's a control mechanism. I don't see it as any kind of perjorative term or as a barrier to care. Quite the contrary, I think a well constructed gatekeeper system offers many more opportunities both to the patient and to the physician for appropriate managed care.

Our 30,000 plus members are equally divided right now between Medicare with a TEFRA Risk contract and commercial members under the age of 65. The Medicare population, by the way, is a particularly interesting one and we have, so far, over almost a two year period of time starting with the demo project in July, 1984, had an extraordinarily satisfactory, in fact, an excellent relationship with this patient population. I know you've heard a lot of horror stories, but I'm going to try and show you why this works well in our case. We have provided a very highly sophisticated management system. This is all new, there's no book on it. We've developed a methodology, an organization to monitor this. We are concerned about the quality of care provided to our members. It is our absolute number one priority. It's my job. We approach quality assurance. QA, by setting up a method to assess the quality. I'm not so sure, by the way, that I like quality assurance as the term. I think we should be calling it quality assessment, because we're not really assuring it, we're assessing it. So far we're trying to reach an assurance of quality. We do it both at the local level of each medical group or IPA consortium that we deal with, as well as plan-wide. Let me show you how that works. We've outlined what we consider the major steps in our quality assurance or quality assessment program.

The first step is the credentialing process. Credentialing or intake is extremely important. Part of that credentialing process is a medical site visit. We actually go out and look at the doctors' offices. We want to see how they keep records because you can't assess anything or assure anything if you can't go back and have a paper trail as to what you've done. It cannot be dealt with anecdotally. In order to look at data and manage the data, you obviously have to have a management information system and it absolutely amazes me, although perhaps it shouldn't, that most of the HMOs that I have the opportunity to visit around the country do not have enough of a data system to even tell you what kind of activity they're experiencing. In order to get into utilization review, the measure of utilization is the volume of services, the number of encounters and the intensity of services. How are you going to do that if you can't tabulate them? Most people have no way of recalling that data. In order to then respond to the system, you have to bring in the

most important ingredient in the system, the patient, the public as patients.

One of the most important pieces of our quality assurance program is a consumer affairs committee and that is fed by a consumer affairs function, which is a full-time customer service. The patient is your customer. You'd better have a program to service that customer and finally, when you wrap it all up, it has to be accountable to a quality assurance committee and that committee has to consist of not only operational HMO people, but also physicians in the program, of true peer review. The program must also be responsive, of course, to members' needs, concerns and demands. The needs and demands may be two different things that have to be addressed. The HMO as you know, if properly constructed, is a self-correcting system, unlike the indemnity sector where we have virtually no accountability. If you're dissatisfied in the indemnity sector, you know what you do? You call your friendly lawyer. We hope that what we produce here is a method of encouraging people to call us. We will respond, and every HMO, by law throughout the United States, must have a formalized grievance procedure with consumer members of the plan as members of that grievance committee so that people can be heard by <u>their</u> peers. Again this does not occur in the indemnity sector.

Now let me go back and talk to you a little bit more about credentialing. We have a very comprehensive application. We do not depend on a medical group or a contracted IPA, if we deal with an individual practice association, or a hospital medical staff to credential our doctors. I have yet to find an IPA or medical staff in the area in which we're operational, or in the areas that I visit around the country, that does credentialing as carefully as I know some HMOs do. Let me tell you what I mean by that. Usually the hospital credentials people rather perfunctorily. They take in their data, they may or may not check their references. They look at their training, they look at their background, they will grant privileges based on what people say their training and scope of practice looks like. And then they flip them into the system, provided they can get by the political barrier called the medical staff. We're going to be looking at the physician, not only to credential him in terms of background and assuring that they are who they say they are, but actually going out and looking at their offices and seeing how they practice.

We have to be sure that the bulk of our care, which is provided on an ambulatory basis, must be available. The doctor must be available and accessible to the patient, that means the doctor has to have an attractive office, an office

that is accessible to the handicapped, has to have hours for accessibility and there has to be availability of the system. A hospital looks at care in an incident of time, the admission and discharge only, without any real consideration as to what happens before the admission and whether that admission could have been obviated by accessing the system. Was it an error in patient compliance or in physician attitude or compliance? What happens after the patient leaves the hospital? If you don't plug in the medical site visit that will never happen, and yet, I don't know of any hospital that routinely goes out and visits doctors' offices before they admit them to the staff. How many hospital administrators are here today? Why don't you do that? Why don't you pick yourself up, together with your chief of staff, your medical director and your department head, and take a ride out and visit the office? Is the waiting room furnished in early "Salvation Army"? Is there a washstand, running water in the rooms so they can at least wash their hands between patients for good hygienic habits? Is that quality of care? Of course it is. Does the patient perceive it that way? Always wash your hands in the presence of a patient, so they can see that you've cleaned yourself up and prepared yourself to put your hands on them. What do their medical records look like? Can you retrieve them if you get a lawsuit in the hospital? Are you going to be left hanging out there because you're the deep pocket, because that doctor doesn't have adequate records? I'm concerned about that, because as an HMO manager, I don't want to be the deep pocket. I want to know that I've got a fighting chance when there is a professional liability issue of at least addressing it and finding out if there is any substance to it. So we look at training, professional liability limits, we look at the professional liability history. Has the doctor been sued? How many times? It's our obligation when we put that doctor's name on the list to do everything we can to assure the public that these people have passed some sort of a scrutiny in the system.

This is the first page of a letter, that we send out to the doctors. "Dear Dr. Smith, thank you for the opportunity to visit your office. Your cooperation was greatly appreciated. The following are among the State of Illinois minimum requirements for a physician's office. The checked items require attention." The State is looking at medical offices. They're starting to come out. And there is a regulatory component which I'll address in a moment. But we want to know, are the waiting rooms adequate? We're talking about quality here. The patient perception of quality may not always be the medical process, but the application of the process as well as the outcome. Does the office follow adequate fire standards? Does it have handicapped access?

Is there adequate parking or public transportation? We have this all codified in a form that our provider reps go out with, together with a registered nurse in our system, and they check all of these things. Appointment methodology - do you have an appointment system? How do we access you? What does it look like? Can you take any more patients? Can a patient get in to see the doctor in the first place? Is there a formal patient complaint system? Does that office itself respond to patient complaints and concerns? We do, but I don't want them to always holler to the HMO, our people are busy enough. I want to know if the doctor handles them. How do you handle emergency procedures during your hours? Is there an emergency procedure after hours? Is medication properly stored? Needle and syringe disposal, is it adequate? Allergies, do you list them on the chart? We do a whole chart review by a licensed professional, by an R.N. If there is a problem, I may get involved or one of my associate medical directors. Is a problem list used, in other words, do we have an index to the chart? Are immunizations recorded? Preventive medicine? Each entry is dated and signed in full. Sounds like we're going to court with this chart, but what if you did, what would happen? These are the operational aspects of quality. Is the patient name on each page of the chart? If you dumped all your charts in a corner and they all fell apart and weren't bound, would you be able to reconstruct them? Would you know where they belonged? Are vital signs done on each visit? Is there a history and physical on each patient, at least at some time have you stopped and said, hey, let me talk to you, let me find out all about you? Have you undressed that patient, examined them? Now we're talking about primary care here, not about a limited exam that a specialist may do for his or her area of specialty and on a specialized part of the body or organ. We're talking about primary care and by the way, we define primary care as three disciplines: family practice, internal medicine and pediatrics. Patient education is extremely important. What do you do about diabetic teaching, smoking, diets, breast exam?

How many of you saw the Ted Koppel show last night? He voiced a controversy that's in this current issue of New England Journal of Medicine about the value of prevention versus research in cancer, in approaching cancer care. The truth is probably somewhere in between, but the point is, we have to recognize, if we are a health maintenance organization, whether we are doing anything in prevention and education. Medical records, are they stored and secure? Is there confidentiality? Referral letters kept in the records? Are patients notified of lab tests, normal and abnormal? How do you know that you've told that patient that there is an abnormal test, or does that abnormal or atypical

PAP smear get buried somewhere and you forgot to call the patient for a follow up? And is it legible? What are the implications for the hospital? Do you folks go out and look at these things? You should. Forget the HMO now. We're talking about the open sector. I'll take bets that few people do. What about prior and after care audits? Recently, we recognized that even though we do some random chart reviews, and even though we have this whole process that I've been outlining to you, there are some other things that are happening. So we identified in all of our members about nine major catastrophic conditions that we thought we could track and find out if there was any way that these patients might have had these conditions either prevented, ameliorated or recognized prior to hospitalization. Ultimately what we're trying to do is control the high cost spread. What about the admission for diabetic coma or acidosis? In my book, diabetic coma and acidosis are almost always preventable. Usually you can do something about it. Was it an error in patient compliance or physician? What about gangrene, drug overdose or toxicity, malunion of a fracture, cellulitis, bleeding secondary to anticoagulation? Hypokalemia is a very common one, severe hypokalemia, low potassium may produce some very dire cardiac consequences. Septicemia, pulmonary emboli, not all of them preventable, but maybe, maybe if we have a system that is accountable and we can go back and find out what happened to the patient 60 days prior to admission. Let's get all the records out and look at them. We're doing just that. Then we pull the charts after they're discharged from the hospital and find out what kind of hospital follow up we get and again, who is at fault if there is poor compliance?

Finally, in order to have a quality assurance program, you've got to have compliance and you've got to have an outcome or an endpoint. All this really tells you is that you have to identify your problem, you have to develop standards and criteria. Don't ever go after anybody without establishing your standards and criteria. What we've been looking at as quality in medical audits, until very recently, has been done anecdotally. Whoever the reviewer was said, I think this is what we ought to do, and therefore if you didn't do it as a physician, you were in error. Regardless, we should be looking at satisfaction. The most economical way, the most cost efficient and cost effective way of providing services, and most important, do we have a satisfactory or expected outcome? What is the problem assessment and corrective action plan, implementation of corrective action plan, ongoing monitoring and then documentation of the outcome? There has to be an outcome of this process, there has to be a corrective action and this must be monitored.

Can you compare, can the public compare HMOs, let's say, to individual M.D.s in terms of quality? The answer is yes. HMOs develop their own personalities as individual physicians do and they develop their own reputations. The public must judge individual doctors one by one. HMOs are increasingly looked at as a system of care. How we provide care in a group setting, as opposed to a solo setting, is the issue. The important word here, though, in terms of HMO administration, is accountability, the accountability part of budgetary management which is what an HMO is all about. In other words, we're talking about a capitated budget system regardless of how the physicians are compensated. This means that there has to be risk to manage a budget, there has to be controls but they have to be accountable controls. We need to challenge decision making and find out if a test is needed, is it needed to confirm or make a diagnosis? To institute therapy? To change therapy, or to assess the effectiveness of therapy? Not just, let's see what's going to happen. That's the hardest thing to do in a residency program. We used to challenge our residents, we used to tell them, "Why didn't you do something?" And I think today the good teachers say, "Why did you do it? As a result of that test, how is this going to enhance patient care or change your behavior?" That's the critical cut. I don't like the term cost containment. We're not trying to contain cost. I have never met a third party payer who ever objected to the cost of services to any of their beneficiaries, provided it was within the scope of benefits and was medically necessary. What they do object to is that there is a tremendous waste in the system. There is a lot of discretion which doesn't lead to necessarily better service or better outcome, and I think that's what we're trying to attack.

Finally, I feel the system should be as voluntary as possible, and should be part of the personality of the system. I don't think that you're going to accomplish this by legal or regulatory means. I think the public is becoming sophisticated enough that these are going to become operational demands, and in order to succeed in the world, success will depend on the fact that we have a plan and the better the plan is the more that quality is assured.

QUESTIONS AND ANSWERS FOLLOWING TALKS BY DRS. JENSEN, SCHNEIDER AND SHALOWITZ

RONALD ANDERSEN: I want to thank the panelists for the fine range of views on different physician perspectives on quality. We do have a few minutes for questions and comments from the floor.

QUESTION: I guess I might start off with one for Merv. Are you confident that with these criteria you're using, that the norms are explicit enough, that we don't have a grey area where Dr. Jensen, for example, might feel that there is a considerable autonomy that might be restricted by the criteria you're applying?

MERVIN SHALOWITZ: First of all I think you have to be careful that you don't end up producing a system that is going to result in cookbook medicine. The point is that there have to be criteria, or only minimal expectations. They're certainly not all the operational norms and they're not the maximum of what you can do. I'd like to address what Dr. Jensen said about the medical director of the plan that he's associated with. Without knowing who that medical director is, that individual sounds to me like someone who doesn't know what to do with the patient. The idea is not to save money. The idea is to find out the most efficient and effective way of solving the patient's problem. I don't give a damn about the cost, that's not important. What they have to understand is that you're not allocating resources on a one-to-one basis. You must get doctors out of the mindset of a one-to-one basis. You've got to think in terms of a cohort of patients and managing an entire budget. So, for every dozen or two that never show up, you've got this lady who needs intensity in terms of service and resource needs. Give it to her. That's how I would handle it.

QUESTION: I have a similar question for John Schneider about this distinction between what is medical and what is patient perceived. Are you confident, John, that we can make the distinction in such a way that you can eliminate care and what is patient-perceived might not ultimately be related to quality and health status?

JOHN SCHNEIDER: The problem, of course, is that for most other goods and services that we purchase, we base them upon our perception. We don't really have in this country the concept that the house you have should be suitable to your needs based upon the number of square feet of living space one needs, the number of bathrooms that one needs, the number of toilets, depending upon the number of people in the family. Something which is more commonly considered provided by the state or government is education. Again, one has, of

course, the options even at the primary and secondary level of opting out of the system and going into the private system, and certainly once one gets beyond the high school level, one can choose among colleges based, not just simply on the quality of education as so defined, but on the other kinds of perceived needs that the individual has. What I feel people have been used to, and this is the issue on the fee-for-service, is that they're used to going to their physician to make these kinds of negotiated decisions. As their responsibility for paying for them has been subsumed, first by the insurance companies that function merely as a way to spread risk and pay the bills, they were still able to continue to do this. But now what has happened, of course, is the person responsible for paying the bills is going to make those decisions. And I think this is where, as I tried to indicate, you've broken the patient/physician contract. You replaced it by a manager. Now, I agree, that HMOs may well, and certainly can be, concerned not with the cost but managing resources. But the point which I tried to emphasize is, the real issue now is that the employer decides what is best, because the employer ultimately is the one in our society that is paying for health care benefits, except for the group that don't get them and they're dumped in the public community. Employers, both in Minneapolis, even with the tremendous growth of HMOs there, and certain in Chicago, were very discouraged with HMO programs, because they did not save the employer money. Typically what happens, at least from my perspective, when there is a large HMO market such as in Minneapolis, the HMOs compete by providing more services, not by cost containment and I would agree on that particular point. But what I am seeing and I think others are seeing, is that employers, through business coalitions and otherwise, are saying that we really want to save money. They will not necessarily push their employees into HMOs, but to go out and individually and contract for care based on the employers' concern which is going to have, as one often talks and even now is talked in hospitals, the bottom-line management mentality.

QUESTION: My name is Dr. Stephen Nightingale. Dr. Shalowitz, your very provocative statement with which I agree in theory, the diabetic acidosis example, but my question for you is, how much does it cost to Share, to prevent an admission and how much do you save?

MERVIN SHALOWITZ: Somebody is going to think that I planted that question. I was hoping somebody would ask that. Thank you very much. It costs us almost nothing to prevent an admission but it costs us a lot of money to take care of it. Let me explain. You're talking about the care being provided by a primary care physician who already is capitated, who is

managing a budget. If that doctor sees one, two or three or four more patients in the office, and even if you equate that to the current fee-for-service reimbursement on a routine visit in the office which normally runs around $25 or $30 a visit, plus doing a blood sugar, it costs practically nothing to see that patient. They also could be seen by a nurse in terms of compliance. But once we put them in the hospital, and if they're in diabetic ketoacidosis, they're probably on a critical care unit. Even with our hospital contracts, we are paying anywhere from $1,000 to $1,400 a day and without contract it runs as high as $2,000 a day or more. So if you ask me, how much care can I provide for the first day of hospitalization? Probably two or three years care.

QUESTION: I also run an HMO as a general medicine practice at Cook County Hospital and I have a different perspective on it. It costs me $25 a throw just to have somebody come in. And if I can have somebody come in every two weeks, that open space for a year is going to cost me about $300 a year.

MERVIN SHALOWITZ: Peanuts. As a matter of fact, having been attending at County for about 16 years in the past, I know what you're talking about. But in County you're also dealing with a budgeted system. As we move into budgetary considerations, our thinking is going to change and a lot of thinking hasn't changed yet. Hospital administration certainly hasn't, they've gone from a blank check mentality now to a prospective payment system, which, by the way, is the worst of all worlds. And if I were a hospital administrator I would not walk, but run to my nearest HMO and try to get a piece of the action.

RONALD ANDERSEN: I think our panelists, or at least I hope, they'll be around for a while to participate as we move through our session. So in the interest of staying on time, we'll move on to our next session.

RESEARCH IN QUALITY CONTROL

RON ANDERSEN: When many of us consider research and quality control, the first person that comes to us is Bob Brook. Bob is an M. D. and a Doctor of Science from Johns Hopkins. He is Senior Staff Health Services Researcher at the Rand Corporation and also has an appointment in medicine and in public health at UCLA. He has been a central person on the Rand Health Insurance Study. At UCLA he directs the Clinical Scholars Program. His special interest includes quality assessment and assurance research, the development and use of health status measures and health policy and the efficiency and effectiveness of physician behavior and performance, especially as related to academic centers. Our discussant for this session is Mark Shields, who is an M.D., M.B.A., and we're proud to claim him as an alumnus of our program in health administration. He is President of Midwest Medical Group in Oak Brook and has a Bachelor's degree and M.D. from Harvard University. He is Director of the Research Division of Internal Medicine at Michael Reese. He is also a research associate at the Center. His research interests include quality measurement and control of physician decision making. We are pleased to have both of them here. Bob, would you begin?

ROBERT BROOK: Thank you very much, it's a pleasure to be here and a pleasure to participate in this symposium. I would like to make two or three major points.

The first is that any type of economic tool that we come up with that results in putting a barrier between the doctor and the patient, whether that be cost sharing or an HMO, will hurt the very segment of the population that we would like to hurt least, the poor and the sick. I'll repeat that. I think we have now convincing evidence from randomized control trials that we do not know of an economic intervention that will not hurt the poor and the sick. We published a recent article in the Lancet showing results from the Rand Health Insurance Experiment. The bottom line is that you will sacrifice the health of the poor and the sick if we can't figure out a better way of rationing health care, or at least affecting the distribution of health care.

The second point is that I think we can do something about this dilemma, if we want to. Notwithstanding all the rhetoric I heard this morning, I don't believe we want to. I believe one of the biggest atrocities that is occurring right now in American medicine is that whereas ten years ago the only group of people who thought doctors were evil was the American Public Health Association, now management, labor and

everybody else in the country has agreed that this is really the case. Maybe I agree too that this is the case, but that's not going to solve our problems. Blaming groups of people is not going to help us through this difficult time. I'm worried that we are going to implement systems that are going to hurt the very people that we would like not to hurt. I don't see many people trying to do something about it.

The third and last point is that the only way to do something about it is to make the process public. I am now fully convinced, whether you believe in the marketplace or in regulation, that the only way we're going to get beyond the rhetoric in this field is to publish information on quality of care. We are going to have to know whether an HMO is class A, B or C. Similarly, we need to know whether a hospital is grade 1 or 2. Unless that information is made public, ten years from now we'll come back and have the same speeches and the same rhetoric.

I will now share with you some data I believe supports my bizarre statements. The basic design of this $100 million Rand Health Insurance Experiment randomly assigned people to different cost sharing plans. We enrolled families for three to five years and measured health at the beginning and the end of the study.

We varied the amount the family had to pay out of pocket from nothing to a maximum of $1,000 a year. These are rather generous health insurance plans in today's marketplace. Families paid 25 percent, 50 percent, or 95 percent of the bill. The results established once and for all that when you make people pay for services, they use less services. This is true of the middle class as well as the poor.

The average total expenditure for persons in HMO plans is less than those for persons with 25% deductibles but more than those with 50% deductibles. While the expenditures are similar for the HMOs and deductible plans, the utilization patterns are different. The HMO results in two doctor visits per person per year more than the cost sharing plans. Conversely, HMOs provide less hospitalizations than do the cost sharing plans. Expenditures for people with the fee-for-service plan are higher than for the HMO and cost sharing plans. Thus, the HMO rations more on hospitalization. The cost sharing plan rations both doctor visits and hospitalizations, producing a net effect which is about the same. We just finished the analysis of a large number of health status variables in the health insurance experiment. We looked at physiologic measures, many health habit measures and a large number of general health measures.

Perhaps the biggest product out of the Rand Health Insurance experiment is the conceptualizaton of measurement of health status.

We found that free care does not improve the health of the average person. Doctors are probably dangerous to your health. People don't know how to use them. Neither the educational system nor doctor's themselves spend time teaching people how to use doctors. Thus, giving average people free access to a doctor is not good. An average person means not elderly, middle income, in good health, and employed. Now that's a terrible statement to make, especially since I'm a physician. People fare better with some financial barrier between themselves and the physician. That's what I'm saying. Indeed, when you look at the health status results, people who had free access to doctors were a little worse off.

I'll make up an example that is probably duplicated in our data. Take the middle-class housewife. Give her two incremental visits per year to a mental health professional. Five years later she's sicker. Those are the kinds of results we begin to see in our study.

We have to do something! People must learn how to use doctors. This is especially true if we want to provide free care to everybody in a fee-for-service system. To clarify, the excess use was not due to ordering more tests. It resulted from people coming more often to the doctor. People with the free plan were more likely to visit the doctor with any health concern.

Now, I'm going to qualify my conclusion. It is a very important qualification. Free care makes a difference for those people who are sick; who have conditions that doctors are trained to treat. Those differences are small but important.

The differences were in blood pressure, far vision, and risk of dying. Almost all of the benefits of free care occurred for persons with elevated risk and low income. That's where free care makes a difference. Giving poor sick people access to free care makes a difference.

The problem is giving the poor free well care which makes a difference, but in the opposite direction. That's why you can't have a policy that says, poor people get free care, because in our current system, poor well people probably wind up going to the dregs of the medical profession. My guess is that since they are well when they go to see the doctor, they get "prescribed disability" and they are made worse off.

On the other hand, the poor sick people probably wind up with better physicians. They benefit from the care they receive.

You can argue about my interpretation, but the results are pretty clearcut for the fee-for-service system. Let's consider the HMO results. The HMO paper came out on May 7th in the edition of Lancet, partly because no American journal would touch it. It shows that the group of people that are made worse off in the HMO are the poor sick. This is the very group that the administration wants to lock into HMOs. I suspect this finding would extend to the elderly.

The elderly are not a group of people that HMOs traditionally have been able to deal well with. Whether the new HMOs with new management systems will do any better or worse, I do not know. My hunch is they'll do worse. Since many of them take the profit right off the top, they have less money to do innovative programs. An experimental study similar to the Rand design should be carried out for the elderly. In the meantime, I would argue a good doctor in the fee-for-service system is the place for the elderly and not the HMO.

While the Rand study did not include a group without any health insurance, other evidence suggests that withdrawal of all insurance is a dangerous policy to follow and will have severe consequences for the health of people. There is another article in this week's New England Journal of Medicine describing our follow up study of people in California taken off MediCal (California's Medicaid). That's about 270,000 people in the state of California. The state gave 70 percent of the projected costs for these persons under MediCal to the County Health Departments to underwrite the cost of services provided to them at County facilities. We compared them to a group of people who continued on MediCal. Comparisons were made according to ability to identify a usual source of care, satisfaction with care, and agreement with the statement "I can get medical care whenever I need it." After they had lost their insurance, a large number of people decided they couldn't identify a usual source of care. They were not satisfied with care and they could not get care whenever they needed it. You can see that the comparison group at the time of the followup had average scores on these measures similar to their baseline scores.

But much more disturbing was what happened to these people's blood pressure and health status. In the base period, only 3 percent of this group had diastolic blood pressure greater than 100 mm of mercury. Six months later the proportion increased to 30 percent and this finding persisted at one year. In addition, several of those whose MediCal insurance was taken away died. Almost all those

deaths can be linked directly to running out of medication, not being able to afford medication, not coming back to a doctor, or not getting good care. While in the comparison group, the only death was a non-preventable one. So, you have huge changes in health status and even changes in death rate. The prime question in health policy of this country is not co-insurance for the well and employed. It is the absence of any insurance for the many poor and sick.

Now, I think I will make a transition from how reimbursement plans can hurt people, to what to do about it. To my amazement, two out of every three dollars spent on Medicare under Part B for physician services in 1981 in coastal California is for specific medical and surgical procedures, not for things like general office, hospital or other visits. One out of every twenty dollars paid for physicians under Part B goes for the operation of cataract removal. Three out of every hundred dollars goes for coronary artery bypass surgery. About 20 percent of the men in this room will have coronary artery bypass surgery in their lifetime unless medical practice changes dramatically in the next decade or two. You can see that very few procedures make up a large proportion of what we spend under Medicare. This is not an insurmountable problem. There are only a few things for which we spend a lot of money. One of the interesting things is, that almost 1 percent of the money under Medicare goes for cutting toenails. Maybe that's a useful thing to do, I think it is, but 1 percent of Part B expenditures going for toenail cutting seems somewhat out of line.

The next disturbing finding concerns variation in use rates. We have claims data from around the country from 20 percent of the Medicare population located in large geographic areas. These areas include northern California, Pennsylvania, Massachusetts, South Carolina, Iowa and Colorado. In these big areas which have one-half million to one million elderly, we looked at use rates for common procedures. Cardiovascular procedures, for example, varied two to three fold across these areas. From a policy perspective, large variation across individual doctors or hospitals would not be so worrisome. But this is a much more disturbing finding. It shows one area of the country, let's say northern California, has a use rate among the elderly for coronary angiography which is 2½ times the rate in Eastern Massachusetts after adjusting for age, sex and race. These are huge populations with huge numbers of procedures. There must be a right answer as to which of these rates is more appropriate.

Of course, at this moment, the administration is assuming that the low rate is correct. Similarly, the people that hate physicians are gleefully turning cranks to get the

procedures down. I don't know which rate is correct. I really don't, but I know this large variation in rates must become an issue in the public domain. There must be public information about the appropriateness of use of procedures. Note, concerning area variation, that an area that is high on one procedure is not high on another procedure. So the area that does most Holter monitorings does not necessarily do the most coronary angiographies. I don't know why, but these are the facts. Further, social and economic variables do not do well in predicting which area is going to be high and which is going to be low.

Finally, medical procedures vary as much as the surgical procedures. These troubling variations are not limited to certain types of procedures.

We are limited in trying to understand these variations by an atrocious clinical literature. Providers of care, management, labor unions, and the public must lobby for more and better clinical research about the efficacy of procedures to assist in deciding what are appropriate rates. We reviewed the whole English literature on six procedures. We found very few studies on efficacy, virtually no studies on effectiveness and little data on use or cost. It's as if there has been a group of people doing health services and health management research and a group of people doing basic science research with nothing in between. To deal with the problem of area variations we must have a better data base.

Once you have a better data base, you need to begin to develop appropriateness criteria for the use of these procedures. For example, there is one set of appropriateness criteria for the use of coronary angiography. It specifies: whether the person could have coronary artery bypass surgery; whether or not the angina which the patient has occurs with different levels of exertion; whether or not the patient is getting maximum medical management; and the result of non-invasive tests. Once you get physicians to produce these detailed lists of indications, you may reach agreement about the appropriateness of various procedures. Right now we are looking at the relationship of those kinds of appropriateness scores to the variations I have discussed. A year from now we'll probably have an answer about whether areas that have high rates are more or less appropriate than areas with lower rates.

Lastly, I want to come to what I think is probably the most critical question of the day; are we going to select for efficient hospitals regardless of quality or do we select those hospitals that promote the best quality? The latter are ones that we, ourselves, would like to be in when we are sick. We can select the former (efficient) and close down

the latter (quality) or we can select the latter and try to make them more efficient. Right now, as far as I can tell, society, whatever the rhetoric, is select. All of the data systems and all of the operational programs that I'm aware of stress efficiency. I know most of the people that are producing these data since I've trained about half of them. Unfortunately, they left the training programs mouthing a lot of concern about quality and every time they get up in a public forum they talk about quality -- but they produce only indicators of use and costs.

Galbraith once said, when he was looking at the gross national product, that what is measured is what is emphasized in this society. When you add another steel mill you can measure the impact on the gross national product. However, when you cut a road through a park, you can't as easily measure its impact. Consequently, industrial growth is emphasized more than environmental protection or public recreation. I think if we measure cost and utilization and don't really measure quality, cost containment will receive the attention. We have a choice. I don't believe there is an invisible hand guiding us. We have, as a society, the opportunity to decide what we want. I believe the proper decision is to select those hospitals, HMOs, and other medical care providers that produce better quality and then try to make them efficient. We now select on the basis of efficiency and try to install quality.

The famous Coronary Artery Bypass Study done by Ward Kennedy and his colleagues from the University of Washington illustrates the variable quality in teaching hospitals. The subjects in this study had coronary artery bypass surgery at fifteen academic institutions in the late 1970's. The observed mortality varied from .3 percent to 6 percent, with a mean of 2.3 percent. This is a twenty-fold variation in mortality for this operation. The adjusted mortality varied from .16 to 2.52. Depending which academic institution you go to, there is almost a twenty-fold difference in the likelihood of surviving coronary artery bypass surgery. These differences include the most incredible adjustment for physiologic variables. I'm not talking about retrospective data. I'm talking about prospectively collected data with every physiologic variable measured carefully. Anything you could measure about the heart was measured. Everything was tried to explain away this variation. It's the hospital that produces this variation in death rate.

Should these institutions post on their door a statement that says, "Beware, I have the highest rate in the country on mortality." What should you do?

Another interesting finding concerns recently released data about mortality rate as a function of hospital characteristics. Hospitals that have unadjusted mortality rates that are low also have adjusted mortality that is low. So raw hospital mortality data may not be so bad an indicator if that's all you have to decide where you want your coronary artery bypass surgery done.

One of the scariest things I now have to face as a quality care investigator is that I know which hospitals are high and low in mortality throughout the whole country. Should I use this information to recommend to friends and associates what hospitals they should use and which ones they should avoid? How should this information be used in competition for patients? These ethical issues will become more important as data begin to suggest that we can get meaningful outcome measures of quality and that these will differ by hospital.

National data on Medicare admissions for various admissions including congestive heart failure, heart attack and pneumonia bore this out. Mortality rates by hospital show large variations. Most of the excess deaths occur among medical and not surgical conditions. We have used sophisticated adjustment techniques and the most incredible sophisticated statistical methods to isolate the influence of hospitals from other factors that might account for differential mortality. One of the things I love about Rand is they can figure out how to spend a million dollars to analyze a $10,000 problem. At any rate, we did it and I am grateful I never got criticism saying we didn't do enough statistical analysis. For example, the results show for a patient with pneumonia admitted to one hospital, there is a 12 percent chance of dying, to another there is a 37 percent chance.

