



**Does  
Diversification  
Make Health  
Organizations  
Healthier?**

*Proceedings of the  
Twenty-Ninth Annual  
George Bugbee  
Symposium  
on Hospital Affairs,  
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**GRADUATE SCHOOL OF BUSINESS  
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The Twenty-Ninth 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 8, 1987. 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-Ninth 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

INTRODUCTION.....	1
Ronald Andersen	
HOSPITAL DIVERSIFICATION -- WHAT WENT WRONG.....	3
Everett Johnson Mark Shanley	
QUESTIONS AND ANSWERS FOLLOWING TALKS BY DRS. JOHNSON AND SHANLEY.....	13
DIVERSIFICATION AND STRATEGY OF MULTIPRODUCT HEALTH CARE FIRMS.....	17
Steven Lazarus Lynd Bacon	
QUESTIONS AND ANSWERS FOLLOWING TALKS BY MESSRS. LAZARUS AND BACON.....	26
LESSONS FROM THE RESTRUCTURING OF THE FINANCIAL INDUSTRY.....	34
Ken Cone David Dranove	
TRIBUTE TO GEORGE BUGBEE.....	49
Odin Anderson Jack Gould	
PANEL: ORGANIZATIONAL CASE STUDIES OF DIVERSIFICATION.....	53
Sidney Tyler Peter Snow Malcolm MacCoun	
QUESTIONS AND ANSWERS FOLLOWING TALKS BY MESSRS. TYLER, SNOW AND MAC COUN.....	90
DIVERSIFICATION: WHAT HAVE WE LEARNED AND WHERE ARE WE GOING?.....	91
Stephen Shortell	

MICHAEL M. DAVIS LECTURE: PHYSICIANS AND SOCIETY:  
RENEGOTIATING THE CONTRACT..... 99

John Iglehart

DIVERSIFICATION STRATEGIES AND IMPACTS FOR HOSPITALS IN EIGHT  
MULTIHOSPITAL SYSTEMS, 1983 AND 1985..... 108

Bernard Friedman  
Stephen Shortell

REGISTRANTS..... 130

## INTRODUCTION

RONALD ANDERSEN: Welcome to the twenty-ninth annual George Bugbee Symposium on Hospital Affairs. The symposium is sponsored by the Center for Health Administration Studies and the Graduate Program in Health Administration at the University of Chicago. Each year, alumni choose a subject for the symposium's topical input and generic relevance to effective health care management. The program is directed toward you: our alumni, students, and colleagues who are interested in health services management and research.

Our topic this year is diversification in the health services sector. Hospitals and other health care organizations are producing an increasing variety and range of products and services in areas such as ambulatory care, geriatric care, health promotion, home health care, and outpatient diagnostic services. They are also reorganizing the way in which services are provided, by forming various mergers, consolidations, affiliations, arrangements with health maintenance organizations (HMOs), primary care units sponsored by hospitals, and preferred provider organizations (PPOs).

In this symposium, we have asked a knowledgeable group of executives, researchers, and educators to consider with us a range of questions about this diversification. These include why it takes place, what makes it successful or unsuccessful, what should managers keep in mind when considering diversification, what role does competition play in diversification activity, and finally, what questions remain to be answered about the causes and effects of diversification.

We will begin with an overview of diversification efforts. Our presenter is Everett Johnson, Professor and Director of the Institute of Health Administration at Georgia State University. Ev is also the director of two health care consulting firms, the E&J Group and Physician Contract Services of Marietta, Georgia. He was formerly CEO of Gary Methodist Hospital. He is a long-time associate of the Graduate Program in Health Administration, where he began as a preceptor and lecturer in the early 1950s, and was its Associate Director from 1977 to 1979. He is active in many associations. He was a member of the House of Delegates in the American Hospital Association, and was Chairman of the American Congress of Health Care Executives. He also writes numerous books and articles. His most recent book, Hospitals Under Fire, was published by Aspen Systems, Inc. in 1986.

Our discussant is Mark Shanley, Assistant Professor of Policy and Organizational Behavior at the Graduate School of Business at the University of Chicago. He was previously an instructor in the School of Business at Fairfield University and also in the Wharton School of Business Administration at the University of Pennsylvania. He was also a program consultant for Macro Systems and a reference specialist for Aspen Systems Corporation. His research focuses on studies of firm acquisitions and

strategic decision making. He has also looked at the impact of hospital organization.

## HOSPITAL DIVERSIFICATION -- WHAT WENT WRONG?

EVERETT JOHNSON: The popular health care phrase used to describe diversification in hospital programs is "alternative revenue sources." However, the experience of many hospitals in diversifying is contradictory: "alternative expense sources."

Fortunately, many diversifying hospitals have maintained reasonably robust bottom lines so that their entrepreneurial ventures have not generally seriously threatened their financial futures. However, this view is of limited value because it is based only on personal knowledge. Up to the present time there have been no organized data collection and overall analysis of the total results of hospital diversification in the last few years.

### TWO ORGANIZATIONAL STRATEGIES

Hospitals have used two different organizational strategies for diversification. The traditional strategy has been the establishment of a new service or department, such as a Hospice Program, within the existing corporate structure.

The word diversification is now generally used in the hospital field to describe the establishment of separate corporations in a parent-subsidary structure with a mixture of not-for-profit and for-profit subsidiaries operating at multiple sites.

This concept was initially popular as a way of side-stepping certificate-of-need regulations and restrictions in cost reimbursement formulas.

The variety of different parent-subsidary structures used by hospitals reflects both local market opportunities and their degree of willingness to be venturesome. Usually the first step in developing a multi-corporate structure has been the establishment of a foundation. These became popular in the seventies to offset the capturing of undesignated gifts to hospitals by Medicare. Foundations functioned as fund-raisers for hospitals and in organizational entity for land acquisition both on and off campus sites.

As Medicare reimbursement became more restrictive in the late 1970s and certificate-of-need regulations more rigorously controlled new program and building efforts, additional corporate entities became more attractive. The popular corporate model became the parent-subsidary arrangement with the hospital corporation becoming a subsidiary corporation.

These new corporate structures were promoted by hospital executives to their governing boards. Generally hospital directors responded enthusiastically but thoughtlessly. In order to demonstrate the need for a

new parent corporation, other than the hospital corporation, chief executive officers prepared lists of potential health care business opportunities in such a way that it appeared to hospital directors that several corporations would be needed to accommodate the variety of businesses proposed.

Once the parent subsidiary corporate concept was approved in principal by governing boards, several subsidiary corporations were created even though there were no immediate plans for implementation. Frequently these corporate shells have subsequently been maintained without any activity being undertaken.

### MARKETPLACE COMPETITION

In 1982 the Tax Equity and Fiscal Responsibility Act was enacted and quickly followed in early 1983 with the Prospective Payment System Amendments to Medicare, which placed price caps on their services. The hospital reaction caused the daily patient census to head South as patient days per thousand population often dropped 50 percent in their primary market area.

At the same time competitive medical plans, health maintenance organizations, and preferred provider arrangements quickly increased in popularity. The net effort in 1983 and 1984 of decreased inpatient service volumes and capped or discounted prices stimulated interest in diversification and corporate restructuring.

Probably the most popular idea in 1984 to offset the reduction in hospital revenues was to develop joint ventures between hospitals and members of the medical staff through a real estate limited partnership type of organization. The basic incentive for hospitals was the belief that physicians would use the services of such an entity because physicians had an investment in its operation. It was a time of contradictions: not-for-profit hospital executives who had criticized as unethical the investor-owned hospital corporation's sale of stock to physicians using their hospitals were now actively promoting limited partnerships in the not-for-profit hospital's joint venture -- and did not recognize their hypocrisy.

Whether a hospital initiated a joint venture or a wholly-owned subsidiary corporation, in 1984 the timing was poor. It was a year of uncertainty and much effort. Hospital revenues had to be adjusted to diagnostic related groups for billing purposes, health maintenance organizations were rapidly expanding, as were prospective payment systems, and ambulatory care demand was soaring.

Not much administrative time remained for diversification. Nor was there any sense of confidence about the bottom line of the hospital. It was not a time for risk-taking --even though it was the right time.



## CORPORATE COMPROMISES

What went wrong with diversifications? Not much for a very few hospitals, such as Northridge Hospital in California that eventually emerged as Health West. For the vast majority of metropolitan hospitals several major problems were never directly confronted nor resolved.

The most frequent outcome of a corporate restructuring was a failure to recognize and clearly separate the parent board of directors from the subsidiary hospital board of directors. In many reorganizations the parent board was significantly smaller than the hospital board, but was predominately staffed by influential hospital board members.

The result was a transfer of conservative hospital trusteeship viewpoints to the board of the parent corporation. These prior hospital board members did not have the perspective or skills to be venture capitalists. These existing perspectives were usually further reinforced by appointing the hospital chief executive officer to the chief executive officer positions in the parent corporation and promoting the chief operating officer of the hospital to the hospital's chief executive officer's position.

This typical corporate musical chair game prevented the acquisition of skills and experiences needed to be successful in developing new market ventures. In essence the new chief executive of the parent faced the same restraints he previously experienced in the hospital corporation: hospital funds were to be spent only for sure-fire successes and only in limited amounts. The perspective of the board members remained the same as the ones they held as hospital directors. Fundamentally, they did not know how to think and organize as venture capitalists.

Operationally, the board of directors of the parent protected the assets of the hospital corporation as if they were still hospital trustees: which is to say that insufficient resources were committed for marketing and promotion and too many resources committed to overhead before the ventures became operational.

The typical development pattern of parent-subsidary structures that was followed was to establish a corporate office for the parent at a site away from the hospital campus, and then to hire a chief executive officer, a financial officer, a staff of two to five people for marketing and planning, and sufficient secretarial support. Expenses were immediately incurred with no offsetting revenues -- and typically revenues never expanded sufficiently to exceed expenses in the following years.

Too often in the rush to create a parent-subsidary structure the importance of reserved rights for the parent to control the subsidiary corporations were overlooked. The size and composition of the boards of the operating companies were not carefully thought through, nor the parent board's authority to appoint and remove subsidiary directors. Little thought was given to the selection of experienced legal counsel and audit

firms to insure satisfactory operations for the multi-corporate structures.

In addition, the need for centralized control of operating and capital funds and budget approvals was ignored. Because the hospital was the major profit producer, there was typically little or no discussion at the time the hospital board approved a parent corporation of how to flow surplus funds from the hospital to the parent. To do so would have highlighted for the hospital board the extent to which they were losing control of their decision-making authority.

One of the major reasons for the failure of hospital diversification to develop substantial income producing businesses has been the lack of either insight or willingness to decide the issue of reserved rights at the time of formation. Only at a later time has this failure become apparent to governance. By then the accomplishments of the multi-corporate organization had been so limited that to raise this issue was likely to lead to a reversion to the original corporate structure.

#### THE PRICE OF INEXPERIENCE

The reasons for the lack of success in diversification has varied by the type of business venture a hospital tried. The lack of experience of hospital executives in planning and developing a new business venture and their reluctance to hire experienced people to direct the hospital's diversification programs has clearly been a major reason for failures.

Too often a hospital has moved into a new program without first developing a carefully worked out business plan. It frequently appears that the chief executive officer merely assigned a project to an associate with instructions to be responsible for its development without any formal assessment of market risk, actual or potential competitors, defining a market strategy or estimating the downside risk. What was defined was a range of expenditures that would be authorized for the project.

When a business plan was developed it was often less than complete and frequently not adhered to as the project developed. There was a lack of discipline and market judgment as the plan was implemented, particularly when members of the hospital medical staff became involved in or were affected by a new venture.

The price of inexperience has often been reflected in optimistic market projections that overestimate both short and long term volumes and revenues and underestimate the time required for the projected volumes to be achieved.

Another characteristic reflecting inexperience has been the over-spending on new buildings by applying the same construction standards used in hospitals. For example, a hospital purchased the practices of several physician groups and erected a new medical office building to house

them in one location. The new building is known locally as a Taj Mahal. The hospital has a large gross revenue from the purchased practices, but no profit because of excessive construction costs. What the hospital did in effect was to trade 1965 dollars for 1985 dollars and erased the profit margin of the practices in the process.

When hospitals hire a developer for a new venture they often select a developer offering the lowest fee, rather than basing their selection on the quality of the past experiences of the developer. In one case the hospital paid the lowest priced developer a fee of \$750,000 to establish a retirement center. The developer did not do a thorough market study. As a result the retirement center was built in a rural area that did not attract sufficient residents to become financially successful. That hospital has now been merged into a hospital chain in order to prevent bankruptcy.

Other kinds of misjudgments have occurred when hospitals sponsored managed care ventures. A common problem is to under-capitalize either a health maintenance organization or a preferred provider organization and accommodate the shortage of start-up funds by spending less on marketing efforts than is desirable. Another element in managed care often not developed satisfactorily is the management information and utilization control systems. Frequently planned utilization targets are exceeded and management does not exercise the controls necessary to obtain physician's compliance because of the expected adverse reactions of their medical staff.

A third major problem hospitals experience with managed care programs is a lack of total coverage of the planned market area of the health insurance program. In some instances managed care programs have required exclusive contracts from physicians. This restriction operated in two ways to constrain enrollments: by arbitrarily limiting the number of physicians participating in the program as well as the number of insured willing to be limited by the physician providers available.

Hospitals that have developed free standing ambulatory care centers in the majority have been marginally profitable. Usually either the market research on locations and services was incomplete, or the recommendations of the research effort were ignored in terms of location and promotion.

In medical office buildings ventures hospitals have usually been successful in metropolitan areas and were breakeven in small towns. Generally, though, medical office buildings have been one of the better investments for hospitals.

Imaging centers are usually wholly-owned by radiologists, but are occasionally a joint venture with a hospital. In both instances they have been successful.

Many ambulatory surgery centers have not fulfilled their revenue projections when jointly-owned by a hospital and surgeons, but usually are

profitable when wholly-owned by the hospital.

Other business ventures for diversification have included ambulatory services, retailing medical equipment and supplies, apothecaries, wellness centers, health clubs, and reference laboratories. Generally, even though some of these ventures have had revenues of several million dollars, their net income has been a small loss or gain. None have been sufficiently successful to produce million dollar profits.

#### WHAT WENT WRONG

In medium and large size hospitals with an enthusiastic diversification program, there are typically five to fifteen subsidiary corporations. One example is a 300-bed hospital that has nine corporations in addition to the hospital corporation and the parent corporation. Last year these nine corporations had \$17,500,000 in gross revenues. Three of the companies had a net profit of \$524,000 while the other six had a combined loss of \$798,000 for an overall consolidated loss of \$274,000. For the same fiscal period the hospital had a net gain of about \$5,000,000.

To produce these results there were 430 full-time equivalent employees in the nine subsidiaries. With this kind of experience the obvious questions are "was it worth it" and "what went wrong?"

The usual response about the worthwhileness of the effort is that it protected the primary market area of the hospital. A more reasonable conclusion is that hospital executives are rationalizing a lack of success.

The enthusiasm for corporate restructuring and diversification started to wane in the last year. A number of hospitals are reversing directions by closing their separate parent corporate offices and either terminating the staff or reassigning them to the hospital organization.

On the face of it the lack of success of hospitals to diversify into health-related businesses would seem to be unusual. However, it is more likely a measure of the uniqueness of the hospital marketplace and the economic protections for hospitals during the last 50 years.