I'm going to add one last finding to this. I participated in a quality assurance activity with a large HMO. We looked at death rate from heart attack in four hospitals used by this HMO. One of those four hospitals had an adjusted death rate that was 2½ times the other three. Now I naively thought that this HMO was a managed system with committed doctors and would surely do something about this. The answer is they buried it as quick as they could.

There is nothing about HMOs, even though their title includes the words "health" "maintenance" and "organization" that gives me faith that they will respond more effectively to quality of care information than the fee-for-service system. I now believe that the challenge of the next decade is to define and validate quality measures to produce better

tools. However, as we're doing this, the major challenge is going to be to disclose the results to the public. We must determine how to provide that information to the public so it produces constructive behavior on the part of patient as opposed to non-constructive behavior. The way we now handle quality of institution information resembles what we did 30 years ago about disclosing the diagnosis of cancer to individual patients. There are societies today, both communist and non-communist, where it is very unlikely that you would be told if you had cancer. There are societies that don't disclose that kind of data to people because they feel it would do too much harm. We've come a long way in the United States. Most people who have cancer are told. We now have to take another leap and disclose in an honest, open way performance data to the public. When a patient is considering a fee-for-service plan or Plan A HMO or Plan B HMO, the patient should know the differences in quality of care and what to do about it. That's the challenge for the next ten years.

MARK SHIELDS: Ron always delivers zingers. He asked me several months ago too if I would be willing to participate in the conference and I said yes. And then a couple months later he gave me the zinger that I was supposed to follow Robert Brook. And to follow Dr. Brook, who is really one of the leading people in terms of empirical health service research is difficult. But I think I will fall back on the usual defense of the physician who is a practitioner and a physician who is an active manager of systems and talk about observations, my own observational thoughts and then finish with a few questions for Dr. Brook.

It's very interesting to me from the title of the conference today, how the train of thought has shifted over the last five or six years. Five years ago Odin Anderson and I had done a review of the literature in quality assurance and utilization review. And we concluded that the utilization review didn't pay for itself and wasn't making any difference anyway and we really should not be wasting large amounts of resources on it. Now, we're talking about new utilization controls, through primarily alternative delivery systems, and we're seeing changes at least on the hospital side of utilization and we're saying, "my goodness, is this making a difference in quality?" My basic conclusion at this point I think, is given the budgetary constraints that are faced by HMOs, PPOs, DRGs in 1985 and '86, that those constraints are really very loose. I would agree with Angell, who is an editor of the New England Journal in her article in JAMA that was discussed earlier, that we have so much bad fat in the system, that the constraints right now are not making a difference in terms of the quality. I think we have a much a bigger concern and I'll talk about it in a minute, in terms of what will happen as these constraints tighten.

I don't think the current generation of alternative delivery systems makes much of a threat to quality except if there are three conditions. Those three conditions can occur now. I think one of those is that if the provider is given too great a risk and this can happen in managed care systems, particularly if a single doctor is asked to be the total gatekeeper, and particularly if the single doctor and not a group of doctors is asked to be a gatekeeper and there is no re-insurance. That is if there are minimal provisions for the outlier. Then, you're putting an enormous financial burden on an individual provider and then I think that can be a threat to quality. Number two, I think is if we have too rigid a bureaucracy, either in setting the DRG rates or in interpreting them in the local PRO.

I think every practicing doctor has his favorite yarn about the PROs and DRGs, but the latest one that I've come across is the PRO nurse calling the attending physician and saying, "You must increase the rate of the intravenous line for this to meet the severity of care criteria." The physician faced with a hyponatremic patient knows that the treatment is to minimize the IV rate. But a rigid bureaucracy can make a difference and can be a threat to the quality of care. The third consideration, and Dr. Brook had already talked about this, is in terms of the large deductible or large co-pays for low income people. He showed the evidence, I don't have to say anything more.

But while I think that the technical quality in 1986 is probably not threatened, given the budget constraints currently and given the lack of three provisos that I gave, I do think that there are definite changes with the alternative delivery systems. There is no question that it reduces the choices of consumers. They can pick fewer providers. They have to pick those hospitals and those providers who are involved. There's no question that it reduces their convenience. They can't go to any emergency room any time they want. They must follow the prescribed programs outlined by their primary care physician. And I think what is definitely happening is that HMOs, PPOs, alternative delivery systems, are becoming really the home of the therapeutic nihlist, treating the cynical patient. It's really the doctor who doesn't believe in the efficacy of many treatments treating the patient who really doesn't think that medicine makes much difference anyway. When the patient doesn't have those attitudes, they frequently find they're unhappy in the HMO, and when the doctor doesn't really fit in with the conservative mode of practice, they become very unhappy in a prepaid setting and go elsewhere.

The summaries of the literature on quality of care and alternative delivery systems done by Luft and done by Williamson in the past, have basically said that the quality of care in managed systems, in HMOs, has been on a par and occasionally higher than the standard fee-for-service care. Those reviews are based on literature that is old, that were done in only a few large HMOs, usually Kaiser or a few other large ones, so we really have very little information on newer alternative delivery systems where there is not that same structure, that same tradition, that same management input. But I think with the tightening of the budgetary constraints, as employers look more and more at their health dollar, as Washington rachets down the amount that will be paid to DRGs, then I think we're going to have some serious, serious looking to do. Because I think, as Odin Anderson has frequently said, there is good fat and there is bad fat. I

think that anyone who is a sidewalk gazer in Chicago on a spring morning or spring noon will say "definitely all sinew is not the best. There is some good fat." And I'm reminded by an article by Bunker, who had looked at surgical rates for physicians and spouses as compared to other professional groups and the population at large. They found that the surgical rates for physicians and their spouses were higher than those for lawyers, ministers and businessmen. And that it was 25-30% higher than the country as a whole. So at least physicians do not think that the lowest rate is the best rate. There is some good fat and there's some bad fat. Even more interesting are hysterectomies, which many critics claim are often unnecessary. Physician's wives have the highest hysterectomy rate than any of the other professional groups of lawyers, ministers or businessmen.

There is an interesting abstract that was presented actually just last week, by Dr. Brook's group. It was taken from the National Health Insurance data and I'm going to ask him in a minute to comment on it. It looked at the hospital use in one HMO and they found that discretionary hospitalization for surgery, that is, elective surgery, and the admissions for discretionary medical admissions such as elective work ups, were decreased in an HMO. That didn't surprise me but what was very interesting was that non-discretionary medical admissions were reduced in this HMO. So, maybe my initial statement that we were not yet cutting into the good fat was wrong. Perhaps we already have begun to do that.

But I think the critical issue and I couldn't agree more with Dr. Brook is that we have to go public. That we have to develop better and better ways to measure quality, to measure the good fat and when we are cutting into that. But the problem is that our measures currently are extremely crude. We tend to use medical records as a source of quality review and we found over and over that they were a very poor source. They were a poor reflection of what really goes on. We've found in numerous reviews, looking at the validity of criteria of care, that there are really very few universally valid criteria of care, that there are wide norms of acceptable care.

Finally, our tools for changing physician behavior, once we have found poor quality, are still in their infancy of development. We are very poor at the behavioral change of patients and certainly very poor at behavioral change of physicians and other providers. We're still only learning how to make those differences. I think the major component of the competitive strategy that has been missing is not the

cost competition, I think it is there, but it is the knowledge of services, the knowledge of quality for the individual consumer or the consumer group. It is really development of consumer information to allow consumers to make a knowledgeable selection between the type A, B and C HMOs and PPOs that is missing. We need information, not only on the technical aspects of quality of care but also on the styles, whether it's conservative or aggressive, on the convenience and access of services. I think we need a consumer report for alternative delivery systems. There is no question in my mind that at least, in a theoretical sense, this will improve the market for health services. It will make it more efficient. I'm not convinced that a quasi-regulatory body will do the job. I'm not sure the Joint Commission on Accreditation will go after some of these tough things that Dr. Brook has talked about. But I think we need a consumer report, maybe we need a Michelin guide that will say which HMO is worth a detour, worth a trip and something you shouldn't go to any way at all. I've got two questions, and I'll ask one and sit down and then I'll ask the second.

QUESTIONS DIRECTED TO DR. BROOK BY DR. SHIELDS

MARK SHIELDS: Where does the good fat end and the bad fat begin? Do we have the technical measures to be able to determine this? And if we don't have them right now, what are the directions of methodology development that we ought to go in?

ROBERT BROOK: I think we agree on almost everything, wouldn't you say? I'd just like to comment on the end. One of the tragedies of the PSRO program, I think probably the biggest tragedy, is when that program began, I wrote a memo. I was in the government at that time, I'm not sure who I wrote it to. I wrote a memo saying that you're taking a lot of physicians who are making a stand on quality which, at that time was very popular. As a matter of fact, a couple of the officers of the American Medical Association who may not have been officers at that time but had big national reputations took a stand in favor of this and were almost ostracized in certain states, and you got them involved in running these organizations and they had zero management in administrative ability. If anything could be less than zero, then less than zero. You took their executive secretaries of many of the medical societies and all of a sudden you gave them a $2 million federal budget. They had trouble deciding how to open a bank account. I wrote a memo basically saying that what you need to do is a real serious education course. To take these two groups of people and on a continuing basis, teach them basic principles in these areas so that they would have stable organizations, and could begin to understand how to manage and run a large budget. Of course, nothing ever happened in that area and one of the outgrowths of that is that we have almost nothing from that era. An incredible number of hours and time was spent in developing standards, every local hospital and doctor developed their own and if you asked me to produce one of them now, just one, I couldn't. And yet, if you multiply 7000 hospitals by 12 MCEs, times 6 years, there should be a million of these things floating around in some shape or form. So we put, in the last decade, millions of dollars into this activity, if not in actual money but in kind, and nothing's here. The lesson from that is that if we are really going to take the 50 procedures and 100 diagnoses and do a careful job of developing appropriateness criteria and quality criteria, this has to be done in some concerted, well thought out, well-managed national effort that basically can maintain and update these things, sort of like a bureau of standards. We are there now. We could do that now if we wanted to. It's just as a matter of deciding that one wants to make that financial commitment to do it. I think there is enough political power now, even though some organizations still don't support this concept, to accomplish this. We need a

lot more basic science in the field, but we could actually do what you're asking to do and it really is an operational management issue and not a basic science issue at the moment. But I know nobody is stepping forward to do this. The insurance companies won't do it because it's a public good and why should I spend more money than my friend down the street? The HMOs won't do it because of the same reason. The hospitals won't do it because they're really too small as a unit. I don't know why the IOM doesn't tackle it and make some statement about it. It would seem like that would be the central mission of the Institute of Medicine to do. The foundations don't seem to want to fund this kind of activity on an operational basis because they have seed money and the government, I really don't think, finds that as their major priority. So that's where we are at the moment.

MARK SHIELDS: I have one more question. It was on the data from the National Health Insurance experiment, on the reduction of non-discretionary medical hospital utilization by the HMO. I wanted to ask about what technical aspects that might make us wonder whether it was really a measurement problem and not a real phenomenon.

ROBERT BROOK: Let me make a couple of points. Let me add one point and I'll go on. In terms of appropriateness, I'm a great believer that if there is no literature that supports efficacy, and if good doctors disagree violently over the use of a procedure, then the procedure ought not to be paid for or done. Even though ten years from now, a randomized controlled trial might show that one of those procedures is beneficial and another is not. I don't know which one it is. We've been conducting panel meetings with well-qualified physicians, both practicing community physicians and academic physicians and there's a lot of disagreement over commonly used things. I think doing procedures on people that are basically experimental, in that there is vast disagreement of what's going to happen, without learning anything from it could be done. Some people may like to do that and should pay for it out of their own pocket. They should have the right to do that. But I don't see why we ought to pay for it out of public money. So doing carotidenardectomy in a large group of people if there is no evidence that this thing benefits anybody, and when good doctors in different areas of the country don't do it for those reasons, is to me an inappropriate indication, even though ten years from now we may be proved wrong. On the other hand, there may be problems but there are certain segments of the population that don't have access to decent doctors, they don't get the diagnostic procedures and therefore they don't get the therapeutic procedures. In those cases, effort ought to be made to increase services for those groups. So you need a

combined program. Now, in sorting out this appropriate from inappropriate use, the most disappointing finding of both the cost side of the experiment and the HMO side of the experiment where we actually randomized people, was neither one of these forms of therapy managed to separate out what looks like discretionary services from non-discretionary services very well. They were very crude instruments. So the HMO in the paper that Al Soo presented on his work would reduce what looked to me non-discretionary medical admissions. There was a whole group of non-discretionary medical admissions, not surgical but medical admissions, that weren't there and I get worried about this. We did our experiment in the non-elderly. For those of you that know the Medicare data, 40% of expenditures occur in the last year of life. If you're going to go in and bargain with the government, first you're going to get 5% less on the dollar, then you're going to take 20% for profit and 10% for management, and then you're left with some X percent of the dollar to actually spend on services. It's very tempting to look at where the money is and the money is in that last year, I don't know how much non-aggressive therapy that's appropriate. Not people that are senile and dying and maybe they are not to be resuscitated anyway, but appropriate medical care for the very elderly will be cut at the margin with that kind of very powerful incentive to do it. Analysis needs to be done. We need to understand how HMOs manage the elderly in the last year of life and we have no data. Zero data as far as I can tell on that subject compared to the fee-for-services, but on the other hand, they may do a lot of good. My hunch is that they will both be conservative. They will more appropriately DNR people who really ought not to be resuscitated, but also they will miss people who don't and that's what the data basically shows. By the way, fee-for-services showed the same thing. For instance, if you give people free care you double the use of tranquilizers over cost sharing in the population. We covered everything. One of the outcomes is that when you give people free care you increase the tranquilization level of this population, all of the United States, by two. You also double the antibiotic exposure. Now some of this is probably appropriate and we have developed criteria and try to look at that. Some of it looks like it's appropriate. You're reaching out to people who needed those drugs. On the other hand, every Tom, Dick and Harry who comes in with a cold gets an antibiotic in the free care system and you're giving a lot of antibiotics and producing a lot of iatrogenic disease for things that don't need antibiotics. So it's not a very selective mechanism and what we really have to work on is trying to, this is a supply and demand curve, is shift the curve. It's not where you are, I mean I'm interested a little bit where we are in the curve, but I'm interested in

shifting that curve so that we get more appropriate services and less inappropriate services. How do we do that? That's where I think the challenge is, both in the research community and I think a challenge for the public. I mean what exactly are we going to do to do that?

Let me make one last comment about grossness of measures, if I can. One of the real problems in the quality area is that everybody turns around and says that the measures aren't fine. Nothing in medicine is fine. Basically I'm not worried about grossness of measures. I'm worried about how to produce them in a way that is more constructive than destructive. But I think it is useful to produce measures that have 80% truth in it and 20% noise. I don't know of any way of avoiding that. I think you can release it confidentially to an institution first, then get them to react and look at it and then release it in some way, but I do believe we're never going to have a perfect measure. And what we need to do at that moment is try to develop better measures that have enough truth in it that we really do believe they're worth public disclosure.

QUESTION: On mortality data, do you have any measure or any testimony?

ROBERT BROOK: The organizational literature would suggest that if you take bad doctors and put them into a good hospital they become better doctors. And if you take good doctors and put them into a bad hospital they become worse doctors. I haven't the foggiest idea what the variables are that explain the differences. That's a whole area of health services research that has been dramatically underfunded.

COMMENT: I'm worried about publication of data on hospital mortality rates while the physicians responsible for a low rate may be replaced by new physicians who no longer generate the same mortality rate. That's not only bad for the patients who thought they were obtaining a low mortality rate but also for the hospitals.

QUESTION: Business coalitions are really very interested in quality of care especially something that would be relatively simple, like class A hospital versus class C hospital. There are now some commercially available quality of care instruments and programs. It looks like you're familiar with such programs and I was wondering if you could comment on them and comment on whether there is any problem implementing them with different hospitals?

ROBERT BROOK: Well, first let me tell you that I've been at many meetings where I've chaired panels of people that have

developed severity measures. I always have this visual image of a pot of gold hung by a string on top of their heads. Whatever they say the pot of gold comes down or goes up or gets moved over. That's my image of these people. That's not bad, I mean money is a very powerful incentive. God knows, it helps physicians. The bottom line is that none of these systems have been carefully or systematically enough evaluated to make any intellectual answer or rational answer. I think there will be some movement on increasing severity measures in some of the systems, maybe even DRGs, but I think a lot of research needs to go on to talk about the cost of doing that, how much it's going to cost relative to the benefit in terms of what is actually achieved. At this moment the amount of data to answer your question is miniscule and if I answered your question I'd answer it on not so much my impression as on the different personalities, who I want to give a pot of $20 million to, and since that's none of my business, I really can't answer that kind of question. What I can answer is the question that if there ever was a need for a project that was directed very rapidly towards doing something on quality measurement now is the time. We need to test out severity measures to find out exactly what influence they have on death rates and a whole host of other things. I don't know the answer to your question. There is no data.

QUESTION: American and Japanese industries have found that quality enhancement through defect reduction is more effective than cost reduction and also decreased the cost dramatically. When they tried to decrease cost instead of enhancing quality they had horrible quality products. Why doesn't the health care industry learn from the other industry?

ROBERT BROOK: I don't know. I mean, I wish I knew the answer and by the way, I disagree with anyone that says anyone is really interested in quality right now, except for five people in the country. I think a lot of people mouth the words, but if you look at where the money is put, if you look at the reports that business is using in deciding what hospitals and which HMO to go to, it is very hard to find a single measure of quality. If you ask them to say point bluntly, "take a chunk of money and fund something that will give you an answer in five years", they're not interested at this moment. Maybe we haven't done a good job of selling it and maybe we're just arrogant SOBs and nobody likes us anyway, but the bottom line is, at this moment, the pushes that let the doctors - this is the black box - we're going to push on the cost, we'll sort it out and we'll all be okay because by the way, hasn't everyone told us that mortality has fallen because of things other than what doctors do?

I think the public health message, which is an important message and one I particularly subscribe to, a large chunk of it, is backfiring now in the personal health care system. I think it's largely to hit and will hit the poor and the elderly first when it does that. I think that's what's happening. Now maybe that will change very rapidly in the next three or four years. Lots of speaking engagements, very little follow up in terms of money, time, effort, funds or anything to do anything in the area.

RONALD ANDERSEN: It looks like our work is cut out for us.

PANEL: AN ADMINISTRATOR'S VIEW

RONALD ANDERSEN: The purpose of this panel is to bring together knowledgeable executive officers from a number of different types of institutions to share with us their perspectives on physician autonomy and quality of care. We are very fortunate to have the people who agreed to participate in this panel.

The first panelist is Bill Leyhe, CEO of Norwegian-American Hospital in Chicago. This institution is managed by National Medical Enterprises. Bill has a background in industrial engineering and an MBA from the New York Institute of Technology. He's been with National Medical Enterprises since 1978. Prior to his current position he was chief financial officer for an NME-owned hospital. His major interests include joint ventures with physicians and marketing strategies to maintain the census in his hospital. He has also developed new programs in geriatrics, occupational health and behavioral disorders.

Next is Frank Larkin, who is President and CEO of Metropolitan Medical Center in Minneapolis. Frank attended Loyola University in Chicago and has his MBA with a specialization in health administration from the University of Chicago Business School. He was chief financial officer at the Metropolitan Medical Center before becoming CEO. Earlier he was a Vice President at St. Francis Hospital in Chicago. He's a Fellow of the American College of Healthcare Executives. He's on the board of directors of the Council of Community Hospitals, the Foundation for Health Care Evaluation and Health Employers, Inc.

Our third panelist is Ralph Muller, Vice President for the Hospitals and Clinics at the University of Chicago and Deputy Dean of Biological Sciences. Ralph has a background in economics from Syracuse and an MA in government from Harvard. He was previously the Associate Vice President for Budget and Computing in Information Systems at U of C. Prior to that he was Deputy Commissioner in the Department of Public Welfare, State of Massachusetts. There he was responsible for the Medicaid program and the AFDC program.

Bill Leyhe will begin our discussion.

WILLIAM LEYHE: Thank you. The human brain starts to work the second you're born and continues till the second you die with one exception -- when you're asked to stand in front of a crowd. About two months ago I was asked to participate in the symposium by Jim Millar, who is in the Health

Administration Program at the University of Chicago. I am Jim's preceptor for the Program's Practicum. I agreed without really knowing what the subject was at the time. I felt a little bit guilty because I had spent the last four months telling Jim what a bad career decision he had made; I counseled that he shouldn't get in the field but listen to his mother and be a malpractice lawyer. Ironically, when I learned more about the symposium topic, I called Jim to see if he could give me some help. He said, "I'd really like to, but I'm now a consultant with Price-Waterhouse in their Health Care Division. I specialize in burned-out, out-of-touch administrators and for $60 an hour, I'll tell you what's going on in the health care field."

The health care environment today is a maze of conflicting priorities and incentives. It's definitely market-driven, and the real power has definitely shifted from the providers to the purchasers. These purchasers, who are primarily business and government, want to see a reduction or stabilization of health care costs, while at the same time ensuring that the high quality of health care to their constituents is maintained. The hospitals, on the other hand, are faced with dramatically lower census and shrinking reimbursements. To compete and to really survive, they've got to reduce costs. These costs are, to a large degree, physician-controlled costs, length of stay, intensity, things such as that. The doctors do not have the same financial incentives as the hospitals do in this particular area. So the question seems to be, how does this hospital pressure to reduce physician-driven costs impact on the doctor, his practice, his autonomy and ultimately the quality of care?

When I was introduced, it was mentioned that Norwegian-American Hospital, where I work, is managed by National Medical Enterprises. I was asked to comment on whether I felt this issue had any particular proprietary slant. I spent quite a bit of time talking to several people from my parent company. and I came away with the conclusion that the issue is the same, the problems are the same, and there are certainly no special solutions in the investor-owned sector. If you look at the quarterly reports of the top five investor-owned companies for the last quarter, you can certainly see that there are no solutions to this particular situation. I would like to give you some personal observations. I've been with Norwegian-American Hospital for three years. During that time many changes have taken place. I would like to tell you a little bit about our successes and failures in dealing with these changes.

Norwegian-American Hospital is a 250-bed hospital located in Humboldt Park. We're a primary care facility, we

have large obstetrics and pediatrics units with about 2,000 deliveries a year. We serve a lower-income Hispanic population, with occupancy around 50-60 percent. We have three hospitals within a mile with occupancy of 40-50 percent. That, in Chicago, is the definition of a health care monopoly today. Our medical staff is primary care, single practitioners and they use Norwegian-American Hospital as their primary facility. When the changes came on board such that we needed to get physician cooperation, we, as most people at that time, really didn't know the extent of these changes. Our approach with the doctors was basically trial and error. Our first trial and error was to call a large group and talk about DRGs and talk about HMOs. We found that it was much too emotional an issue. We got a lot of resistance, a lot of reaction, a lot of emotionalism, and a lot of putting heads in the sand. So we looked at our situation and basically decided that our approach would be one of education and peer communication.

The first thing we did was to revamp our utilization review function. We hired, part-time, a paid physician advisor. This is a doctor who was on the staff, whom the physicians knew. It was his responsibility to coordinate and communicate with the physicians. He became board certified in utilization review. Probably the most successful part of the program has been this one-on-one discussions with the doctors. We also placed on our Utilization Review Committee some of our high admitters and problem physicians. The theory being that through this educational process maybe we could reach some accommodation. We also placed a nurse in admitting. She takes physicians orders and provides advice on what are acceptable admissions. We also set up a medical observation area to monitor patients who have been sent by our physicians but who don't meet criteria for admission. They can be kept in this area until final decision on their admission can be made. Our final step in the process was data. We developed a computer system in which we were able to evaluate and compare physician practice patterns by diagnosis, length of stay and intensity.

One of the questions that Ron asked that we address is formal or informal mechanisms to reward high quality/low cost physicians. I don't know if that means high quality doctors are low cost doctors, but basically our approach has been peer communication and pressure. Our utilization review advisor/physician provides reports to physicians comparing their length of stay by diagnosis to other members of the medical staff. Some hospitals have more radical incentives. One hospital in Chicago has a point system. I understand they give a doctor points for completing charts on time. At the end of the month, you get a dinner at Le Francais if you

have a lot of points and Chicken Delight if you don't. To find the high quality/low cost doctors at that hospital I suppose you look for those with recently developed gourmet tastes.

However, so far I think the quantitative results for our system have been pretty good. We've been able to maintain our waiver. Length of stay is down 10 percent, while outpatient surgery is much higher. Our preadmission screenings are up threefold. The community that we serve has a lot of storefront medicine, and preadmitting screening is not done often. Many of the doctors see the patient in their offices at the hospital and I would say 70 percent of our admissions come between the hours of 4 to 7 at night. To get a preadmission screening program so that we can find out if these patients meet the criteria was a major part or goal of our program.

The reactions of the doctors to these changes have been typical. Initially a tremendous amount of resistance and concern and distrust was directed towards the hospital. Activities that traditionally had been handled in a straight forward way became controversial and time consuming. For example, our bylaws were reviewed. This review had previously been handled expeditiously; it took over a year this time. There was a tremendous amount of discussion about what the medical staff was going to do with HMOs. If a doctor joined an HMO group and they were all on the staff, would they all have privileges or would just one have privileges.

The reaction of the doctors, interestingly enough, can be predicted by age. The younger physicians, the ones that have not been exposed to the old system, have been able to adapt best. The oldest physicians are also better able to adapt to the situation even if it means a reduction in their practice at this point. They're not concerned about it. The middle-aged doctors that have spent ten or twenty years building up a practice have had a tremendous problem. They're used to a certain income level and certain ways of practicing. They are not in a position where they feel they can phase down. They are really having a difficult time. I think a similar analogy could be drawn regarding how administrators at different ages respond to the new competitive environment.

In general, hospital/physician relationships have developed in a positive way at our hospital. The doctors are using the hospital as a resource. They are turning more to us for assistance and advice and it's working fairly well. Financially the institution is very, very solid.

The future does not look that promising for the field as a whole. I know Frank Larkin is going to talk about Minneapolis-St. Paul, which has a 50 percent penetration of HMOs. I read the other day where cost per discharge last year went up 9 percent. If cost per discharge is going up 9 percent and Medicare reimbursement is constant, we will have more difficult problems coming along.

Another question that I was asked to address is how increasing financial ties between hospitals and doctors would impact on physicians decision making. First of all, I think it's inevitable that there are going to be closer ties between doctors and hospitals. Also, I think that the competition in the marketplace isn't necessarily going to be doctor against hospital. It's going to be a group of doctors in a hospital against another group of doctors in a hospital. So you're going to get a closer alliance, and I'm not sure that that's all bad. I don't see why a doctor can't run a successful practice with maximum flexibility and have a hospital or someone else provide competent help for such areas as finance, data processing and marketing. It's obvious what the hospital wants out of this: they hope to get a loyal physician. Interestingly enough, NME's marketing department recently did an extensive survey showing that despite the tremendous resurgence of HMOs and consumer awareness, doctors still have 80 percent control over where patients go. Marketing your doctor still seems to be the most effective way to ensure that the hospital is going to be healthy.

In summary, I think health care, like most things in this country, goes on a pendulum from one extreme to another. Oil prices are $9 and $35, they're never $18 to $20. We just tend in this country to go from one extreme to the other. We've left the cost base reimbursement situation where health care was a right regardless of cost and we're moving very quickly to the other end of the spectrum. I think the real question is how fast, how quickly and how far before the pendulum starts to swing back.

On the issue of whether physician autonomy has been impacted by these changes, I don't think there is any question that it has. If you accept the fact that doctors, by their training and by our expectations, are used to taking charge of their environment, you can imagine the impact of second opinions, obtaining clearances from HMOs prior to admitting patients and having medical judgments questioned by non-physicians. In Massachusetts, acceptance of medical assignment is now a condition of state license for a physician as a result of a state bill that passed unanimously. Also, Massachusetts physicians are not allowed

to bill their patients for the balance of their charges that Blue Cross will not pay. So, surprise, 900 doctors in Massachusetts have recently joined a union, an action which was once an anathema of the private fee-for-service physician. Partially as a result of this loss of autonomy, doctors are 40 percent more likely to join a group practice than five years ago, twice as likely to be on a salary and three times more likely to accept HMO patients.

On the impact on quality, I don't know. Certainly from my percpective, it's a much, much harder issue to really address. But I think that you have to say that a possible problem is there. I had lunch with a gerontologist yesterday, who specializes in a hospital-based program for care of ulcers. He has a program of 21 days in a hospital and received special funding for it. But there's no special DRG for it. What happens if the special funding goes away? The issue becomes, will these patients get the care that they need without appropriate reimbursement for it? Richard Eimer, President of NME, said in a speech yesterday to the Organization of Women Executives that the most underlying issue of what's going on in the health care industry is philosophical, whether health care is a basic human right to be provided on demand basis, with economic concerns as a second consideration or, whether health care should be considered like any other service supplied by our economy, a business that delivers services. I hope that the providers and users of health care will realize that health care cannot be rationed to the degree of others. I hope that the issue of cost control and quality can be approached with some sense of moderation and that the pendulum will not swing as much as it does now. I think that a symposium like this a year from now, in the area of Chicago, will probably have some very interesting results as to which way the pendulum is going.

FRANK LARKIN: I'm here from the land of the crazy Swedes up north, blond hair and blue ears. Let me give you a little perspective in terms of what it's like to live in a community where there is 45 or 50 percent HMO penetration and we're predicting 75 percent within the next three years. Let me step backwards for a moment also, and say that I'm going to talk anecdotally about what's happening in the community, the various power groups, the various HMOs and what's happening internally within my own shop. I'll describe it. I'll talk about the use rates, which I hope will shock you and get you thniking about what you should be doing.

But I think I'll start off with paraphrasing something that Churchill once said. Some time in the middle of World War II, Churchill admitted finally that the Americans were really a great people; that they would always find the right way to do something, if you give them plenty of time and let them try everything wrong first.

We use three different terms in Minnesota: HMOs, the capitated system, PPOs, which are becoming a growing market and now have an enrollment of about 5 percent of the population, about 100,000 in total of three relatively successful PPOs, as we defined them right now, and another one that we call OWAs, which is Other Weird Arrangements. There are about several hundred of those OWAs floating around.

On the quality question, I think I can very effectively argue either side of the coin. I want to cite some of the things that happened in the community. We don't have good quality data yet, but there is a building concensus that seems to be occurring. In terms of medical quality, be it an HMO, be it a PPO, there is high focus on the technical quality. There is less than a full concensus that there is a good focus on, call it perceptual quality, including access, convenience, accessibility, freedom of choice.