The inability of hospitals to successfully diversify are the same reasons which generally affect other business ventures. Overall their focus was financial and operational rather than strategic and entrepreneurial. Their parent- subsidiary corporate structure dispersed accountability and provided no personal incentive for management to succeed.

Operationally there was a lack of specialized talent and no bonus or stock option for success. The senior managers of the subsidiaries usually also carried major management responsibilities in the hospital organization. Consequently, if the venture failed they still maintained their hospital

position. There was no penalty for failure or marginal success -- and no reward for outstanding success.

What happened was a lack of awareness that new business ventures were not the same as the hospital business. Hospital trustees went through the usual legal maneuver to establish new corporations and then expected them to take off and run like the hospital. Hospital thinking and operations were replicated for new concepts without identifying any reasons to operate in a different fashion. Even though the functions were different the form remained the same.

Conversely there are hospitals which have successfully diversified and are on the way to becoming billion dollar a year businesses. The difference seems to have been at the level of the board of directors: and particularly with one or two directors who had successful business careers. They steered their hospital boards and executives in different ways than the majority of hospitals.

Probably the most important difference was their leadership in creating a small parent board that was separate from the hospital board with a membership similar to their business experience.

These successful boards can be characterized as directors who knew how to solve problems and were willing to forcefully express their opinions; not simply to say what they were against. They were willing to be risk-takers, to occasionally be wrong, and to accept criticism and financial failures. They had the courage and persistence to hire competent executives with mature judgment and back up these executives.

The directors of these successful parent corporations routinely did their homework, were prepared for board meetings, and were objective in their thinking. They made a difference.

Successful diversification programs can be characterized by the articulation of their subsidiary corporations into an overall coordinated market strategy. Their strategic planning was carefully worked out and each business venture had a strong rationale for its creation and operation. They believed that a hospital had a right to develop an economic future for itself and were not constrained by actions of a medical staff. On the other hand, they worked hard to avoid antagonizing physicians, but did not allow a medical staff action to prevent them from entering a market.

#### WHERE TO FROM HERE?

What can be expected in the next few years from hospital diversification efforts? From the events now taking place it seems likely that hospitals will no longer try to start new business ventures across the health care spectrum. They appear to be learning that special expertise is needed to convert a good idea into a profitable business.

What they are now working on are the development of affiliations and consolidations in acute care services. Large, inner-city tertiary level hospitals are hard at work finding hospital partners in the suburbs and small towns to strengthen their referral base. They are also coupling these moves with the development of managed care programs to increase their attractiveness to potential partners. If other subsidiary businesses facilitate these arrangements, such as an ambulance service, or a variety of educational programs, they are also developed.

Another shift still underway is the conversion of a District or Authority hospital organization into a parent-subsidiary structure to eliminate the political restraints which exist in quasi-public institutions.

The heyday of widespread diversification has passed. However, diversification will continue at a moderate pace with more thought and careful development than in the past. Except for a few hospitals, it will never provide economic salvation, but will gradually expand to provide a broad range of coordinated health services within a community. The essential key will be control of a managed care program that articulates a variety of healthcare services in a cost effective way.

MARK SHANLEY: When I came here this morning I was very much expecting to discuss a lot of ways in which diversification health care would be different from that in business. I was surprised, and very pleasantly surprised, to find that Ev was talking about many of the points that could be made to criticize business diversification as well. I can take very little issue with many of his points. I found the talk very informative and highly insightful. I would just like to amplify a few of the points that he made.

The first point is the importance of a strategy. This gets overlooked quite often, but you will find that the successful diversifiers think in terms of skills that they can transfer and in terms of what they can provide to an acquired firm as well as what they may receive from the acquired firm or the new venture. That is frequently overlooked. It comes up in Ev's point about the lack of willingness to invest in new ventures in an acceptable way.

The second point also relates to strategy. If you do not have a strategy, it becomes very difficult to define what you are seeking and to characterize a diversification effort as a success or a failure. Without a clear strategy, it is difficult to identify what constitutes success or failure on any terms. In a sense, the whole process becomes one of experimentation where indeed you end up rationalizing your outcomes, rather than evaluating how well you made decisions in the first place.

A third point in Ev's talk which I thought very informative was his discussion about various types of separations that need to occur organizationally. You need to separate the corporate structure from the subsidiary structure. That is very important, and it works both ways. You need to recognize corporate prerogatives in managing a totally diversified organization. At the same time, you must recognize the need for autonomy at the subsidiary level. Related to this is the need to recognize differences among related subsidiaries. I'm not saying that the solution is very easy. Relatedness among new ventures has to be the key. Successfully diversified firms have to move out from carefully defined course skills. But they need to recognize that they are different from one another.

In terms of research needs, when I have talked with corporate executives about how they manage their diversification efforts, the one phrase that came up time and time again concerned planning: you need to do your homework. I cannot stress that enough. What you have in a poor diversification strategy is one that is thought up and sounds plausible, but is not checked by solid research. What happens then is that after the deal occurs, whether it is a new venture or an acquisition, there are surprises. The failure to anticipate the surprises and the failure to structure for those surprises causes many of the organizational problems that Ev talked about.

These were the basic points that struck me. Again, I have little to dispute because these were the same insights that I found in looking at business firms.



QUESTIONS AND ANSWERS FOLLOWING TALKS BY DRS. JOHNSON AND SHANLEY

QUESTION: I have a question to which both of you seem to subscribe, and I wonder if you could elaborate. Why do you keep boards separate? Why do you keep a corporate board separate from a subsidiary board? What is the purpose of doing that? Secondly, I wonder if you could comment about paying boards.

EVERETT JOHNSON: Number one, I think you have got to get a corporate board that is interested in what you are doing. Number two, I think you have to have people interested in what you are doing. The one thing that hospitals ignore that is crucial -- and we routinely ignore it -- is our need for hospital directors, (or directors in any corporation) who know the industry. We do not have people who know the industry on hospital boards. That is the one reason they are so weak today. You have got to have people that know the business you are in. From my point of view the board is there fundamentally to advise and help you think through a problem. A hospital board works by consensus decision-making, which is not the way a lot of other boards operate. They will tell the CEO "this is what we think," and never even take a vote. Then the CEO is off and running. In a hospital boardroom, what do we do? Two people object and so we delay the proposal. We send it back to committee because we want more information. Time goes right out the window. That is the problem and the reason why you need separate boards. Should you pay them? Absolutely.

MARK SHANLEY: In terms of general separation between corporate and business unit boards, I would agree completely with Ev that you have to have people who know the business. The trouble is that when you diversify, if you do not separate the boards, you get people who are familiar with the hospital but not with the new businesses. The problem there is that the corporate level has got to deal with multiple businesses: apples and oranges. At the individual level, you have to deal with the specific business. The real problem there is getting the overall view and making the people who make corporate decisions still accountable for how they work out. I do not have any simple solutions for that.

EVERETT JOHNSON: Let me add one point. When you have, for example, a parent-subsidiary board arrangement, it's very frequent that you take a hospital board and part of its leadership and place them on the parent board. Do you know what happens? They still operate to protect the profits of the hospital instead of bringing them to the parent to spend for something else. We go back and buy another x-ray machine or something else for the hospital.

RONALD ANDERSEN: I understand from you Ev, that there is nothing fundamentally unwise about going into diversification for hospitals. It is in how they do it. Is that your point?

EVERETT JOHNSON: In general. They have not been doing it well.

QUESTION: But it is wise to diversify if you are doing well.

EVERETT JOHNSON: I think so. I can give you several examples. Santa Fe Health Systems in Florida and Riverside in Norfolk are examples that are well on their way to becoming billion dollar corporations. They will make it in the next decade. They also couple diversification with some kind of a managed care program. You have to have a tool in order to help integrate your total market system.

QUESTION: Ev, you mentioned one example of a hospital maintaining its liability and making a profit, and the subsidiaries losing money. You said that one basic reason given was to protect the markets. Thinking back to the previous question, it would seem to me that that is sometimes a hard response to refute, in deciding whether or not the bottom line is a good indicator of whether diversification is working or not.

EVERETT JOHNSON: I think you're right. It is hard to refute. Except when you analyze, go into a situation and look at all the issues. I guess I cannot at the moment pick out clearly one, two, three or four factors. You get an overall impression that the response is an alibi. When you see that they did not put senior management totally into these roles, and that they did not buy the experience and talent that they need to do it, you sort of work your way back and say, "Well...". These people are still essentially, in most instances, working for a hospital board even though it is called a parent. They are also trying to protect their job. So they say, "This is what we're up to." I do not blame them for doing it if they can get away with it. But in terms of trying to get the job done, it is not going to work. At least they can protect their jobs. Everybody likes to eat.

QUESTION: Don't you think there's a major clash in the cultures between an entrepreneurial effort where you have risk takers versus a large industrial organization in which a hospital would be a typical one where you have people who are incremental managers and preservers of capital, working at the margins? Also, you have major classes of the kinds of people who like to work in different sets. How do you get those two distinct groups to work? Is it by acquisition? Is it by separate incentive systems? How do you do it?

EVERETT JOHNSON: I think your comments simply point out how difficult it is realistically to get the job done. One of the things that has always in a sense depressed or negatively impressed me is the fact that a lot of business boards do not know how to start other businesses, and they simply go on an acquisition kick. They do not know how to do it, either.

QUESTION: Before we go further, does either one of you have any suggestions on board composition? Ev, you mentioned a little bit that people should know something about the business you are in.

EVERETT JOHNSON: You're absolutely right.

QUESTION: How about adding positions?

EVERETT JOHNSON: Are we talking about parent or hospital board?

QUESTION: Hospital board.

EVERETT JOHNSON: Sure, I have no question about that. I think any hospital that does not add positions is going in the wrong direction. But I think they ought to be the key leadership roles in the medical staff because the board functions in that instance as a coordinating mechanism. At the parent, I don't think so. On the other hand, at the parent level, there's got to be a sensitivity, if we're going to do a certain business venture. How is this going to impact our medical staff? Is it worth the risk of adverse reaction from a medical staff? Or how do we limit the risk or impact on the positions? And many times I see business plans that I think are half-baked but never include in the plan how we handle or how we assess what it does to the current members of the medical staff of the hospital. They just completely ignore it. The most common example I can think of is when we start some primary care centers away from the hospital, and we staff it with newly employed physicians on a salary and ignore the economic impact on the attending staff. They are competing with the doctor's office building two blocks away. All those guys are on your medical staff and they get mad, and then people wonder why. I just do not understand this kind of thing.

QUESTION: Ev, I know you have strong feelings about board composition in hospitals. I've heard you speak less about board composition of subsidiaries. Well, basically the question is, it sounds like you have lots of concerns about the way hospital boards are structured, but aren't there even more concerns about how the subsidiary boards are structured?

EVERETT JOHNSON: Not more, but equal. I would think you can find all kinds of different types of errors when you go into this area. I guess the most typical thing is that a hospital board or the parent decides we have six little subsidiaries that we hope will go someplace. And they have a board of twenty-two people. They divide them up and put them on those boards, and the administrative staff assigns one or two administrators of their organization to that board likewise. Do you know what happens? I know some CEO's in the parent who spend over half their time in board meetings. I don't know how you get anything done when you do that. I think the most effective way to do it is to have a very small board on the subsidiary. Three, four, or five people, mostly management, maybe one from the parent board who is not management so that they would have some kind of a control, like an audit on the system. And that's the way I would go. Just to save time to get a focus on what you are doing. And I'd put them on a bonus system to get the job done.

QUESTION: When you develop that kind of a harmony, aren't you running a risk of individual subsidiary corporations doing things that will harm the parent corporation -- harm the hospital corporation -- and establishing the kind of competition that might be set up between the main business and relatively autonomous subsidiaries?

EVERETT JOHNSON: That is why you have a parent organization. I would say this, as a useful adage, decentralize decision-making, centralize coordination. That is easier said than done. But if you follow that principle, I do not think those problems occur. Or when they start to occur, you know about them and step in and take corrective action.

## DIVERSIFICATION AND STRATEGY OF MULTIPRODUCT HEALTH CARE FIRMS

STEVEN LAZARUS: I have difficulty leaping into the subject of diversification. From my perspective, the perspective of a former executive of a major health care company and a present board member of a community hospital, the diversification decision is often a derivative, one possible consequence of a process, and not necessarily the best one.

Optimally the diversification decision emerges from a continuous and thoughtful planning process. I want to spend a few minutes and describe what I mean by that.

I have found that effective planning -- whether it be conducted by a corporation, a hospital, or the Department of Defense -- has three major characteristics: intent, a scanning technique, and the capacity for opportunistic modification.

By intent, I mean central purpose or central direction. I am inclined to use the metaphor of a journey, a cross-country trip. You head for Seattle and irrespective of the detours and diversions you experience, your default position always points you toward Seattle. In my judgment, the shared perception of a central tendency is the organizing principle of an institution. This has implications for a diversification strategy.

While planning intent is necessary, it is also dangerous. Habit can replace reason and activity can become robot-like. Those familiar with Shirley Jackson's short story The Lottery will recall the image of a prosaic community annually selecting one of their number to be stoned to death for a reason long forgotten.

One of the two great potential flaws in any planning system is the absence of a scanning mechanism, a well-disciplined and coherent method for gathering factual and current information on environmental change and competitive activity.

The tendency of institutions and enterprises is to be insular and inbred. It has frequently been asserted that many of the problems of the U.S. automobile industry originate in the tendency of automobile executives to believe that the entire world was composed of Grosse Pointe and Bloomfield Hills, Michigan.

Technologies change, and such change renders practices obsolete. Economics change, vastly modifying anticipated financial return. And perhaps most importantly, competitors act. Most competitive action requires response if an institution is to remain healthy.

The second great potential flaw in a planning system is the inability to take opportunistic action. A scanning mechanism will provide intelligence

regarding environmental changes and competitive activities but such intelligence is useless if it does not trigger timely mid-course corrections in the flight path of a plan. Returning to the metaphor of a plan as a journey, these would be the detours and diversions necessary to permit continued progress toward the original destination.

So much for planning abstractions. It would be useful if, in practice, planning systems operated in this fashion, but all too often they do not.

In many institutions planning systems do not even exist. This was the case with most hospitals well into the 1980s. More often they are peripheral and are treated by the decision-making apparatus of the organization as adjunctive. Decisions are consequently all too often a product of egotism, insularity, all the penalties of success. And non-decisions, a particularly virulent consequence of flawed planning systems, are more likely. In my judgment, institutions and enterprises tend to be inertial, tend to resist change, and all too often fall under the aegis of mediocre leadership.

Against this background, let me take up the subject of diversification. I have always found it to be a faddish word -- like competitiveness -- and a potential trap. It was in the name of diversification that many of the Rube Goldberg conglomerates - the LTV's, LITTONS, and ITT's of the 1960s were put together -- and these have not proven to be enduring constructs. Furthermore, diversification in my opinion, must always be examined as one of several alternative strategic responses to environmental and competitive changes. Others might be restructuring, vertical integration forward and backward, consolidation, and so forth. In part, we are dealing here with a problem of definition. The term -- diversification -- is blurred at the edges. Some use it as a rubric for all forms of enterprise modification. I will try to employ it in a narrower fashion.

Why diversification? Since I am speaking from experience and observation rather than to report the results of disciplined research, I must hypothesize.

The two primary motivations are fear -- usually prompted by identification of a perceived strategic threat, and, secondly, the appearance of opportunity. Unfortunately, all too often the opportunity is made manifest by the action of a competitor and the decision to diversify then becomes intrinsically imitative.