One of our most successful HMOs in Minneapolis-St. Paul right now has about 325,000 enrollees - that's about 15 percent of the total population in the Minneapolis-St. Paul area. They have a banner called "freedom of choice" in their marketing campaigns. Recently they selected a small group of providers. They have eliminated about two-thirds of the providers in the hospital base, though they kept their physicians. The physician community right now is in major upheaval. This particular HMO was founded by the physicians of the Twin Cities and they see themselves as having been betrayed. There is a lot of talk about impeaching the board of directors; and that's serious talk, not just angry people in the staff lounges. There's a lot of talk among the

hospitals, particularly the two-thirds that have been excluded, about potential anti-trust implications. I predict we will be in a real battle there in the very near future on that one: quality.

In 1984 there was a 39 day nursing strike. Eighteen out of the thirty hospitals in the Twin Cities were effectively closed. As near as we can determine, and we haven't completed the studies yet, mortality rates didn't change a bit. If anything, Dr. Elwood actually has been quoted as saying that in his opinion, the mortality rate went down. Think of that. Almost two-thirds of the entire capacity that exists was shut down.

One of the most interesting discussions I've had internally in MMC with my board of directors, has been on the matter of quality. I think all of you have sat on various committees trying to define quality. But probably the most interesting approach I ever heard was a doctor who talked to the board saying, "I know most of you folks are in business or you're attorneys or a professional of some kind." He asked people to raise their hand saying, "how many sit on the finance committee?" A bunch of hands went up, about a third of the board of directors. He said "I bet you that every month you get a report from that fellow over there," pointing to me and one of my staff and continued, "you get an income statement, right? You know what the bottom line is, you know what the balance sheet is, the fund balance, what's the cash flow and that it's a fairly standardized measurement tool." He said, "On the same hand you have myself, meaning the physician or the chief of staff or the head of the joint conference committee or somebody else stand up and say to you, once a month or once a quarter, 'quality is doing fine. We're doing great. Don't worry about it.' Isn't that true? Don't we do that?"

What's happening on a community level there is that Blue Cross has mandated that the contracting hospitals use MEDISGRPS, so we will start to get, albeit not necessarily, what we would like in terms of the best definition of severity and outcome. We will begin to get across-the-board measurements between the organizations as well as the physicians. It will be physician-specific, and it will probably be public data. There's another group called the Community Buyer System, which is receiving a grant from the Robert Wood Johnson Foundation, that is wrestling with that same type of phenomenon. What can they publish? What can they collect? What can they analyze and disseminate to have an informed buyer community? They're concentrating very, very much on the quality issues. Now with anything else, I think we'll come out with, as with MEDISGRPS, some indicators

and be gradually refining them, but it's a very, very expensive effort.

I think in the quality area we're also dealing in an ethical area of the too much versus too little. I think there are very few of us who would not say too much is bad; too much invasion of the body or too much intervention causes more pain. And also too little. We've got to develop good tools yet that say where is that middle ground and where is the ethical middle ground.

When we talk quality we seem to concentrate too much on in-patient quality. Granted, it's a major segment of the dollar that is spent on care, but it's not the only segment. We tend to talk as if it is the only segment. Minneapolis-St. Paul is just as guilty of that as any other city in the country. I think the HMOs in the Twin Cities have been able at least to bring a continuum to the inspection of quality. One of the interesting phenomenons that the business community has discovered with the HMOs, is that they're beginning to act similar to the older set of providers, the hospitals. The hospitals are now considered fairly progressive. We publish our prices, we're going to be publishing the MEDISGRPS data. The Community Buyer System is going to be publishing some data. The HMOs yet do not have the data sets that were referred to earlier, in ways that can be published, so this is beginning to be perceived that they won't publish. Purchasers of care are asking, "Why won't they publish?" "What are they trying to hide from the community?" I don't think they're trying to hide anything, but that perception is developing as the old style providers, when the hospitals wouldn't release data at any cost: by physician, by hospital, by diagnosis, etc., because it was nobody's business.

Let me talk in terms of internal issues, at MMC and what we do. If there is small HMO penetration in your particular community, you're going to see your doctors get into an IPA model or contract on some basis with a closed model for a certain batch of HMO patients. You're going to see the physicians' fee-for-service behavior follow their HMO behavior. Probably only 5 percent of our patients are admitted the day before or further prior to surgery. Most are admitted in the morning; fully 60 percent of our surgery is ambulatory; and length of stay has dropped two full days.

Reward Mechanisms. The HMOs approach the hospitals that they perceive, at that moment, as high quality institutions, particularly in the specialty services and say "Give us some quotes, we want to negotiate a contract with you." We rarely now, and haven't for years, dealt with

discount contracts, and per diem contracts are disappearing. We're dealing mostly on a per admission or per capita basis. Generally these are three year contracts which can swing major amounts of money, so there is major risk in the success of these contracts. How do we quote these? Do we say all physicians are equal? No we don't. We go back and get the utilization and cost data by physician, yet we don't release it by individual name until we're in serious negotiation. But we'll give you a set of doctors A and B are so much, Drs. C and D so much, Drs. E and F so much. Then they come back and say, tell us more. What are their mortality rates? We say fine, we'd like to limit it to doctors A, B, C and D. That's when we sit down and, of course, tell them who A, B, C and D are if the physicians wish to contract.

There is a battle going on over that point right now too, between organized hospitals and organized medicine, on our ability to do that. Like many hospitals we've changed our bylaws to be able to eliminate ineffective, costly physicians about three, four years ago. Credentialing information. We have questioned specific privileges on some physicians based partially on that data. You can imagine the lounge conversation the next day. Our data systems are able to generate that kind of information.

The last thing I want to comment on is how the hospital internally was organized to be able to cope with the new environment. We put into effect three years ago a matrix organization; the classical matrix that you learn in the business school with the functional organization vertically and the programmatic or product line organization going horizontally across the organization. It defines very carefully that the functional organization is responsible for cost and quality, and the programmatic organization is responsible for price and volume and net profit. The product managers or program managers are purchasing quality and cost internally, and it's real. It does work. It sounds highly theoretical, but it does work internally. In our cardiac programs, we're about the fourth largest cardiac surgery center in the state of Minnesota. Mayo, of course, beats everybody for an umpteen-state area, and then there are a few of us in the Twin Cities. We have a base of about 400 open heart surgeries and the attending cardiology. We have accomplished about 3/4 of a million dollars of cost savings in that program, which has been driven by the program managers. In fact, we have now secured two new contracts with HMOs, which have increased the volume, and they are very much pleased about the quality.

Let me summarize. One of the comments one of the earlier speakers made was, become a partner with the HMOs

that are in your town now. I couldn't agree more. I mentioned earlier that one of the HMOs was now suddenly restricting their provider network: those organizations that have been on the inside, if you will, and have a preferred provider status with those HMOs, are feeling pretty darn comfortable. The folks on the outside are feeling very, very uncomfortable. Use rates now in the Twin Cities are running about 775-800 days per thousand population. We're predicting it's going to go down to about 450-500. I had some informal conversation with people here and I haven't heard a number lower than 1100 in their communities. We genuinely do not believe that the technical quality is any less, although there is a growing perception that some of the accessibility and convenience factors are indeed less, but that is a good tradeoff.

RALPH MULLER: I returned this morning from the annual meeting in Philadelphia of the Council of Teaching Hospitals. After hearing a series of forecasts in the last 24 hours, and comparing these forecasts to last year's and finding them quite different, I wonder how much any of us can project well in the current environment. All of us are looking at a very cloudy future without a clear sense as to where we're going.

I will speak on the topic, nonetheless, that Ron has asked us to address, which is how physicians and health care institutions, specifically hospitals, can work together at a time when cost containment and cost consciousness have become major themes in health care. There are more boundaries and more limits on the discretion exercised by physicians than there were just a few years ago. The creation of DRGs and their use in Medicare, the growth of managed health care through HMOs and PPOs, the institutionalization of the delivery of health care are three types of evidence that today's physicians live and practice in a more bounded world than they did prior to the 1980's. Physicians and hospitals went through a considerable transformation in the 1960's. Both gained from being more active, performing more tasks, doing more procedures, and in general, providing more health care to the consumer and to those who pay for health care. The government gave a very clear signal in the 1960's: do more. Indeed, there were the introduction of the Medicaid and Medicare programs, the growth in the number of physicians supported by the federal government and increased access to health care for more of the U. S. population. In the last few years, considerable efforts have been made by the government and the private sector to limit the growth of access and cost through such legislation such as TEFRA and the more recent Medicaid and Medicare statutes. Part of what we're all concerned about is how these efforts have changed the role of the physician and the access that people have to health care.

We're all aware that HMOs have grown considerably in the last few years and in certain parts of the country, such as Minneapolis, provide health care to more than one-third of the population. HMOs are institutions that attempt to limit discretion, both of the physician and of the people who need health care. They do it through a variety of managerial techniques, such as utilization controls and financial arrangements, for example, incentive payments to physicians who keep patients out of hospitals. At the same time we have seen this side of HMOs and PPOs, we all know how people who work in health care and therefore better understand how to use the system, try, when they are truly ill, to find the best doctor they possibly can to treat their illness. They seek out those people who are most skilled, who have the art

of treating illness and have the human touch. They prefer better physicians and know how to find them when they're truly ill. It's commonly understood that cost is a concern when one's illness is minor or when somebody else is sick. Quality is the premiere concern when your health is seriously at stake. Therefore, we know from personal experience that people seek excellent care but prefer not to pay so much for care.

I'm skeptical that there is coming a really major redirection of health care in America. The point has been made in the last two years that we can flatten out the growth of costs of health care. Instead of having the 10 to 15 percent increase in cost that we had in the late '70s and early '80s, we now have cost increases of 5 percent. Those of us in the hospital business know about Medicare payments coming down rather than up. If a number of conference participants projected three, four years ago that in 1986 hospitals would be fighting to keep Medicare payments level instead of going down 5 to 7 percent and that hospitals would be accepting that, I think we would have been surprised. The enormous increase in health care costs from 1965 to 1983 has abated. All economists knew at some point that course correction would have to take place, and it has. I don't foresee a pendulum swing in the other direction, toward a considerable reduction cost. Now we're going to have a whole series of interesting experiments in other kinds of institutional arrangements that try to provide health care to people who want high quality, but also want a slight abatement of costs.

But I don't think we're going to get it at much lower cost. As important as cost concerns are in decision making, physicians will still want to exercise their own autonomy. Therefore a series of organizational arrangements and forms are being created to provide different answers to the questions of how health care should be delivered. Within the health care system of this country, there are systems, networks, and associations. That all these complex organizations have come into the physician world is an indication that the physicians are responding quite well to what has happened in American health care. Which of these institutional arrangements will be more responsive to cost and yet continue to provide the kind of health care that people want, especially when their own health is at stake?

Other institutions in Minneapolis are reacting to the growth of the HMOs. The truth is that all of us are going to react. When HMOs grow considerably, hospitals react by trying to provide a service or product that is comparable to what an HMO provides. I don't know exactly how we're all

going to do it, but I know we're going to respond and I would be very surprised if the HMO penetration in cities such as ours is anywhere similar to what has happened on the west coast and in Minneapolis. There are cultural factors that promote the growth of HMOs that are not existent in cities such as Chicago. I don't know which arrangements are going to work, but an extensive transformation will occur in American health care as we try to cope with the demands of cost containment, and it's not going to be just a wave of HMOs.

What happens to quality in the system? As I noted before, individuals want quality when their own health care is at stake. In many ways, what is being said to health care institutions is that the public wants high quality care at a lower price. Now many of us say at times, this can't be done, that people have conflicting objectives. At the same time there are many examples from other parts of the economy that products can indeed be produced more cheaply than was thought possible in those industries, for instance in the home computing industry and the automobile industry, especially with the competition from abroad. Whether a similar transformation will take place in the health sector where we would produce services rather than products, is much less obvious to me.

Now, I can cite examples of how we've reduced cost at the University of Chicago, and we're all trying to make do with fewer staff and substitute less expensive staff and stop incurring certain costs, all of which we were quite willing to incur when, in fact, nobody in government questioned costs. So cost consciousness has been brought to the fabric of hospitals and they are responding. Almost any hospital has gone through a major layoff of staff, deferred acquisition of equipment, and reduced the amount of resources consumed.

At the same time, hospitals are being used increasingly for the treatment of major illness. Through case mix indices, as weak as they may be, we know that teaching hospitals are treating people with more acute needs. If we're being asked to lower costs at the same time people are coming to us with more acute needs, and we do not have control over the other parts of the system, we have a real problem because it isn't apparent to me how people with more acute needs, sitting inside hospitals, can be treated at a much lower cost, aside from those cost corrections that I've previously indicated. Certainly there are efforts to create broader health care systems and integrate hospitals and other parts of the delivery network. Hospitals are going to have a very difficult time reducing costs as acutely ill people

beco e a larger share of the hospital census. Therefore, I wonder especially in the larger hospitals that serve this aggregation of people who need more intense and expensive care, whether indeed costs can come down much more.

There is a temporary solution that is very difficult to accept. People are being denied care and being transferred to other parts of the system. I consider this an illegitimate way to reduce costs. Through our public policy we need to share the cost of providing care to these people. Providing more support for people who are indigent or uninsured is going to be as difficult an issue in the next few years as the issue of containment of cost. We're going to be worrying very much about the people who have been denied access to care. Unfortunately, as a matter of public policy, we are far away from knowing how to deal with it.

Therefore, the issue of cost is not the only concern today. Certain kinds of care are going to be transferred to other settings: there are many patients who have come to hospitals who don't need to be in hospitals and they'll get care provided elsewhere. We've seen the growth in outpatient care over the course of the last ten to twelve years. It's no surprise that outpatient care is growing in every part of the country; both the technology and the payment systems encourage that growth. But cost is only one constraint among a variety of many competing values that shape how health care should be given.

Let me make one last point about the role that physicians have to play. I think physicians will respond by trying to create institutions that they can control. It's been of considerable frustration to physicians the last few years to see the shaping of health care policies being passed on to major institutions, be it the Chrysler Corporation or the people at HHS. Physicians understand that they can't keep having the kind of price and cost increases of the last ten or twelve years. It is now acceptable for physicians coming out of residencies to take salaries that are equal to or lower than those that are given to new practitioners the years before. Residents are taking salary decreases. Also, physicians are going into positions that they wouldn't have taken in prior years.

The interesting phenomenon before us is the search for alternate ways of delivering care, not at lower quality, but by moving certain activities out of the mega-institutions, such as hospitals, to alternate sites. There is very little indication in any profession that major gains in productivity can be made. Professionals do not take the few productivity enhancements that are available as a way of providing resources or goods at a lower price, but they try to do more.

So my forecast of the future is that physicians will try to reassert control over their practices to counteract the HMO movement, as all institutions figure out how to respond to HMOs; there will be some shifting of health care from the institutional setting. In general, however, I feel it's very difficult to know where we are going because so many institutions are trying to respond in a variety of ways to what has gone on in the last three years. We've had a major shock to the American health care system by finally reasserting cost consciousness after twenty years. We knew it had to come and it has come.

QUESTIONS AND ANSWERS FOLLOWING THE TALKS BY MESSRS. LEYHE, LARKIN AND MULLER

QUESTION: On what basis has the HMO excluded hospitals from their network? Were these criteria publically announced beforehand?

FRANK LARKIN: I'd like to be able to say yes, but I have to answer no. They've stated three public criteria, each one of which can be factually disputed. For example, they stated these hospitals are where 65 percent or more of our patients are. We can demonstrate a much higher percentage of that than in hospitals are excluded. And there are two more criteria that are similar that have been publicly disseminated. So we really don't know.

QUESTION: Give an example on criteria that would be used to non-renew a physician's admitting privileges.

FRANK LARKIN: We refer to it almost as quality management, rather than quality assurance or quality monitoring or those natures. One of the criteria that has been used is too many repeat visits to the OR. Too many of a physician's cases, beyond a certain specified percentage, are returning for a second visit to the operating room. I think most people would consider that to be a good indicator of quality. There have been very few of these, let me make that clear. This is not a wholesale decimation of the medical staff. Out of 700 physicians, there's only been one or two that we talked about.

QUESTION: You talked about some audits that are now being done by the hospital and I'm just curious, was it largely employers or union questioning quality?

FRANK LARKIN: Is the audit you're referring to the one after the nursing strike? The Council of Community Hospitals, which is our local Twin Cities Hospital Council, has decided through its research arm to do a study on what were the outcomes. What I was referring to was Blue Cross's implementation. If you want to be a participating Blue Cross hospital, you have to agree to use MEDISGRPS for their patients. Most of the hospitals have elected to do it on 100 percent of their patients, and while there hasn't been an organized process for collection and distribution put together yet, there is a growing concensus that it will be forthcoming from the hospitals through the Twin Cities Hospital Council. Blue Cross has stated, and I think pretty clearly, that they're responding to their purchasers, in other words, the employers, the business and they want some quality measurements. Blue Cross is the first one that really, in a marketplace sense, responded to that.

QUESTION: Mr. Larkin you projected continued census declines. Is that going to be across the board decline in length of stay and admissions?

FRANK LARKIN: The question seems to be, we've seen gradual declines over quite a few of the past years, and in all segments of the population except Medicare. Particularly in the last three years, we've seen almost a precipitous "jump off the cliff" decline in the Medicare rate; 25 percent of the elderly in the Twin Cities are now enrolled in the HMOs and they're signing up quickly. You recall Minneapolis was one of the experimental sites, so Medicare and HMOs are not a new phenomenon there. It's two, three years old, but now the HMOs are accepting total TEFRA risk and they have very, very active marketing programs. We anticipate that while PPS created the precipitous drop, the HMOs are going to continue that trend much more. Probably in the next three four years, as best we can tell, with consultants to my organization use rates will fall to somewhere between 450 to 500 bed days per 1000 population. That's what we're basing our strategic planning on in my organization.

QUESTION: I also have a question, which payers and employers are releasing quality information and what are the reactions by the physicians?

FRANK LARKIN: All over the map. The local PRO several years ago developed a private review effort in response to many of the major employers in the Twin Cities - we have the 3Ms, the Honeywells, General Mills, Pillsbury. We've got many of the Fortune 500s that are headquartered in the Twin Cities.

Private Review about a year ago released physician-specific data on physicians that they considered marginal or poor quality. There was a list at that time for the Twin Cities of only 15 physicians. That was released only to those employers and only for their employee-patients. The physicians who treated employees of a particular employer was released to that particular company, so the companies didn't have access to the total data. Now about a month ago, the local PRO, in a cash bind, decided to sell private review. That's now been sold to a national, southern-based, but I'm not sure what city or state at the moment. So far the company that bought it maintains that they will keep the same kind of confidentiality, but that remains to be seen.

COMMENT: A surgeon responsible for the surgery program in a military hospital had an extremely low morbidity and mortality rate in his profile. The reason was that anyone who came into this hospital and required anything more than very simple low risk surgery was referred elsewhere. He was

uninterested in changing that profile. If you begin to look at physicians and say, hey you've got your patient coming back to the OR, why? Too many of your patients are dying, there's too much morbidity or mortality. I as a physician will respond to my 85-year-old patient, you're in cardiac failure and decline treatment by saying, Joe, I'd love to operate on you but you're too risky. If I operate on you and something happens to you, I'm going to lose my privileges, so why don't you go to the hospital down the street, community hospital or whatever. I think one really has to deal with this issue, because I think if you apply this too rigorously, what you're saying to a physician is, don't take care of the risky patients because you will suffer.

RONALD ANDERSEN: Frank, you want to comment?

FRANK LARKIN: I don't know if I should or not on that. The types of things that you're talking about, we have that same very serious reservation. One of the interesting things as you look at what's happening in the Twin Cities is that the utilization rates at the various private hospitals are dropping. Public hospitals have maintained themselves relatively stable or level. We do know that there is some shifting going on to the public sector, and I would speculate that at least some of those cases are just exactly what you referred to. In terms of the privileging I'm talking about, however, this has really been physician driven. In my organization indicators are not used just as flat; it's either a black and white situation. Panels of physicians look at the data; the physicians know how this doc handles the really sick ones, because he's real good, and others don't. I mean, those kinds of judgment calls are being made, not just based on data.

QUESTION: What cultural factors perhaps affected the growth of HMOs in the West and in Minneapolis and might therefore not be present here in Chicago and other cities?

RALPH MULLER: In part, the west coast and parts of the upper midwest are quite well known for their spirit of public enterprise and their community-regarding behavior that has caused not just such things as growth of HMOs but much of the populous movements in the 1910s, 20s and 30s, whereas Chicago and eastern cities have been much more oriented over all those years, not so much towards community group and civic-minded enterprises but much more to private-regarding behavior. I think private institutions are much more the norm in the East than they are in the Upper Middle and West. I think institutions such as HMOs and certain kinds of public institutions such as public universities grow up much more in those kinds of publicly-oriented settings than they do in the

other kind of settings.

QUESTION: Ralph, I am moved to ask if you have any comments to make about the general approach of mergers of large teaching institutions and quality care?

RALPH MULLER: They're certainly going forward, for better or for worse. Larger hospitals such as ours continue to be in business and are going to be concentrating on the people who are truly ill. I think it's very appropriate to move certain kinds of care out of these kinds of settings. However, the values of institutions such as the University of Chicago and Michael Reese have to do not just with the provision of patient care but also with the promotion and the creation of a major research and teaching enterprise. These kinds of institutions do not lend themselves to an ambulatory setting in the middle of a suburb; they require scale and comprehensiveness. That kind of scale and comprehensiveness is more and more difficult to achieve as hospitals reduce in size.

I certainly agree, as I acknowledged in my talk, that hospitalization is going to come down, but I think when you reduce scale and when you reduce size -- it's very premature to think that hospitals and other health care institutions are just businesses. I don't think they are that at all, and I think the ones that run as businesses are going to have a hard time because people want more than that from their health care institution. I expect that such consolidations are going to occur in other places. As far as I can tell from talking to colleagues at a number of cities around the country, it's mainly a way of maintaining institutions that have multiple objectives, a way of maintaining hospitals in a certain scale and comprehensiveness that really can't be achieved at 300 or 400 beds. If hospitalization per thousand goes from 1100 to 450, we need that kind of scale. For these kinds of reasons, we're going to see more of those kinds of consolidations and institutions such as ours realize we need a certain scale to keep going. We're really trying to do this before we get to 450 per thousand. I think it's a way of trying to react offensively rather than defensively to those kinds of trends.

COMMENT: Just want to make a comment. Mr. Leyhe's unusual sensitivity to the problem that doctors are having and changing attitudes and behaviors was very noticeable to me. I think perhaps the difference was only in that setting. Other managers maybe don't say it very often, but I felt very good, it warmed by heart. I felt supported and if the institution is successful in getting doctors to participate in management, as he said, I have a feeling it must be. I

think it's because doctors are having their personal needs met by the management in his hospital.

RONALD ANDERSEN: Bill, do you want to comment or do you think you've done as well as you can?

WILLIAM LEYHE: I want him to write that on my resume. No, I just think it's a statement, and part of it is altruistic and part of it is practical, at least in the environment that we're in. The doctors and physicians have got, or the doctors and the hospitals, have got to have a complete partnership on the situation. What we're trying to do with our physicians in that many of them have storefront type practices, is develop practice management components to the point where we take over the marketing, the data processing and billing practice if they're willing to. We let them practice medicine and let them be more successful. At least in northwest Chicago, the physicians are successful, the hospitals will be successful and that's why we have that approach there.

QUESTION: Is it an incentive contract or do you get a flat management fee?

WILLIAM LEYHE: Flat management fee. All the contracts that we have are flat management fees for the reason that your follow up question was going to be on that.

PANEL: PRO SERVICES INDUSTRY: EXPERIENCE AND METHODS

DAVID DRANOVE: I'm an Assistant Professor of Business Economics in the Business School. I have the good fortune to teach several courses in the program in health administration, and I will be moderating the next three member panel today. Our panel will be discussing the PRO services industry. From left to right, we have Gerry Bell, Matt Klionsky and Jon Sands. Gerry Bell will speak first. He is the manager and national practice leader for Group Benefits Consulting at Hewitt Associates. He consults on the design, financing and administration of group benefits programs with an emphasis on development and implementation of health care cost management strategies. Gerry is a Fellow at the Society of Actuaries, a member of the American Academy of Actuaries and a graduate of Dartmouth College.

GERRY BELL: Ron Andersen, Dave Dranove, and my fellow panelists have graciously agreed that, with my background, my role today probably should be one of conveying what I see as the corporate employer community's perspective on the two issues of quality of care and health care cost management -- which is another way of saying they're going to let me talk about what I do know instead of forcing me to talk about what I don't know. What I'd like to do are three things: first, spend a little time examining the perspective of the corporate community -- where it came from and how we got where we are. I'll include myself in that "we" for that purpose. Second, I'll talk about current employer attitudes and concerns, particularly with respect to provider review, utilization review and utilization management. Third, I will theorize a bit about what the future may hold for the health care marketplace, particularly in terms of the needs that are going to have to be met, from the perspective of the business community.

First, where did we start and how did we get where we are? That's probably reasonably obvious to everyone in the room and I won't spend a lot of time on it. But I think where we started was here: for a long time employers simply paid the freight for health care plans, in the face of a very strong, pervasive employee desire and consumer desire for the highest quality of service, with unlimited access, regardless of cost. Employers shared that view for a long, long time, until their own costs started to get totally out of hand.

Then the byword became cost containment. The first efforts at that were directed toward cost sharing with employees. Employers introduced employee contributions for health care coverage, along with comprehensive plans with

increased deductibles and co-insurance, to share some of the costs and reduce employer costs. It was hoped that that would have a beneficial effect on utilization; that somehow the use of employees' money at the time treatment was needed would induce employees to be more discriminating shoppers, be smarter buyers, ask the right questions of their physicians -- so that we'd have the right kind of effect on utilization.

The result was a one-time shift of cost from employers to employees, and employers enjoyed a brief respite in the escalation of health care costs. But there was not much of an effect on utilization. I think that was mostly because people didn't have enough time to deal with these new arrangements. Not everyone got sick in the first or second year, and still employees wanted the highest quality of care. Once they needed treatment, they weren't thinking so much about how to be a smart utilizer or smart consumer of health care services. So then employers shifted to an emphasis on communication and education. That focus was really on the idea of conveying the magnitude of the health cost problem, characterizing it as everyone's problem, and giving people some ideas about asking the right questions, being smarter shoppers, being discriminating consumers, seeking alternative means of treatment or less costly means of treatment, all the while underscoring that there was no intent to erode quality of care. That took hold a little bit; but employees tended to think of being discriminating consumers only in the abstract, only at the time the employee meeting was held or the audio-visual presentation flashed up on the screen. They did not think of being discriminating consumers at the time that treatment was needed. That's a very stressful time, with a lot of tension, and it's pretty tough to manage delivery of health care services to yourself when you're flat on your back in a hospital. So communications efforts alone didn't work as much as people would have liked.

Then, the next byword became <u>cost management</u> and, along with it, the idea of utilization management. This probably developed in three ways.

First was the very easy way of putting financial incentives into health care plans sponsored by employers. You have penalties for doing the wrong thing and rewards for doing the right thing. That, again, ought to get people's attention.

Second, employers started to look at ways that they could directly influence utilization. They tried putting in utilization management or utilization review programs as a benefit, merchandising them if you will, to their employees as a guide through the bewildering array of services that

they had to face in the health care delivery system when they needed treatment.

Third, employers looked to alternative delivery vehicles for help in utilization management. They looked at HMOs and PPOs. They thought "An HMO, to survive, is going to have to manage care and maintain quality, so they can do that for us." Then they stepped back and said, "HMOs don't answer all the problems and may not be the right answer for us; and the same is true with PPOs." It was nice in that environment to be a price giver instead of a price taker, but there was still the concern, was the utilization review of the right kind? Was the right kind of thing going on? Was there some erosion of quality of care in the attempt to provide that discount?

So I think very recently, and I characterize this as only in the last six to nine months, there has been a shift in employer attitudes from all this cost consciousness back to thinking about the quality of care. They've acknowledged that most of the efforts have been cost driven, aimed at cost savings and cost efficiencies in a variety of ways. There have been some attempts at utilization management, which, while not half-hearted, may have been relatively unsophisticated. But there is now a deeper concern about quality of care -- a growing concern -- for three reasons.

First, all along the way in this evolutionary process, employers have seen that employees still have an overwhelming desire for the highest quality of care, or at least not to have quality of care suffer. And if employees perceive that that's going to happen, no matter what the cost management measure or design provision, they'll balk at it and rebel against it. They will accept it only if they believe that the quality of care is not going to be hurt. So first is the employee concern, and employers are aware of that.

Second is the realization that erosion of quality is going to have a cost; it will eventually push costs up. It is no great trick to reduce costs in the short run; there are lots of different ways to do it; lots of different people have done it. But there's no great reward in doing it at the cost of quality, because over the long run those costs will come back home to roost, and employers know that as well.

The third thing that is driving concern for quality is the fear of legal liability. If employers take too aggressive a stance in utilization management, insert themselves too far into physician-patient relationships, give people too much inducement or too much incentive or too much punishment for doing certain things, do they expose themselves

to legal liability for pushing people to the wrong treatment or to inadequate treatment? Some employers are afraid they might be. I would characterize the mood now as one of going back and looking at initial objectives. And the initial objective -- the primary objective -- sounds like motherhood and apple pie: "We want to provide quality health care to our employees at a reasonable cost." But that's easier to say than it is to do.

What employers are saying is, what exactly, in sponsoring this health care program, are we about? How far can we go? Do we manage health care costs? Or are we trying to manage health care itself? And if we're trying to do the latter, how far can we go, what's our role, what should we be doing? Is there a way of going too far? And maybe the preliminary answer is, "Maybe so -- if we lose sight of quality in our pursuit of cost savings." There is no desire to erode quality of care, or to practice medicine, or to second guess physicians or offer a "corporate diagnosis." There is no desire to substitute corporate cost savings desires for the physician's judgment. The real question becomes what can we, the business community, do to influence practice patterns in an appropriate way; to realize cost savings and cost efficiencies without intervening inappropriately in provider relations with patients? That's a tough call. There are no easy answers, and I think that's what employers are starting to realize as they look at the possibility of more sophisticated utilization management techniques, particularly in terms of provider review and utilization management organizations.

So what's going on and what's going to happen within the business community? I think a lot of looking, a lot of listening, a lot of analyzing and, concurrently with all that, lots of action. The looking is going to be at all the provider review organizations and utilization management firms. I know because we meet them in Lincolnshire. They all want to come and meet us and tell their story on what they do and how they do it. They have good stories to tell. They reason, correctly, that we can expose clients, our clients, to what's available in the marketplace and what can help them. Clients want to look at those organizations to see how they work, and to find the right questions to ask. They don't know what they're looking for, and they don't know exactly what they should be trying to accomplish. They're just wrestling with the issue in the abstract. But the more exposure they get to these organizations, the better off they're going to be. So they're going to look at a lot of them. They're going to listen a lot as well. They're going to listen to their employees and listen to the provider community, but particularly listen to employees.

One of the reasons for all this listening is the inability, so far, to measure the results of utilization management programs. Provider review organizations and utilization review organizations -- maybe because they're embryonic or relatively embryonic -- have not been able to show data or measure results that well, particularly in the area of quality of care. There isn't a lot of data to show that there are real cost savings and that quality of care is maintained. What data there is, is quantitative only. And if you sit and look at quantitative data, you can almost make it tell you anything you want it to; as an actuary I know that.

So employers are starting to listen to employees to get a qualitative measurement. They do it for a variety of reasons -- to find out why employees choose the health care options they do, how they feel about the kind of treatment they got -- not only what benefit was provided but how they felt about it after the fact -- and what they perceived about the quality of their treatment. That may be as much a reflection on a physician's bedside manner as it is on quality of treatment, or happiness of result, because employees are not qualified to make medical judgments either. But there is a lot of that qualitative listening going on, to try to get some measure from their own employees' perspective of the quality of care, particularly with respect to some of the new innovative cost management techniques within benefit programs.

Further, a great deal of data analysis is going on. That is an industry that was probably in its infancy a couple of years ago, but has grown and broadened in scope since then. Employers are analyzing many different kinds of information -- claim cost trends, claims data, and patterns of utilization -- looking for patterns of overuse and abuse, comparing provider to provider on a case mix adjusted basis, looking for differences in provider efficiencies. Again, they are quantitative measures, but they're trying to get some qualitative measures too. Employers are comparing their data to normative data, and they are conducting individual and group health risk appraisals to see if they have a potential time bomb ticking away in their employee population. That enables them to focus on wellness or health promotion efforts to reduce that risk, and to determine whether the medical treatment that people are getting is helping to bring down the risk.

So there is all that listening, which I guess is analogous to PRO patient evaluation studies, and the analyzing, which is as far as employers can go towards a PRO medical evaluation. They're looking for those too from the

PRO services industry. But what are the actions going to be? From my own perspective, I think that there may very well be increased reliance by employers on utilization review firms, utilization management firms, and provider review organizations. Employees realize that they cannot insert themselves into a patient/physician relationship, but they want to make sure that quality of care is maintained, that effective utilization is created if it's not already there, and that it's maintained if it is there. And they know that there is a limit beyond which they shouldn't go, in trying to influence practice patterns. The trick is, who can do it? Employers will be looking both at independent firms and provider review organizations to do it. And they'll be looking both at techniques and results.

In terms of the techniques, there is probably not a great level of sophistication within the corporate community about the different ways that professional review organizations operate. But there is probably some feeling among professional managers and professional business people that there is more potential to influence practice patterns in a favorable way with physician-staffed review organizations, with utilization management firms that have physician involvement, or with physician advisory groups and physician study groups that are intimately involved with the operation of those firms. Since that is a service that more and more companies are going to be using, they will be looking at those techniques very closely. But the honeymoon, if you will, will be very short. Employers will look for results very quickly.

And this interest will continue. That is, this will not be a fad or a short term kind of interest. Health care costs are on the rise again; employers know it. Employers know that cost management pressures are not going to go away, and they are not going to ignore them simply because quality of care has again surfaced as a primary issue. They will come to grips with the quality of care issue as they try to manage costs. And it's not only not a short term issue, it's not even a medium term issue. It is going to have a long term focus, especially as forward-thinking employers think about what the next 15 to 20 years is going to hold. In large part, that period will see the initial retirements of the baby boom generation, and the post-retirement health care benefits for those people may become the major benefit issue to be addressed over the next 10 to 15 years.

Maybe that's where provider review and utilization review can do the most good. Employers will certainly be looking at anything and everything to reduce their financial exposure to those post-retirement costs, and to make sure

that the quality of care is maintained within that group. There is no group more vocal or more visible than the retired group, and employers have to make sure that that quality of care is maintained. They will do so I hope in a spirit of cooperation with the provider community and with the review organizations community, because they have a lot of information and expertise to share. But, if they do not see help forthcoming, employers will take on that quality analysis task by themselves. Cost management pressures will not go away simply because inflation is coming down and we've had a brief respite. They will continue, and if quality is a major issue to address along the way, the employer community will address it. But they need, can use, and will welcome all the help from the provider community and the provider review community that they can get.

DAVID DRANOVE: Our next speaker is Matt Klionsky. Matt received his MBA degree in 1982 from the University of Chicago with a specialization in health administration. Prior to that he received his M.D. degree from Hahnemann Medical College in 1979. He currently is a senior scientist at the Health Data Institute in Lexington, Massachusetts, where he plays a major role in designing alternative benefit cost savings models, as well as performing utilization and quality of care analyses based on claims data.

MATT KLIONSKY: I guess like half the other speakers up here, I'd like to begin by saying that what I'm going to talk about is not exactly what the invitation said that the topic of the panel should be. I suppose each of us in this panel had a conversation with Ron several months ago, in which we discussed what the topic would be and then found out the invitation said something a little bit different. What I would like to talk about here are not PROs specifically, but review organizations in general and where they fit in the taxonomy of cost containment.

The first point to make is that the evidence is really beginning to come in that cost containment is happening. Hospital occupancy rates are dismal. This is another real world perspective on the evidence that Robert Brook presented earlier that lots of care which used to occur must have been discretionary, since there is no evidence that reductions of care levels have caused the health of America to suffer.

My perspective on cost containment, and the role of review organizations in generating it, derives in part from the cost and reimbursement structures of the health care field. In a generic schema (Exhibit 1) the cost of care to an insurer ends up being a product of (service volume) x (services covered) x (charges) x (coverage rate). Medical expenses not covered by insurance end up as bad debt to providers or as out of pocket payments. However, I find it unlikely that much cost containment will occur outside the area of insured services, so I am comfortable saying that effective cost containment must be reflected in at least one of the four factors listed.

For instance, if we look at utilization rates from Blue Cross data nationally (non-Medicare data) admission rates and average L.O.S. are down about 20 percent and 40 percent, respectively. These are reflected in the "service volume" category. Recent corporate benefit plan changes which increase cost sharing are primarily reflected in the "coverage rate" category so far as the payor is concerned, but also induce cost containment via voluntary reductions in service volume on the part of the employees.

EXHIBIT 1

PLAN PAID MEDICAL EXPENSES
ARE A PRODUCT OF

(SERVICE VOLUME) X

(SERVICES COVERED) X

(CHARGES) X

(COVERAGE RATE)

UNIVERSITY OF CHICAGO

Carrier-negotiated discounts through PPO arrangements generate savings through the "charges" category. "Usual & Customary" maximums on carrier reimbursements affect the coverage rate. Other examples fit the same structure.

The conclusion we draw from recent trends is that cost containment is working; health care as a percentage of the gross national product in the country has actually fallen in the last two years concluding a time period in which it went up by about half a percentage point each year for a number of years. We ask, where does cost containment come from? What's making it work? I think that there are three major possibilities for what is making the cost of health care finally fall under control:

.process controls (such as review)
.reimbursement system changes
.public attitude modifications

The first is that implementation of review systems has put some process-type controls on the overall system that have helped make the costs stop going up. I'm going to focus on that in a few seconds.

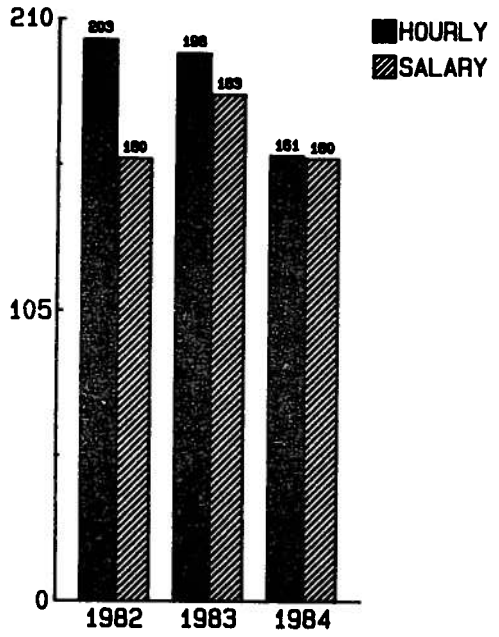
The second thing that I think is relevant is that reimbursement system changes themselves have probably had a major impact on what the total volume and pricing costs of services are, and that is probably independent of what review organizations are doing. Rather, it's a side effect of making people more responsible for the cost of their own care; they decide to limit their use a little. The third thing, which interacts with both the first two, is that attitudinal changes on the part of patients and providers have made a "sea change" in what people think about health care and when they need it.

I'd like to show you a little data from the Health Data Institute that provides perspective on each of these things and then goes into somewhat more detail. (Exhibit 2) This is data from a medium-sized steel company that shows a very interesting trend. The point here is to demonstrate an effect of an attitude on utilization that has nothing to do with review and has nothing to do with benefit changes, because neither one of those two things occurred in this company. We have here three years of data on admission rates, days of care and inpatient charges broken down by hourly vs. salaried employees. What we see is that a very large gap in utilization between those two groups has essentially disappeared over the three year period. Now the critical thing with this company was that in the middle of 1983, the company became employee-owned. Benefits did not

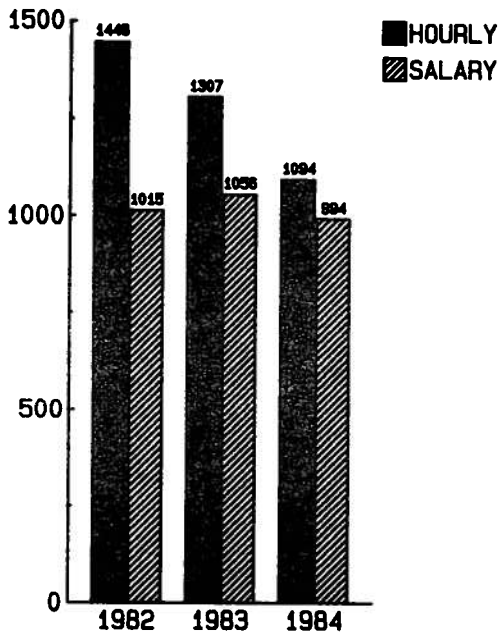
EXHIBIT 2

HEAVY INDUSTRY CORPORATION
UTILIZATION RATES BY YEAR AND EMPLOYEE TYPE

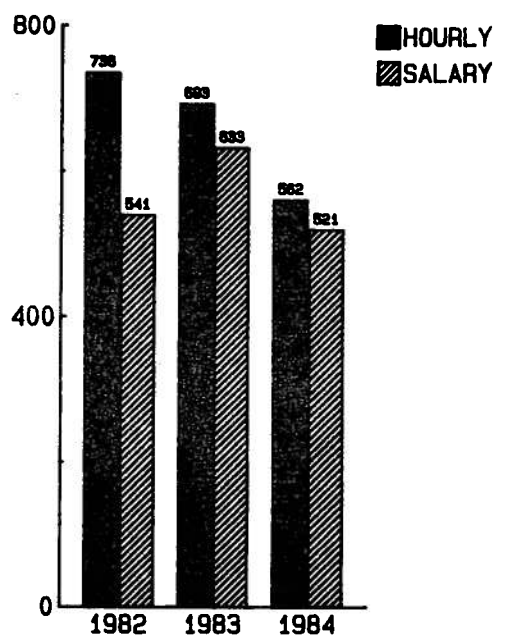
ADMISSION PER 1000 EMPLOYEES



DAYS OF CARE PER 1000 EMPLOYEES



INPATIENT CHARGES PER 1000 EMPLOYEES



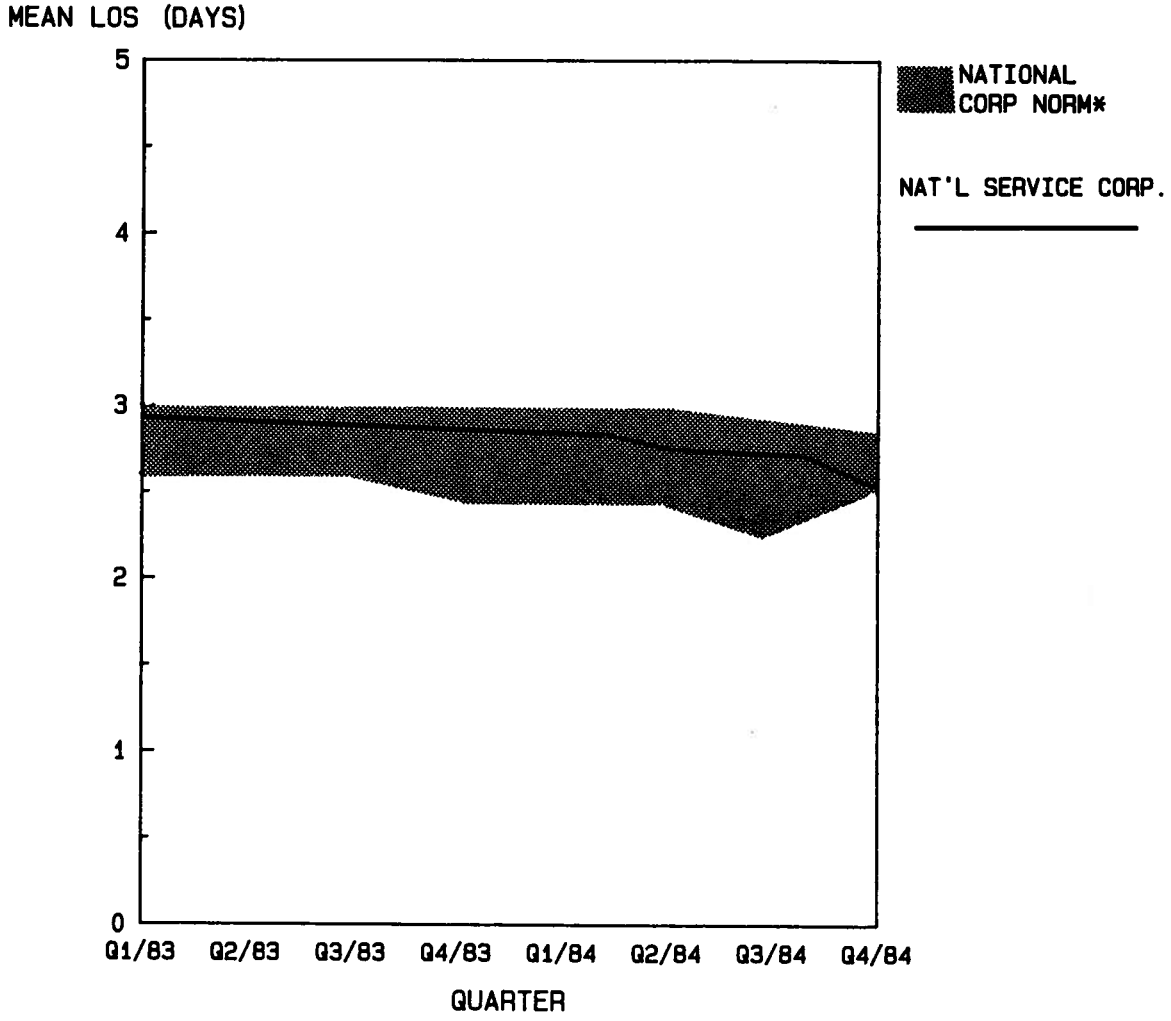
UNIVERSITY OF CHICAGO

change, no review of any sort was implemented. All of a sudden, hourly employees had a stake in how well the company did, that was a deeper stake than a salary. How they used health care and how much of it they decided to use underwent a fairly dramatic change. It's independent of review and I repeat again, it's independent of changes in reimbursement system or other incentives that work on a case specific basis. This is the effect of attitude on what we think about health care and when we need it. A less dramatic example of this effect is visible on the same graph. Utilization by salaried employees is almost identical in 1982 and 1984 and is higher both years than in 1983. In 1983 there was substantial uncertainty surrounding the issue of whether the employee buyout would occur, or whether the plant would close, eliminating health coverage as well as jobs. Such stress is often manifested in increased health care utilization, such as we see here. Hourly employees had net utilization decreases despite this stress effect.

Next and just as briefly, is a demonstration of a reimbursement incentive on utilization. This graph (Exhibit 3) is from a major private insurer that has given us data on many of its largest clients, (a pool of about 2 million covered lives) over a two year period. We have created an ambulatory surgery index by abstracting a list of procedures which can commonly be performed on an outpatient basis. For these procedures, there is a relative lack of contraindications to outpatient surgery, since major anesthetic risk factors are generally absent, the incidence of serious complications is low and major body cavities are not entered during surgery. For each company and for each of the 66 procedures that make up the list, we figure out what each company's outpatient rates are, then index them. The lower end of the cross-hatched band is the 25th percentile of this group of companies. The upper end of the cross-hatched band is the 75 percentile. We see, over time, the same batch of procedures, with the same coding system, with the same insurer, with whatever things happen to the world in between, which for this batch of companies turns out to be that very few of them had implemented any sort of review. There was essentially no preadmission review in this batch of companies in this time period. But there were changes in incentives and quite a number of companies began to pay for outpatient care at 100% where they hadn't previously. So there was a change in the reimbursement system for these patients. We see that the rate of outpatient performance for this indexed list of procedures rose considerably during that time period. The thin black line that you see meandering through the cross-hatched band is the trend for one particular company that we happened to be doing the report for.

EXHIBIT 3

NATIONAL SERVICE CORP.#1: 1984 ANNUAL REPORT
MEAN LENGTH OF STAY
FOR NORMAL VAGINAL DELIVERY



*THE MIDDLE 50% OF ALL AVERAGE CORPORATE VALUES IN THE CORPORATE MedUse DATABASE.
NOTE: RETIREES AND THEIR DEPENDENTS EXCLUDED.

UNIVERSITY OF CHICAGO

Very, very briefly, two other things from the same batch of data: (Exhibit 4) the average length of stay for normal vaginal delivery. The cross-hatched band defines the 25th and 75th percentile experience of all of the companies in the database. We see that over the time period the length of stay was quite constant until the second quarter of 1984, and thereafter the length of stay at the 75th percentile line began to drop, and the 25th percentile line began to go up a little.

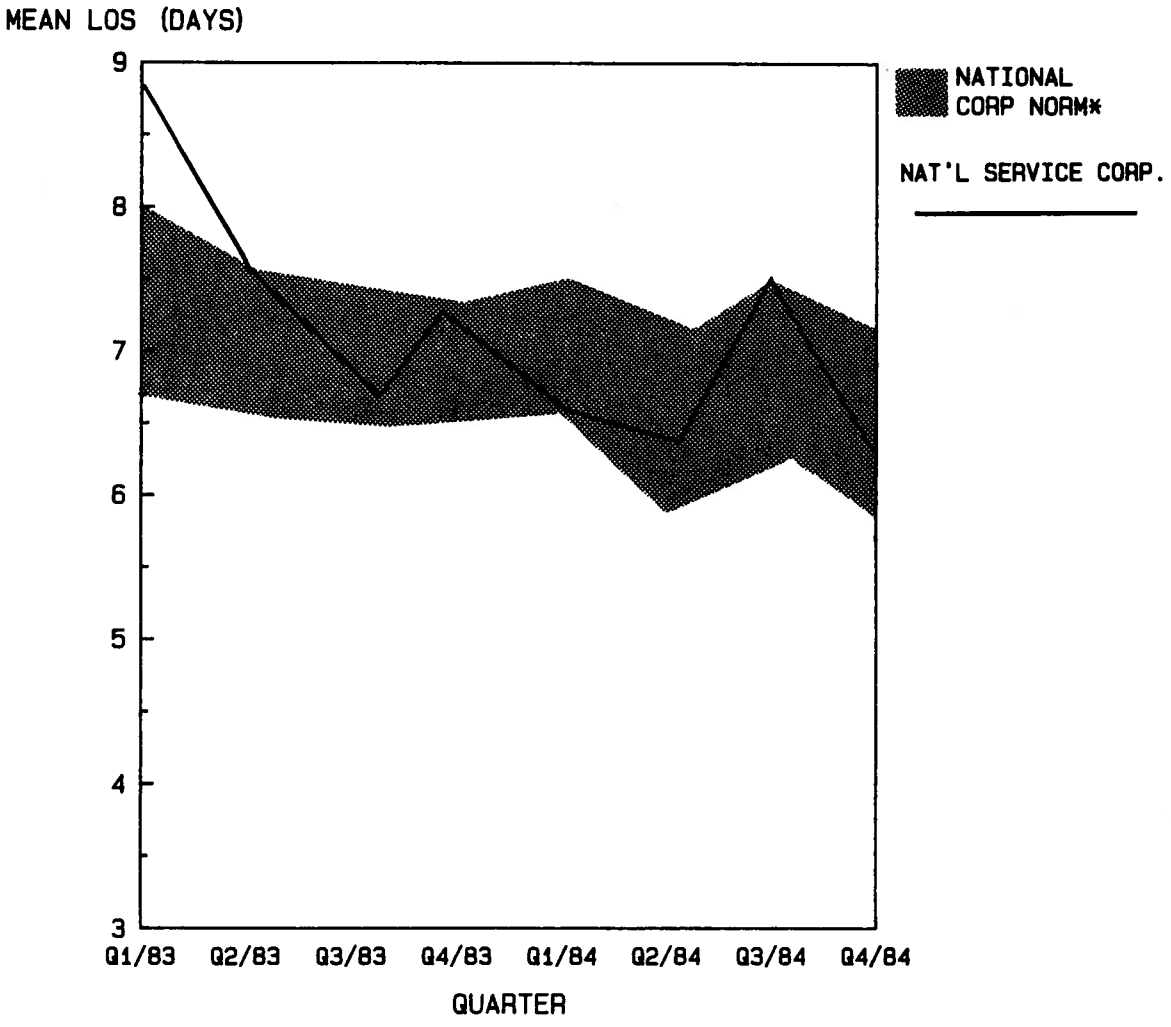
What we are finding more and more in our data is that there is beginning to be a convergence of practice patterns in some of these ways. This is something that has been influenced by a change in a company program that relates to what a length of stay should be for a normal delivery, and occurs through employee education, giving payments to employees if they leave the hospital early, and a whole variety of other programs that different companies in this batch implemented. It is not done through direct case review. It's not that on day 2 of the hospital stay somebody calls up the hospital and says "the lady has been in two days already, it's a normal delivery, send her home." The impact we see here is an impact of patient incentives.

Here is another example (Exhibit 5) of a very similar thing, from the same database: mean length of stay for cholecystectomy. Again we see down-trending length of stay. Again, for this time period, there are no changes in review, but there are changes in reimbursement incentives. One last one of these (Exhibit 6) is for hysterectomy. Again, there is a slow decrease in length of stay over time and it's due to reimbursement incentives.

It's important here to note that the cost impact of any given review service probably depends heavily on the structure of a reimbursement system. In a fee-for-service system, our clients would save money on individual cases, by the kind of length of stay reductions that you see demonstrated here. Medicare however, pays on a per case basis, independent of length of stay, and would not save because of reductions in length of stay. Medicare savings will not occur unless admission rates drop or unless case weights or payment rates decrease. This suggests of course, that the payment system probably should determine the focus of a review system. We're finding, I think, that a variety of different formats of review systems are beginning to develop that focus around the needs of different payment systems.

EXHIBIT 4

NATIONAL SERVICE CORP. #1: 1984 ANNUAL REPORT
MEAN LENGTH OF STAY
FOR CHOLECYSTECTOMY

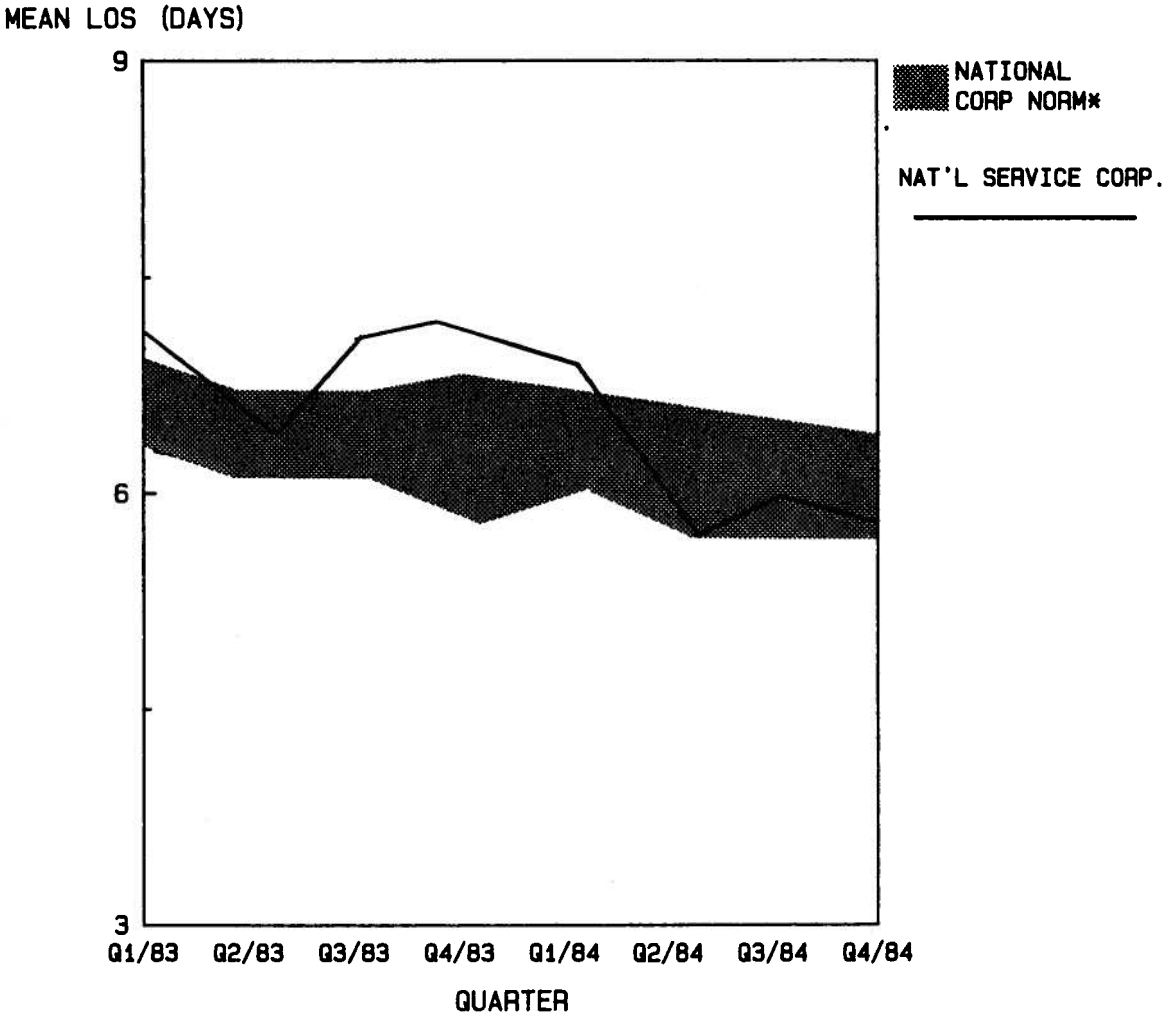


*THE MIDDLE 50% OF ALL AVERAGE CORPORATE VALUES
IN THE CORPORATE MedUse DATABASE.
NOTE: RETIREES AND THEIR DEPENDENTS EXCLUDED.

UNIVERSITY OF CHICAGO

EXHIBIT 5

NATIONAL SERVICE CORP.#1: 1984 ANNUAL REPORT
MEAN LENGTH OF STAY
FOR ABDOMINAL HYSTERECTOMY

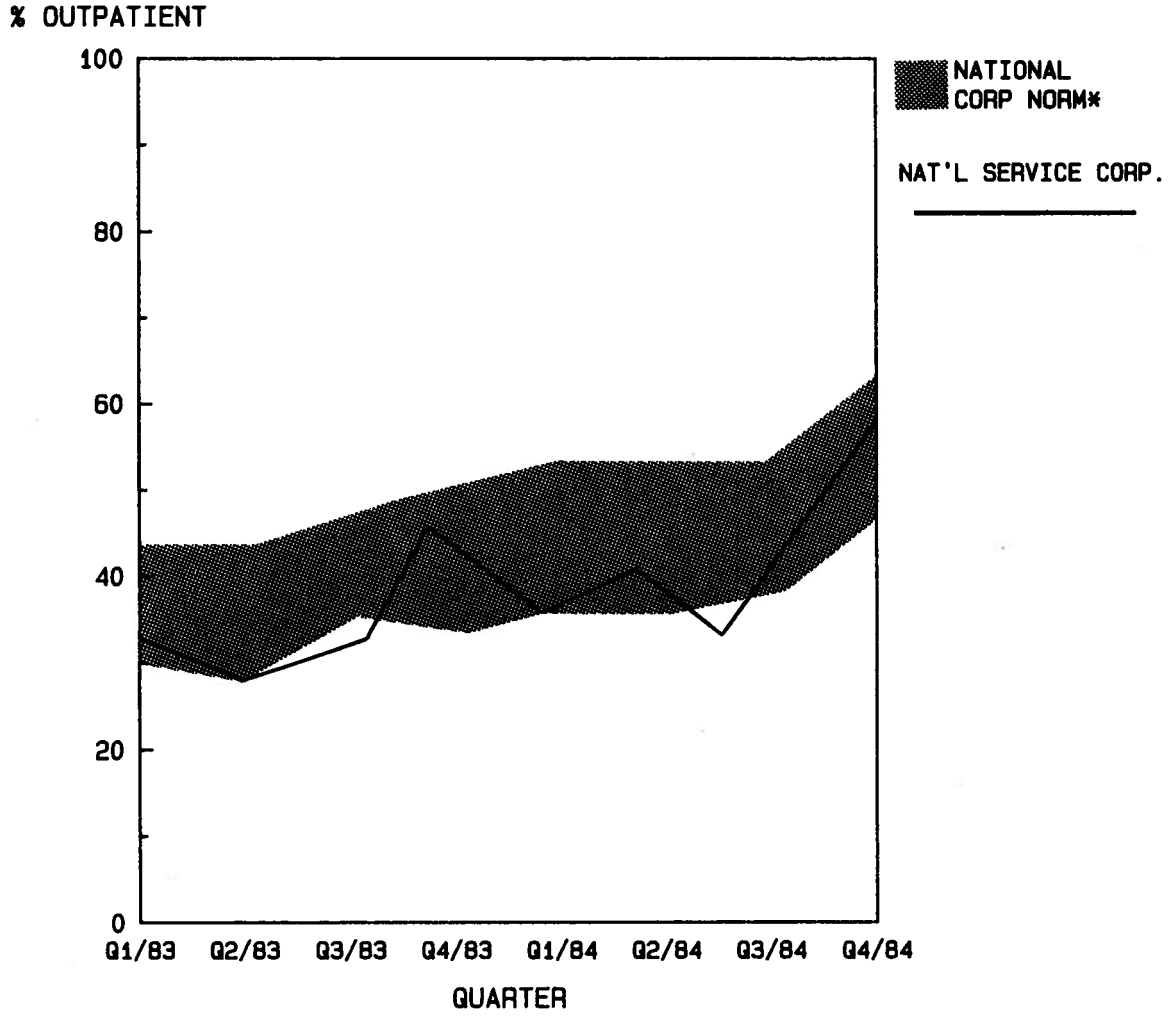


*THE MIDDLE 50% OF ALL AVERAGE CORPORATE VALUES
IN THE CORPORATE MedUse DATABASE.
NOTE: RETIREES AND THEIR DEPENDENTS EXCLUDED.