The involvement of ego is worthy of some research. Powerful CEOs with docile boards gain national swashbuckling reputations through aggressive acquisition programs. And by doing so they have made their companies tempting targets for takeover specialists who could calculate considerably higher breakup values.

But before I give you the impression that I believe all diversification to be unwarranted, let me hasten to say that there has been and will continue to be successful diversification.

I will try to describe what I believe to be certain critical success factors. The first is what I call "relatedness," a difficult term to define. It might be easier to illustrate what it is not. AVCO Manufacturing, since swallowed by Textron, both classic conglomerates, briefly flirted with the movie making and distribution business and failed. No one from AVCO's Industrial Manufacturing or Financial Services arms understood it. Market familiarity is enormously helpful but many enterprises trap themselves by loose definitions of markets.

During the last ten years, several large pharmaceutical companies moved into the field of medical devices and found that industrial sales to hospitals was a very different thing than drug detailing.

"Skill leverage" is often cited as a strong success factor in diversification. American Hospital Supply Corporation had a great success channelling an extraordinary heterogeneity of product lines through its enormously strong distribution system. Baxter Travenol, my alma mater, employed world class skills in sterilization and plastics packaging to develop a variety of business relating to the human blood stream.

On the other hand, the Voluntary Hospitals of America have difficulties creating an insurance entity even with Aetna as a partner. Humana has had similar difficulties and it will be interesting to see how well HCA and Equitable fare together.

I would speculate that decentralized independence of operation is a success factor in diversification -- provided there is a strong effective leadership in place. Bristol-Meyers has diversified successfully for decades using this principle and continues to do so as it moves into biotechnology with the acquisition of Genetics Systems. Abbott Laboratories is another example of effective decentrally-managed diversification.

Deep financial capability is helpful. Several years ago Dupont set out to build a health care group, largely through acquisition. If an enterprise has the resources and the stamina to ride out the inevitable early mistakes, diversification can ultimately be successful. On the other hand, Warner Lambert is a good illustration of how much a company stands to lose by not recognizing the difficulties of venturing into a new area.

While hospital diversification is not my specific topic, the present trends in both community and teaching hospitals raise the spector of managerial overload.

For example, Beverly Hospital, a 233-bed facility north of Boston, is today a mini-conglomerate operating acute, long-term, home care, medically

assisted housing, ambulatory care, a medical office building, a kidney dialysis center, and a birthing center. It has relationships with a variety of managed care entities and is exploring affiliation relationships with other provider institutions and groups. This same pattern is being repeated throughout the country and presents an enormous challenge to hospital leadership, much of which is relatively new.

As a final element of my presentation I would like to illustrate some of the material thus far discussed with three experiences from my years at Baxter:

1. ENTERING THE HOME CARE BUSINESS -- 1980

Strengths

- A good planning system in place.
- A strategic assessment showing treatment locus shifting out of the hospital.
- An existing skill set and core distribution channel developed over fifteen years for the home dialysis business.
- Strong relevant technology.

Weaknesses

- Lack of awareness of systems needs and different operating requirements.
- No experienced managers.

Assessment

- After seven years, a strong success.

2. BUILDING A HEALTH CARE INFORMATION BUSINESS -- 1981

Strengths

1. Presumed access to the buying marketplace
2. Some in-house technical skill
3. Financial capability
4. Successful models to emulate

Weaknesses

1. Late to market
2. No market selling experience
3. Effort required to integrate acquisitions
4. Time required to build infrastructure
5. Inadequately anticipated competitive reaction

Assessment

- After six years, just into the black



### 3. MAJOR CONSOLIDATION -- 1985

#### Opportunities

1. Outcome could be world's largest/strongest healthcare company
2. Enormous synergism available

#### Risks

1. Large debt
2. Necessity to integrate cultures
3. Still within healthcare -- an environment becoming more difficult
4. At the moment of entry -- a bet the company gamble -- putting it in play

#### Assessment

1. Strategically preemptive move
2. Still shaking down but looking successful
3. Market valuation has doubled

The future health care executive, like Paul Tillich's comment about 20th century man, must learn to become comfortable with ambiguity. The environment forces this executive toward a variety of economic activities such as the consideration of diversification and away from maintenance of quality of care. I maintain that this will become something of a "O sum" game, and quality will suffer. It is a matter for serious public policy consideration.

LYND BACON: Thank you, Steve, for your useful insights and views on diversification, strategy and planning. In responding to your comments, I'd like to first make some observations, some of which are speculative, on context of strategy-making in general. I'll then spend just a few moments considering strategy-making from the standpoint of the key decision-maker.

The examples of diversification that Steve just gave illustrate that some strategic issues faced by different kinds of firms in the same industry at roughly the same time can be quite similar. This is due to the fact that changes in the factors controlling market structure determine the bounds on the behavior of firms, that firms in the same distribution channel can, under many conditions, affect each other, and finally that competitors can affect each other's output decisions. In the health care industry, the inventory behavior of hospitals affects the behavior of firms that supply the inputs to the treatment production process. When major regulatory change and technological innovation began to stem the growth of the inpatient care market, many hospitals implemented strategies to reduce inventory costs (and also, parenthetically, to diversify). This undoubtedly affected the profitability of supplier firms and caused them to seek new opportunities, some of which Steve has just described. The important observation here is that strategies of firms in the same industry are intertwined.

Diversification can be thought of as either a characteristic of a particular market, or as something a firm does. Most of our discussion today has employed this latter definition. Different types of diversification can be distinguished. In the tradition of the study of industrial organization, diversification may be either "related" or "pure conglomerate" in form. This relatedness, which Steve has referred to, is usually in terms of production processes, channels of distribution, or managerial expertise.

From a marketing perspective, diversification means entering a new market with a new product, as distinguished from new product development, new market development, and market penetration. This fairly common definition is due to Ansoff (1957). All of these are a type of growth strategy. Kotler (1980) has advanced a slightly different definition. He defines what he calls "concentric" diversification as entering new product/markets where synergies may be exploited, and "horizontal" diversification, which is a new product in an existing market. Other definitions may be found.

These differing definitions may suggest to you that there can be problems with actually measuring diversification, and these problems are non-trivial. It is not always clear how much a product can be changed before it becomes a new one, nor how much the needs of consumers must change before a new market is being served. In the literature examining the relationship between the diversification of manufacturing firms and other firm characteristics, diversification has been proxied in various

studies by the number of S.I.C. codes, and the spread of total sales volumes across codes. Such measures don't obviously indicate the idea of "relatedness", which, from a strategy-formulation perspective, is an important construct. Good measures of diversification that represent economies in the production of related health care services are clearly needed to study diversification across health care firms. Generally speaking, if you have difficulty measuring a construct, you have difficulty determining its effect. It may therefore be the case that market-wide, a posteriori analyses of the effects of diversification may be less illuminating than well-planned case studies that generate useful hypotheses and suggest comparisons to firm behavior in other industries.

I think we can all agree that diversification results from some kind of decision-making process within a firm and that generally this behavior is goal-directed. Given that these decisions are a response to market characteristics, diversification is "downstream", so to speak, from a variety of factors that must be understood to understand diversification. One aspect of real markets that is little understood consists of the dynamic interrelationships between the strategies of firms.

Any firm can be thought of as having to deal with two classes of decision problems related to its environment. The first consists of managing its channels of distribution. A channel of distribution may be thought of as consisting of multiple decision-makers with separate decision variables. These variables include things like quality and price. Such a channel in health care could consist of a supplier and a hospital, a hospital and a physician, or supplier and hospital and physician. How each channel member behaves can be shown to have implications for the profitability of the other channel members. It should be noted that, generally speaking, channel profits will be submaximal if coordination in distribution is lacking. This will happen in the case where independent decision-makers act purely in their own self interests when setting the values of their decision variables.

One way of coordinating distribution is vertical integration. The conventional wisdom is that this strategy is advisable when market growth is occurring, and it was commonly discussed in health care not long ago. Vertical integration means that some channel members must give up control over their decision variables. Some potential undesirable results may be that variable costs will rise because of centralized decision-makers not having the same level of expertise as the old ones, having to buy products from competitors, and possible anti-trust violations.

Another way of coordinating distribution is by simple contracting between firms for specific performances. Here some channel members also must give up control. There may be incentives to cheat in the short run, and enforcement of contracts can be difficult.

Jeuland and Shugan (1983) have shown that cooperation amongst

channel decision-makers that results in profit sharing can maximize profits for all. So one way of managing or coordinating distribution is via cooperation. This might take the form of quantity discounts, variable contracting, or implicit understandings about intents to set decision variables. Their solution requires that the channel members bargain to split the total profit, among other things.

At the same time that firms must manage their distribution channels, they must also deal with firms that compete with them by providing substitutes for their products. It seems clear that there exists a set of horizontal relationships between the strategies of competing firms such that their output decisions are interdependent, i.e., under oligopoly. It is the nature of these relations that the so-called "competitor analysis" advanced by Porter and others attempts to capture. The linkages between the strategies of these firms are suggested in the literature describing bargaining and multiperiod games, but a rich and ecologically valid description of them awaits further empirical investigation.

The relationship between all of this and diversification is that diversification results in more decision variables and relationships to be managed, and this additional complexity would seem to be a disadvantage of doing it. The conventional wisdom about diversification is that you do it when your current markets are mature and your goals require growth. The executive considering whether to pursue diversification (or most other strategies, for that matter) in the face of these market interrelationships, finds him- or herself in a difficult decision situation. They face a relatively unstructured problem that is novel, complex, and open-ended. He or she has little opportunity to practice, or to evaluate whether the choice that is made was correct after the fact. This decision-making context is "variable rich" and may sometimes be "data poor". At other times an abundance of data is available, much of which may be irrelevant to the choice at hand. Filtering these data can impose a significant burden on the decision-maker.

The literature on decision-making can offer us some insight into what to expect from strategic decision-makers under such circumstances. It suggests that the strategist will be prone to perceptual biases that will reduce the complexity and ambiguity of these situations. Specifically, he or she will be subject to: biases towards considering too few strategic alternatives; miscalculating risk; problem set; illusions of control; and incomplete analysis of critical assumptions. Whether these biases are adaptive or not remains to be determined, as is how they may be shaped by experience.

In sum, the following observations should be gleaned from all of this:

- 1) Diversification is but one possible strategy, and like other strategies, reflects a response to market characteristics and is a result of some decision-making process;

- 2) The strategies of firms under conditions of oligopoly are probably linked in fairly consistent ways. A theoretical and empirical basis for these relationships is developing, but a rich description of them based on first principles has yet to come;
- 3) The executive decision-maker faces a difficult problem-solving situation when making strategy. The nature of the task gives rise to certain biases in perception that probably serve to reduce the effort required to make a decision to manageable levels. The importance of these biases, how they differ across individuals, and how they may be shaped by experience, have yet to be determined.

QUESTIONS AND ANSWERS FOLLOWING TALKS BY MESSRS. LAZARUS AND BACON

QUESTION: I would like to ask Steve a couple of questions. One, it seems to me that when Baxter was looking at a medical information system, almost any administrator down the street could have told the company what the situation was going to be like competitively. The other question...

STEVEN LAZARUS: Many of them did.

QUESTION: Then why didn't they listen? I would like a fuller explanation of that. The other question: did Baxter have any ideas of merging with American Hospital Supply prior to HCA and American Hospital Supply?

STEVEN LAZARUS: Well, let me answer the last one first: the evolution of Baxter's decision. A couple of points have probably remained obscure in the millions of words that have been written about that acquisition. American Hospital Supply was founded in 1926. Baxter was founded in 1931. Until 1962, Baxter's product was distributed exclusively by American Hospital Supply. In the 1930s, Foster McGaw of American Hospital Supply was a member of the predecessor Baxter Company board. There has been a long, intermittent, entwined relationship between these two companies.

But that is not to suggest that the answer to your second question is yes. What was happening in 1984 and 1985 was that Baxter was examining a series of alternatives with which to address what it felt was a very serious strategic problem. Baxter had been enormously successful, particularly from 1965, after the passage of Medicare and Medicaid, to the early 1980s, in selling a premium product that was rather narrowly based. Baxter was not what you would call a diversified company. Then, as the environment began to shift to one of intense cost pressure, Baxter recognized that its margins were going to contract. American, on the other hand, had a very broad product line. Abbott had an enormously diversified product line. That was generally the world that Baxter decision makers and planners considered. In addition, American had tested the idea of bundled, joined marketing, and had been placed under an injunction by the courts as a consequence of a suit by a smaller distributor. At about that time, the suit was lifted, and American won. Therefore, Baxter was confronted with the specter of its large competitor, American, doing bundled selling in an environment of narrowing margins. It would not have happened overnight, but it was a very serious threat to Baxter's continuing existence.

Thirdly, this thinking was all done in an environment of a very strong dollar so that Baxter's international businesses, which represented somewhere around a third of all sales, were not contributing to improvement of the P & L. It was a tough situation to be in, and the subject matter of many planning retreats and conferences. The idea of a strategic acquisition was discussed. The idea of associating laterally and horizontally with another health care company was discussed and pursued.

It was pursued to quite some degree. It did not happen to be with American Hospital Supply. When the announcement about HCA-American Hospital Supply was made, that put American into play. The reason why it put it into play was because not only was it announcing an association with a seemingly anomalous partner, but also the economics of this association suggested that American was selling itself at a discount. At that moment, the acquisition became an obvious option. From then on, it was a question of developing internal strategy and drafting the tactics for the move, making decisions as to when, convincing the board, and going through the kinds of things that are necessary in order to do it. I would say that it was a judgment made by a set of prepared minds.

QUESTION: Does that imply that they helped disrupt the HCA-American relationship?

STEVEN LAZARUS: They, meaning Baxter?

QUESTION: Yes.

STEVEN LAZARUS: Oh no, Baxter had all the motivation in the world not to do anything that would be interpreted as being adverse to HCA. HCA was Baxter's biggest customer, and the last thing in the world Baxter was going to do was take an action adverse to HCA's interest. Up until the moment of the tender for American, and then it was kind of a cross to aggressive friendliness at that point. So it was quite an exciting and dramatic gamble when that decision rolled out. Now your first question had to do with...

QUESTION: Medical information systems. Everybody, at least in the field, knew what you were faced with.

STEVEN LAZARUS: In part, we were victims of our own analysis. I also think there was something of the Grosse Pointe, Bloomfield Hills Syndrome that I described before. First of all, we thought we were terrific. We thought we could do anything, and play on any field in any game in any place. Secondly, we had an opportunity to acquire HBO privately during that period. It caused us to do an enormous amount of due diligence, looking at HBO as a company. So in the course of doing that due diligence, we learned more about the industry than we might have otherwise learned.

That is an illustration of what I mean by opportunistic action. Something comes along, you learn something, and then you are perhaps inclined to do something about it. Thirdly, there were some valid considerations. Shared Medical Systems was still largely involved in a time-sharing technology. We knew that it would have a tremendous investment to face and an asset to protect as it moved from a time-sharing technology into stand-alone computing, which as you recall was still very early in its development in 1980 and 1981. It was before that time that every freshman in every college had a personal computer or every junior in

every high school got personal computers. It was a different era, that was point number one. Point number two was that no one was IBM's major associate, and we had an opportunity at that moment to become IBM's major health care software vendor. We thought the partnership with IBM had enormous potential and a strategic advantage. There were also a couple of other considerations.