UNIVERSITY OF CHICAGO

EXHIBIT 6

NATIONAL SERVICE CORP.#1: 1984 ANNUAL REPORT
AMBULATORY SURGERY INDEX FOR SELECTED PROCEDURES
QUARTERLY TRENDS 1983 - 1984 U.S. WIDE**



*THIS REPRESENTS THE DISTRIBUTION OF CORPORATE INDICES IN THE CORPORATE DATABASE.

**CASE MIX-ADJ.

NOTE: RETIREES AND THEIR DEPENDENTS EXCLUDED.

UNIVERSITY OF CHICAGO

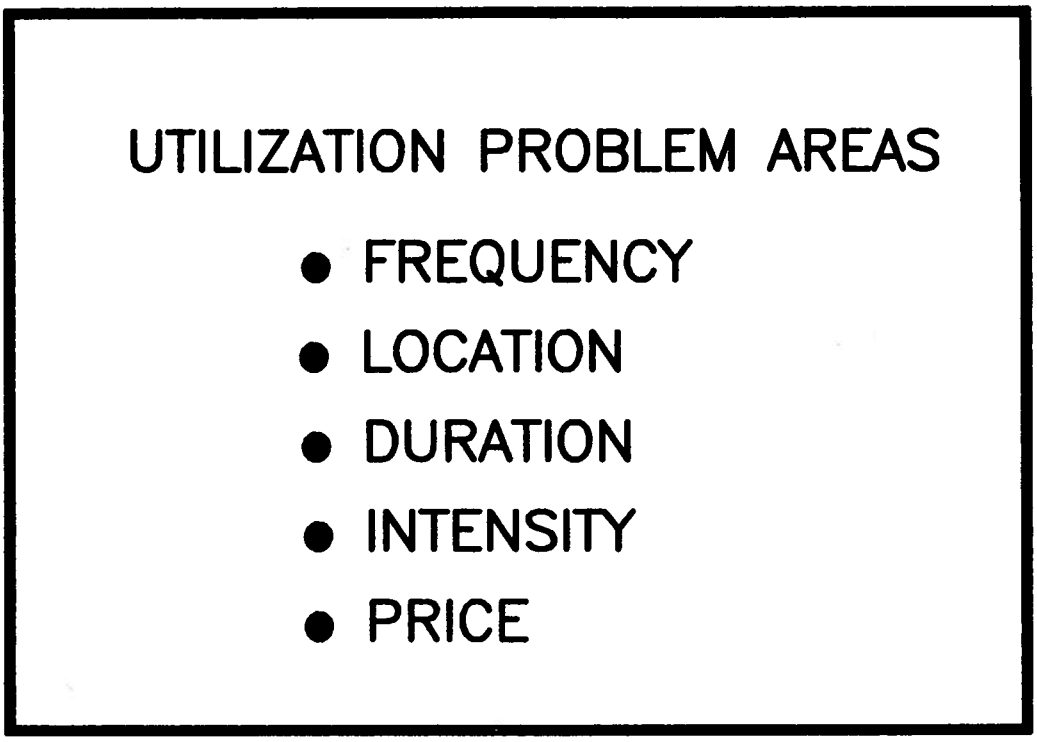
The things that review systems review, in addition to quality, are utilization problem areas. If we're talking about facility-based care, these are (Exhibit 7): the frequency of admission or the frequency with which patients of a given clinical description are put under the care of a physician or into a hospital; the location in which the service takes place (inpatient, outpatient, specialty facilities such as nursing homes or rehabilitation centers); the duration of the care (essentially, for hospital purposes, length of stay); the intensity of care (the use of technology, defensive medicine, and whatever the aspects are that generate variations in how many resources are used when two identical cases are treated by different providers). Finally, if all of the items listed above were the same and were ideal, what kinds of differences are there in the pricing of otherwise identical items?

The items listed in Exhibit 7 are all things that review systems of one sort or another can focus on. What I'm going to do now, is to go through these things with reference to some different payment systems and discuss how review systems interact with payment systems on these items.

Issues for review under a DRG-based payment system would primarily be frequency of admission, (which includes the frequency of readmissions and the necessity of admissions to begin with); the necessity of procedures (which is somewhat a frequency issue and somewhat an intensity issue); and if there is procedure, a technological alternative to the procedure. Another issue for DRG payment is coding validation, because the coding of a case under the Medicare DRG system determines its payment. Under the Medicare system, in terms of implementation by PROs, review also focuses on such things as prevention of premature discharges which John will talk about a little bit later. Quality review is not something that PROs have been terribly effective in doing, but I think I'll leave that to John. Because of DRGs, there is really no compelling interest by Medicare for length of stay review or for price review in ways other than that determined by coding or for intensity of care review in ways other than whether or not a procedure was necessary. These items will not influence the payment or the cost of the system and nobody has worked out good ways of putting teeth into aspects of quality review which we do not coincide with the items which do influence payment.

Let's shift to per diem reimbursement. The issues are a little bit different. Length of stay in per diem reimbursement is going to be the prime driving issue. Reviewers will also be interested, of course, in initial necessity of admission, because if you can keep them out they

EXHIBIT 7



UNIVERSITY OF CHICAGO

don't generate any days. This is a frequency issue. Concurrent review and discharge planning may have a length of stay impact and thus become important. Per diem review systems may or may not be interested in the location of care, depending upon how the payment systems handle care that doesn't occur in hospitals. There is far too wide a range of payment system permutations for me to try and get into all the specifics right now. There may be no interest in procedure necessity because the per diem doesn't depend on whether surgery was done or not (if it's a pure per-diem system anyway). They're not interested in the accuracy of coding, because there is no interaction between coding and price. They're not interested in intensity because again, on a per diem system they figure that the institutions or hospitals will take care of some of those things themselves. Price is set in advance, as it is under the DRG system, so it is not a focus of review either.

Shift to capitated care and you have to distinguish a little bit here between whether the patient is capitated or whether the admissions are capitated. But again, I'm not going to go into the permutations in a whole lot of detail. The review will depend upon the kind of capitation and focus for the review system depends on the nature of the hospital contract. There are an infinite variety of hospital contracts, so I can't get into that too much. But primary things of concern on the hospital side are the intensity, the location of care, and the necessity of care (which is frequency). There begins to be here a focus on individual provider practice patterns because when you're capitated you know that individual providers to whom your patients go will make a difference in your overall total costs. That becomes an item of interest, and then depending on who is doing the capitating and who is interested, review begins to want data at the provider level to determine which provider is more or less cost efficient for diagnoses of interest. Price becomes a review focus when care is delivered by an agency not controlled by the capitated organization.

Under a fee-for-service system, really all five of these items are important. I couldn't single out any one as being less important than any other, as long as it's a pure fee-for-service system. The self insured corporations which are paying for care on a "charge" basis are probably the only ones who are interested in full scale review that would address all of these items as well as address quality.

Now, it turns out that nobody ever worried terribly much about quality under a fee-for-service system. It turns out to be the obligation of somebody that wants a different system to prove that their quality isn't any worse, or

hopefully, that they're maintaining quality while changing the system. Quality used to be assumed, but it turns out that that's not a reasonable assumption. People who do chart reviews routinely find that between 5 and 15% of all charts have hard, documentable, provable quality of care problems that are significant to the patient's care as well as to the cost of care. I'm finding this in studies that I'm involved with, and I think Jonathan is finding that in Super PRO. But he'll talk about that more.

The people who are basically fee-for-service haven't done much quality review, but as we heard before, they're beginning to be more and more interested in it. That should be a growing area but there's not much of it now. There are two other sorts of medical review that are increasingly visible these days. One of these is internal hospital review of quality and practice patterns, and that occurs for several reasons. One is that Boards of directors become legally responsible for the quality of care in their institutions, once problems are known. Another is that hospitals are trying to be able to prove themselves to preferred provider organizations, HMOs, and other organizations capable of directing blocks of patients. To the extent that those vendors are asking for proof of quality, hospitals want to be able to prove what they've got and how it's different. Therefore they have to go looking at review on a provider-by-provider and diagnosis-by-diagnosis basis. The second area that demands review is at a much, much larger level. I call it societal review. It's really in early stages, although state licensing boards have existed for decades already. This is the level of review that begins to decide who is incompetent and should no longer be allowed to practice medicine, or which hospital is bad enough that no patient should be allowed to go there (or that no patients who go there will get paid for out of insured funds of any sort). We're beginning to see greater activity from state boards in trying to review credentials and keep up with the real world on the fact that providers occasionally become incompetent and need to be de-licensed.

Time to shift gears a little bit. I'd like to agree with Merv Shalowitz from earlier this morning, that if and when the focus of review is on cost alone, that quality will probably suffer for many patients. However, I'd like to add to that a little bit and say that even if cost is the only focus, that quality will also increase for many patients. If the large scale quality of care chart-review studies are true, and quality of care problems are truly at the 5 to 15% level of all admissions and if nosocomial events and iatrogenic disease are as common as the studies keep finding they are, then the kind of process review or process

formulation that Merv outlined should help to increase the quality of care for people who used to suffer from the physician whose process patterns were worse, and which resulted in bad care from that point of view.

Current types of review are definitely fueled by cost containment initiatives, but I don't know that review has caused the cost containment. An unintended result, I think, of some reviews has been that individual physician practice patterns are becoming clear to the reviewers. This allows the art of medicine to be quantified so that the most efficient and effective manifestations of the art may be identified. This is something which the medical profession has not been good at doing in the past. Any review which gets down to the provider level, begins to allow that. As poor quality care is identified, we begin to generate a sentinal effect which drives all sorts of beneficial things in the health care system - reductions in unnecessary care, elimination of bad practitioners (through education, through de-licensing, or through starvation) identification of superior practice patterns, etc. That's the kind of thing that is a result of what Merv was talking about this morning. The oversight processes that he described do limit physician autonomy, but they do so by building a system of physician accountability which improves quality for many patients. Assurances that costs are reasonable for necessary services competently performed becomes a beneficial side effect of that kind of process.

Having reviewed review services and their potential for cost containment, I return to my initial question: where does cost containment come from? I'll give you here my personal view. My personal view is that cost containment which has occurred in recent years is an indirect and interactive result of the three items I mentioned: reimbursement incentives, review systems and attitude changes. I think that the DRG system for Medicare prospective payment, has driven much of the activity, although I have to conclude that the rhetoric, fear and ignorance surrounding DRGs have served to change public and provider attitudes about medical care, rather than that the payment system itself has caused any cost decreases by its payment method, per se. I also think that irrational fear of AIDS has made many potential patients decide that hospitals are not a place they'd rather be, and has, on the margin, made many people choose non-hospital over hospital care, when they otherwise would have gone the other way. The real result is cost containment, and I think, without quality detriments for the vast majority of patients. The evolving process controls improve care for patients of bad physicians more than the autonomy limitations decrease the quality of

care of good physicians. And I think that's where I'd like to turn the podium over to Jonathan.

DAVID DRANOVE: Jonathan Sands also received his MBA from the University of Chicago Graduate School of Business, just this last year. He concentrated in health administration and prior to that received his M.D. degree at NYU school of medicine in New York. He is currently working in the third coast, California, where he is Vice President for National Medical Audit in San Francisco. Jon consults in utilization review design and evaluation in health care cost containment. He is Chief Medical Advisor for a wonderfully-named organization called Super PRO, which is a two-year, federally funded study of the Peer Review Organizations.

JONATHAN SANDS: Thank you. Actually, one minor correction: Super PRO is a review of all 53 state PRO organizations, including the Virgin Islands and Samoa. I'm going to discuss the efforts to maintain and improve quality of care in the Medicare program since its founding in 1965. I'll be making three principal points. First, quality has been an increasing concern of the Medicare Care Review System since its inception. I'll be describing the history of the effort to maintain Medicare quality through the Peer Review System. Secondly, the approach to quality assurance has largely been shaped by concerns about utilization. When decreasing utilization via utilization review or incentives like prospective payment have become public policy, the concern about the erosion of quality arises when the chief public policy interest is a decrease in the quantity of care provided. For instance, at the inception of the Medicare program, there's a feeling that the increase in quantity will yield higher quality and there is correspondingly less interest in quality assurance. So, the future direction of quality assurance will depend on the strength of the current disincentives to utilization that will be applied to Medicare. The environment is changing rapidly and I think this is what is going to determine how much attention will be paid to quality assurance in the Medicare program.

Starting with the pre-PROs era from 1965 to 1972, Medicare was designed to entitle what was regarded as the previously under-served group, the elderly. The emphasis therefore was on the under, not over, treatment, strange as that sounds in 1986. The reimbursement and utilization review environment was not designed to discourage the provision of care. Reimbursement was for allowable costs. There were no financial disincentives that encouraged undertreatment on the part of providers and utilization review was delegated, largely regulated by the Joint Commission on Accreditation of Hospitals, not the federal government or the PROs, and was largely based on standards, not process or outcome. Therefore, quality assurance was not the principal policy concern at that time.

In the early PSRO era, beginning in 1972 to 1973, and extending to the late 70s, there was increasing concern about costs. The suspicion arose that we weren't getting a large "bang for the buck" anymore; there was a flattening of a quantity-quality curve meaning less improvement in quality and outcome for equal increments of expenditure. However, at this time there were still no provider incentives to decrease utilization. The reimbursement system hadn't changed and the utilization review that was performed by the PSROs was delegated to the hospital. It was on-site and concurrent. So I think it was widely felt that the opportunities to jeopardize quality by reducing utilization was still minimal. This led to the understandable attitude that lapses in quality were largely due to ignorance and faulty process, and the emphasis of the early quality assurance programs was on education. I think a quotation from a publication at that time describing PSRO quality efforts revealed this attitude. "It's the nature of medical practice to strive continually for improvements in health and the nature of health care practitioners to strive continually to improve their ability to deliver quality care. The function of PSRO review is to help practitioners identify what might often be unsuspected problem areas and thereby, to develop means for their solution and for improvement of a health care system." The idea that these are unsuspected problems due to ignorance is really the key to the approach to quality assurance as an educational effort.

The medical care evaluation, or MCE process, was the quality assurance tool of the PSROs. The procedure was that a problem would be identified either on an area PSRO or more often, on a hospital level, either through data, through review of charts, or through an isolated complaint. Process criteria were applied to medical records retrospectively, looking for elements essential to adequate care that were missing. If it was found that certain procedures were not being performed according to protocols, an educational effort was targeted at individuals or groups, and then records were reaudited, again retrospectively, to see that there had been increased compliance with process. An example of an often-studied procedure was cholecystectomy where they would identify, for instance, a set of laboratory tests that they felt should accompany any hospital admission for cholecystectomy. Then they would perform an educational effort and reaudit charts to see if use of these tests had improved typical MCE. Results showed that there was usually substantial impact in improving adherence to actual protocol when a set of charts were reaudited. Now for instance, if you're looking for lab tests and judging their absence as detrimental to quality, a follow up study would usually show that the number of lab tests had increased. More physicians

were in compliance. However, outcome indicators usually showed little or no improvement. For instance, in this study of cholecystectomies, post-operative infections showed little improvement and operative mortality showed no change at all. So the results for most of the MCE studies was that the process criteria themselves tended to show improvement but the outcome criteria didn't.

Criticisms of the medical care evaluation study were as follows: first it had a long lag time, even if flagrant quality defects were found, because you had to do a chart study and develop a process audit, do a chart study, perform an educational effort, and then reaudit the records. That took a considerable amount of time. Secondly, as has been mentioned before today, it is widely acknowledged that charts are a poor guide to the actual care that physicians provide. They don't always document what they do, and it may be a very deceptive way to follow what kind of care patients are actually getting. Third, the process measures that were actually used are largely invalidated. In Anderson & Shields' paper, for instance, they mentioned that there were no criteria that were common to a number of studies for the proper management of a peptic ulcer disease. That's been found in a number of other disorders as well. Arriving at an unequivocal definitive set of process criteria really was not possible at that time and still isn't possible today.

The fact that the process criteria were invalidated leads to a number of problems. First, there was a weak link between process compliance and outcome. As I mentioned in the cholecystectomy study, since it really wasn't clear why a particular set of process criteria were selected. Secondly, trying to use a checklist of required procedures tended to encourage over-utilization, since people improved their score by doing more tests or procedures. This could lead to problems and ironically, tends to weaken some of the outcome effects that you're seeking. For instance, a sure way to reduce mortality from cholecystectomy is to take out fewer gallbladders, but you don't really measure that in a compliance study that looks at process. You look at what people did for gallbladders they actually removed. So you really were ignoring some of the most important ways of contributing to improve quality by emphasizing strategies that could lead to utilization.

Next, the MCE program went on for approximately five or six years, but produced no useful public information about the quality of the participating institutions. The studies were confidential and I'm not sure even if they had not been confidential that the public would really be able to rate an institution based on medical quality evaluation studies

performed. Lastly, sanctions were unusual. The program was largely free of penalties, and the emphasis was mostly on education.

In the PSRO era toward the end of the 70s, some effort was made to respond to the criticism of medical care evaluation studies by changing the emphasis a little bit. These later medical care evaluation studies were called Quality Review Studies. They're quite similar but the procedure is slightly different. Here the problem was selected not by the hospital, but generally by the area PSRO, from local data, national data or chart reviews that were initiated by the PSRO. So there is some attempt to centralize where the suggestions for the problems originate which is really the development of quality assurance on a larger scale than the hospital. The problem was further defined by record review and the problems were then ranked by severity, scope and solubility, so attention was given to problems that had the most serious effect on outcome.

Providers were generally given a distinct outcome goal and a method for achieving it, including the necessity to perform prospective or retrospective review, education and sanctions. The measures of improvement were outcome measures, not adherence to process, and were result oriented like less mortality after myocardial infarction, less mortality after cholecystectomy and reduced pulmonary emboli. They were phrased in terms of outcome and not just adherence to process. The advantages of this change were that problems were selected on an area-wide basis, via data analysis. They tended to be more significant problems in terms of outcome and were applied more uniformly to a larger group of providers. The standard for improvement was outcome based, which is ultimately what quality is about. Unfortunately, the studies were often delegated, sanctions were applied only rarely, and once again, in spite of the fact that the origin of the problem was area-wide, there was no useful overall information about the performance of the participating institution.

The PRO era began in 1983, the same time as the prospective payment system, where for the first time we had a new reimbursement system that created strong financial incentives which can have an adverse effect on quality. These included a tendency to increase admissions, a potential for under-treatment while the patient is in the hospital and of course, for premature discharge. The PSRO system or QRS system wasn't directed specifically at these incentives for low quality care that were built into perspective payment for several reasons. First of all, the studies were largely delegated by the area PSROs and there has been an increasing

mistrust of providers in the whole business. The idea of delegated quality reviews really wasn't what the public would demand once it became generally known that perspective payment contained these potential traps. The system was not specifically focused on perspective payment problems like premature discharges, potentially omitted treatment or unnecessary admissions.

The current PRO quality focus is specifically targeted at these incentives to deliver less than optimal care built into perspective payment. PROs have a mandate to decrease readmissions which occur, originally within 7 days, but that's gradually changing to 14 or 30 days. They do this by reviewing readmissions where the DRG in the second admission is somehow related to the DRG in the first admission. If they find a certain number of readmissions which are due to poor quality care in the first admission, they have to go to 100% review of readmissions in those institutions or those providers. There's been some controversy about how rigorously the sanctions and 100% mandatory review provisions have been applied, but that is part of the scope of work for the PROs.

Secondly, they are to assure needed services for hospitalized patients, usually by looking for adverse outcomes through data studies, and then picking certain key diagnoses and trying to apply process criteria, again, retrospectively for chart review. These, however, are backed by stronger incentives for compliance like mandatory pre-admission review and sanctions if they find that certain providers or practitioners are omitting necessary services in a systematic fashion. The PROs also try to decrease unnecessary admissions, a mixed quality and utilization goal, by having mandatory lists of outpatient procedures, performing profiles of participating institutions and placing some institutions or providers on mandatory precertification, conducting educational programs and ultimately, of course, using sanctions. In addition, part of the PROs scope of work is to apply a broad quality screen to every chart they happen to review for any purpose, and to make sure that a discharge fits certain discharge screens to make sure it was appropriate and not primature. Because of the volume of work, these screens have not been uniformly applied to all records.

Then the PROs have a traditional scope of work, which you might expect with quality assurance, which is to look for avoidable mortality and morbidity from operative procedures and hospitalization. The PRO method is to use either statewide data or national data. The HCFA Hospital mortality rate study is basically raw material for the PROs, which they

are to use to construct quality studies of their own on a statewide level. That was really the purpose of that data. It was supposed to be refined by being put through another layer of chart analysis before it actually turned into a quality assurance study at a statewide level. But the source of the PROs quality studies is national data, state data or statewide chart review projects. Generally, an outcome goal was chosen once a quality problem is selected, and the PRO gives the participating practitioners and providers a procedure they must adhere to in trying to resolve this problem. This is usually a schedule of preadmission and retrospective chart review followed by education and sanctions.

The PRO has a variety of sanction weapons to choose from, including focused review, mandatory prospective review, and non-payment and suspension from the Medicare system. There have been more suspensions in the last calendar year than in the whole history of PSRO, but the overall number is still quite small. The strength of the current system is that it is non-delegated. The activity is performed by the state PROs. There is an option to delegate it, but in most cases PROs have not. It is based on outcome, which gives it a certain visibility to the public which process-based quality studies don't have. It's backed by sanctions. I think there is going to be increasing pressure for the PROs to apply sanctions. Finally, PRO quality studies are specifically targeted to disincentives that exist under prospective payment, such as readmissions and omission of necessary care.

To summarize, what the differences have been in peer review quality assessment since Medicare began: there has been a tendency for the problems to go from being defined on a hospital level to being defined on a statewide or national level. The actual quality assurance work itself has gone from being delegated to being a state function. The emphasis has gone from education to prospective and retrospective review and sanction. The criteria for improvement have gone from process to direct outcome measures. However, all three methods over the past 15 years have in common that they're still focused strongly on medical outcomes or outcomes of acute hospitalization and that they don't provide any useful public information to assess the quality of the participating institutions or practitioners.

Looking at the future of the PRO quality assessment program, I think there will be strong continuing pressure on the system to reduce the quantity of care offered. Some of the reimbursement strategies that are coming along that will significantly impact quantity in the Medicare program are,

first of all, budgetary constraints on the current perspective payment system, which have capped payments, if not reduced them slightly. The extension of prospective payment to practitioners, which I think is on the horizon within the next year or two, may offer significant incentives to omit consultations or the use of specialists. The use of an outpatient DRG system which may interfere with the substitution of outpatient care for hospital care, which is really a cornerstone of current cost containment efforts in the Medicare population. And lastly, the push toward capitation puts all elements of medical care at risk and gives the provider an incentive to under use all of them, including outpatient care, use of specialists and all hospital care.

In 1986, I think the question will come up, as all these attempts to decrease quantity escalate, as to where we are on the quality/quantity slope. Can we reduce quantity and produce an improvement or at least no decrease in the quality of care, or are we where a lot of interest groups now fear, on the left where we're going to pay a price in terms of quality of care for these further efforts to contain costs? I think the PRO is going to be put squarely in the spotlight and will be asked to answer that question. I think in order to answer it, there are some problems and challenges on the horizon that are worth mentioning. First, I think the PRO is going to have to adapt to broader standards for judging quality, to escape from a purely hospital-based, medical outcome-related definition of quality and to look at issues like, patient satisfaction, access, and pre- and post-illness social functioning. It makes some sense that as lengths of stay are progressively trimmed in the elderly population, people are going to have more difficulty functioning when they're discharged, but there is no standardized social assessment of patient's function on hospitalization or any way of assuring before discharge that arrangements have been made for their care afterwards. That's something that's been conspicuously absent from the PROs efforts to date; to look beyond the purely medical outcome, see what the patient's social function was before and after and what arrangements were made to insure that it would be as high as possible.

Secondly, as I mentioned throughout this talk, the PROs do an enormous amount of chart review because there are great limitations on what can be learned from review of data, particularly claims data. Budgetary constraints on PROs are increasing, because of Gramm-Rudman and because of the attitudes of some of the members of the current administration about the usefulness of utilization review as opposed to other strategies for reducing cost. As their

mandate grows, their budget shrinks and the technology hasn't changed in 50 years, which is one-on-one inspection of medical records. There is a real challenge in finding innovative ways to obtain data and to look at quality without having to go through chart review. But I don't think that there is a satisfactory approach to looking at quality without chart review at this time, which places a very steep price on any attempt to expand their scope of work.

Lastly, as I mentioned before, throughout the history of the PROs, they really have not been able to provide useful public information about quality in the institutions they evaluated. The information itself has actually been confidential, by federal law. But in addition to that, even had it been released, usually what happens is that a specific problem is focused on, there is no overall attempt as was discussed this morning, to say that hospital A or B or C is a 1 or 10, or whatever. A good example of that, I think, which is in everybody's mind, is this recent release of crude death rates by HCFA, which caused such a controversy. Now when that information goes out to the statewide PROs, what they'll do is use that information to initiate quality assurance studies in those institutions, the outliers. But what they won't do is really take on the job of seeing whether that information can be validated as an overall guide to the quality in those hospitals. That isn't their scope of work. That isn't their assignment, so if you're in a certain state and you find out that a certain hospital has a mortality outlier, perhaps you'll do a focus chart review and find out they have a higher than expected mortality from myocardial infarction, that's probably going to generate a process review or mandatory review of certain providers and so on. But the PRO will not take upon itself the task of seeing whether the fact that that hospital was selected as an outlier, says anything in general about overall quality in that hospital. That simply is not what they're being asked to do at this time. I think in an administration that has devoted itself to a competitive solution to the problems of health care, you really can't have a rational market in health care without an informed consumer. Even though quality assurance has been such a central concern of the PROs, as I've stated, they simply have not produced useful market information for consumers, whether they are individuals or institutional buyers, that will enable them to select high quality institutions.

The PRO quality work now is the largest ongoing quality assurance project in this country. It's enormous in scope and I think it's really touching every provider and hospital in the country. But I think there are serious shortcomings and it does not go all the way toward answering a lot of the concerns that have been expressed today about the role of quality assurance in today's health care market.

QUESTIONS AND ANSWERS FOLLOWING TALKS BY MR. BELL, AND DRS. KLIONSKY AND SANDS

DAVID DRANOVE: We have some time, we'll take questions. Anybody want to query our panel?

QUESTION: I have a question for Dr. Klionsky. There's a great deal of interest in market information on quality care. I know that HDI gets involved in PPO development. Is HDI developing a system that could be used for hospital rankings?

MATT KLIONSKY: Indirectly, but yes. We have a large ongoing program now that merges essentially all of the claims data that we get into our national reference file, which contains information on about 2½ million hospital admissions per year, which is about 10% of the admissions in the country. We extract from that, information on certain specific diagnoses, where we feel we can separate severe cases from garden variety cases of that same diagnosis. Thirty or forty diagnoses and procedures are defined in this way, and are used to generate a hospital specific performance index. We develop a score for each hospital relative to all hospitals in that geographic area on several different scales - a length of stay score, a cost of care score, (depending on the source of data and the detail of the data (an intensity of service score. We use this method for a client that is interested in building preferred provider organizations where they want the providers to be preferred on the basis of efficiency and quality, as opposed to on the basis of best discount. That client has contracted with us to perform studies of this sort on about 50 of the 75 largest SMSAs in the country. We're about 20% done with that now. So, that is a system of making essentially an "A" hospital, "B" hospital, "C" hospital kind of scoring system for use for insurers who are interested in PPOs.

QUESTION: How can you do this without case index or severity adjustments?

MATT KLIONSKY: The severity indicator is already adjusted, since severe cases have been removed and you know that you have garden variety cases that you're comparing from hospital to hospital.

QUESTION: Dr. Klionsky, why does the middle 50 percent appear to be getting narrower in your charts?

MATT KLIONSKY: If you take the chart like that and break it down geographically, you'd find that in the places where the length of stay was the highest, it's coming down, and in the places where it was the lowest, it's going up. The reason for that is, if you look at that in comparison with another

graph broken geographically on admission rates, you tend to find that the places with the lowest admission rates have length of stay going up. That probably is because when you get down past the point where the easy fat is out or already gone, further appropriate reductions in admission rates cause the average severity of the cases which remain inpatients to go up. As you reduce admission rates and as the severity goes up, the length of stay goes up.

QUESTION: One other quick question for Mr. Bell. In your experience with corporate employers, has there been a dramatic effort to measure their employees' perception of quality of care?

GERRY BELL: That's what I was talking about in terms of the listening exercise and the focus group discussions. Employers started to do that particularly with reference to flexible benefit programs to find out why people chose the options they chose, why they migrated from one option to another, or to an HMO, or back to an indemnity arrangement, but they also started to talk about quality perceptions as well - what people found when they got treatment, why they feel the way they do, and whether that influences them to change their minds. Those organizations that do it, tend to do it year after year.

QUESTION: Dr. Klionsky, you said you were able to measure length of stay, cost of care and intensity and are you saying you extrapolated some sort of judgment about quality out of these three?

MATT KLIONSKY: Essentially yes. If there is a basic philosophy at HDI, and I think it's shared by many people who are experienced in the quality reviewing and utilization review, it is that more is bad unless it's necessary, so that the quality of care is reduced by there being too much care.

JON SANDS: I think one speaker earlier spoke in terms of managing medical care as opposed to managing medical costs. In a way, similar to that, yes, the package of appropriate resource utilization is managing medical care. We're trying to build the information base for medicine so that information about what the best patterns are get out there into the real world and get implemented.

QUESTION: Mr. Bell, if you had to pick one single aspect that employer groups would choose as a current indicator of quality, what would it be?

GERRY BELL: I think it would probably be a subjective measure. Employers simply don't have the information to quantify the level of quality and we don't even know the

questions to ask. As an actuary, I could make a facetious remark and say maybe the best single measure is the latest mortality table, but that's not it. You can look at data on complications or readmission rates, but there are so few norms and so few quality measures, particularly so few quality measures with respect to outpatient treatment, that most employers are pretty much at sea. They go to these listening devices or focus group discussions or risk appraisals to try to get some kind of subjective measure of quality. Just see what their own employees think about what the quality of care is. I really don't have solid quantifiable measure of it.

QUESTION: By that you mean, how employees felt after the medical care?

GERRY BELL: Whether there was complications, whether there was need for follow up, whether they had follow up therapy, whatever.

QUALITY CONTROLS IN OTHER ENTERPRISES: APPLICABLE TO HEALTH SERVICES?

DAVID DRANOVE: I'm very pleased to be able to introduce our next speakers. Mark Satterthwaite will be the principal speaker. Mark is the Earl Dean Howard professor of managerial economics in the Kellogg's School of Management at Northwestern University. Mark's research into the ways that consumer information or consumer misinformation about product quality affects both consumers and sellers is greatly affecting our thinking about the physician-patient relationship. He's exceptionally well qualified to bridge the gap between quality issues in other enterprises and in health services. The discussant, Odin Anderson, really needs no introduction, so I'll spend a few minutes plugging his two most recent publications. One is entitled HMO Development: Patterns and Prospects. Several of the co-authors, I believe, are here today. The other is the Development of the Health Services Systems Since 1875.

MARK SATTERTHWAITE: Thank you David. We have for the most part accepted the idea that quality is not only a technical decision, but is also an economic decision. I think most of us now accept that it is legitimate for an employer to confront employees with choices among different health care systems, each of which offers different quality levels. For example, my university has confronted me with a choice between HMOs and a more traditional major medical program where, if you choose an expensive and presumably very high quality hospital, then the first few days as an inpatient requires payment of more co-insurance than would be the case at a less expensive hospital. The reason, obviously, why quality is an economic decision is because extreme quality, the very highest quality, is very expensive. We do not want to spend that much of our society's resources on that.

I would like to focus on another, less well appreciated aspect of the interaction between quality and economics. I want to focus on the fact that quality from the viewpoint of a provider is a competitive decision. It has always been that way in other parts of the economy, but now it is increasingly becoming that way in the health care sector. Let us, to start, take a simple example that we are familiar with. The American automobile industry has been for a number of years frantically trying to improve its quality. I don't think this effort has been a technical decision, made because a moral imperative exists in favor of high quality. While I am sure there always have been people in American automobile companies who wanted to make more reliable cars, the decision to improve quality has been a competitive decision. Japanese cars do last longer and do run better.

If American companies want to continue to sell cars, then they have to produce better cars. I think this same competitive process is starting to happen in the health care system and will have really important effects over time.

What I want to do here this afternoon is describe how incentives to improve quality impact on providers and how those incentives interact with the information that consumers have about the providers. By consumers I mean either the final consumer or the intermediate purchaser of care. For example, a corporation arranging a preferred provider organization is a consumer. The information consumers have determines their choices among providers and those choices give incentives to providers to adjust their quality within that range they believe is technically and ethically acceptable. Since medicine, to a large extent, is an art and not a science, there is a substantial range in which providers can make these adjustments in quality. Thus I want to speak about how consumers' choices feedback onto providers quality choices.

To start out I want to talk individually about two different effects and then I want to put them together. For those who remember economics this will sound familiar because I am only doing marginal cost, marginal review analysis.

The first effect is this, I want to argue that as consumers become more responsive to a particular qualitative attribute of health care, then providers tend to provide more of that attribute. For example, as consumers have become more interested in birthing rooms instead of sterile delivery rooms, we have started to see more birthing rooms in hospitals.

Let me give a numeric example. Suppose a hospital is thinking of investing $100,000 per year in a new service such as birthing rooms. Suppose the hospital estimates that, given the information consumers will have about this new service and given their responsiveness to this information, the service will result in about 75 new admissions per year. Further, suppose that the hospital estimates that each admission to this service will make a financial contribution above short run marginal cost of $1,000 per admission. Therefore the total estimated contribution towards fixed costs is 75 x $1000 = $75,000. Given the $100,000 annual fixed cost of the service, and purely from a financial point of view, this hospital would tend not to adopt this new service.

Now, by way of contrast, suppose consumers have better information, or become more responsive. That is, either

consumers decide that birthing rooms are important or on the other hand, the hospital does a more effective job in publicizing the service. As a result, suppose the hospital has good reason to think that the service will bring in 150 extra admissions. Now 150 x $1000 = $150,000, which is the contribution above short run marginal cost towards fixed costs. After subtracting the $100,000 per year investment required to set up the service, this leaves a $50,000 surplus to cover other fixed costs. So in this case, the hospital would be quite likely to make the $100,000 investment and establish the new service. Thus, to summarize, the first effect is that if consumers become more responsive to a change in a particular quality attribute, then providers tend to respond to that responsiveness by providing more of what consumers want.

The second effect relates to price. The markup above marginal cost that a hospital places on its services depends on consumers' responsiveness to price. If consumers, when price rises, respond only a little (only a few of them go someplace else), then a hospital can afford to set a high price relative to its marginal cost. That is, it can have a large markup. If on the other hand, consumers respond with great dissatisfaction to an increase in price and many switch providers, then the optimal decision is to set a lesser mark up. So it is consumer responsiveness towards price that really determines the mark up. A good example of this occurred when the MediCal program switched to competitive bidding. Hospitals perceived extreme responsiveness on the part of the "MediCal czar". Consequently, they priced very close to marginal cost in order to insure that they obtained a contract and earned at least a minimal contribution towards fixed costs.

What effect does the size of the mark up have on the provider's quality decisions? Let us return to the example we used already. Remember that if an investment of $100,000 per year brought in an extra 150 cases per year at a contribution of $1000 per case, then the investment is economically worthwhile for the provider. Now suppose the market becomes more price competitive. At the same time, assume that consumer responsiveness to the service remains unchanged. In other words, making the investment is still expected to bring in 150 new cases per year. Now, however, because the market is more price competitive, the hospital finds it economically justified to lower its price. Suppose it finds it optimal to lower its price so that the mark up above short run marginal cost falls to $500. This means that the net contribution that comes from making this investment is now 150 x $500 = $75,000, which is not enough to justify financially the investment. Thus, as the hospital

and health care market becomes more competitive and the mark ups above marginal cost come down, providers have an incentive to cut back on the several attributes of quality unless there is some other offsetting change. In particular, if consumers become more responsive to changes in quality at the same time they become more responsive to changes in price, then offsetting effects exist and we do not know whether providers will increase or decrease their quality.

We have these two effects and we want to understand how they are likely to affect the health care market in the next few years. Therefore let us turn to an important aspect of consumer choice. Consumers can observe some attributes of health care better than they can observe other attributes of health care. When we talk about quality of care, what we are generally talking about is the technical quality of the clinical care as it affects outcomes. That is what is important to me and that is what I suspect is important to each of you. I think it is of paramount importance to almost all consumers. In the second place comes things like price, and bedside manner of the physician, the friendliness of the staff, and if it's a hospital, the quality of the food. There is no question as to the main features of our preferences: few of us like to go into a hospital and when we do go, we go for good technical quality. Nevertheless, the fact of the matter is that I am not a physician and I cannot evaluate very well the technical quality that I receive. I do the best I can, but I really have severe problems in making such judgments. Nevertheless, I must make decisions among providers and the best I can do is make those decisions according to what I can observe. I can, to a certain extent, observe price and make comparisons across providers on that basis because a certain amount of price information is available to consumers. I know that going to Rush-Presbyterian-St. Lukes is comparatively expensive. Secondly, in addition to price, I can observe attributes like how nicely people treat me, what kind of food I am served, and so on. Those are the types of attributes that I can evaluate reliably.

If I cannot observe the technical quality of care, then on what basis am I going to make my decisions? I could flip a coin, but what seems more sensible is to make my decisions among providers on the basis of what I can observe. I think many of us do exactly this.

This implies that consumers are likely to be more responsive to changes in attributes like amenities and perhaps price than to changes in important attributes like the clinical quality of care. If this is true, what does it mean? As I argued earlier, it means that providers, especially providers

that feel financial pressure, will have a tendency to concentrate their efforts on increasing those attributes of quality to which consumers are most responsive. From my perspective this conclusion is unfortunate because it suggests that as the health care market becomes more competitive with respect to attributes like price, then incentives arise to cut back on technical quality. The kinds of concerns other speakers have raised about under-utilization and deficient technical quality may become increasingly important.

The question then becomes: What can we do about this? This is really difficult to answer and the answers I do venture are tentative. Nevertheless, I think we have been discussing today an important component of what can be done. But before discussing what I think may be effective, I need to digress with a discussion of what I think is likely to be ineffective.

Most people who are involved in health care would like to provide the highest quality care. Therefore, a direct action that a provider can take is to hire some marketing consultants and have them announce with very slick materials that this provider delivers very high quality care and, in addition, has excellent amenities. Consumers, one hopes, will respond to this advertising of quality which will reward the provider for its efforts to deliver high quality care. But immediately we recognize a problem. Some physicians and some institutions for whatever reasons, are not as good at providing high quality care as others, despite their good intentions. These less capable providers, however, may be able to announce that they provide high quality just as well as capable providers. Perhaps less capable providers in some cases can announce it even better; after all, a person who has spent his life becoming good technically may not be particularly smooth. I think we all understand this as consumers. We tend to discount self-serving statements. A provider can make all sorts of claims, but our tendency is to say "Show me, don't tell me."

Thus the problem becomes one of trying to devise our credible ways of signaling quality to consumers. Historically we have seen in different markets different solutions to this problem. One of the most important solutions is reputation. In higher education the University of Chicago has a wonderful reputation for quality. How did it come to have such a reputation for quality as compared to other universities? A technique for evaluating universities' qualities that we often use is to examine their faculty. We look at people like Odin Anderson and the bibliography of his work that goes on, and on, and on, and the honors and awards

that he has, and we say, gee, he has gone through these peer review processes and accomplished these things. That is real technical quality. Other institutions may wish to say that they are of the same technical quality as the University of Chicago, but unless they are the University of Wisconsin at Madison where Odin Anderson is currently, they cannot point to Odin Anderson as a confirmation of their claim. Most other universities do not have people of that same quality and consequently they cannot send the same signal as does the University of Chicago. Thus, faculty quality is a credible signal of a university's technical quality. These same principles apply to health care.

Let us think about hospitals and medical schools and the way they can acquire a reputation. Ask why a hospital sometimes supports research out of its own budget, equipping and staffing labs beyond the resources brought in through grants. An important reason, I contend, is to create credible signals of quality. There are other reasons of course, such as the pure charitable motive of making an investment for society's overall good. But I wish to focus on the signalling aspect. If a hospital has members of its staff that have competitively won NIH grants, then that is a signal that is hard for other hospitals to replicate. Most hospitals do not have members of their staff who are successful at winning those awards through the peer review process. If consumers take the (perhaps bold) leap that scientific prowess translates into some kind of patient care quality, then the signal does what the hospital would like it to do, which is to tell consumers that it is a good hospital from a technical quality perspective.

This is a traditional technique of showing quality, but unfortunately a limited one. I do not think most community hospitals can use this technique. How many NIH grants are awarded each year? There are not enough grants to spread them out over all the hospitals. The great hospitals may have 50, the excellent hospitals may have 5 or 6, and the good, mediocre, and poor hospitals all uniformly have zero. Thus research prowess is not useful in distinguishing among the vast majority of community hospitals.

The question then becomes: can we invent new signals that will be useful to consumers in choosing among community hospitals and community physicians? Remember my earlier point that consumers do care about technical quality. An important reason why, I think, they do not choose according to technical quality is because they do not have a credible signal of quality on to which they can latch. Therefore, they choose on basically, irrelevant, but observable grounds.

Let us now cast around to other industries and see if they have invented credible quality signals. A good place to look, one that is much in the news these days with our booming stockmarket, is the securities industry. In securities it is hard to judge quality. They all are printed on nice paper. Some turn out to be worthless, and some turn out to be worth far more than their weight in gold. So we should ask ourselves, how has the security industry created credible signals of quality?

There are a number of ways. Some signals are mandated by regulation, but others are indigenous to the industry itself. One obvious signal is the audit from certified public accountants for which publicly held companies each year contract. CPAs in their audit, certify certain aspects of the company's financial condition. In other words, they certify a description of certain aspects of that company that are important to investors. CPAs are independent and they have an obligation to produce an accurate report even though they are hired by the company management who will be unhappy if they receive a report that includes qualifications. CPAs are therefore in an ambiguous situation: they face a competitive pressure to produce favorable reports that is countered by the necessity to maintain their credibility. So far the latter incentive appears to have largely dominated the former.

A second example from the security industry is bond ratings. If a firm or hospital issues bonds, then the issuer would like them to be rated so that people will be willing to buy them. If one examines the prospectus of a money market fund, it is likely to state that it buys only bonds of a certain rating or above and that it keeps the average rating of its portfolio above a certain level. When I invested in a money market I found these restrictions very reassuring. I do not want "junk" bonds with low quality ratings in my money market fund's portfolio, even though such bonds do have very attractive returns.

An important point here, which was also discussed by some of the previous speakers is that these institutions for generating quality signals have developed in the financial industry are open. There is full disclosure. A company's annual report contains the audited statements. Bond ratings are public to the point that the City of Chicago's bond rating is announced on WBBM News Radio. Participants in the rating process understand this and submit to it because it serves them the function of making their securities marketable. If they did not participate, then to an important degree they would be shut out of the capital markets.

I would hope that someday physicians and hospitals will face the same choice: If they want patients to choose them, then they will have to submit to an open quality certification process. At that point, the choices that consumers make among providers will be better informed. Poor quality physicians and hospitals will have a considerably harder time making it in the marketplace than is now the case.

As I hold up the financial industry, as a good example, there is one additional aspect I should mention. The rating systems are quite imperfect. The Wall St. Journal, it appears, almost monthly on its front page reports another scandal as to how somebody manipulated statements, hoodwinked the CPAs and rating firms, and stole a lot of money. I suspect any system of signalling that is developed in health care will be similarly manipulated at times. Nevertheless, the fact that we cannot develop perfect systems, the fact that when mistakes are made real people will make unfortunate choices and be hurt both physically and financially, and should not, from my perspective deter us from going ahead and developing some credible signals of quality.

As the health care system consolidates into large systems of hospitals and large group practices, HMOs, PPOs, etc., brand names will become more important. I can keep track of what my friends say about PRU Care in the Evanston area because I have lots of friends who go to it; it has a reputation. I cannot keep track of each individual physician in the Evanston area because my mind is poor at names and keeping track of physicians that I do not know is impossible for me. Therefore, as we get a more consolidated health system we will also get a health system where providers have more defined reputations. As organizations discover they are getting defined reputations, they will become quite interested in trying to find signals that will credibly communicate that they are of high quality.

Where does that leave us? First, it leaves me wishing the people we have heard from today the greatest of good luck in developing measures of quality. It is a hard job. But it is an important job because such measures if they are publically disclosed, will help the market work. Quality signals will help individuals to become responsive to those aspects of care that are truly important to them, not just the aspects of care that are easily observed such as whether lobster is served for dinner. To summarize, I think the kind of cost containment we are seeing today, which has a large degree of competitiveness to it, puts real pressure on quality. As health care becomes more price competitive contribution margins tend to fall. This gives hospitals and

other providers an incentive to reduce quality. As an economist I believe that providers will respond to these incentives. To counteract this tendency, I think we should help the market by developing some credible signals of technical quality such as have been developed by the financial industry. Such signals have the potential for creating appropriate incentives for technical quality within a competitive health care system.

ODIN ANDERSON: This afternoon has been an interesting experience for me. I assume it has for you too. I haven't paid any direct attention to the quality control literature or experience because there hasn't been much published. I was very interested listening to the three presenters in the first part who are on the front lines, then followed by an economist, all of them whom I have been, until now, suspicious of as to what they would say. I have, then, being on the faculty of the University of Chicago, had to change my mind in the face of the evidence. I am gratified that the article that has been referred to by Shields and myself, was written in 1980, which is fifty years old, in terms of development. It was commissioned by a conference held in Denver of several health agencies wanting to have a conference on the matter of quality control. So, lo and behold, I was asked if I would lead off with an overview article. I said I would, at least it's still relevant to my being a discussant. I said I would if I could enlist the help of an internist who had been a student in my class, because I like to have a collaborative article of a fellow like me, a sociologist, who looks at structures and an internist who looks at clinical problems. So, that article was written and both of us thought it was a good article and we thought it created a lot of attention because we were critical of the PSRO and all that sort of business and critical of what we felt was the low level of sophistication generally, in looking at this problem. So I have had sort of a time lag and I'm glad that I listened to the discussions this afternoon. It is obvious that the level of conceptual sophistication is leading to greater methodological sophistication and candor in trying to apply quality standards. The humility of the speakers I had frankly not expected. But let me go farther back. The utilization review or quality review first became official in the Medicare Act which went into effect in 1966. The Medicare Act contained a preamble saying it wasn't going to interfere with the mainstream structure of the American health service delivery system and with decision making. Then a few paragraphs later there was a clause which mandated utilization review committees to examine length of stay. In other words, examining physician decision making. The authorship of that was attributed to Wilbur Mills who was the political wizard who helped put the Medicare Act together. I managed to get an appointment with him in Washington in 1966 because I was finishing a book which included the Medicare Act and I was curious about his role. First I was so terribly impressed with how friendly he was, as if I was an Arkansas resident, but apparently it didn't matter where you were from as long as you were an American, or maybe even NATO. He was very relaxed and sat back in his chair and so I said, "Mr. Mills, in the preamble you said you were not going

to interfere with the current structure of the current health service delivery system. Then a few paragraphs later, which I gathered were attributed to you, you put in this utilization review. Isn't that interfering?" And he leaned back and smiled and said, "Oh, no. That's just to make the doctors talk to each other." That was a brilliant insight on his part. Apparently it has helped to do that and then later they didn't talk enough to each other. So you got the PSRO and with PSRO you get the managers and the doctors to talk to each other. I don't know when they are going to include the patient in this trilogue but I'm rambling because I've been thrown off base by this brilliant performance on the part of the people this afternoon making me change my mind.

Economists will say, by and large, that the health service is no different a commodity or service than any other. I think that's a lot of nonsense, but what is the evidence? The evidence is that the difference is that the customers are sick and that makes them different from well customers, less rational than well customers, not that well customers are rational either, but for different reasons. Then the other difference, a great difference, is that the providers are high status and proud. But those are two very different elements which I think we try to expose our students to.

Let's see, what else did I jot down. I wrote down Moscow, and not Idaho either, about the quality of care. A colleague of mine and I were guests of the Ministry of Health of U.S.S.R. in 1972, sponsored by the Department of H.S.S. United States. We were in an adult polyclinic in Moscow one afternoon, being shown through, and the polyclinic is the first entry point. I was wondering to what extent there could be a continuing relationship with one of the doctors salaried in the polyclinic, because we believe in continuity of care, and I discovered that the Russians don't believe in continuity of care or congruity of physician. When I looked a little shocked, given the beliefs we have over here, and I said, "Really? They have to come back to another physician?" they said, "Well, all our doctors are good, it doesn't make any difference." So that's their concept of quality. Speaking of the accolades the chairman gave me and the University of Chicago and University of Wisconsin as well, I learned the other day that Professor Chanderasekhar, the University of Chicago physicist, while spending a couple of quarters as an astronomer at the Observatory in Lake Geneva, came down every week for two students, one day a week for only two students. Both of them became Nobel laureates. Now I'm coming down for over 40 students a year for six years and not a one has become a laureate.

QUESTIONS AND ANSWERS FOLLOWING TALKS BY DRS. SATTERTHWAITE AND ANDERSON

DAVID DRANOVE: As usual, I'm speechless. Any questions for Mark or Odin?

QUESTION: Mark, who should make the decision about providing consumers with more information?

MARK SATTERTHWAITE: Being an economist, I think we should try to generate information that consumers find useful so that consumers can make choices that are rational according to their own needs. But as has been mentioned here before, this is no small task. I think a great deal of research and experimentation needs to be done in order to accomplish this.

QUESTION: Mark, you're the second person I heard this week talk about brand name recognition. In terms of your analogies of other industries, don't we have any decentralized, localized kinds of industries where this issue of quality is managed?

MARK SATTERTHWAITE: Let me repeat and summarize the question. Maybe I'll change it. Ron is asking about the usefulness of brand names. I would not go so far as to say the salvation of medicine lies with brand names. I can't help but think of, when I think of brand names, Real Lemon lemon juice and the fact that it's dominated the market for years with high mark ups even though it is exactly the same as any other lemon juice you can find on the shelves. There are some things about images and first mover advantages that have nothing to do with quality. The same comments apply to Clorox bleach. Consequently, it remains to be seen whether brand names will turn out to be useful in health care, though I am moderately hopeful. The second part of the question observed that medical care is a localized market and asked if brand names be useful beyond a localized market? An experiment of sorts is going on with respect to this. The Mayo Clinic is establishing clinics in Arizona and Florida. We will see if they can carry it off. Stop and think about McDonalds. One of the things that has made McDonalds great is that they took a very localized service, food preparation, and managed to achieve replicability around the country. If you go into a McDonalds the french fries are almost always excellent tasting even if they are nutritionally bad. It remains to be seen whether the same replicability can be achieved in health care. Can the Mayo Clinic transfer its genuine quality to these new sites? If one looks at universities, one is given cause to wonder: universities tend to be single site firms that have reputations. When we speak of the University of Wisconsin, a great university, we

are referring to the Madison campus, and not necessarily, for example, to the Whitewater campus.

ODIN ANDERSON: Apropos of that, when Mayo announced they were going to other parts of the country, they also said with doctors trained at Mayo. I don't know how long that will hold out.

DAVID DRANOVE: They also got to limit the total number of clinics they can open up nationwide. But would you want all your students taking care of you?

QUESTION: Would you market an HMO differently in Minneapolis than in Chicago?

FRANK LARKIN: I think the best I can say is I don't know. I mean, I think clearly, marketing people would say you should do things differently in Chicago than you do in Minneapolis because Minneapolis has, at least by reputation, this homogeneity.

ODIN ANDERSON: The initial difference between Chicago and the Twin Cities was that in Twin Cities the employers initiated the interest and you didn't have to sell the employers. Here you have to sell the employers before they sell the employees.

COMMENT: I heard the first speaker refer to that aspect of medicine as bedside manner, and almost a side effect, technical medical care. I'm just reminded again of Mr. Bell's point that from the employers point of view, the single most appreciated measure of quality is the subjective response after the fact and that may be more than just a side effect. I would just like to suggest that it may be, in fact, one of the two main effects of medical care and instead of being placebo effect or art, it might be something like interpersonal attraction and process. What's been referred to as the faith that heals. I'm not going to disagree with what you say because I think to make my point I may have overstated my point. I'd just like to say one thing which is, that perhaps one of the reasons why we put such weight on these interpersonal aspects is because it's the only concrete thing that is real to us in any way that we can put weight onto it, so we do react to it. To some extent we may put a little less weight on that as we get better information about other things. I mean as a professor, one of the reasons we give tests I suppose, is because, judging by class participation, often times we discover that the person who spoke up well really does not have a good command of the subject as we thought.

MICHAEL M. DAVIS LECTURE -- THE PRICE OF QUALITY AND THE PERPLEXITIES OF CARE

ODIN ANDERSON: Well, I'm very pleased to have the honor and duty of introducing the Michael M. Davis Lecture, annual lecture for what is it now? 23 or 24 years. But first I want to spend a couple of minutes telling you who Michael M. Davis was. Because those of you who are under forty may not really know and those of you who are over forty can have your memories refreshed as to who he was. Michael M. Davis, in terms of relevance to the University of Chicago and to the Program in Hospital Administration, as it was called at that time, was the founder of the Program in Hospital Administration in 1934. At that time, Davis was 54 years old and he had already carved for himself a distinguished career in a variety of aspects of the health services field: organizational, payment proposals, prepayment proposals, health insurance and furthermore, he got a Ph.D in Sociology in 1906 from Columbia University. He moved into the hospital administration field to promote the professional training of hospital administrators, because as an officer in the Julius Rosenwald Fund he was able to travel all over the country and be a consultant on various matters in health services and hospitals. He could also talk with a great many administrators and he felt that one contribution he could make was to help professionalize administration. And being in the Julius Rosenwald Fund and in Chicago, he began to work with that idea at the University of Chicago. At first he thought he would like to have it in the medical complex. The medical complex and the medical school didn't show much interest except the dean and a couple of professors. Then he thought it would be more logical to put it in the School of Business. (With the cooperation through the faculty interested in the medical school and in social work and in business of those interested members.) So the program was established in 1934. Well, Davis was one who started things and when it got going he went on to other things.

After he left, it moved to Dr. Bachmeyer who was then Superintendent of Hospitals and Clinics. I don't need to go much further, other than to tell you how the program was started and why we have a Michael M. Davis Lecture series. When George Bugbee and I came here in 1962, there were enough friends and admirers of Michael M. Davis to set up a lectureship fund -- gifts and contributions came from all over the country. That was established in 1962. I think it was 1963 when we had the first lecture by Michael M. Davis himself, who was then 83 years old. And he was as sparkling as ever. He died a few years later at the age of around 90. He died with a lively mind and he was a very interesting and

stimulating person. I met him when I was quite young professionally, at the University of Michigan and little did I realize that as I grew up, I would have the honor of introducing the Michael M. Davis Lecturers. So now I am introducing Professor Avedis Donabedian from the School of Health, University of Michigan. His career and mine are intertwined because of mutual interests, but furthermore, they are intertwined very symbolically because he is the Chair of the Nathan Sinai Chair at the University of Michigan, School of Public Health, and Nathan Sinai was the person who brought me into the medical care field. He was my mentor and I spent seven years with him. So now I'm introducing the first occupant of the Nathan Sinai Chair; something again, I had never dreamed I would have the privilege of doing after having worked with Nathan Sinai for seven years. Professor Donabedian is a native of Lebanon, now that tragic war-torn country. He received his doctoral degree from the American University at Beirut and he came here as a full-fledged adult to this country. He did post-graduate work in pediatrics at the University of London and received a masters degree in public health from Harvard University in 1955. In 1961, he joined the faculty at the University of Michigan, School of Public Health, where he was appointed Professor of Public Health Economics in 1964, a unit which Nathan Sinai established and I was his research assistant at the time, and Professor of Medical Care Organization in 1966. I need hardly say much about his work in conceptualizing and refining the problem or the matter of quality of medical care and quality assurance, which has spawned a great deal of research based on his writings. His most recent award was last month. He was named the recipient of the first $25,000 Baxter of American Foundation prize, an international award for pioneering health service of research. The announcement was made at the Annual Meeting of the Association of University Programs in Health Administration in Washington, D.C., April 4th. When I read that, I thought, gee whiz, $25,000 and then he was actually given $5,000 for himself, to buy a VW, I guess, and $20,000 was given on his behalf to the University of Michigan to make him continue working. So I take then great pleasure in introducing Professor Donabedian to give the 1986 Michael M. Davis Lecture.

AVEDIS DONABEDIAN: My topic today is "The Price of Quality and the Perplexities of Care," a subject that suggests distress, bewilderment, anguish. Everywhere we seem hard pressed by the challenge that the economic calculus poses to our self-image, our cherished values, our proud autonomy. We live, it seems, in the worst of times. And yet, as I hope to show, this is also a time of hope and renewal -- an opportunity to reexamine our responsibilities and our

mission, so we can move forward, cleansed and rededicated, into an even brighter future.

Above all things, quality has been, and must remain, the object of our most ardent devotion. Stated most simply, it is our ability to improve the health and well being of those for whom we care.

The relation between quality and cost, though capable of breeding endless complexity, is also simple it its fundamentals. Three aphorisms can encompass it. First, quality costs money. Second, money does not necessarily buy quality. Third, some improvements in quality are not worth the added cost.

It should be clear to everyone, though sometimes we seem to forget it, that more quality must cost more: in technical resources, creature comforts, knowledge, skill, time, attention, dedication. Being so precious, it does not come cheaply; but I am convinced that people, if informed, are willing to pay the price.

But because of two failures, in ourselves or in our circumstances, money does not necessarily buy quality.

First, there may be failures in clinical management. Should there be an admixture of harmful components in the care we give, quality is reduced, while cost goes up -- a consequence that is doubly reprehensible. Perhaps more often (through self-protection, self-interest, ignorance, faulty judgment, or merely inattention) some of the care we provide, though not clearly harmful, makes no appreciable contribution to health and well-being. We can choose to call care that is wasteful, without being harmful, poor quality or not. But, unless it is forced upon us, it is a betrayal of our responsibility to our patients, since, through increases in premiums, or taxes, or the prices of things they buy, they must pay the added cost.

A second reason why money may not buy quality is a failure in system design or administrative management. The fault occurs because the materials and services that clinicians use to devise and implement their strategies of care can, themselves, be produced more or less cheaply.

The total cost of care, therefore, is influenced by two types of efficiency: "production efficiency," which pertains to the ability of management to produce materials and services at low cost, and "clinical efficiency," which pertains to the ability of clinicians to use materials and services most effectively, without waste. Both efficiencies

influence cost, and, therefore, the ability to provide care and enhance quality. In addition, "clinical efficiency," because it embodies clinical judgment, is an integral part of the definition of quality itself.

So far, we have been on ground both familiar and congenial to clinicians. Our third aphorism moves us into more hazardous territory. We now face the possibility that some care which may be good for our patients will be disallowed as a diminution of, rather than as an addition to, quality. This seeming paradox occurs because of a reasonable, though largely undocumented, presumption that as additions are made to the care of any given patient, there comes a point when the added improvements in health and well-being attributable to the added care are simply "not worth" the added cost of that care. There is a trade-off between quality and cost, or, to put it another way, there is now a new definition of quality, one which involves an exchange between cost on the one hand, and achievable improvements in health and well-being on the other. Now we may have to stop short of the maximum attainable benefit to health and well-being that the health care sciences place at our command, a conclusion seemingly at odds with our deepest convictions, and one from which many of our most intractable perplexities ultimately derive. But, before we address these perplexities, let us examine the two models of quality that our three aphorisms have engendered.

The first of the two models we may call "maximalist." It says that, for each patient, we must aim for the highest improvement in health and well-being that the health care sciences allow. The only other stipulation is that we do so without waste, at the lowest possible cost. Because in doing so we serve both our patients and society, this is an objective to which we can, indeed must, commit ourselves unreservedly, passionately. In pursuit of this, we may face perplexities of knowledge and implementation, but the moral directive under which we function is unambiguous and familiar: we owe our primary allegiance to our patients individually, and we do the best that can be done for each, limited only by the resources allowed us. Any moral perplexities inherent to this model either seem tractable, or are concealed.