Now that decision is what I would term "analysis-heavy". It was not informed by going out, and I hate the word "focus groups" or "delphi studies". It is just getting out into the marketplace and really understanding how the marketplace thinks. That is a process I compare to peeling an onion. You cannot accept the first reaction you get. You have got to dig and dig and dig, and verify and cross reference and confirm. It is much like doing a newspaper story on Gary Hart. It's what you should do, it's what we did not do. Thus, we suffered a great deal of pain, and since then we have spent a lot of money, ultimately making that business healthy. But now, finally, the curve has turned. It will take us years to get our investment back. But I think that the company will survive in that business.

QUESTION: My experience has been that the ego of the people within the company looking these things over is such that when you try to tell them information, sometimes they totally ignore you. They say, "We're the bright guys; forget it." So you always run into that problem.

LYND BACON: All I can say is it helps to have a couple of painful experiences along the way. Then you get to learn that lesson.

STEVEN LAZARUS: Let me try to illustrate out of my board member experience rather than my company experience. I think I could do both, but I chair a joint conference subcommittee of my board, which is the place at which the medical staff and the board members come together at a level just under the plenary session of the board. Our topic last night was the implications of 1987 and the movement into national rates on DRGs. Then we showed ourselves what that would mean for our hospital. We calculated the amount of cost shifting that it might entail, either cost shifting or finding some ways to get the length of stay down further. We were dealing with very practical problems. Then we started discussing the consequences of the actions that we might take in order to get the length of stay down further. Each one of these actions, in our view -- both board members and medical staff members -- was more and more marginal in terms of its potential effect on quality of care. In other words, each one represented in our minds a larger and larger increment of risk to quality of care.

Yes, we did come up with a whole set of ideas, and in this hospital over the last three years, we have implemented an extremely sophisticated and labor-intense effort toward ensuring quality. We measure it better than we used to, and we measure it formally at all levels. We started to do recredentialing re-examination. We did the things that you read about.



As for efforts toward quality of care, we are now making most of them. But still we have this foreboding that the economic imperative is increasing in intensity and we are running out of ideas, to the point that one of the questions discussed last night was: when are our senior physicians simply going to throw their hands up and start considering retirement? That is the nature of board discussions these days, as the jaws of this vise close further and further. I am not painting a happy picture, but those are the issues with which we are grappling. And in a forum devoted to diversification, we are just like Beverly Hospital. We are doing a panoply of the same things. Once again, it takes all of us enormous time to try to start up and manage these things as well. I think that was your point earlier as I was walking in.

QUESTION: It is hard to predict what is going to happen, isn't it?

STEVEN LAZARUS: That is my feeling about it. I have yet to encounter the first person who has successfully controlled the future.

QUESTION: But people are being very creative, aren't they?

STEVEN LAZARUS: I guess I am reminded of Dr. Johnson's comment that there is nothing like the imminence of hanging to concentrate the mind. When you start examining an environment that appears increasingly hostile and demanding, and your options start to narrow, perhaps you start considering things that you might not have hitherto considered.

QUESTION: The question that I have is this: Had the market competitive situation been assessed properly, would Baxter have ever gone into it?

STEVEN LAZARUS: What I am grappling with right now is the definition of the word "properly." Because of the way you are asking it, it is kind of a rhetorical question and must be answered no. And frankly, I think the answer is no. I think in retrospect evaluating that whole series of events, although I was intimately connected with it and it is like talking about your child, it was probably a mistake simply because we had better opportunities for those funds.

QUESTION: Are you sorry you initiated those ventures?

STEVEN LAZARUS: Oh no, quite the contrary. What I was trying to do was set up two very different situations, both of which were risky, but one of which was likely to succeed and one of which was likely not to succeed. The home care decision was a good decision. We did not understand it as well as we should have, but we had enough of a critical mass of the right things to turn it into an enormously successful business.

QUESTION: Did you understand the major negative factors?

STEVEN LAZARUS: I have got to understand what you are interpreting as major negative factors. To me, the two biggest downsides in the home care

decision was a lack of understanding of the information intensity. I am here to tell you that in 1980, no one knew that. Home care was a burgeoning new business. Baxter was in it early rather than late as was the case with the information business. The thing I think we could have done better was reach outside and try to find somebody who had much deeper professional experience in delivering products and care in the home than we had. We tried to do this with hospital-trained executives. They learned by on-the-job training, and that cost an enormous amount of money. But I watch that experience repeat itself over and over again. I watch W.R. Grace today, going into the publishing business and dismissing all its publishing executives.

QUESTION: It seems that it takes six or seven years to get a diversified business moving. Is that your guess about Baxter and American?

STEVEN LAZARUS: If I gave that impression, I misled you. It will take five years for that consolidation to fully shake out.

QUESTION: What are the characteristics of a good acquisition?

STEVEN LAZARUS: Let me answer that in two ways. First of all, I tried to use Bristol-Meyers as an example of a good acquirer. Bristol-Meyers has made lots and lots of good acquisitions. The acquisitions were good independent entities which almost immediately contributed to the total corporation. The company has made some bad ones, but most of them have been good. One good example was Abbott's acquisition of Ross. Ross Laboratories was performing the moment it became part of the Abbott family, and it is still contributing an enormous cash flow that enables Abbott to do other things. That is probably the fastest way to diversify. But as somebody who, during the last six years of his life has either made or participated in six acquisitions, I must tell you that I have not yet had an experience similar to Abbott's experience with Ross. Every one of those acquisitions was infinitely difficult. It is hard to predict what is going to make a good acquisition. In terms of speeding up the process, the rate-limiting factor is the melding of culture. I know that is a terribly soft, social science kind of statement, but it is absolutely true. I believe it. And what I would like to do is rivet the attention of certain capable social scientists on that issue, on the issue of melding of culture. It has simply not been researched adequately. There is no good prescription for how to go about it. I almost think the appropriate solution is to dismiss as many people as you can, except the absolute imperative specialists, and start all over again. The problem of closely held beliefs is the most intractable, most refractory problem I have ever had to handle.

QUESTION: It seems to me there is a world of difference between dealing with the provider and providing patient care. If you could just comment on that. In terms of an education program, and other aspects...

STEVEN LAZARUS: To begin, in the original decision for Baxter to go into home care, the company scrupulously avoided the actual provision of

patient care in the home. What it provided were supplies and support systems. It contracted with providers of care to provide simultaneously the care in the home. Most of Baxter's home care businesses are joint ventures with hospitals. Baxter avoids that very real problem. Now some other industrial or corporate entities have gone further than Baxter has. For years, Upjohn provided semi-trained and in some cases, slightly better trained personnel in the home. I examined Upjohn and studied that issue, and came back and recommended strongly that Baxter not get into that business. It is a very difficult business to manage and a very difficult one to execute. And with margins like the ones Upjohn was achieving, there was no particular incentive to enter.

QUESTION: Is it better to acquire large or small entities?

STEVEN LAZARUS: We probably did it in the worst possible way. Every year we added a new acquisition. So every year, as soon as we got a little more stable and built a structure that could work internally, one acquisition with another, we would destabilize it all over again by making one more acquisition. So we probably did it in the worst possible manner. Finally in early 1985, we stopped acquiring. We then had a full array of systems and we had what we considered to be a critical mass. During the intervening two years, the company has fully integrated those five acquisitions into a single sales force, a single service group, and highly specialized, individualized research and development groups, depending on the instructions for the particular system. The company has even come away from its perhaps excessive dependence on IBM equipment.

QUESTION: What general advice would you give?

STEVEN LAZARUS: Well, the trouble with offering advice is that it sounds like the Old Farmer's Almanac all the time. You are going to hear everybody who is here today say it is ten times more difficult than it seems. When I say a decision is "analysis-intensive," I mean that as a pejorative term. It is a decision made by a lot of people within the enterprise. They sit around and convince one another. I think as a model, I would be inclined to go to the seed capitalists and the venture capitalists. They have learned how to do this. One of the things I am learning from them in my current responsibilities at the university is that they do very few things. They do enormous due diligence. They investigate beyond anything you could possibly imagine. They check sources and they check sources of sources. They verify and confirm every assumption in three ways. As risk-inclined as venture capitalists may seem in behavior, they come across as the most risk-adverse people you have ever seen because they are ultimately careful. After that, they do very few deals. A partner of any one of them -- Perkins, Robinson, Coleman, or Venrock -- they do very few deals. When they do go into a deal, they commit themselves like a monk to a vocation. They absolutely commit themselves to spending 60 to 70 hours a week at the beginning and finding people who are willing to do that as well. This is why the process of incentives is so important in an entrepreneurial start-up. The idea of

getting a manager totally committed to the outcome of the enterprise, and not to sustaining his or her salary, is novel. The manager totally committed to the outcome of the enterprise knows that the real objective, the glittering prize, is wealth. Even then, only one or two out of five succeed, not four out of five. It is a terribly risky business. I would use that as a model in diversification.

QUESTION: How do you get this perspective in a large enterprise?

STEVEN LAZARUS: I think I have to answer that question from a couple or maybe even three different perspectives. In a large multibillion-dollar company, we tried as hard as we could to make the product development process a matter of small teams with entrepreneurial incentives and a lot of independent and discretionary decision-making authority. In the end, it tended to be artificial. It was hard to get out from under the long shadow of the large bureaucratic company. That was my experience within a large company like Baxter Travenol.

Currently, as we try to commercialize intellectual property at the University of Chicago and Argonne National Labs, we start with the result of an investigator's work in a laboratory. We usually begin with a concept or an idea. My work does not begin until an investigative record or an invention record has been submitted for potential patenting. Then the process is a very long one of bringing that idea to commercialization. That is totally analogous to what the venture capitalist does.

You look puzzled, I think I haven't answered your question.

QUESTION: You have little faith in consolidations, correct?

STEVEN LAZARUS: I am not sure how you are using the word "consolidation." I use it in a very macro sense. But when a Warner Lambert buys an IMED and a Deseret, and then ultimately has to sell it back for half of what it paid to me, that is a failed diversification, not a failed consolidation. As I remarked earlier, one of the problems here is that you can get into quibbles about semantics. But I define that kind of event as a failed diversification. To me a consolidation is when two entities are both sacrificing a part of their independent operation to form a third new thing. To me, that is a very different kind of operation. It is like airlines executives going around and collecting other airlines and then forming them into something new called Allegis or some such thing.

QUESTION: It is very important not to forget that we are benefiting from hindsight by looking at all this. So often in retrospect, things seem much more obvious than they did at the time the decisions were made. Getting back to the venture capitalist approach where they seem compulsive but also take a lot of risks, it seems to me that the things that they do are highly focused.

STEVEN LAZARUS: I suppose another way of stating it would be to say

that they are highly focused. That is another way of looking at success factors. It takes a kind of focus that none of us are required to do ordinarily. It takes an intensity. Peter Drucker calls people like Dimadian, the inventor of magnetic resonance imaging, megalomaniacs with a mission. I think megalomania is not too extreme a definition of what is required to make one of these things successful. You do tend to give up a great deal that most of us normally inventory as quality-of-life things. You give up family, you give up other advocations, and you give up other things you like to do if you want to make this a success. I am not saying that it is the right thing to do. It is just that if you choose to do it, you should recognize that these things need to be sacrificed.

QUESTION: Are you talking only about individuals involved in the process giving things up? Aren't you also talking about organizations giving things up?

STEVEN LAZARUS: I am talking basically about those representatives of the organization who are taxed or charged with making diversification succeed. To me it is entirely analogous to the entrepreneurial start-up. Obviously, the organization gives up something too, as we said before, of opportunity, cost and so forth. If the organization chooses to intervene in the process, then it better be ready to act just like the individual entrepreneur executive. But it is hard for me to characterize what the organization as a whole must do in terms of trade-off.

QUESTION: Are you pessimistic about diversification?

STEVEN LAZARUS: I did not mean it in light of diversification strategy. I was using diversification as an example of the whole array of economic imperatives facing a health care executive today.

## LESSONS FROM THE RESTRUCTURING OF THE FINANCIAL INDUSTRY

RONALD ANDERSEN: Diversification activities have developed much more slowly in health services than in some other areas. There may be important lessons to be learned from these sectors. With that in mind, we have asked Ken Cone to speak with us about diversification in financial services. Ken is Director of Regulatory Studies for the Chicago Mercantile Exchange. Prior to that, he was a consultant at Booz Allen. From 1982 to 1985 he was assistant professor in the Graduate School of Business at the University of Chicago. He has a Ph.D. degree in economics from Stanford University and a bachelor's degree in economics from Massachusetts Institute of Technology. His research focuses on the economics of bank regulation and on problems in financial intermediation.

Our discussant is David Dranove. David is an associate professor of economics, and a member of our health administration faculty at the University of Chicago. He received a Ph.D. degree in economics at Stanford University and has a Masters in Business Administration from Cornell. His research interests include industrial organization, particularly the organization of the market for health services. David has done quite a bit of publishing as well -- at least enough to get promoted.

KEN CONE: The title of my talk is "Lessons From the Restructuring of the Financial Industry". I guess this title would imply that I am going to look at what has happened in financial services and use that to draw some conclusions about what is likely to happen in health care. But there is some false advertising if that is the implication, because I do not know anything about health care. That by itself is not so bad, but I suspect that some of you do know something about the field. Therefore, I am definitely not going to say very much about health care.

What I will do that I think will be useful to you is to try and draw some general conclusions about what is happening in financial services that I think would be applicable to any industry, and hopefully to health care. The first point I want to make is that when you look across industries and make comparisons, you can get yourself into a lot of trouble if you draw generalizations too easily. I will give you a specific example from two industries about which I at least know something. Airlines and banking have often been compared because in both cases, there have been deregulation efforts that look fairly similar. Both industries were regulated in terms of price and entry of new competitors and geographical expansion by existing competitors. In both industries, those restrictions have been relaxed a little bit. You might therefore expect similar results in the two industries. But you have to be very careful. In the case of airlines, the major determinants of who has been successful under deregulation are (1) who can get labor costs down, and (2) who has access to existing terminal landing facilities at key airports.

In banking, however, labor costs have not been a factor. In the

airline industry, the limits on competition created monopoly profits. Labor captured a lot of those profits. Under deregulation, those profits were competed away and that was very painful for labor and for the airlines. In banking, it turned out that the banks could compete aggressively even under regulation, and that a lot of those monopoly profits were not there.

You have to be very careful when you make that kind of comparison. You have to look at the specifics of the industry.

Now, having said that generalizations are dangerous, I will draw two general rules. But they are so general that I think they are safe. The first one is that things happen for reasons. It sounds obvious, but it is something that is often overlooked when people talk about industrial restructuring. We talk as though things happen because they are in style. Or they happen because they happened somewhere else and therefore they ought to happen here. That is a dangerous approach to take. I believe in cause and effect, and I think that if you see any kind of systematic change in an industry, if you look closely, you will see that a change in the environment precipitated it.

The second generalization I would make is that change takes time. And that is also something that we tend to miss, something that we, who come from an academic point of view, tend to overlook. But the fact that the old industrial structure has survived for a little while in a new environment does ensure its safety. Incidentally, there is another implication from that which is a little more cheerful. Because change takes time, there is often time to get out in front of it. If you are perceptive about what the fundamental environmental changes have been and what they imply, there is often time to respond to it.

Now let me turn specifically to the financial industry. I will ultimately focus on two very specific case examples of what is going on in financial services because the whole problem is much too broad to observe. I am going to focus specifically on mortgage banking, an area in which most people here probably are not really aware of some of the changes that have happened. I am also going to talk about the changes initiated by Sears, which most of you are familiar with. Before I do, I have to say that in general terms, the reason why I cannot talk about everything in financial services is because everything has changed. It is really too broad a subject.

The financial industry has had one of the most dramatic changes in its environment of any industry. If you were to compare the financial environment in 1970 to what it is now, you would see a different world. In 1970, you did not wake up in the morning and read about what the dollar did against the yen in Tokyo the previous night, because the dollar did not do anything against the yen in Tokyo. It was fixed. As for interest rates, mortgage rates were six percent because that is what God wanted mortgage rates to be. Now we are in an environment in which mortgage

rates can change two percentage points in a week, and in fact, they just did. That is very painful for a lot of existing production methods in the financial service. That sort of environment is very difficult and dangerous for providers of financial services. This gives me a good chance to put in a plug for my employer, because the Chicago Mercantile Exchange specializes in helping people deal with that kind of risk. Incidentally, it was because the leaders of our exchange understood the implications of the new environment back in the early 1970s that we have done as well as we have. A lot of other former commodities exchanges out there are still specializing and trading things like cotton, coffee, and sugar.

In 1970, all our business was in things like pork bellies. Since then we have moved into financial products in a large way. They are probably 85 percent of our business now. We have gotten very big doing it and that is because we got in front of that change.

Another major change has occurred to the technology in financial services. A lot of it is invisible to people who are not in the industry, but some of it is very visible. I think automatic teller machines (ATMs) will ultimately change the way in which retail banking operates, because retail banking has always been based on advantages of convenience and location. People went to banks that were nearby. Obviously, an ATM changes that. For routine transactions, it essentially gives me equal access to dozens of banks. This is an example of a change that I think is going to take many years to work through the system because there are a lot of customers out there who have established relationships with banks. In fact, probably at least half of all retail banking customers have refused to use ATMs despite the efforts banks have gone through to get them into the system. But those customers will not be around forever, and as new customers come on-line, ultimately banks that depend on the old system of competing will find themselves facing a smaller and smaller piece of the market.

The last change that we have gone through is regulatory, and I probably do not even need to mention very many of the things that have happened there. They have been so widely publicized.

Now let me turn to diversification, the topic of the symposium, and say a little bit about what has happened in financial services, especially in the two areas I have picked, and show how environmental changes have driven the results. I am going to talk about diversification as the joining of two lines of business that have not previously been done together. That is pretty general, and basically all it says is that they may be related in some way, but that they had not previously been done together. The question is, when is it sensible to do that? The first answer is that the general wisdom right now, to which I subscribe, is that in general diversification is a bad idea. There are always costs to diversifications. The costs are that diversification increases the complexity of the organization and puts management in the position where -- whatever its



familiarity and knowledge -- it is now doing something that is at least slightly different. That is a competitive disadvantage which is difficult to overcome. This does not mean that diversification is always the wrong thing to do. What it says is that there have to be definite advantages that outweigh the costs. You have to be able to identify them ahead of time if you want a reasonable chance of succeeding with diversification.

To carry it further, the conventional wisdom right now, which again I believe is basically true, is that there are two reasons why diversification can make sense and can generate competitive advantage. The first is that there can be cost advantages. If there are shared costs of production, then bringing two businesses together may eliminate at least some of the costs. That advantage is almost always cited in a diversification move, and it is almost never actually there. It does not mean that it is always not there, it just means that it is much easier to see all the fixed costs that you are going to cut out than it is actually to cut them out and have the organizations continue to function effectively. It turns out that most overhead costs are not fixed. They are proportional to the size of the business, and if you double the business, you double the overhead, and then where is your cost advantage?

The second major source of advantage of diversification comes out of customer behavior. Specifically, there can be reasons to offer two products side by side from a customer's point of view. Customers will then be likely to buy one product from you if you can also sell them another. Incidentally, there are reasons to have all of that joint product controlled by one management.

Those are the two major competitive advantages that could potentially come out of diversification. There is also another reason why companies frequently diversify and sometimes diversify successfully. Often when you get very competent managers who get on top of their business and get it running right, they end up with free time on their hands. In a sense, it is much easier to run a business that is running right than to run one that is in trouble. Once you get it going, if you're good, you eventually do that. There is a sense that you can accept additional challenges, and incidentally, make a lot more money by leveraging yourself somewhere else. I think a lot of diversification comes from that. That is not necessarily bad if you are good enough to overcome the disadvantages of complexity. But the point is that it is not a competitive advantage. It is not the kind of thing that makes me scared if I am your competitor and I see you going out and getting into some other line of business because you've got free time on your hands. I do not lie awake at night worrying that it is going to put me out of business. In fact, I might be happy to see you distracting yourself somewhere else.

Now let me talk about some real specifics. I am going to pick mortgage banking because it is an area where there has been a truly dramatic change. In addition, I think it basically comes from a cost-based

diversification advantage, so it makes a good example. To oversimplify grossly, in the old days, mortgages were made by savings and loan associations, period. They dominated the market. What they did is take in deposits and fund mortgages. Savings and loans had a lot of tax and regulatory advantages for doing this. They got tax breaks if they made mortgage loans. They had insurance to protect their depositors against the atrocious risks of holding 30-year mortgages and balancing them with 30-day liabilities. There are tremendous interest rate risks in doing that. But savings and loans are insured, and the depositors did not face those risks.

The old system was very fragmented. There were some six thousand savings and loans, and many thousand other small competitors that also made mortgages. Basically, nobody talked about market shares in those days because nobody had a market share. They had one percent or half of one percent and there was no sense that anyone would dominate that industry.

Now in the last 24 months, some new competitors have entered mortgage banking: the two largest automobile companies in the United States, General Motors and Ford; the two largest retailers in the United States, Sears and K-Mart (actually Sears was somewhat in the industry prior to 24 months ago); the largest retail brokerage firm, Merrill Lynch (which has since gotten out again); the two biggest United States package firms, Owen Illinois and American Can; the two largest consumer finance companies, Beneficial and Household Finance; the two largest insurance companies, Metropolitan Life and Prudential; and Citicorp, which is the largest something -- I am not sure it knows exactly what it is. If you rolled together the announced goals of these competitors, they are aiming for a total of 45 percent of the market. All this in the last 24 months. If I were in that industry as a traditional competitor, I think I would at least be worried about this. The question is why has this happened? I think a lot of what is happening in that industry derives from a change in the way production is organized, and that gives cost advantages to new competitors. What happened, again to oversimplify the problem grossly, is that in the early 1980s, we went through a period of interest rate fluctuations, which I am sure you remember: the prime rate reached over 20 percent. That was very painful to savings and loan associations that had four, five and six percent mortgages on their books and were now paying 15 percent for funds. Just to give you an example of how painful it was, the Chairman of the Federal Home Loan Bank Board, who is responsible for insuring the savings and loan industry, estimated in 1982 that he had about \$5 billion in his insurance fund, and faced negative net worth in the industry of about \$100 billion. The only reason that the industry did not blow up immediately is that the FHLBB just let insolvent savings and loans continue to operate, and we are still seeing them fail years after the fact.

That experience was painful for savings and loans, and both

regulators and savings and loans management became much less interested in making fixed-rate mortgages. Savings and loans stayed in the industry to some extent by making adjustable rate mortgages, but there is quite a bit of customer demand out there for fixed rates, especially when rates are low. Where there is customer demand and no supply, there is a market opportunity. What happened is that Wall Street innovated and figured out a way to resell mortgages, to find a second market for these assets. That idea has become very successful. It was a major financial innovation, basically in response to this change in the interest rate environment. It has had its growing pains. You probably noticed in the newspapers over the last few days that at Merrill Lynch, one trader dropped \$250 million trading in these mortgage-backed securities. People are still getting a handle on how it works. But the fact is, it has made a profound difference in the industry. It has allowed these mortgages to be resold to people who are more sensible purchasers of them than the savings and loans were, because basically a lot of the long ends of these mortgages have gone to pension funds. Pension funds have very long term liabilities, and they do not mind having long term assets.

What all this meant is that the traditional business of making mortgages that consisted of originating them and servicing them -- sending out the bills and collecting the money -- and then funding them by having them in your portfolio, has been split up. We now have a four-step process where it is possible for one firm to originate the loan, the one who fills out the paper. Somebody else packages it and sells it; that is an investment banking function on Wall Street. Somebody else funds it, that is the pension fund. Finally, somebody else does the servicing, and actually processes all the paper. All these functions used to be done at the savings and loans except the packaging, which did not happen anywhere. Now they can be done separately. What these large competitors have realized recently is that there are major economies of scale in pieces of these businesses, and they may be able to capture those. They were previously not the least bit interested in getting in and holding 30-year mortgages. The cost of doing that was prohibitive. In particular, I think most of these firms are focusing on the perceived cost advantages in servicing the loans. The originator, the person who pushes the pencil on the paper, is still potentially a small-scale business because it takes one person pushing a piece of paper around to do one loan. But servicing is really a large computer-based operation, very data-intensive, and it requires a lot of financial expertise, and capital. It is something that GMAC, which already has a huge portfolio of automobile loans, is ideally situated to do. I think that is one of the major drivers for this change, that a lot of these competitors have spotted an opportunity to jump into this industry and get big and get those economies to scale.

That is an example of diversification for cost reasons that I think probably makes sense.

So that is an example of cost-based diversification that works. Now

let me talk a little bit about customer-based diversification. As an example I am going to pick Sears. I have to be a little careful. Number one, I am not with Sears and so I do not know everything about its operations. Number two, it is a big customer of ours. Number three, my office is two blocks from the Sears Tower. I think Ed Brennan would probably throw a brick out his window and hit me, so I must be careful. But it makes such a great target that I just have to talk about it.

There are two aspects to this idea of customer advantages from diversification and two subpoints under that. One aspect is that customers may literally have a convenience advantage to buying one product from you if you also sell them another. That is the traditional supermarket idea. If you sell a customer a hamburger, he will probably buy the potato chips too. The other one is more subtle and that is, the idea of brand name. An example of this would be insurance and securities. No customer may ever buy life insurance and retail brokerage services simultaneously from the same person in the same office on the same day. It is not a convenience arrangement. But there may be a marketing advantage in selling those two things together because they both depend heavily on brand name recognition.

Now on the convenience point, Sears is trying an interesting experiment in mortgage banking (coincidentally). Sears has bought Coldwell Bankers, which is a real estate brokerage firm. It also owns Sears Mortgage. The idea is to have the real estate agents at Coldwell refer customers to Sears to get the mortgage. On the surface, that makes a lot of sense because customers have often purchased these two services together. It has almost always been true that the biggest reference from mortgage bankers has been real estate agents who send customers their way. However, savings and loans could not legally perform real estate brokerage, so these businesses have never been combined in the past. I think you have to be careful, though. Real estate is not a convenience business. People do not make a decision on the biggest single expenditure that they are ever going to have in their annual budget -- their mortgage -- just because they happen to be in somebody's office and it is convenient to sign the papers. The reason that this relationship has worked, that it has always been true that the real estate agents were good references for mortgages, is that the real estate agent has a strong incentive to get a customer good service on a mortgage. The real estate agent who gets me into a house makes a lot of money. If the agent sends me to a mortgage broker that offers a cheap rate, but has bad service and may take six months to process the deal (which is very hard for me as a customer to know), then that real estate agent loses a lot of money, because the deal may fall through. So brokers send customers to mortgage companies that do a good job. The customers believe them because they know this person has an incentive to send them in the right direction.

Think about Sears' advantage here. Suppose Sears owns Coldwell and it owns a mortgage company. How is Sears going to take advantage of

this? One thing it does is offer the best service in town so that its real estate agents send the customers to Sears. If I am a competing mortgage banker, does that keep me up at night? No. If Sears were the best in town, everywhere, all the time, they would get all the business anyway. So that is not an advantage over what they had to do anyway. Another thing Sears could do is make payoffs to the real estate agents. It could give them a commission for sending somebody my way. I am sure this thought has not escaped them. But when you think about it, they have to pay a real estate agent an awful lot of money to make up for the thousands of dollars of commission hanging in the balance. If the real estate agent thinks that Sears is not the fastest bet right this minute -- if its pipeline is clogged with mortgages or if the local office has been slow -- the customer is not going to Sears. The customer is going to go to a place that gives service, because the agent makes thousands of dollars by doing that. The third way Sears could take advantage of its position would be to force the agents to send customers to Sears. That is a tremendous competitive advantage for Coldwell, let me tell you. It not only would not get customers, but it also would not have brokers if they tried to do that.

The bottom line is that this approach may give Sears a small inside track because it certainly gives it a good relationship with the brokers. But it is not a huge competitive advantage. Looking at the numbers so far, after about three years of trying this, Sears has captured about 15 percent of Coldwell's mortgage business, again not a crushing competitive advantage. It is not a bad piece of business or a failure, but it is not the kind of thing that will blow everybody else out.

That's mortgage banking. Incidentally, in real estate, Sears is trying another convenience idea that I think might actually work, or at least might offer more of a competitive advantage. Sears is also attempting to sell property casualty insurance through Allstate to people who buy houses from Coldwell and get mortgages from Sears. When you think about it, that is an item where there really is some convenience factor, because insurance -- property casualty insurance -- is not nearly as big a ticket as the mortgage payment is. I might very well sign the papers just because I am in the person's office. Furthermore, the agent and the mortgage banker are not worried about losing the deal because the insurance agent will not process the application quickly. That is not a problem in insurance the way it is in mortgages. So there is a possible winner for Sears.

I have one more point on convenience. I have to talk about the Sears Financial Centers in their stores, since that has been such a hot item. You know, the idea was that Sears is offering insurance, real estate brokerage, securities advice, consumer loans, credit card services, and deposit gathering out of their stores, and their merchandise retail outlets. That was an idea that scared a lot of bankers a few years ago, because, of course, bankers cannot do that. At this point, it does not look like such a tremendous idea. It is not that it has necessarily been a failure because

if you actually look at what Sears has spent on this, they have not really put a lot of money into it. But on the other hand, it is not clear that they have gotten a lot out of it, either. The interesting thing really is that it has been just a tiny part of their overall effort. In 800 stores total, Sears has 327 financial centers. If you figure five or six staff at each facility, then it has maybe 1800 staff members in those centers. Overall Sears has 30,000 real estate agents. It has 7500 Dean Witter agents and 26,000 Allstate insurance people. So we are talking about just one to three percent of its total effort. It is not a big deal, and not something that I would lie awake at night thinking about if I were a competitor. Another more lighthearted way of measuring how important the financial center idea is to Sears, is by the number of words devoted to the concept in its annual report. In 1982 and 1984, it averaged about 350 words, which is a lot of space in an annual report. In 1986, the concept was given 20 words.

I have mentioned three attempts that Sears has made to capture advantage from consumer diversification or consumer-based diversification. Now let me mention one that has more potential. That is the marketing branding effect. As I said, securities and insurance are both businesses where it matters a lot that people trust you. If I am going to give my money to somebody to invest for me, I want to know that this person is part of a reputable well-established firm. One gets that reputation by advertising. If I want to depend on somebody to insure me in a disaster, I feel the same way. I am worried, I want an established company that will be there when I need it. It is possible that by rolling those advertising campaigns together and building one image for the whole company, Sears can capture a cost advantage. That would be true if it is cheaper to do that joint marketing, than to market each product separately. It is less obvious that the real estate brokerage business depends very much on that image, but at least a couple of companies have made it an effort to take advantage of brand name advertising. Century 21 would be the other one. To measure the results of the Sears campaign, we can look at a recent poll done by the American Banker. Thirty-one percent of the people interviewed from a good representative sample could name Sears unaided, as a financial company. Ninety percent would recognize the company if prompted. Twenty percent said that Sears was the single company that was best able to meet their financial service needs. American Express was second with six percent. I think that will keep some bankers awake.