The second of the two models we may call "optimalist." Though seemingly threatening, this is not totally unfamiliar at that. In the past, clinicians regularly had to adapt their care to the valuations that patients placed on its cost and its expected consequences. Thus, some got more and others less, but in each instance subject to the patient's wishes. The result was a disparity in care for rich and

poor, privileged and underprivileged, that was painful to all concerned, and which the clinician was expected, even at some personal sacrifice, to mitigate rather than, as sometimes appears now, to countenance or enforce. Fortunately, since these dark ages, we have moved, using various means, toward increasingly more equal access to care. But, now, a new discrepancy has emerged. Individual patients whose expenses are reasonably well covered, expect and ask for more of the benefits that they imagine health care can provide, with less concern for its cost. At the same time, those who have undertaken to pay for care have asked us to watch over its cost, though it is not clear precisely what they ask.

When those who pay for care ask us to be effective and efficient, they simply reinforce what we ourselves must wish, must demand, that we do. But when they ask us to stop short of the best that can be done because the extra margin of benefits is not worth the added cost, they confront us with a dilemma which ought to cause us the sharpest distress. For, now, our several responsibilities are at odds with each other. Our responsibility to our patients demands that we do the best for each, as each defines the "best." Our social and institutional responsibilities demand that we stop short of the "best." Though it is true that, over the long haul, the social optimum may be the best for all, we are charged with caring for individual patients, now and in the near future. Thus, as every moral person should be, we remain discomfited, torn, and perplexed. It is not because our selfish interests are at stake, but our values, our mission, and our self-respect.

It is now time to look more carefully at our perplexities so we can understand their nature, and who knows, perhaps find a way out. For though I open with perplexities, there are also salutary consequences to our concern for cost, and some certainties in which our early perplexities may come to rest.

Perhaps our most immediate concern when the margin of financial discretion narrows is that the level of quality will fall and the concept of quality, itself, will be impoverished and deformed. As the noose seems to tighten, almost by instinct we tend to jettison those aspects of care that contribute to patient comfort and satisfaction, while we cling to the core of technical procedures which is our peculiar domain. On the contrary, there are others, more attuned to the market, more wily, perhaps less scrupulous, who counsel that we play up the more seductive surface attributes of care, while we mute the deeper strengths whose consequences are hidden or delayed.

Our defense against these extremes is to reexamine what we have traditionally aimed for and the means we have used. We may find it more useful, in many circumstances, to relinquish a possibly misguided emphasis on technical care, and to substitute models of social management that, quite possibly, are more meaningful to our patients, for example when they are old, disabled, and institutionalized. There is also hope in the prospects for more healthful living, since health is the decisive antidote to the cost of illness. In this case, however, we may be only postponing to a future date burdens even greater than we bear today.

Besides such fundamental redirections of objectives and methods, much of what we do now can be done more efficiently. Here, the responsibility of clinicians is primarily to bring about changes in practice that reduce cost without injury to health. Beyond that, not only must they cooperate with managers in allowing innovations in the methods of production, but actually to <u>insist</u> that these be made, and even to lead the way. At the same time, clinicians must stand watch over all such innovations, not to obstruct, but to make sure that quality is not thereby compromised. Meanwhile, managers need to help create the environment within which all forms of efficiency can be fostered and advanced.

The beginning of wisdom is a recognition of our own infirmities. That is why the circumstances under which we work should not constantly demand the heroic disregard of self-interest that only the fortunate few can long sustain. We must find new organizational forms that encourage good practice without undue reductions in income or unjustified exposure to legal suit.

In all these ways, invention follows upon necessity, a necessity that we may come to bless rather than curse.

There is another perplexity that we face daily; it occurs because the fractionation in our system of care runs counter to what should be the seamlessness of our responsibility for our patients. This is a dilemma which manifests itself most clearly when a patient no longer needs the services that only a hospital can provide and must, therefore, go to another place. Should we be content to make the decision that a hospital is no longer needed, without concern for the quality of care at the alternative site? Similarly, is it no concern of ours if the alternative is not as accessible or convenient, financially or otherwise? Can we comfortably wear the blinders that the sanguine insurer is so pleased to pass out, or should we balk?

The answer is clear; individually and collectively we must inform our patients of the choices being forced upon us, and serve as advocates for their cause. However, at the same time, we must demonstrate our sympathy with the broader social purposes that have engendered these choices by leading the movement toward a more integrated system of care -- one that assures a progression from site to site without injury to quality or to financial protection. Thus, our capacity to serve is reconciled to our broader responsibility, and we find peace, while our patients enjoy better health. We see, once again, that there is a way to success through adversity, but only if our response is responsible and creative, not merely obstructionist.

Perhaps, even more fundamental than any of the perplexities I have mentioned so far is a perplexity of values: of our ability to valuate, and of the choice among alternative valuations.

A commitment to the interests of individual patients requires that individuals put a value on both the costs and expected effects of care. The responsibility of the clinician is to inform and guide, not to dictate. A greater respect for cost merely heightens our awareness of a necessity that has been always there, so that our care may become more precisely attuned to the patient's informed choices. We may, of course, face perplexities of implementation, for example as to how to obtain informed, responsible choices, or as to when precisely to stop adding care to care, so we do not transgress either what the patient defines as optimum, or we believe to be the maximum realistically achievable. By contrast, any attempt to calibrate care to socially determined optima raises serious problems of valuation, of equity, and of moral choice.

To begin with, no precise exchange between costs and effects can be made without placing a monetary value on the effect, which means placing a money value on human life and welfare. Is it possible to do that? And, even if possible, is it permissible? We now face not only a perplexity of means, but, more fundamentally, a perplexity of ends.

Furthermore, social valuations, when made, almost inevitably come in conflict with the valuations individuals place upon themselves. I have referred already to the discrepancy occasioned by the collective financing of health care. A discrepancy may also occur because society takes into account the consequences to others when care is or is not received by some. For various reasons, society may value, perhaps inequitably, some categories of individuals

over others: the young as compared to the old, for example, or the productive as compared to the ostensibly "unproductive." The social distribution of health is also a collective concern, so that in the interests of equity access to care may be encouraged for some but not others.

In all these circumstances, individuals are more self-centered in their valuations, and they expect that the clinicians they have trusted will serve <u>them</u>, in the particular, rather than humankind in general. Society assails the hallowed compact between patient and practitioner whenever it asks the practitioners to provide less to those who are their patients in the interest of those who are not. Since, now, the very foundations of our professional life are at stake, we have good reason for alarm, and a compelling cause to find a way out.

Alas, our search for solutions is hampered by still another perplexity, one that like a sinister darkness surrounds and permeates all the others. It is the perplexity of our ignorance.

To begin with, we have insufficient knowledge of the nature, magnitude, and distribution of the problem which we presumably face. For though there is a presumption that everywhere care is excessive, wasteful, misguided, ineffective, and harmful, and though there is much anecdotal evidence to support the allegation, we have not systematically assayed the situation as a whole. Nor do we know what the balance sheet would show if all the savings from improved efficiency were to be applied to the insufficiencies in care that our investigation would almost certainly reveal. We are swept on as much by sentiment as by fact when we believe that much care is harmful or useless, and that some of what is useful we cannot afford in any case.

But even if we knew all the particulars of the problem we face, we could still fail to apply the proper remedy because, all these years, the clinical sciences have grown in irresponsible ignorance of the financial implications of their discoveries. We have seemed to find, and we have taught, strategies of care, first with insufficient proof of effectiveness, and then with an eye <u>only</u> to effectiveness, without regard to cost. We have created a standard of prodigal medicine, of spendthrift care, far removed from the ideal of parsimony to which every self-respecting clinician ostensibly owes allegiance.

If we cannot say precisely how much added health we can expect to obtain in return for added quantities of care, we do not know when to stop; nor can we tell what is lost when

we are made to stop short of what we believe to be the "best." Consequently, we can neither honestly guide our patients, nor persuasively inform public policy. We can only appeal to the arcane mysteries of our privileged role, unfortunately at a time when people are less and less inclined to believe us.

What are we, then, to do?

One solution, which many of us have been tempted to encourage, is for society to retreat from its interventive stance by underwriting only a minimum acceptable level of care for those with limited means, and by replacing on the shoulders of all others individually much of the financial burden that society had collectively consented to assume. It is true that, for most of our patients, we could then revert to a seemingly less troubled past, a time when we adjusted our care to each patient's valuation of individual costs and private benefits without external constraints. But we would also lapse into those fundamental inequities against which we had rebelled in the first place. The notion that we would countenance, as an explicit goal of public policy, a permanent disparity in the effectiveness of care available to the rich and poor, should be an insult to our professional ideals and sensibilities. The added perplexities of inequity exact too high a price. There must be some other way.

The paramount responsibility of the health care professions, I believe, is to advocate the most effective level of care that the health care sciences permit. This is our unique, our indispensable role. No doubt, there will be many instances in which patients individually, or society as a whole, for various reasons, including cost, will decide to settle for less than the most effective care. These are decisions that as a collectivity we must accept, provided their consequences are fully understood and openly ratified. At the same time, we are obligated as individual practitioners, not to do anything that runs counter to the interests of our individual patients without their knowledge and concurrence, insofar as either they or we have a choice in the matter. In this respect we must be unshakable, no matter what the consequences.

But we cannot play the role of private or public advocate for the best that health care can offer unless we have, at the same time, dedicated ourselves to rooting out ineptitude and wastefulness in our own work. We must do this so clearly, so forcefully, that no reasonable person can any more doubt our undivided dedication to this purpose. Fortunately, we do not lack the means. A vast armamentarium of devices for quality monitoring and cost containment awaits our until now reluctant hands.

But all that store of methods, and what would be all that frenetic activity, are only a band-aid for a much deeper wound. The illness is in the science of health care itself, in those who have developed it, and in those who have taught it, glorious though all these have been. What is needed most decisively, most fundamentally, most urgently, is nothing less than a remaking of the clinical sciences themselves. We need to discover and to teach a new science of parsimonious health care, a science whose precepts are so deeply ingrained that any departure from them, by signalling a failure in quality, would cause the acutest discomfort. At the same time, if we had a more perfect science to base ourselves upon, we would know for certain which judgments on our work were well-founded and fair, and which idiosyncratic or arbitrary. Appeals to privilege or autonomy would no longer be necessary.

The new science of parsimonious health care would also place at our fingertips the information about cost and effect that would be needed both to advise our patients and guide public policy. Then we could say what can be gained from the resources that we request, and what is lost when the means are denied us. When people are fully persuaded that they can come to us for the plain, unvarnished, disinterested truth, we can confidently let them decide what they cannot afford and what they can.

By placing the basic flaw so deeply in the foundation of our science, I do not mean to ignore the vital importance of how we design the system of health care in which we work. As we continue to tinker, and sometimes significantly to reform, we must be guided by one compelling purpose: to achieve an identity between our own legitimate self-interest and that of our patients. This is the only rock on which we can build; all else is shifting sand. We must, therefore, stand adamant against all that threatens this precious bond. But, in the spirit of a loyal opposition, while we oppose, we should also propose.

Ultimately, it is in our highest ideals that our salvation lies. It is in their service that we shall find our freedom; in obedience to them, our cherished autonomy.

Having conquered all that is unworthy in ourselves, we shall have nothing left to fear.

EVIDENCE ON CHANGING HOSPITAL-PHYSICIAN RELATIONSHIPS*

LAWTON R. BURNS, RONALD ANDERSEN, and STEPHEN M. SHORTELL

Increased competition, changes in reimbursement, and growing efforts to contain costs are fostering greater interaction between physicians and hospitals. Outside the hospital's walls, hospitals are vying with primary care physicians for a share of the ambulatory care market so they can support the specialists on staff. Inside the hospital, prospective payment and cost containment have reduced the distance between the medical and administrative hierarchies. Physicians now play a more active role in hospital management and exert a bigger impact on the hospital's bottom line.

The greater interaction between physicians and hospitals has highlighted their different interests. Previously implicit and separable, these interests are now explicit and may be characterized as both interdependent and conflicting. For example, hospitals depend on their staff to use services efficiently and keep lengths of stay low in order to generate net revenues under DRG reimbursement. While efficiency may make money for hospitals, however, it may also reduce physician income and autonomy.

Increased interaction and interdependence, themselves the result of changes in the marketplace, have thus fostered an atmosphere where serious physician-hospital conflicts may emerge. Some of these conflicts are recent developments, while others are exacerbations of traditional problems. Conflicts that are more generic to the new health care environment center on the hospital's diversification into new programs and services; termination of services provided and restriction of clientele served; involvement in physician recruitment, credentialing, and reappointment; and participation in decisions regarding patient admission, discharge, and transfer. Conflicts that have long existed revolve around the clarity of the hospital's goals, physician involvement in hospital policy-making, the numbers and quality of nonmedical personnel, the hospital's attitude toward physicians, hospital response to physician requests, and the adequacy of technology and facilities.

*Presented at the Center for Health Administration Studies Workshop, May 9, 1986. The Workshop was coordinated with the Symposium held the following day. The authors thank John Kelly, MBA student, University of Chicago and Christopher Lyttle, Data Manager, Center for Health Administration Studies, University of Chicago, for their assistance in preparing the data.

This paper investigates the problems in physician-hospital relationships that have developed or been exacerbated by an environment of competition and cost containment based on a survey of physicians. The aims of the paper are twofold: (1) to identify the most prevalent areas of conflict and, (2) to identify the particular types of physicians, hospitals, or physician-hospital interaction where these problems are most likely to occur. The results are interpreted in light of current trends in physician training, hospital ownership, and physician-hospital contracts.

Methodology

The data were gathered primarily from a questionnaire survey mailed to all physicians (excluding residents) in Pima County, Arizona. The Arizona Medical Association provided the computerized mailing list of all county physicians. Questionnaires were sent out in late spring of 1985 to 1,367 physicians. After receiving questionnaires from approximately one-third of the physicians, a second mailing was undertaken to increase the response rate. After the second mailing, a total of 737 questionnaires had been returned.

Of the 737 questionnaires received, 129 were unusable for one reason or another. Some physicians did not have privileges at any of the hospitals in Pima County and thus had no basis for completing the questionnaire. Other physicians who had moved or retired from active practice offered similar reasons for returning their questionnaires blank. Eliminating these questionnaires yielded a base of 616 responses. The estimated response rate (respondents/ estimate eligible physicians in Arizona) was 54 percent. We are unable to determine the extent to which the responders may differ systematically from nonresponders on questions of central concern to this study. However, the distributions of the responders according to practice setting and specialty was quite similar to the distributions for all physicians in Pima County as reported by the American Medical Association (1985).

The survey questionnaire was designed with the assistance of several individuals. In addition to the authors, the Pima County medical community played a major role in developing the questionnaire. The president of the local medical society (which helped to sponsor the study), members of the Arizona chapter of the Hospital Medical Staff Section of the American Medical Association, clinical service chiefs at several local hospitals, and several opinion leaders in the medical community (identified by the medical

society president) all contributed their input to the questionnaire's development. They suggested not only certain items to include but also the best way to phrase them to ensure clarity. Their input served to identify the major areas of potential conflict between doctors and hospitals that the questionnaire sought to assess. These physicians also signed cover letters sent out with the questionnaire which explained the nature of the study and encouraged their colleagues to participate.

The questionnaire focuses on the favorable and unfavorable experiences that Pima County physicians have had with the hospitals they use. That is, which areas of the hospital and its policies have pleased physicians, and which areas have caused conflict? The questionnaire also examines various factors that might explain the variation in physician experience. Three sets of factors that might influence physician-hospital relationships are the characteristics of the physician, of the hospital, and of the type of interaction between them. Which of these three sets of factors is most or least influential? The question is important because these factors differ in the degree to which they can be altered to improve physician-hospital relationships. Generally, MD-hospital interaction can be altered more easily than physician or hospital characteristics.

The three sets of factors, and the categorical measures used to operationalize them are given below.

Physician Characteristics	Categories
1. Age	(1) 25-44, (2) 45-64, (3) 65+
2. Sex	(1) Male, (2) Female
3. Specialty	(1) Surgery, (2) Internal Medicine, (3) Obstetrics-Gynecology, (4) Pediatrics, (5) Psychiatry, (6) GP and Family Practice (7) Radiology, Pathology, Anesthesiology (8) Ophthalmology, (9) Emergency, (10) Other

Hospital Characteristics	Categories
1. Size	(1) Less than 300 beds (small) (2) 300 Beds or More (large)
2. Teaching Status	(1) No residency program or medical school affiliation, (2) Residency program or medical school affiliation,
3. Ownership	(1) Investor owned, (2) Voluntary -- Religious, (3) Voluntary -- Community, (4) Public -- University, (5) Public -- State, County, Municipal, V.A.

MD-Hospital Interaction	Categories
1. Physician Involvement in Hospital Governance or Administration	(1) Physician is a member of the Board, Executive Board Quality Assurance or Utilization Review Committee, (2) Physician is not a member of these committees,
2. Practice Setting	(1) Solo, (2) Group Practice, (3) HMO/Prepaid, (4) Hospital-based Practice, (5) Other
3. Compensation Arrangements	(1) Salary, (2) Percent of revenues or fee-for-service with combined billings, (3) Fee-for-service only, (4) Multiple Responses

The information on hospital characteristics is not drawn directly from the questionnaire. Physicians were only asked to identify the hospital where they admit the greatest and second greatest number of patients. The size, teaching status, and ownership of these hospitals were then determined using the Annual Guide published by the American Hospital Association (1985). All other data, including the categories above, are taken from the questionnaire.

These three sets of factors constitute the independent variables in the study. The favorable and unfavorable experiences reported by physicians represent the dependent variables. These experiences were assessed by means of fifty statements, ten favorable and forty unfavorable, about the hospital. The unfavorable statements cluster around six topics: hospital policy, the physician's practice of medicine within the hospital, hospital support of physicians, hospital administration, personnel, and equipment and services. The favorable statements cover the same areas but are expressed in positive and more general terms. Physicians were asked to indicate which statements reflected their own experience -- first, with the hospital where they admit the highest number of their patients, and second, with the hospital where they admit the second highest number of patients. The questionnaire thus yielded information on both the independent and dependent variables for each of the two hospitals where the physician practiced the most. The results reported here are limited to physician experiences with hospitals where they admit the highest number of their patients.

Literature on Hospital-Physician Relationships

There has been an increased interest in studying and improving hospital-medical staff relationships. Recent surveys of hospital chief executives (CEOs) reveal that these relationships are either the first- or second-most important concern to administrators (Moore, 1984; Wallace, 1985). In contrast, surveys from the 1960s and 1970s reveal that administrators viewed relationships with their medical staff as only the fourth most important problem area (Dolson, 1965; Carper, 1982). Hospital-medical staff relationships have become more salient to organized medicine as well. A special section of the American Medical Association was established in 1983 to study these relationships and to disseminate information; similar sections have since been enacted by state and county medical societies.

Academics as well as practitioners have displayed a growing interest in hospital-medical staff relationships in several reviews and bibliographies analyzing the different perspectives of hospitals and physicians and the stereotypes each holds of the other (Shortell, 1983, 1985; Leatt et al,

1983; DHHS, 1984; Blanton, 1981). Burns (1986) examines six specific areas of conflict (or potential conflict) between hospitals and physicians and traces these tensions to various strategies undertaken by hospitals to survive in an environment of competition and cost-containment. Many of these areas of conflict -- termination of hospital services, reductions in staffing, slow response to equipment requests, exclusive contracts, diversifications, and involvement in physician recruitment/credentialing/reappointment -- are investigated in the present study.

Findings

Our aim is to (1) assess the extent of physician-hospital conflict that has occurred in one marketplace (Pima County, Arizona); and, (2) examine the variation in physician experience across the categories of our independent variables. Pima County includes the city of Tucson and has the second largest population in the state of Arizona (624,000). The county has a dozen short term hospitals which together have about 2300 beds. There are about 1400 active physicians in Pima County.

In Table 1 the distributions of the three sets of independent variables are examined: physician characteristics, the nature of the hospitals they use most, and the types of interactions between them. Half of the responding physicians are under 45 years of age; over 90 percent of the physicians are male. Two-thirds of the physicians "practice" (i.e., admit the greatest number of their patients) in hospitals with less than 300 beds; more than one-half practice in non-teaching institutions; and two-thirds practice in voluntary (primarily non-church-affiliated) hospitals. Only eight percent practice in for-profit institutions. Finally, one-fifth of the physicians serve in hospital governance or on specific committees; one-third are compensated in a manner other than fee-for-service; and less than one-third are hospital-based practitioners.

The percentages of physicians reporting favorable experiences with their hospitals are given in Table 2. Over four-fifths of all physicians indicate their hospital gives them sufficient autonomy to practice medicine and the needed personnel and resources to support quality care. Roughly three-quarters of all physicians agree that their hospital serves as a valuable community resource, handling all types of patients and patient problems, and striving to increase its attractiveness to patients.

Table 1

Characteristics of Physicians, the Hospital They Use Most, and Physician-Hospital Interactions

Characteristics		Percent*
Physician:	Age—25-44	50
	≥ 45	50
	Sex—Male	93
	Female	7
	Specialty—Surgery	20
	Internal Medicine	26
	Ob-Gyn	7
	Pediatrics	10
	Psychiatry	5
	GP/Family Practice	8
	Radiology/Pathology/Anesthesiology	12
	Ophthalmology	4
	Emergency Medicine	2
	Other	5
Hospital:	Size— ≤ 300 Beds	66
	≥ 300 Beds	34
	Teaching—Yes	43
	No	57
	Ownership—Investor-Owned	8
	Voluntary-Church	17
	Voluntary-Other	49
	University	20
	Public	6
Physician-Hospital Interaction:	Governance—Board of Trustees	6**
	Executive Committee	16
	Quality Assurance	18
	Utilization Review	11
	Compensation—Salary	29
	Other Hospital Compensation***	7
	Strictly Fee-For-Service	64
	Practice Setting—Solo	34
	Group Practice	28
	Prepaid Practice #	10
	Hospital-Based Practice	28

*Based on a total sample of 616 physicians.

**Percents do not add to 100 because physicians may be involved in no activities or more than one activity.

***Includes percent of revenues and fee-for-service plus combined billings.

Includes mixed prepaid and fee-for-service.

Table 2

Physicians Having Favorable Experiences with Hospitals They Use Most

Statement	Physicians Agreeing with Statement*
Hospital gives physicians sufficient autonomy to practice medicine	89
Hospital supports the physician's private practice	49
Hospital provides the needed personnel to support quality care	81
Hospital provides the needed equipment and services to support quality care	87
Hospital is careful not to compete with its medical staff	52
Hospital administration ensures cost-efficient operations and use of resources	56
Hospital administration works hard to increase the hospital's attractiveness to patients	70
Hospital administration gets things done quickly	37
Hospital serves all types of patients and patient problems	72
Hospital serves as a source of health and human services for the entire community	77

*Based on physician sample of 616.

In other areas, however, the degree of favorable experience is not so high. For example, only about one-half of the physicians indicate their hospital supports their private practice or agree that their hospital is careful not to compete with them. These findings suggest that hospital and physician interests tend to diverge in a competitive environment. This conclusion may help to clarify why little more than one-half of physicians (56 percent) indicate their hospital administration ensures cost- and time-efficient operations and only 37 percent agree that hospital administration gets things done quickly. Physicians who perceive that their hospital responds more to its own interests than to its medical staff's interests may also perceive or criticize hospital management as being inefficient in handling issues of concern to staff.

The proportion of physicians reporting unfavorable (problem) experiences with their hospitals range from almost none to about one-third (Table 3). The biggest problem area is a traditional one: limited physician input in developing hospital policy (32 percent). Other traditional conflicts that show up here include unclear/inconsistent hospital goals (24 percent), inadequate number of nurses (24 percent), failure to respond quickly to purchase requests (20 percent), and administration's perception of physicians as "hospital labor" (17 percent). These traditional problems are no doubt exacerbated by the new competitive environment.

Some new problem areas generic to an atmosphere of competition and cost-containment are also prominent in Table 3. For example, one-fifth of all physicians report pressure to discharge or transfer Medicare patients early. Policy relevant proportions of physicians also indicate inadequate hospital attention paid to indigent care (14 percent), hospital ambulatory care programs compete with physicians (12 percent), and hospital involvement with prepaid (HMO) plans is inappropriate (12 percent). Both sets of problem areas, traditional and cost-containment related, are examined more closely below.

For each of the independent variables, Table 4 examines whether specific categories of physicians (e.g., younger vs older age) are more likely to experience problems with their hospitals. Any category reporting proportionately more problems than might be expected by chance is listed in the table. The table focuses on eleven of the most frequently-mentioned problems cited in Table 3. Five of these problems (columns 1, 2, 5, 6, 7) are more generic to the new competitive environment. Six are considered to be more traditional problems (3, 4, 8, 9, 10, 11). (Chi Square value = 2.71 with 1 degree of freedom, probability, $P < -.10$).

Table 3
Physicians Having Problems with Hospitals They Use Most

Statement	Percent of Physicians Agreeing with Statement*
Hospital Competitive Policies	
Hospital ambulatory care programs compete with physicians	12
Hospital diagnostic services compete with physicians	11
Hospital involvement with prepaid plans (HMOs) inappropriate	12
Hospital involvement with PPOs inappropriate	10
Hospital Mission Policies	
Limited physician input in development hospital policy	32
Inadequate attention paid to indigent care	14
Inadequate efforts to recruit primary care physicians who admit and refer patients to specialists	12
Unclear or inconsistent hospital goals	24
Restrictive admissions policies	10
Physicians' Practice of Medicine	
Physicians lack control over medical care decisions	13
Pressure to order certain ancillary tests/services	3
Pressure to not use certain ancillary tests/services	5
Pressure to call in consulting physicians	3
Pressure to make in-house referrals	4
Pressure to discharge/transfer Medicare patients early	20
Pressure to not admit AHCCCS patients	4
Pressure to transfer indigent patients to other hospitals	7
Revocation of privileges or denial of reappointment due to overutilization of hospital services	**
Hospital Support of Physicians	
Unwillingness to form "joint ventures" with physicians	8
Failure to provide technical assistance to physicians in building their practice	8
Inadequate medical office space	13
Hospital Administration	
Administration views physicians as "hospital labor"	17
Administration's failure to promote quality care	6
Administration's failure to promote hospital image	9
Inadequate risk management efforts	7
Inflexible rules hamper physician discretion in treating crisis cases	4
Personnel	
Uneven quality of ancillary services (x-ray, lab, etc.)	11
Uneven quality of support services (housekeeping, dietary)	9
Uneven quality of medical staff	9
Uneven quality of nursing staff	17
Inadequate number of nurses	24
Equipment and Services	
Failure to purchase equipment/instruments requested	15
Failure to respond quickly to purchase requests	20
Inadequate maintenance of current equipment	6
Unavailability of beds	9
Unavailability of operating rooms	6
Inadequate range of clinical services offered	4
Inadequate provision of patient education programs	6
Inadequate provision of community health programs	6
Inadequate provision of preventive health programs	7

*Based on physician sample of 616.
**Less than one-half of one percent.

Table 4
Characteristics* Associated with Physicians Reporting Problems in Dealing with Hospitals They Use Most

Problem Area

	Hospital Competitive Policies		Hospital Mission Policies			Practice of Medicine		Personnel		Hospital Administration	Equipment
	Ambulatory Care Competes with MD	Inappropriate Involvement with HMOs	Limited MD Input in Policies	Unclear Hospital Goals	Inadequate Attention to Indigent	Discharge Medicare Early	Lack Control Over Medical Decisions	Inadequate Number of Nurses	Uneven Quality of Nurses	MDs viewed As Hospital Labor	Failure to Respond to Purchase Requests
Physician Characteristics											
Age	--	--	--	Younger	--	--	--	Younger	Younger	--	--
Sex	--	--	--	--	--	--	--	--	--	--	--
Specialty	Internal Med	Surgery, Opthhalmology	--	Internal Med	Psychiatry, Pediatrics	General Prac, Internal Med	Internal Med	Internal Med	Internal Med	Rad/Path/Anes	Rad/Path/Anes
Hospital Characteristics											
Size	Small	--	Large	Large	Large	--	--	Large	--	Large	Large
Teaching Status	--	Not Teaching	Teaching	Teaching	--	--	--	--	Not Teaching	Teaching	Teaching
Ownership	Religious	Proprietary	University, Public	University	Proprietary	--	University	University, Public	Proprietary	University, Public	University, Public
Hospital-Physician Interaction											
Hospital Governance	--	--	--	Involved	Involved	--	--	Involved	--	--	Involved
Practice Setting	Solo	Solo	Hospital Based	Hospital Based	Prepaid, Hospital Based	Solo	Hospital Based	Hospital Based	--	Hospital Based	Hospital Based
Compensation	Fee-For-Service	Fee-For-Service	--	Salary	--	--	Revenue/ Combined Bill	Salary	--	Salary	Salary

*Characteristics are listed if proportion reporting problem is significantly higher ($p < .10$) than proportion for all other physicians in sample.

To illustrate, Column 1 describes some of the characteristics associated with physicians who report that their hospitals' ambulatory care programs compete with them. There is not a significant difference in the reporting of problems by age (less than 45 vs 45 or more) or by sex. However, internal medicine specialists are more likely to report problems than all other physicians combined, so internal medicine is listed in Column 1 next to specialty. Similarly, physicians in smaller and religious hospitals report this problem more frequently than do physicians in larger hospitals and with other types of ownership. Consequently, "small" and "religious" are listed in Column 1.

Two considerations limit us in formulating and testing specific hypotheses. First, few attempts have previously been made to explain how characteristics of physicians and hospitals might be associated with conflicts between them. This is especially true for conflicts resulting from the new competitive marketplace. Second, predicting the direction of the relationship between a given independent variable, such as ownership, and the occurrence of conflict may well depend on the specific area of conflict considered. For example, for-profit hospitals may be more satisfying to physicians in terms of their administrative efficiency but less satisfying in terms of their commitment to provide only certain services. Nevertheless, we present some rationale for expected relationships between physician/hospital characteristics and conflict below.

Hypothesized and Observed Relationships

Age. Younger physicians are expected to have more unfavorable experiences. The literature on industrial sociology and job satisfaction shows that satisfaction with work increases over the life span. As people grow older, they gravitate to the types of organizations and jobs they like to work in. The same should be true for physicians. Older physicians should have established privileges at hospitals they prefer to work in. Older physicians who have established practices in the hospital or community will also be less affected by competitive changes than younger physicians still trying to establish themselves. They will also probably possess greater leverage to obtain the resources they need from hospital administration.

The results in Table 4 support the notion that younger physicians will report more problems. They are more concerned about unclear hospital goals and the number and quality of nursing personnel -- all traditional sources of MD-hospital conflict. Actually, older physicians were somewhat more concerned about some newer competitive issues

-- hospital involvement with HMOs and pressure to discharge Medicare patients -- although the differences were not significant. Possibly, competitive pressures are more threatening to older physicians who may be forced to change long-time practice patterns and ways of treating patients. Also, younger physicians are more knowledgeable about new forms of care and may even welcome them as ways of starting a practice.