By the way, this kind of branding is not all good for Sears. One implication of the securities business that Dean Witter is in, (Dean Witter is Sears' subsidiary in securities) is selling stocks and bonds to rich people. On the other hand, Sears' traditional market segment is mid-America. It is a middle-class audience. It is not badly off, but that is not where the wealth is. In fact, by establishing an image of itself as targeting that group, the Sears Financial Network may lose business where it is most valuable for Dean Witter. So that aspect of the Sears image is a clear drawback for them.

Sears encountered a related problem when it took over Dean Witter a couple of years ago. It almost immediately lost the whole investment banking side of Dean Witter. The investment bankers just took off. This was partly because there was a major culture clash between marketing underwear and selling investment banking services on Wall Street. The other reason was just that I think there may actually have been enough negative reaction among corporate CEOs to the image of having Dean Witter, now attached to Sears, doing Sears' investment banking business. It was just much harder to sell. So the brand name effect may have been a problem for Dean Witter at the sophisticated corporate side of the business.

Finally, let me mention one more specific Sears project that is an interesting example of carefully focused diversification, and which I think is going to work. That is the Discover Card. The Discover Card rolls together elements of cost advantage and customer behavior advantage. Credit cards are a very profitable business for banks. In case you had not noticed, banks charge a lot of interest on credit card balances. When you are charging 18 percent and your cost to funds is on the order of six or seven percent, that is a big spread. Now you would think that competition would have forced those rates down by now. But it turns out to be hard to compete on interest rates in that business. The average outstanding on a credit card is on the order of \$400. At 20 percent, that makes \$80 a year. If I figure that I can come in and compete against that by offering 15 percent, that saves the customer \$20 a year, or about \$1.60 a month. That is not enough to get people's attention. And if those customers were sensitive to interest rates, they probably would not borrow on credit cards to begin with. The other point that prevents competition on interest rates is that if I am a bank and I cut my interest rate on my credit card portfolio to get new customers, the first thing that happens to me is I lose piles of money on my existing business. I would lose a lot of money on all those outstanding loans. Maybe I would get a few new customers. In 30 years, I might start to break even. It is just not a good move to do that. Consequently, banks have competed on credit card business by going after new customers and by mailing cards to everybody in sight. That turns out to be very expensive, and is a good way to dissipate profits because banks take huge loan losses.

Sears has some really interesting advantages in getting into the business. On its existing Sears charge card, which has been around for decades, Sears had 60 million accounts with 28 million active accounts. For comparison, all domestic Master Card business has about 65 million accounts. Visa has about 84 million accounts, not all of which are active. We are obviously talking about a major existing base of business usable only to buy things at Sears.

Now think about Sears going in and saying, "Well okay, the first way we are going to get this business is to offer a low rate to merchants to accept this card." Banks typically charge two to three percent to a

merchant to process credit card charge. Sears charges  $1\frac{1}{4}$  percent. Does that cost Sears anything on its existing business? It did not have any existing business with other retail outlets. That is free. Sears also came in and said, "We're not going to charge any up front membership fee for this card." Does that cost Sears anything? No, because it was not charging anything on the Sears charge card, and if it had, it would have lost a lot of that business because that is too narrowly based to charge a fee. The idea of charging for a single store card has not been established competitively. Furthermore, Sears has the advantage of knowing credit histories of 28 million people well enough so that it could target card holders and not lose money doing it. Which so far it apparently is able to do. Its loss rate is much lower than typical bank experience has been on a new card. Finally, Sears has offered rebates to customers. The rebates tend to be big only if you have over \$3,000 charged on a card in a year. Frankly, that does not cost Sears much either because not many people do much business on their Sears charge card. To the extent that it costs Sears anything, comes out of new business, and that is what the company wants.

All of these are advantages that no bank can match. Sears also has a relationship with all those customers, and it has been relatively easy to penetrate that market. A typical bank campaign gets one percent response. The banks offer the card to 100 people and one person takes it. Sears is getting 12 to 15 percent. It is just a huge cost advantage in developing a base. So far, it does seem to be working. Sears is way ahead of the plan on the number of cards it has out. It was aiming for about six million, and it has eleven million now. All its other numbers also look good. It looks like Sears will make money on this thing.

Sears has spent a lot. It has spent \$200 million in two years to launch Discover Card. It spent \$40 million last year alone to advertise it. But, on the other hand, if you look at the dollars that are there, assume that Sears does not expand its base very much and just get the usage rates up as would normally happen with a new card, Sears could conservatively make a \$250 to \$300 million net interest profit by either the end of this year or some time into next year. Now that does not cover the cost of operating the card, but the cost of operating is not that huge. Plus, Sears could add a fee. That could get Sears an additional \$200 million a year, even assuming it loses some business. So now we are talking about \$500 million a year to cover operating costs, and that will cover operating costs and then some. I think they are doing well.

One more punch line. The other thing Sears is trying to do is get deposit business from customers. Sears has now made the Discover Card usable in ATMs in virtually every major city in the country, with some notable exceptions, New York and Chicago, where banks are fighting hard against this process. Sears has been quite successful in attracting deposits from the Discover Card base basically by offering to pay high interest rates, but of course, its costs are low because it does not have all



these brick-and-mortar branches and tellers. Sears is quite possibly even establishing itself as a retail banking outfit. I think that really is a credible threat at this point, given the fact that ATMs are changing the business and Sears is taking advantage of it.

The bottom line is that there is a diversification that sort of rolls a lot of things together, and it is a nice example of something targeted closely enough that it might work.

DAVID DRANOVE: One nice thing about Ken's discussion is that there is virtually no way in the world I could talk for ten minutes without covering some of the same topics.

I would like to focus on some of the ideas that Ken brought out, particularly in his discussion of Sears, and try to relate them to the health care industry. Ken's discussion of Sears' real estate operations showed how a firm's structure will affect the performance and decisions made by its employees. An application in the health industry is a diversification activity that integrates physicians into the firm. An advantage of this integration is that it allows employers to better monitor their physician/employees. However, there are important advantages to patients when physicians are not employees of the firm. These advantages of autonomy have to be weighed against the advantages of integration.

The first advantage of autonomy is very much like the advantage of having a broker who does not have a tie with a mortgage company; the physician will make objective referrals. The autonomous physician has no obligation to recommend specialists and hospitals in the same "firm". The patient appreciates this, and returns to that physician again if he or she makes apparently appropriate referrals. If however, the referrals turn out to be inappropriate and guided by financial considerations, the patient will not see that physician again. The patient may also provide bad word of mouth, further hurting the physician's practice. The integrated firm can easily lose business if it fails to provide objective referrals.

A second advantage of autonomy is that the patient is the boss. Patients can directly reward autonomous physicians who offer perceived high quality, good bedside manner and accessibility with good word of mouth and repeat business. The way that physicians are rewarded, through word of mouth and repeat business, is common when a seller's performance can be evaluated only after payment has been promised. When that is the case, it makes sense to "backload" payments to the seller. That is, a large percentage of the seller's reward is based on repeat business. The private fee-for-service physician, especially the generalist, does not get a lot of income by treating patients successfully once. He is not going to build a successful practice with one-shot patients. He builds his practice and makes his living through repeat business and good word of mouth.

This raises a question: Can the integrated firm, with physician/employees retain the advantages of autonomy? It is probably very difficult to encourage physicians to make objective referrals. If a physician is employed by Hospital X, he will send his patients to Hospital X. Otherwise, why did Hospital X hire him? Rather than try to maintain total objectivity, Hospital X should offer an internal referral network of sufficient quality. The physician need not make any compromises.

It is also probably very difficult to get physician/employees to act as

agents for their patients. Employers certainly want their physician/employees to act as if they are trying to cultivate patients for long-term relationships, and they have some monitoring advantages. The advantages lie in monitoring technical quality. Patients may not be able in the short run or even in the long run to know whether they are getting good technical quality, but they might be assured that the organization for which the physician works is doing a good job of assuring quality. On the other hand, the organization is undoubtedly not going to do as good a job as the patient in monitoring things such as bedside manner, accessibility, and just the general impression of how much the physician cares about the patient. To the extent that the patient believes that the technical quality is assured by other factors such as tort laws or ethical standards, these other factors are paramount to the patient.

This does not mean that the integrated firm cannot try to promote good bedside manner. For example, the firm could very simply provide financial rewards to physicians who build practices within the organizations, in effect using patients as indirect monitors of the physician. But this scheme is not perfect; there is a major problem facing any firm trying to get its salespeople to cultivate relationships with clients. The problem is that the employee within the integrated organization does not control all of the variables that will affect his future business. For example, you frequently observe HMO's cutting back in markets or pulling out entirely. A physician whose wages were contingent on building a practice within that HMO would get short-changed. Cognizant of his inability to control all the variables that affect his or her income, the physician in the integrated firm will make fewer investments of time and interest necessary to build a practice. This suggests that the integrated firm cannot easily duplicate the monitoring done by patients.

I think there is a tremendous gain to be made if a firm can somehow minimize the cost of integration while maintaining the benefits. I think the firm may find that contractual relationships which fall short of complete integration into the firm may be the best compromise. Diversification where the firm owns the assets is not the only way to achieve desirable results. You can get physicians to work for you without directly paying them.

Let me now take a few minutes to follow Ken's suggestion and look at a specific example of how other industries solve a particular problem relevant to health care providers. The problem I have in mind is the maintenance of quality standards, and the example I have in mind is the automobile repair industry. Repairs such as muffler repair, tune-ups, tire replacements, and many others are all done predominantly by brand name repair centers with national reputations. Is there a place for branding in health care? To answer this question you need to understand what it is about the services that are branded in other industries such as automobile repair, and see whether those attributes are relevant to the health care product. What muffler repairs and tune-ups seem to have in common is that the service is easily standardized. You can teach just about anyone

to do a good job of repairing mufflers. Not only that, it is also very easy for you as a customer to confirm after the fact that the repair was done correctly. When you leave a Midas Muffler shop, you realize the job has been done well, and you believe -- correctly, I think -- that future muffler repairs at any Midas shop are going to be done equally well.

On the other hand, when you look at procedures like fixing thrown rods or radiator leaks, those continue to be done, at least as far as I can tell, by individually chosen mechanics. When you have got a major problem, for example when your engine needs overhauling, you ask your friends and neighbors to name a mechanic. You do not drive up to Midas. In fact, there are no national chains that do such complicated repairs. General Motors has tried to change that with its Mr. Goodwrench campaign. To the extent that I believe you can learn from other industries, I believe the Mr. Goodwrench campaign would be a wonderful case study for examination. Can General Motors sell complicated procedures for which the quality of the procedure depends on the individual seller and not on something you can easily standardize? This is the same question facing health care providers.

Is standardization a solution in health care? I am not sure if there are many health care services that fit the mold of muffler repairs. I can think of several examples, one of which might be the grinding of eyeglass lenses. Production is easily standardized. The customer can easily monitor the quality. Simple check-ups and routine services like inoculations may also be examples, though I am a little less confident about the ability to standardize the quality of those. If you look at the few forays made in health care by national chains such as Sears, they tend to be for services like optician services. For optician services, Sears can maintain a standard of quality. When quality is assured, the convenience features come into play. Parking is easy. You can do a lot of other things at the same time that you get your eyeglasses. You can let your children run through the toy section while you are being fitted or vice versa. These features might dominate any quality concerns that customers may have when they go to Sears.

The overall lesson for health care providers is that perhaps you should not expect national branding of complex health care procedures to be successful, especially when you do not see similar success stories for similarly complex services in other markets. Many, if not most, health care services defy the apparent preconditions for successful national branding, those being the ability to standardize production and the ability to easily evaluate the output. Again, I think a case study would be the key here. Learn very well the product that you are looking at in the other industry. I am not an expert about muffler repairs; there may be lots of nuances that make my whole discussion mute. My guess is that there is a real difference between muffler repairs and heart valve repairs. Just drawing a simple analogy between the two industries -- and concluding that, if diversification works in one, it ought to work in another -- will not lead health care providers down the road to success.

## TRIBUTE TO GEORGE BUGBEE

RONALD ANDERSEN: We would like to take a few moments to recognize George Bugbee and remember why this Symposium is named after him. We have two very appropriate people to help us. First is Odin Anderson. George and Odin spent a significant part of their professional careers together blazing trails in health administration education and health services research.

ODIN ANDERSON: Ron asked me to compose something for George, either in prose or poetry. I could not think of anything that rhymes with Bugbee. So I wrote it in prose.

In 1970, George Bugbee retired from the Graduate School of Business at the University of Chicago. He was Professor of Hospital Administration and Director of the Center for Health Administration Studies at the time of his retirement some 17 years ago. Since that time, the program has graduated 16 classes with a total of 282 graduates. While he was director from 1962 to 1970, he supervised the education of 114 students who therefore learned to know him well. Since 1970, students have had less contact with him, although he continued to do some teaching in the program for several years. Thus, it is fitting at this Twenty-Ninth George Bugbee Symposium on Hospital Affairs, to refresh the institutional memory of alumni present at this symposium -- particularly those graduating since 1970.

George's career can be divided into three parts. He is a man of many abilities, able to function effectively in widely varying environments including the Graduate School of Business. From early on, it was apparent that he was interested in some form of management, for he earned a degree in business at the University of Michigan. He was a hospital administrator at the University of Michigan Hospital in Ann Arbor from 1926 to 1938, and came to know the problems associated with an academic hospital.

Subsequently, he moved to Cleveland and became the director of the Cleveland Hospital, a city-owned establishment, from 1938 to 1943. He became acquainted with the politics of running a public hospital which, in large part, served the poor.

After Cleveland, he became Executive Director of the American Hospital Association (AHA) in Chicago, from 1943 to 1954. At the beginning of his tenure the AHA was quite small and relatively uninfluential. He developed it into an influential agency serving the hospital field and developed its relationship with the emerging buyers of hospital care, the insurance agencies and the various levels of government. He was also influential in increasing and distributing to underserved areas the supply of hospital beds after a building hiatus from the Great Depression of the 1930s through World War II (1941 to 1945). The vehicle for this was the Hospital Construction Act of 1946, also known as the Hill-Burton Act, named for the sponsors in Congress.

George was instrumental in shaping this bill, with Congressmen Hill and Burton, while keeping a low profile. He told me that during the preparation of the bill, he made 30 trips to Washington on overnight trains to confer with the drafters of the bill. He also mentioned that this piece of legislation was put together like a Swiss watch, and years afterwards, he felt it did what it was intended, a rare achievement for such a legislation.

In 1954, he became President of the Health Information Foundation in New York, a foundation funded by the pharmaceutical, chemical and drug industry for research in health services. The health services research promoted was to contribute to policy making for the American Health Services. In his vast administrative experience in the health care field, George realized that the health services enterprise was lacking data and studies which could improve the public mission, administration, and financing of the enterprise.

I was fortunate in having a man like George as my colleague for 16 years. He promoted research to enrich a great deal of the course content of the rapidly growing programs in health services administration in many universities.

After eight years with the Health Information Foundation, George saw an opportunity to get directly into the vortex of academia by accepting the invitation from the Graduate School of Business to take over the directorship of the Program in Health Administration left vacant by the resignation of Ray Brown, and bring me and health services research to the University of Chicago. The Program thus got both a program director and a research arm as well, the latter not having existed before. So George became an educator in a totally different environment. He had an uncanny ability to size up the culture of each environment he entered, like a good social anthropologist working through primitive cultures. He told me several times at the beginning that he had no idea how a university could function with so many baronies. He said that the faculty did not even return telephone calls. But in time, we created our own barony. We did, however, return our telephone calls promptly.

RONALD ANDERSEN: It is a pleasure now to introduce Jack Gould, Dean of the Graduate School of Business.

JACK GOULD: Thank you Ron. It is an honor to be here to recognize George and the kind of things that this Program has done. As Odin was making his remarks about trying to decide what idiom he should use, I remembered that Kim Novak was once asked what kind of reading she preferred. She said primarily poetry and prose. However, following Odin's lead, I will stick to prose emphasizing the important themes that George and the Program at the University of Chicago have stood for. They are now widely known and accepted as tenets of the Chicago Program.

The dates George was at the University of Chicago coincide almost exactly with George Shultz's period as dean. Shultz became dean in 1962

and went on to do some other work about 1968. Twenty-five years have passed since 1962; that period offers the kind of perspective that one can use to get a sense of whether an academic program has formed a commitment and mission, and is really headed in the right direction. I think the answers are yes for both the kind of policy that the school had overall with George Shultz's vision and kinds of applications of that policy that George Bugbee brought to the Program in Health Administration. It is a testimony that the Program was on the right track.

One of the reasons why George came to Chicago as I think you learned from Odin's remarks, was that he believed that a strong business school would be an appropriate base for education in health care management. That turned out to be a very important insight. I think it was the crucial "tie" between the program and other activities in the School. The tie will become even stronger in the future, as current plans emphasize integration and flexibility of the Program within the Graduate School of Business.

Because of that kind of involvement and sense of mission, Chicago became the first program in health care to go to a full two-year curriculum during George's administration. This insured that graduation requirements for health care management students would be the same as for all other MBA students. The Program was made integral to what was going on elsewhere in the School both in research and in the educational experience of the students.

George also supported the development of a full-time academic faculty for the Program. He understood the need for peer review with Program faculty subjected to the same kinds of standards that would apply elsewhere in the Graduate School of Business and the University of Chicago. However, he was mindful as well of developing a field course work approach that emphasized the application of business principles and techniques in operational settings. The idea has persisted and has been modified by exciting new developments even today. It certainly is very much the character of the University of Chicago to realize the importance of using enterprises from various industries including health care as laboratories for the application of principles. You heard this morning from Steve Lazarus about new ventures in health areas, but Steve also represents our Argonne Chicago Corporation (ARCH). It is another example of an outreach effort by the University of Chicago designed to stimulate faculty and students at the Business School to apply principles to specific problems. It is exciting and challenging to transform theoretical concepts and research findings into marketable products and services.

Odin touched upon the importance of both teaching and research in George's plan for the development of health services management. I think the strength of it lies in George's emphasis on a discipline. He believed that those students who were interested in teaching and research in health services should earn a Ph.D. degree based on a rigorous program in some

basic discipline such as economics, statistics, or behavioral science. I am pleased to say that again, things came together at Chicago. The Graduate School of Business was the first school of business and indeed, a part of the first university to offer a Ph.D. degree in business. It was a natural environment for combining that broad perspective and the specifics of health care administration. I think if we look at the kind of graduates that we have had from the Health Administration Program, we can recognize the importance of George Bugbee's mission and the contribution he has made.

GEORGE BUGBEE: There is no time for a speech, but I do want to thank Jack Gould and Odin. Odin and I have worked together for so long and I have learned so much from him. Also, I have a few favorite sayings, and I suspect you who were students of his have some too. At one stage in the Program's development we were questioned about what part of the political spectrum we were sympathetic to. Odin gave the question serious consideration. He finally said, "Whose side am I supposed to be biased on?" Who indeed.

As far as Jack Gould is concerned, I do remember that when I started in Chicago, Jack, there was much talk that one of the smartest students ever in the Ph.D. program was there right then, and his name was Jack Gould. Jack has made significant contributions in Washington, D.C. as well as Chicago -- working at times with George Shultz, I recall. If you read the papers, you would not know what a wonderful man George Shultz is. But those of us who worked with him know. Thanks for your kind remarks.

RONALD ANDERSEN: I just want to make one other comment. To follow up on the saga of George Bugbee, is it true there is a significant publication coming out soon, George?

GEORGE BUGBEE: I meant to give that a plug. I cannot think what group will ever buy it unless it is this one. It is an effort at a biography. The American Hospital Association is publishing it and it is to come out next month they say. It is entitled Recollections of a Good Life. I will see that you all get an ad for it.



## PANEL: ORGANIZATIONAL CASE STUDIES OF DIVERSIFICATION

RONALD ANDERSEN: During this session a distinguished panel will discuss the experiences of their organizations regarding diversification. The first presenter will be Sidney Tyler, Executive Vice President of National Medical Enterprises (NME), a multihospital group that operates forty acute care hospitals in the United States. He has been with NME almost from its beginning. He joined the company in 1970. First he was the Director of Research and Development, then a Hospital Administrator, and later on he was Vice President of Hospital Operations. In 1980, he was appointed Senior Vice President of Corporate Planning. His entire business and professional experience is in the health field. It began in the pharmaceutical industry with Smith, Klein and French Laboratories, and then with Medical Diagnostic Operations at the Xerox Corporation. He holds an A.B. degree in government from Harvard University and is a member of the American College of Health Care Executives.

Second is Peter Snow, who will give us his impressions of diversification efforts in a well-known regional system. Peter is Vice President of Policy and Planning at Southwest Community Health Services in Albuquerque. Prior to this position, Peter was with Booz Allen and Hamilton in Chicago as principal and earlier as senior associate. He also spent some time with Herman Smith Associates as a principal. He holds an MBA from the University of Chicago, and is an alumnus of our health administration program.

Our final speaker is Malcolm MacCoun, President and CEO of Northwest Community Hospital. He will be talking about a suburban community's hospital experience in diversification. Malcolm has a Master's Degree in Management and Hospital Administration from Northwestern University. He is a fellow of the American College of Health Care Executives and is a member of the Health Care Cost Containment Task Force with the Illinois Hospital Association. He is also Chairman of the Board of Health Chicago, Inc.

## DIVERSIFICATION: DREAMS VERSUS REALITIES

SIDNEY TYLER: Thank you very much, Ron. When Ron called me several months ago to invite me to come and speak about NME's efforts and activities to diversify, I was delighted to accept. At the same time, the memories came flooding back over the years of some things that perhaps I would just as soon not recall in the area of diversification. So as I was looking over my notes last night, I really wondered whether I wanted to give this talk at all. But we will do it, warts and all, and you be the judges of the total experience.

I am going to recount some of NME's escapades, successes, and failures over the last 18 years. I am going to run through maybe a dozen

of them, and try and explain the rationale for them at the time; why we got into each of them, and ultimately how they fared. I will close with some observations on the lessons we either have learned or should have learned as a result of these experiences.

The company, as you may know, got its start in 1969, along with some other publicly held companies, prompted in a large measure by the Social Security Amendments of 1965, which established Medicare and Medicaid. We came out of the box initially as a diversified company, owning four acute care hospitals, three nursing homes, and one local hospital supplies and equipment distributor in Los Angeles.

We were already, if you will, spread a bit beyond just acute care hospitals, which nevertheless were to remain the mainstay of the business, and still do today. Since then we have grown in size and complexity to a degree that I doubt any of the original founders fully envisioned. We generate about \$3.7 billion of revenues, yielding approximately \$200 million in pretax profits before extraordinary adjustments which, as it turns out, have arisen from some of our acquisition and diversification activities. We have in total some 550 facilities in the acute care, specialty hospital and long-term care areas, plus many other health-related businesses, acquired or developed internally over the years.

On balance, we feel our diversification has been successful. Yet I cannot help but think that if I were standing here two years ago, my comments on specific activities would be quite different than they are today, particularly in view of the profound changes in health care that we have seen and are seeing. Two years from now, the landscape probably will have changed so much that I will regret ever having said what I am about to say. Nevertheless, those of you involved in forecasting know that he who lives by the crystal ball sooner or later eats ground glass. Therefore, my remarks today are going to be retrospective only; no forecasting.

As I said, when our company began, it had its roots in acute care general hospitals. The concept from the beginning was to form an array of services around those hospitals, around the geographic site of those facilities, in the concept of a medical campus. Our intention was to be a health care services company rather than a hospital company. We began somewhat diversified, as I mentioned, and it was really the original charter to do so. The management of the company, the original founders, consisting of Messrs: Eamer, Cohen, and Bedrosian, were really entrepreneurs. Although they had no direct operating management experience, being attorneys and accountants, they did have business experience.

As I recall all the things we looked at in those early years, almost every conceivable product and service related to health care that you could imagine was fair game as a potential new business. Anything from prepaid

health plans to orthopedic shoes. Most of these things we never got into: those we did we entered mostly through acquisitions, and sometimes by start-ups. Some of them did okay and frankly some of them bombed. The idea was that you just cannot make money unless you take some risks. You know some of them are not going to work out well; you just don't know which ones. Hopefully you put the right people in there to manage these things, and hopefully they know the businesses that you may not know as well yourself.

Along the way, we began to distinguish between two types of people in this general area of looking for new businesses and diversifications. One was the entrepreneur in the classic sense, and the other was the promoter. There is a big difference between the two, because the entrepreneur who really is an entrepreneur, has done the homework. Although a risk taker, the entrepreneur is not as much of a pure crap shooter as you might think, looking back to those who really made something work. The promoter, on the other hand, tended to base his advocacy on sheer force of personality. That distinction was not always apparent to us in the early years.

Having said this, during the first ten years of the company, our corporate focus was primarily on building and acquiring acute care hospitals, and building related services contiguous to them. After all, this was the sector that had the most dynamic growth prospects, coupled with excellent profitability. The number of acute care hospitals grew from 14 to as high as a little more than 100 last year. Half of those were facilities that we owned and operated, and the other half were those that we managed for other ownerships, largely county and district authorities. Up until 1980, the acute care hospitals represented about 80 to 90 percent of our revenues and operating profits. Bear this in mind while I review the company's diversification escapades since its origin in 1970.

First of all, in 1970, less than one year after the company went public, we acquired a small medical gases company in Modesto, California. Its business was selling bulk oxygen to hospitals. Pretty prosaic business. But it also sold various kinds of equipment that used oxygen, such as IPPB devices and respirators, as well as the disposable supplies necessary for respiratory therapy. The rationale here was very simple. It was built around good chemistry between the owner, a fellow by the name of Jim Livingston who started the business, and who was an entrepreneur from day one, and the founders of the corporation. They got along well.

Jim Livingston lost no time in moving into additional markets such as being a distributor to other hospitals for new kinds of equipment in pulmonary function and anesthesia, managing hospital respiratory therapy departments under contract, on a rather large scale, and most importantly, starting up a durable medical equipment rental business for home use. Not content to stop there, he developed additional ancillary businesses related to the repair and maintenance of medical equipment in hospitals, mobile

diagnostic imaging services, and last but not least, intravenous (I.V.) therapy services.

The business of the Livingston Oxygen Company grew from practically nothing to nearly \$500 million in revenues last year. It has some 200 locations around the country. It is known today as National Medical Home Care. It is the only division or subsidiary of the company that carries the name National Medical. I will get into that a little bit later. We like the business. We liked it more than we do now. There are no bricks or mortar involved. We lease most of the buildings that we have, and new investment in physical plant is not that great. However, the investment in working capital in this business is very substantial. By mentioning working capital, I am talking specifically about accounts receivable and most importantly, the inventory of rental equipment.

A big portion of this business was to our own hospitals and, to a lesser extent, nursing homes, which raised the issue of intercompany pricing. This has proven to be a very difficult area for most companies. You are talking about contractual relationships and pricing between one segment of the company and the other; each thinks the other is making undue profits off the other. We have found that the hardest business for one subsidiary company to do is with its cousins elsewhere within the corporation. You cannot do it by edict, and somehow you have to be better and lower-priced than the outside competition to get in there.

Next, we did a couple of little acquisitions in the early 1970s which I think are the classic kinds of free-wheeling deals that were not properly researched. In a couple of years they were sold back to the original owners. One was operating a vocational nursing school that trained registered nurses, and the other was a business to redo hospital Medicare cost reports for clients, under the claim that more recovery could be gained. They ended up with a pile of lawsuits when the recoveries did not mature.

Undaunted in 1975, we started up some of our own home health agencies, adjacent to our hospitals. These were done primarily with the rationale to try and capture some business to maintain a continuity of care greater than simply the acute care hospital episode, and to do some business that was then being done quite successfully by other agencies, primarily the VNAs. I think we got up to something like 20 licensed agencies around the country, almost all of them adjacent to our acute care facilities. It was mostly a Medicare business for us. We were never successful in developing the private side of that business, which is the only place you can really make money because Medicare pays only costs, plus a return on equity in this business.

You have little equity capital invested, so there is basically no return. We really never made anything of it. They did not lose a lot of money, but they never made any money either. So in 1986, the business

was sold.

We bought a construction company by the name of Stolte. Stolte is a fairly substantial name on the West Coast, not only in building hospitals and other medical buildings, but also hotels, internationally as well. Today, about half of its business is with non-NME clients. The profits on the outside contracts are mercurial, and as a publicly-held company, trying to show consistent earnings growth, this is probably a kind of cyclical business you really do not want to get into.

We started an equipment leasing company, designed to develop a business of leasing medical equipment to other hospitals, not our own. Later, we got into the business of commercial, non-medical leveraged leasing, a kind of high finance operation that few of us understood. However, it was run by an entrepreneur who was given all the leash and most of the capital he needed to turn a profit. Basically, the money was made off the investment tax credits that we retained on the leases. When the ITC went away, the business did not look so hot. We still have it, but it isn't a close fit with our core businesses.

In the 1970s you remember, Congress extended Medicare eligibility to end-stage renal disease patients. We have a number of nephrologists on staff of the hospitals and we were already doing some acute dialysis in those hospitals. Why not get into the business of chronic renal dialysis? So we did. We built several of these things. We got them approved, and they were located, again, adjacent to the acute care hospitals. Last year we had approximately 4,000 inpatient days that we derived from these centers by virtue of related illnesses, shunt repairs and the like. It is a small but profitable business for which I think we feel a diversification was very appropriate.

Along the way, we did expand our nursing home business, but there were sharp differences within the company as to the wisdom of this. We increased their number from three to fourteen, mostly in California. It was a very low margin business, and we never really made much money out of it. But there were two people who took the long view; the CEO and the chief operating officer of the corporation. Their sense was that this business was going to change and become more attractive basically by virtue of what they saw as a significant change in the demand and supply relationship for long term care.