Sex. Females may have more negative experiences, although these associations can be spurious. Female physicians tend to be younger due to the increasing proportions of females now graduating from medical school (and we expect younger physicians to have more physician-hospital problems.). Medical staffs may thus have a disproportionate number of young females. Gender might have an independent effect, however, to the extent that sexual discrimination exists within the medical staff and between doctors and administrators.

In fact, there were no significant differences between males and females with respect to any of the problems (Table 4). On most issues males appeared to have more concerns, especially with respect to hospital competitive policies and missions. The lack of significance in part reflects the relatively small number of females in the sample, making it more difficult to attain statistical significance.

Specialty may influence the physician's experiences with hospitals in several ways. First, physicians in specialties that are growing in terms of the supply of practitioners, or which are already oversupplied, should be most likely to report unfavorable experiences. In such instances, physicians may have trouble gaining access to the hospital and will have less leverage and influence over hospital decisions. Second, physicians in hospital-based specialties will be both most likely to report unfavorable experiences in some cases and least likely in other cases. On the one hand, these physicians are most dependent on the hospital and thus most subject to many of its internal decisions. On the other hand, these physicians are buffered from many of the competitive effects in the marketplace by virtue of their hospital roles. Thus, we expect hospital-based physicians to be most likely to indicate conflicts with internal policies and procedures, and least likely to report conflicts with the hospital's external policies and competitive ventures.

The results in Table 4 are largely supportive of this rationale. Internists, considered to be in oversupply and likely to be directly affected by competitive hospital

practice, are more likely to report problems with a number of hospital policies than most other specialties. They also most frequently mention problems with nursing personnel with whom they may interact most frequently. In contrast, radiology, pathology and anesthesiology (hospital based specialties) do report more problems with internal hospital administration views and equipment decisions. Surgical specialties (surgery and ophthalmology) report most problems with hospital involvement with HMOs. Psychiatry and Pediatrics are most concerned about hospital inattention to the indigent, possibly reflecting the selection of physicians more concerned about social issues into these specialties.

Hospital Size. Physicians with appointments in large hospitals may report more conflict. The job satisfaction literature shows that large size promotes dissatisfaction among employees. The hospital administration literature reveals that large hospitals have less satisfied patients. In both cases, the effects of large size are felt through the organization's bureaucratic arrangements.

Table 4, indeed, shows that physicians in large hospitals (300 beds or more) consistently report more problems than physicians in small hospitals. They have more concerns about hospital overall goals and objectives, inadequate numbers of nurses, and administration's internal operating practices. Physicians in small hospitals report only one problem significantly more often -- concerns about hospital-sponsored ambulatory care. The medical staff in small hospitals is more likely to be composed of primary care physicians and thus may see ambulatory care programs in their hospitals as directly competitive.

Teaching programs may stimulate physician-hospital conflict. Teaching functions introduce greater complexity and bureaucratization into the hospital. Academic programs may also foster greater rivalry and jealously among physicians over the resources allotted to each clinical specialty. This rivalry may become translated into hostility towards hospital administration which controls some of these resources.

Physicians with primary appointments in teaching hospitals do report more traditional problems with administration's external policies and goals as well as internal policies regarding treatment of physicians and purchase requests. In contrast, physicians in non-teaching hospitals are more concerned with the competitive issue of hospital involvement with HMOs and the quality of the nursing staff. The latter concern may reflect the traditional view that teaching programs contribute to quality of hospital care.

Hospital Ownership. The effect may be different for each item of physician-hospital conflict included in the questionnaire. Due to their aggressive physician-marketing strategies, investor owned hospitals might be least likely to interfere with the physician's practice of medicine and most likely to respond to physician's requests. On the other hand, the profit-making goal and lower staffing ratios of these hospitals may make them most likely to be criticized about the quality of the personnel and the adequacy of equipment and services.

Particularly supportive of this rationale, physicians in proprietary hospitals are more likely to be concerned about the quality of nurses but also the competitive issues of hospital involvement with HMOs and -- supporting a common concern about investor owned -- inadequate attention to the indigent (Table 4). Physicians in university and other public hospitals are more likely to express many concerns about involvement in hospital missions and goals, lack of control over medical decisions, quantity of nursing staff and internal hospital operating practices.

Physician Involvement in Hospital Governance is thought to reduce physician-hospital conflict. Physicians who sit on the board of the various committees of the hospital may develop more loyalty towards the institution and be less willing to criticize it. They may also have a deeper understanding and appreciation for the policies and actions taken by hospital administration.

Actually, physicians involved in governance are more likely to voice a range of complaints (Table 4): from unclear hospital goals and inadequate attention to the indigent to inadequate number of nurses and slow response to purchase requests. Involvement in governance may increase physician's awareness of problems, some of which they feel unable to solve.

Practice Setting is related to the physician's specialty. Physicians in hospital-based specialties (radiology, pathology, anesthesiology), by definition, have hospital-based practices. Emergency physicians may also be considered as hospital-based practitioners. Based on the above rationale we would expect physicians in hospital-based settings to have more conflicts with internal policies and fewer with external policies. More generally, solo practitioners may be least likely to report unfavorable experiences. Friedson (1970) argues that solo practitioners enjoy the greatest autonomy to practice medicine and are free from the bureaucratic constraints found to an increasing degree in the other practice settings.

However, solo practitioners are more likely to mention some kinds of problems dealing with new competitive issues while less likely to report other types of problems than hospital-based physicians. Solo practitioners are more concerned about hospital involvement in ambulatory care programs and HMOs and also pressure to discharge Medicare patients early. In contrast, hospital-based physicians are, as expected, more concerned with bureaucratic constraints related to hospital mission policies, lack of control over medical decisions and internal administrative practices.

Compensation Arrangements, finally, may have the same relationship with physician experiences as practice setting. According to Goldsmith (1981), salaried physicians whose economic fortunes are most closely tied to those of the hospital are likely to experience more conflicts with the hospital than fee-for-service physicians. This is because there is a greater potential for the hospital to directly affect (and perhaps manipulate) the physician's income by its own actions.

Again we find in Table 4 that salaried physicians (like hospital-based) report more problems with many hospital practices but fee-for-service practitioners (like solo practitioners) are more concerned with hospital competitive policies.

Implications

It is important to note that these results are from Pima County, and cannot be directly generalized to other areas of the country as a whole. They are, however, suggestive of what may be occurring in other parts of the country. The data examined suggest that physicians are generally satisfied with their hospital relationships. However, there are a number of areas where developing problems are apparent. These include: (1) having little physician input in developing hospital policy, (2) unclear or inconsistent hospital goals, (3) an inadequate number of nurses, (4) pressure to transfer or discharge Medicare patients early, and (5) failure to respond quickly to purchase requests. In addition, more than half of the responding physicians feel there are problems in the hospital's support of the physician's private practice and problems with hospital administration getting things done quickly.

The above issues are important because they are precisely those areas which are most likely to be affected by current health care trends. The major "drivers" of these trends include: (1) prospective and capitated payment

systems, (2) increased competition, (3) technological bifurcation, (4) a changing population composition, (5) the continued consolidation of the health care system, and (6) new developments in information processing and exchange.

Prospective and capitated payment systems provide incentives for hospitals and physicians to deliver more cost-effective care. Under prospective payment for inpatient care, the pressure is primarily on hospitals. This, in turn, may lead to increased conflict with physicians as hospitals attempt to persuade physicians to discharge patients sooner (Glandon and Morrisey, 1986). Under capitated payment for all services to a defined population, the potential exists for hospitals and physicians to compete against each other for a larger share of a fixed-sum pie. However, it is likely that those hospitals and physicians which can forge effective partnerships will be most attractive to purchasers of care. Developing effective partnerships will depend greatly on the ability of hospitals to appropriately involve physicians in policy-making bodies and to see the linkage between physicians private practice growth and the hospital's interest.

As competition becomes more intense, the need for close hospital-physician relationships become particularly important. Hospitals which enjoy the support of their physicians and vice-versa can move more quickly than those that do not enjoy such relationships. A smoothly-working hospital-physician relationship provides a competitive advantage. In similar fashion, having a focused strategy with clear and consistent goals provides an advantage. The advantage lies primarily in the ability to get things done quickly.

In the future technology will be distributed in a bimodal fashion. High-tech services will more than ever be centered in tertiary care hospital in close association with academic medical centers. In contrast, low-tech, non-invasive technology will increasingly be used outside of hospital settings in physician offices and, indeed, patients' homes. The ability of hospitals to decide where they wish to position themselves on the technology spectrum will depend critically on physician input and participation. Given the cost constraints, no longer will hospitals and/or medical staffs be able to purchase all desired technology. Tradeoff decisions will need to be made.

The two most important components in the changing demography of the U. S. population are the growing percentage of elderly (particularly those 85 and over) and a generation of baby-boomers that in another twenty years will be among

the "young" elderly. While the sick elderly will require considerable health care resources, it is important to note that most elderly are healthy. Compared to previous cohorts of elderly, they are also wealthy. Thus, like the baby-boomer generation, the well elderly represent a primary market for health promotion and disease prevention services. In order to reach this market it will be important for hospitals and physicians to work closely together.

The number of hospitals joining multi-hospital systems continues to grow as does the number of physicians joining group practices. In brief, the health care industry is becoming consolidated. A major issue is the extent to which physicians will have relevant input in an increasingly large and corporately-organized health care sector (Alexander, et al., 1986). The problems identified in the present study at the level of the individual hospital-physician relationship are likely to be exacerbated when regional, divisional, and corporate levels of management are overlaid on the basic hospital-physician relationship. Multi-hospital systems are currently searching for ways to effectively involve physicians in corporate policy-making (Shortell, et al., 1986).

Finally, it is important to recognize that second and third generation micro-computers and related teleconferencing capabilities are radically changing the way in which information is generated and processed. This will have a marked effect on both clinical decision-making and hospital strategic planning. It will permit the full integration of clinical and managerial aspects of delivering health services, just as information and control systems in other industries permit integration of the technical production process with market-driven and financial-based performance accountability. But achieving the potential of the new information technologies will again depend critically on the ability of the hospitals and physicians to work together and deal with some of the emerging problems identified.

In considering these issues, it is important to recognize that greater physician involvement is likely to lead, at least in the short run, to greater conflict, not lesser conflict. For example, the present findings indicate that hospital-based and salaried physicians perceived the greatest problems. The number of hospital-based and salaried physicians will continue to grow. Along similar lines, the findings indicate that those physicians more involved in hospital governance activities tend to report greater problems in regard to hospital support of physician's private practice and with equipment and support services. It is also of interest to note that physicians involved in governance

activities are no less likely than those not involved to complain about "limited physician input into developing hospital policy." This may be due to these physicians perceiving their involvement as merely token and/or having higher expectations. In either case, such involvement used as an integrative mechanism is likely to lead to more tension and conflict, not less. The implications of these findings is that both hospital and physician leaders will need to develop their communication, negotiation, and conflict management skills to a high degree.

As the hospital-physician relationship is transformed, a new kind of social contract will emerge (Shortell, 1985). This contract will be based on more than clinical competence and the hospital as the "doctor's workshop" metaphor. It will instead be broadened to include social, economic, managerial, entrepreneurial, legal and ethical criteria. The organizational forms within which these criteria are implemented and the ability of hospitals and physicians to deliver more cost effective care in a market dominated by the purchaser of care rather than the provider remain to be investigated.

REFERENCES

Alexander J. A., Morrissey M. A., Shortell S. M. The effects of competition, regulation, and corporatization on hospital-physician relationships. Journal of Health and Social Behavior, 1986; 27:220-235.

American Hospital Association. Guide to the health care field. 1985 Edition. Chicago: AHA, 1985.

American Medical Association. Physician characteristics and distribution in the U.S. 1984 Edition. Chicago: AMA, 1985.

Blanton W. B., Jr. Understanding differences between medical staff and administration. Hosp Med Staff 1981;10:15-21.

Burns L. R. Hospital-Medical Staff Tensions: A Historical Overview and Analysis. Medical Practice Management, 1986.

Carper W. B. A longitudinal analysis of the problems of hospital administrators. Hosp Health Services Administration 1982;27:82-95.

Department of Health and Human Services. Medical staff and hospital relations; literature search. 1984.

Dolson M. T. How administrators rate different tasks. Mod Hosp 1965;7:94-7, 166.

Friedson E. Profession of medicine: a study of the sociology of applied knowledge, 1970.

Glandon G. L., Morrisey M. A. Re-defining the hospital-physician relationship under prospective payment. Inquiry 1986;23:166-175.

Goldsmith J. Can hospitals survive? The new competitive health care market. Homewood, IL: Dow Jones-Irwin, 1981.

Leatt P., Mickevicious V., Barnsley J. Hospital medical staff organization: an annotated bibliography. Ottawa: Canadian Hospital Association, 1983.

Moore W. B. Survey shows CEOs priorities are changing. Hospitals 1984;58:71-7.

Shortell S. M. Physician involvement in hospital decision making. IN: Gray B. H. ed. The new health care for profit. Washington, DC: Institute of Medicine, 1983:73-101.

Shortell S. M. The medical staff of the future: replanting the garden. Front Health Services in Management 1985:3-47.

Shortell S. M., Friedman B., Morrison E., Hughes S., Hughes E.F.X.. The strategy, structure and performance of multi-hospital systems. NCHSR grant 05159-01-02-03, Center for Health Services and Policy Research, Northwestern University, 1986.

Wallace C. Doctor-hospital stress top concern. Mod Healthcare, 1985;15:90-1.

LIST OF REGISTRANTS, 28th Bugbee Symposium

Lu Ann Aday, Ph.D.
School of Public Health
University of Texas Health Science Center
Post Office Box 20186
Houston, Texas 77225

Marlene J. Aitken
Center for Health Administration Studies
5720 South Woodlawn
Chicago, Illinois 60637

Ronald Andersen, Ph.D.
Director
Graduate Program in Health Administration and Center
for Health Administration Studies
University of Chicago
1101 East 58th Street
Chicago, Illinois 60637

Nancy B. Anderson
Student
Graduate Program in Health Administration
University of Chicago

Odin W. Anderson, Ph.D.
Professor Emeritus of Sociology
University of Chicago
1101 East 58th Street
Chicago, Illinois 60637

Lynd Bacon, Ph.D.
Student
Graduate Program in Health Administration
University of Chicago

L. Penn Berens
Consultant
Berens Management Services
19121 South Woodland
Shaker Heights, Ohio 44122

George E. Bell
Consultant
Hewitt Associates
100 Half Day Road
Lincolnshire, Illinois 60015

Dolly Bellhouse
W. K. Kellogg Foundation
400 North Avenue
Battle Creek, Michigan 49017

Gregory Binns
Lexecon Health Service
140 South Dearborn
Chicago, Illinois 60603

Ruth P. Blodgett
Student
Graduate Program in Health Administration
University of Chicago

Kenneth Bloem
Deputy Executive Director
University of Chicago Medical Center
5841 South Maryland Avenue
Chicago, Illinois 60637

John Bradley
Student
Graduate Program in Health Administration
University of Chicago

Nancy Braun
21 East Chestnut
Chicago, Illinois 60611

Abraham Brickner, Ph.D.
Director, HSR & Program Development
Cleveland Clinic
9500 Euclid Avenue
Cleveland, Ohio 44107

Robert Brook, M.D.
Senior Health Services Researcher
The Rand Corporation
1700 Main Street
Santa Monica, California 90406

Anke Brown
Student
Graduate Program in Health Administration
University of Chicago

Kaye Brown
Ph.D. Student
Graduate School of Business
University of Chicago

George Bugbee
Post Office Box 65
Genesee Depot, Wisconsin 53127

Wilton Bunch, M.D.
Dean of Medical Affairs
University of Chicago Medical Center
5841 South Maryland Avenue
Chicago, Illinois 60637

Lawton R. Burns, Ph.D.
Way College
Rome City, Indiana 46784

Joseph P. Calandra
President
La Grange Memorial Hospital
5101 South Willow Springs Road
La Grange, Illinois 60525

Brian Channon
2001 Sherman
Evanston, Illinois 60201

Meei-Shia Chen
Center for Health Administration Studies
5720 South Woodlawn Avenue
Chicago, Illinois 60637

Judy Coffey-Hedquist
Manager
Alternative Health Care Services
Travenol Labs
Deerfield, Illinois 60015

Xavier Coll
Student
Graduate Program in Health Administration
University of Chicago

Llewellyn Cornelius
Center of Health Administration Studies
5720 South Woodlawn
Chicago, Illinois 60637

William S. Custer, Ph.D.
Health Systems Analysis
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

Robert A. DeVries
Program Director
W. K. Kellogg Foundation
400 North Avenue
Battle Creek, Michigan 49017

Avedis Donabedian, M.D.
School of Public Health
University of Michigan
109 Observatory Street
Ann Arbor, Michigan 48109

David Dranove, Ph.D.
Assistant Professor of Economics
Graduate School of Business
University of Chicago
1101 East 58th Street
Chicago, Illinois 60637

Luisa H. Dwyer
Student
Graduate Program in Health Administration
University of Chicago

Bruce H. Ente
Research and Development
Joint Committee on Accreditation of Hospitals
875 North Michigan Avenue
Chicago, Illinois 60611

Patricia A. Faneuf
Manager
Medical Services Advisory Program
Blue Cross & Blue Shield of Illinois
23 North Michigan Avenue
Chicago, Illinois 60601

Judy Federa
Student
Graduate Program in Health Administration
University of Chicago

Joe Feinglass
Cost Awareness Product
Department of Medicine
Northwestern Memorial Hospital
250 East Superior
Chicago, Illinois 60611

Marilyn Field
Blue Cross & Blue Shield Association
676 North St. Clair
Chicago, Illinois 60611

David Forsythe
Student
Graduate Program in Health Administration
University of Chicago

Evan Freund
Executive Director
MetroCare
2720 West 15th Street
Chicago, Illinois 60608

Barbara Gagel
Regional Administrator
Health Care Financing Administration
175 West Jackson Boulevard
Chicago, Illinois 60604

Mark Gavens
Administration
Neurosciences Meyer 8-181
Johns Hopkins Hospital
600 North Wolfe Street
Baltimore, Maryland 21201

Bradford H. Gray, Ph.D.
Institute of Medicine
2101 Constitution Avenue
Washington, D.C. 20418

Jesse I. Hall
Management Fellow
Memorial Medical Center of Long Beach
2801 Atlantic Avenue
Long Beach, California 90801

Ralph R. Hanson
Student
Graduate Program in Health Administration
University of Chicago

Merritt Hasbrouck
Associate Administrator
Jackson Park Hospital
7531 Stony Island Avenue
Chicago, Illinois 60649

Ted Hatch
Chicago, Illinois

Susan Hilt
Director of Nursing
Fairbury Hospital
519 South 5th Street
Fairbury, Illinois 61739

Elizabeth Hobbs
Student
Graduate Program in Health Administration
University of Chicago

Alfonso D. Holliday, M.D.
President
Holliday Health Care, P.C.
8410 Maple Street
Gary, Indiana 46403

Donna Hope
Center for Health Administration Studies
5720 South Woodlawn
Chicago, Illinois 60637

Betsy Howe
Student
Graduate Program in Health Administration
University of Chicago

Richard L. Hughes, M.D.
Medicine
Northwestern University Medical School
250 East Superior, Suite 296
Chicago, Illinois 60611

Norman Jensen
Associate Professor of Medicine
University of Wisconsin
600 Highland Avenue
Madison, Wisconsin 53792

James Jeppson
Student
Graduate Program in Health Administration
University of Chicago

Blair M. Johnson
Consultant
TriBrook Group, Inc.
1100 Jorie Boulevard
Oak Brook, Illinois 60521

Gary Kaatz
Assistant Vice President-Medical Science & Services
Rush-Presbyterial-St. Luke's Medical Center
1753 West Congress Parkway
Chicago, Illinois 60612

Beth Kaminski
Vice President
General Services Resource
Methodist Hospital
600 Grant Street
Gary, Indiana 46402

Gail Kaplan
Product Management & Research
Blue Cross & Blue Shield Association
676 North St. Clair
Chicago, Illinois 60611

Lissa Karron
Student
Social Service Administration
University of Chicago

John W. Kelly
Student
Graduate Program in Health Administration
University of Chicago

Kelvin Kennedy
Administrator
Chicago Lying-in Hospital
University of Chicago Medical Center
5815 South Maryland Avenue
Chicago, Illinois 60637

Dr. Donald W. King
Dean
Biological Sciences Division
University of Chicago
5841 South Maryland Avenue
Chicago, Illinois 60637

M. Matthew Klionsky, M.D.
Senior Scientist
The Health Data Institute
20 McGuire Road
Lexington, Maryland 02174

Claire Kohrman
Center of Health Administration Studies
5720 South Woodlawn
Chicago, Illinois 60637

A. Michael LaPenna
Metis Associates
6121 North Elston
Chicago, Illinois 60646

Frank J. Larkin
President
Metropolitan Medical Center
900 South 8th Street
Minneapolis, Minnesota 55404

Joan Lauer
Mercy Medical
9050 West 81th Street
Justice, Illinois 60458

Mary G. Leitner
Asset Management
Mayo Foundation
200 First St., S.W.
Rochester, Minnesota 55905

William Leyhe
Administrator
Norwegian-American Hospital
1044 North Francisco Avenue
Chicago, Illinois 60622

David Lieberman
Lexecon Health Service
140 South Dearborn
Chicago, Illinois 60603

Christopher S. Lyttle
Center for Health Administration Studies
5720 South Woodlawn
Chicago, Illinois 60637

James Millar
Student
Graduate Program in Health Administration
University of Chicago

Laurentius Marais
Professor
Graduate School of Business
University of Chicago
1101 E. 58th Street
Chicago, Illinois 60637

Dereck Marshall
Administrator
Fairbury Hospital
519 South 5th Street
Fairbury, Illinois 61739

Dr. Michael McCally
Professor
Clinical Medicine
University of Chicago
Pritzker School of Medicine
5841 South Maryland
Chicago, Illinois 60637

Bruce McDonald
Cardiology
Little Company of Mary Hospital
2800 West 95th Street
Evergreen Park, Illinois 60642

Clark M. Merkley
Student
Graduate Program in Health Administration
University of Chicago

Janice M. Moore
Utilization Review
Blue Cross & Blue Shield Association
676 North St. Clair
Chicago, Illinois 60611

Esther Morales
Student
Graduate Program in Health Administration
University of Chicago

Lana Moore
Department of Psychiatry
University of Chicago
5841 South Maryland Avenue
Chicago, Illinois 60637

Ralph Muller
Vice President
University of Chicago Hospitals & Clinics
5841 South Maryland Avenue
Chicago, Illinois 60637

Dr. Ross Mullner
Special Studies
American Hospital Association
840 North Lake Shore Drive
Chicago, Illinois 60611

Robert A. Musacchio, Ph.D.
Health Systems Analysis
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

Chris Newman
Assistant Vice President
Corporate Planning & Marketing Research
Rush-Presbyterian-St. Luke's Medical Center
600 South Paulina
Chicago, Illinois 60612

Stephen Nightingale, M.D.
Division of General Medicine
Cook County Hospital
1835 West Harrison Street
Chicago, Illinois 60612

Donald R. Oder
Senior Vice President
Rush-Presbyterian-St. Luke's Medical Center
1753 West Congress Parkway
Chicago, Illinois 60612

Andrew Palumbo
Student
Graduate Program in Health Administration
University of Chicago

Lindsey Rabushka
HA/MD Student
Graduate Program in Health Administration
University of Chicago

Thomas H. Reepmeyer
Associate Director, Finance
University of Chicago Hospitals & Clinics
5841 South Maryland Avenue
Chicago, Illinois 60637

Lisa Ricciardi
Student
Graduate Program in Health Administration
University of Chicago

Lisa Rolfe
Student
Graduate Program in Health Administration
University of Chicago

Barry Rose
Director, Corporate Planning
University of Chicago Medical Center
5815 South Maryland Avenue
Chicago, Illinois 60637

Patricia Rush, M.D.
Internist
Michael Reese HMO
2816 South Ellis Avenue
Chicago, Illinois 60616

Kate Sackman
MBA Student
Graduate School of Business
University of Chicago

Jonathan Sands, M.D.
Vice President
National Medical Audit
130 Montgomery Street
San Francisco, California 94104

Mark Satterthwaite, Ph.D.
J. L. Kellogg Graduate School of Management, MEDS
Northwestern University
Evanston, Illinois 60201

James Schlosser, M.D.
Chair
Division of Adult Emergency Services
Cook County Hospital
1825 West Harrison Street
Chicago, Illinois 60612

John Schneider, M.D.
Department of Medicine
University of Chicago Medical Center
5841 South Maryland Avenue
Chicago, Illinois 60637

Daniel Schuh
Vice President
American HMO
Post Office Box 160
19740 Governors Highway
Flossmoor, Illinois 60422

Rose Marie Seifried
Utilization Review
Blue Cross & Blue Shield Association
676 North St. Clair
Chicago, Illinois 60611

Mervin Shalowitz
Medical Director
Vice President
Share Health Plan of Illinois, Inc.
500 Park Boulevard
Itasca, Illinois 60143

Anton Sheridan
MBA Student
Graduate School of Business
University of Chicago

Mark Shields, M.D.
President
Midwest Medical
2021 Midwest Road
Oak Brook, Illinois 60521

Stephen M. Shortell, Ph.D.
A. C. Buehler Distinguished Professor
J. L. Kellogg Graduate School of Management
Northwestern University
2001 Sheridan Road
Evanston, Illinois 60201

Donald G. Shropshire
President and CEO
Tucson Medical Center
5301 East Grant Road
Tucson, Arizona 85733

Anne Silberger
Student
Public Policy
University of Chicago

Hilmon S. Sorey, Jr.
Professor & Program Director
Program in Hospital & Health Services Management
Northwestern University
Leverone Hall 3-080
Evanston, Illinois 60201

Martha E. Thompson
Illinois Department of Public Aid
Office of Hospital Services
624 South Michigan Avenue
Chicago, Illinois 60605

Norrine Walsh
Mercy Hospital
9050 West 81st Street
Justice, Illinois 60458

Peter Weil
Director
Research & Development
American College of Healthcare Executives
840 North Lake Shore Drive
Chicago, Illinois 60611

Victoria Wiebel
Product Management and Research
Blue Cross & Blue Shield Association
676 North St. Clair
Chicago, Illinois 60611

Peter Wynn
Director of Finance
University of Chicago Hospitals
4841 South Maryland Avenue
Chicago, IL 60637

ANNUAL GEORGE BUGBEE SYMPOSIUM ON HOSPITAL AFFAIRS

(Currently available titles are listed below. Out of print titles are available in photocopied form at the prices indicated.)

HA 5 *Where is Hospital Use Headed?* Proceedings of the Fifth Annual Symposium on Hospital Affairs, 1962. $3.85.

HA 6 *The Impact of Changing Medical Practice on Hospital Administration*, Proceedings of the Sixth Annual Symposium on Hospital Affairs, 1963. $4.00.

HA 7 *Can Voluntary Controls Do the Job?* Proceedings of the Seventh Annual Symposium on Hospital Affairs, 1964. $3.85.

HA 8 *Applications of Studies in Health Administration*, Proceedings of the Eighth Annual Symposium on Hospital Affairs, 1965. $3.85.

HA 9 *Hospital Size and Efficiency*, Proceedings of the Ninth Annual Symposium on Hospital Affairs, 1966. (Photocopy only.) $5.00.

HA 10 *Medical Care for Low Income Families*, Proceedings of the Tenth Annual Symposium on Hospital Affairs, 1967. (Published as Volume 5, No. 1 of *Inquiry*, March 1968.) $3.85.

HA 11 *Physician Productivity and the Hospital*, Proceedings of the Eleventh Annual Symposium on Hospital Affairs. (Photocopy only of selections published in Vol. 6, No. 3 of *Inquiry*, 1969.) $2.50.

HA 12 *Urban Community Hospital in Transition*, Proceedings of the Twelfth Annual Symposium on Hospital Affairs, 1970. $4.00.

HA 13 *Health Maintenance Organizations: A Reconfiguration of the Health Services System*, Proceedings of the Thirteenth Annual Symposium on Hospital Affairs, 1971. $6.00.

HA 14 *Public Control and Hospital Operations*, Proceedings of the Fourteenth Annual Symposium on Hospital Affairs, 1972. $5.00.

HA 15 *The Hospital's Role in Assessing the Quality of Medical Care*, Proceedings of the Fifteenth Annual Symposium on Hospital Affairs, 1973. $7.00.

HA 16 *Government Involvement in Health Services Delivery: The Canadian Experience*, Proceedings of the Sixteenth Annual Symposium on Hospital Affairs, 1974. $7.75.

HA 17 *Ethical Issues in Health Care Management*, Proceedings of the Seventeenth Annual Symposium on Hospital Affairs, 1975. $5.00.

HA 18 *Survival in Utopia (Growth Without Expansion)*, Proceedings of the Eighteenth Annual Symposium on Hospital Affairs, 1976. $9.50.

HA 19 *Organization for Ambulatory Care: A Critical Appraisal*, Proceedings of the Nineteenth Annual Symposium on Hospital Affairs, 1977. $5.00.

HA 20 *Creative Retrenchment*, Proceedings of the Twentieth Annual Symposium on Hospital Affairs, 1978. $5.00.

HA 21 *Changing the Behavior of the Physician: A Management Perspective*, Proceedings of the Twenty-First Annual Symposium on Hospital Affairs, 1979. $5.00.

HA 22 *Managing for Growth and Future Expansion*, Proceedings of the Twenty-Second Annual George Bugbee Symposium on Hospital Affairs, 1980. $5.00.

HA 23 *Competition-Regulation and the HMO; Impact on Hospitals and Physicians*, Proceedings of the Twenty-Third Annual George Bugbee Symposium on Hospital Affairs, 1981. $5.00.

HA 24 *Multi-Hospital Systems and the General Hospital*, Proceedings of the Twenty-Fourth Annual George Bugbee Symposium on Hospital Affairs, 1982. $9.50.

HA 25 *The Hospital and Cost Containment: Impact and Response*, Proceedings of the Twenty-Fifth Annual George Bugbee Symposium on Hospital Affairs, 1983. $9.50.

HA 26 *Whence and Whether Graduate Education for Managers in the Health Services*, Proceedings of the Twenty-Sixth Annual George Bugbee Symposium on Hospital Affairs, 1984. $9.50.

HA 27 *Selective Contracting*, Proceedings of the Twenty-Seventh Annual George Bugbee Symposium on Hospital Affairs, 1985. $9.50.

Send your prepaid order to: CHAS Publications, Graduate School of Business, University of Chicago, 1101 East 58th Street, Chicago, IL 60637, Phone inquiries: (312) 962-7104.