In 1979, we acquired the Hillhaven Corporation in Tacoma, which then had 114 licensed skilled nursing facilities. At the time, Hillhaven not only had these 114 nursing homes, but also two psychiatric facilities, a chain of pharmacies that I will get into in a minute, and a lumber company, based in Little Rock, Arkansas. The lumber company, interestingly, is something obviously none of us knows anything about. It is operated by a man who loves the lumber business and knows it very well. As long as the cash keeps coming in, we leave him alone. Hillhaven has since grown to

approximately 400 nursing homes, making it the second largest provider of long-term care in the country. In addition to that, most recently it has further developed a market niche, in retirement housing with health care services, specializing in what we call assisted living units for the elderly, essentially a private market together with a related skilled nursing facility next door. I think we have about 25 projects, either in operation or in construction.

Our acquisition of Hillhaven, going back to 1979, was not at all well received by the stock market. Nursing homes at the time were perceived as a poor business to be in, particularly compared to the more dynamic hospital business. It really took a number of years before analysts began to see any redeeming features in our being in the long-term care business. What we saw was a growing shortage of beds. You could not operate a hospital, in almost all areas of the country, without knowing this by virtue of the administrative days for patients for whom we could not find a bed in a nursing home or extended or long-term care.

That was painfully apparent to us as operators of hospitals. That was apparent, together with a growing elderly population and the way nursing homes were paid in most states, under the Medicaid program, which is essentially a cost-based formula with the equivalent of a pass-through on capital costs.

We also saw a business here, again as the rationale for allocating a large amount of capital in this area, that required a low equity investment. That is to say, it was highly leveraged -- a lot of debt came with this when we developed the business -- and that it could provide and did provide a positive cash flow. This was important to us because our acute care hospital business was a net cash user after capital expenditures, and continues to be almost to this day. We wanted to have a balance corporately in terms of total corporate cash flow.

The downside of this was that our entry in the long-term care business encumbered the balance sheet with more debt, because this business was essentially leveraged something like three or four to one.

The MediSave pharmacy division was about 80 pharmacies. We just fell into this and again had somebody who knew the business well who ran it. It was a funny business, and it still is a funny business. It happens to be specialized in the area of operating leased stores or stores in leased discount department stores, usually in small rural towns where there is hardly any competition. This business continues today, but has been augmented in areas more directly related to other NME operations. One is an institutional pharmacy business. As you may know, nursing homes require a pharmacy service. They have got to do it generally through a pharmacy of some sort. Very few of them have their own inhouse pharmacists, pharmacies, and drug inventories. They basically contract with stores. This was a business that was developed primarily as a result

of Hillhaven coming to NME. We have all kinds of medical buildings with pharmacies in them. It was natural for MediSave people to come in and run those. It was a highly centralized, highly inventory-controlled, low cost operation that has served us very well.

These pharmacies, together with the home health business that I talked about, and the hemodialysis unit centers, the durable medical equipment business - they all began to provide a small but significant non-institutional business for us. In the very early 1980s, we thought the growth in the health care services was going to take place outside hospitals. The writing was just beginning to appear on the wall. We did not know how bad it was then, of course, but we thought we had better be a part of some of the redirection of services toward free-standing services not related to hospitals. We even bought a consumer electronics company that made telephone answering devices. It was a business we knew absolutely nothing about; we had no familiarity with consumer advertising, warranties, repairs, or R&D, and we sold it back to the owner again.

A dilemma was facing us about this time, I would say in 1983, and it really came to a head as a question of strategic positioning of the corporation in the health services market. Where did we really want to be? As we looked at our core business in acute care hospitals, nursing homes, and the home health business, we saw a horrible scenario stemming from a rising amount of business from federally funded programs - Medicare and Medicaid: roughly 50 to 55 percent in acute-care hospitals, 65 percent in the nursing homes because that was primarily Medicaid, and approximately 75 percent in the home care business. The feeling was that we had better start a search in a hurry for ways to redress the balance, so that we would get a better share of our business in non-government customers. Basically that meant going after the private insured market, if you will, what I would call group health insurance.

What markets, the question was asked then, were not dominated by federally funded programs? This really led to the next major acquisition which was in 1983, Psychiatric Institutes of America (PIA). At the time, PIA had 14 psychiatric hospitals, which complemented the three we already owned. Again, we had gotten our feet wet in that business, mental health care, operating two or three facilities. We could see what it was that the business really could produce. Today the psychiatric component of this division is 60 psychiatric and substance-abuse hospitals. Again, the demand and supply relationship in psychiatric care looked very good and still does. There are many communities around the country that do not have mental health services of any kind.

Probably most importantly, work done by the National Institute of Mental Health showed very clearly how very few people had ever seen a psychiatrist, and at the same time, the larger number of people who really began to understand what psychiatry was all about. Last but not least, it is a business, at least as we saw it, dominated by the private group health

market rather than Medicare and Medicaid. Our PIA business is heavily private and what we charge at the top line is closer to what we get at the net revenue line.

The final acquisition that we made again stemmed from having gotten our feet wet. This time we were working in the rehabilitation, physical rehabilitation, and surgical rehabilitation market, having operated a leased naval hospital in New Orleans where a rather extensive rehabilitation program was in operation. We acquired a company called Rehab Hospital Services Corporation, located in Camp Hill, Pennsylvania, as another kind of specialty hospital. We thought that this was another inpatient specialty area that operated really better on a free-standing basis within or as a unit of a general hospital. It was doing more than strokes and hips. It was basically doing business in specialized areas of spinal cord injuries, head injuries, and other types of severe trauma. There were clearly new technologies arising here. The business looked more attractive, and it was exempt from Medicare DRGs.

The 1980s will be remembered as the period when health care discovered vertical integration, for better or for worse, and in most cases, for worse. National Medical and other companies saw competition increasing and looked for ways to better capture and control the patient. It took the form of diversification in walk-in clinics, primary care clinics, that generally were satellites of our hospitals. We called them Instant Care Centers. We started 18 to 20 of these. They were failures. Women's centers, we had one or two of these. We still have them. But in general, the primary care clinics did not fare well, nor did our attempt at occupational clinics, industrial health clinics that we got into on a smaller scale. They were viewed, the way we set them up, as competition by at least some of the medical staff of our own hospitals. They were sold or disbanded in 1986.

In 1984 we became mesmerized with the concept of integrating the financing and the delivery of health care, primarily in the group health sector, the private market. We wanted to be a part of insurance underwriting, the HMO business, and all that stuff; managed care, I suppose. NME acquired the AV-MED Corporation in south Florida. It had a membership of 100,000. It was an HMO, profitable, and doing very well. We acquired an insurance company called Assured Investors life to provide an ability to underwrite and write insurance in selected states. As part of that, we started a supplemental Medicare insurance product in a local area in California, and basically tied it to our hospitals in a PPO arrangement. We also started up a couple of HMOs on a small scale in two areas where we have hospitals, with plans to expand them to additional areas.

Without belaboring the obvious, we found the HMO business very difficult. We had no expertise in underwriting or claims management or the kind of reporting that is necessary in this business. We seemed always to have under accrued our claims. There was actually a negative impact on



our hospitals located near these HMOs as a consequence of sharply discounted per diems paid to our hospitals by our own Health Plans, and of course, of very tight utilization review procedures. But the worst part of this was that we were making enemies out of our friends -- that is, the loyal medical staff members of our hospitals. The perception of our medical staff was that the Health Plans Division of the company seemed to be interfering with their practice of medicine and telling them that they could not do certain things which they thought were medically necessary. What was happening was that the Health Plan Division, created as a profit center, was developing its business as any other HMO does: by reducing member access to hospitals and physicians, and by paying discounted rates to participating providers.

We dubbed ourselves "the total health care company" in our advertising and on Wall Street, but the label did not stick. There was confusion both inside the company and outside. I guess you could say that neither Wall Street nor the customer seemed to care for this general concept. Wall Street in particular wondered where the value added was in having all of these things. How were they related, what was the overall concept, and how did the pieces really fit? We had a lot of problems convincing Wall Street, perhaps because Wall Street is skeptical of anything that smacks of a conglomerate. Instead, we used the word "diversified." "Diversified" is somehow viewed as more legitimate, even though it may be almost the same thing as "conglomerate."

So Wall Street really wondered whether NME had the management to run all these businesses, and was skeptical about the geographic spreads. The nursing homes were in the lower 48 states, spread all around. Most of them were not near our hospitals: same with the pharmacies. Wall Street just could not understand where the operational synergy was that we kept referring to. We had to sort of scratch our heads and ask ourselves again, "was it really there?" As a matter of fact, we really avoided addressing the issue of synergy within the company. Each of our separate business lines -- that is, the acute care hospitals, the psychiatric specialty care, long-term care, and home care businesses -- were totally separate profit centers. We emphasized that, and we have incentive compensation programs that are based on performance -- yes, of the total company, but most importantly, of the particular divisions. The incentive is for the division to grow their businesses and sometimes that runs head on with activities that you might otherwise take on with your cousins.

Even when we brought all these capabilities together at some of our campus settings, we could not really get the full advantages of synergy, both on the cost side and on the marketing side. There are very real differences between the way hospital people look at nursing home people and vice versa. We had tremendous problems there. So there were barriers to synergy built into the system. We had no common name, as I mentioned earlier, which meant that our own people and most importantly, the physicians serving our entities did not understand and know what all

of these entities were in their respective areas.

The problems came to a head in 1986. We did some restructuring and sold off some hospitals and some related businesses and some of the HMOs, and we basically got down to the core business again of running hospitals. Acute care hospitals, specialty hospitals, and long-term care hospitals (we call them nursing homes). Today our business mix is about 45 percent acute care, 15 percent specialty hospitals, which is really where the growth is, 25 percent long-term care, and the rest is a variety of things.

That essentially is where we are today. I might just add that one of the biggest areas of success I think we have enjoyed with the specialty hospitals is putting psychiatric, substance-abuse, and rehabilitation units in all of those empty beds in our acute care hospitals, managed by PIA. That is the way we have kept our occupancy rates, miserable as they are, higher than they otherwise would have been. We are very pleased with that.

Let me just say a few things overall about what I think our experience in diversification has said in terms of lessons for us. First, do not look at diversification as a solution to problems in the primary business. The synergies that we expect are usually more difficult to come by than we think, and sometimes diversification can be counter-productive.

Secondly, if you are going to diversify, start small, we have learned. Limit the investment. Try it out. Get your feet wet. If possible, do it on a small scale. That is more easily said than done, I realize, with respect to an individual hospital. But there is nothing the matter with trying to get to know the business firsthand before getting into it in a major way.

Timing, thirdly, is terribly important. To be successful, you really need to be there first, or at least early. Buy things and do things when they are not seen by your competition or when they are out of favor.

Fourthly, do not be afraid to be different. The right strategy for your competitor may be totally wrong for you. Some strategies that appear well conceived in their early stages do not pass the test of time.

Fifthly, obviously, you have got to have the right management running it. It has to be compatible with the management in the core operation, and the managers have to know the business.

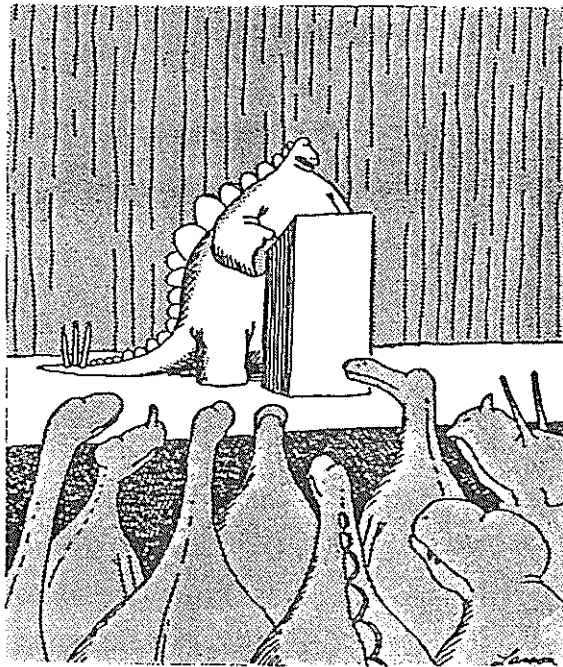
Finally, and we were talking about this a little earlier, keep the staff lean. In a multi-divisional company, there is a great tendency to build staff, which leads to additional superfluous layers of redundant staff doing many of the things that line operating managers should be doing themselves. That is a lesson we have learned very painfully. You hire the people to run the business. Let them run it. There really should be

a very small number of corporate types of services, mainly in the finance, accounting, and possibly management information that you could provide to them. But they should be responsible for running that business.

In summary, diversification is not inherently bad, and it has not been for us. It is risky. We have made some mistakes. The trick is to do it in such a way that the institution as a whole benefits, enhancing the core business from what it otherwise would be in bringing economies on the cost side of the institution, market share gains, and improved access to capital.

## A REGIONAL SYSTEM'S DIVERSIFICATION PERSPECTIVE

PETER SNOW: I am from New Mexico and as you may know, the oldest public building in the United States is located in New Mexico because the Southwest was the first part of the United States to be discovered and settled by the Spanish. When rummaging around in the building archives in Santa Fe, I found some evidence of the very first meeting on diversification. This portrays the strategic planner, as he summed up his environmental scan.



"Gentlemen, the picture is pretty bleak. The world's climates are changing. The mammals are taking over and we have a brain about the size of a walnut." His next conclusion was, "Therefore, we must diversify," and that was his strategy for the long term survival of his group.

All of you have had opportunities over the past few years to participate in planning sessions with acute-care managers where a similar logic has prevailed: "Filling hospital beds is no longer what society wants. Ambulatory competitors are taking over. HMOs are eating our margins. Therefore, we must diversify." I think that over the next five years, we are going to see many health care sponsored diversification ventures prove to be as unsuccessful as the mammal example. The diversified businesses will be extinct as will some parent companies and many of the managers involved.

The purpose of my presentation is to share a case study with you, Southwest Community Health Services, and to offer our diversification experience as an example. In contrast with the mammal example, SCHS's experience indicates that modest, limited diversification can be an appropriate response to opportunity. Diversification is not a solution to fundamental weaknesses in the base business. My presentation is structured as follows:

- o Definition --- I'm going to spend some time on defining what products are included and what products are excluded from SCHS's definition of diversification.

As this morning's speakers indicated, the definition of diversification is largely situational: a business may be considered by one hospital to be diversification while another hospital considers the same business integral to their base business operation.

- o Scope --- In describing the range of our diversified activities, I am going to focus on managed care, which I do believe is a critical strategy for our future. I am reminded of what tree specialists say: a plum tree takes six to seven years to bear fruit, and a lemon ripens in two years. In all diversification, I think time, attention, effort and careful cultivation are really critical. The challenge is to differentiate the "lemons" from the still developing "plums." I think managed care will bear fruit for our organization but we do not expect an overnight success.

I am also going to talk about a second area called ventures, which are services where we are the primary customer but we have packaged them and done some sales to customers outside of our organization.

- o Conclusion --- I am going to conclude that diversification has been a modest assist for us. It does not represent a viable means of replacing declining acute care revenues and it is certainly not the answer to indigent care funding.

#### Definition:

Three criteria are helpful in identifying what SCHS management considers diversified businesses: business purpose, business opportunity and organization structure. First, the degree to which the purpose of a business is linked to our basic provider services determines if it is considered diversification for SCHS. For example, urgent care is a health care provider service and therefore considered part of the base business. In contrast, our computer services bureau is considered diversification [even though an essential support for provider services] since it is not a health care service, and serves customers in many other

industries. However, like the prior speaker, even our diversified services must be related to or be supportive of our basic provider business. SCHS is not into lumber and other very wide-ranging diversifications.

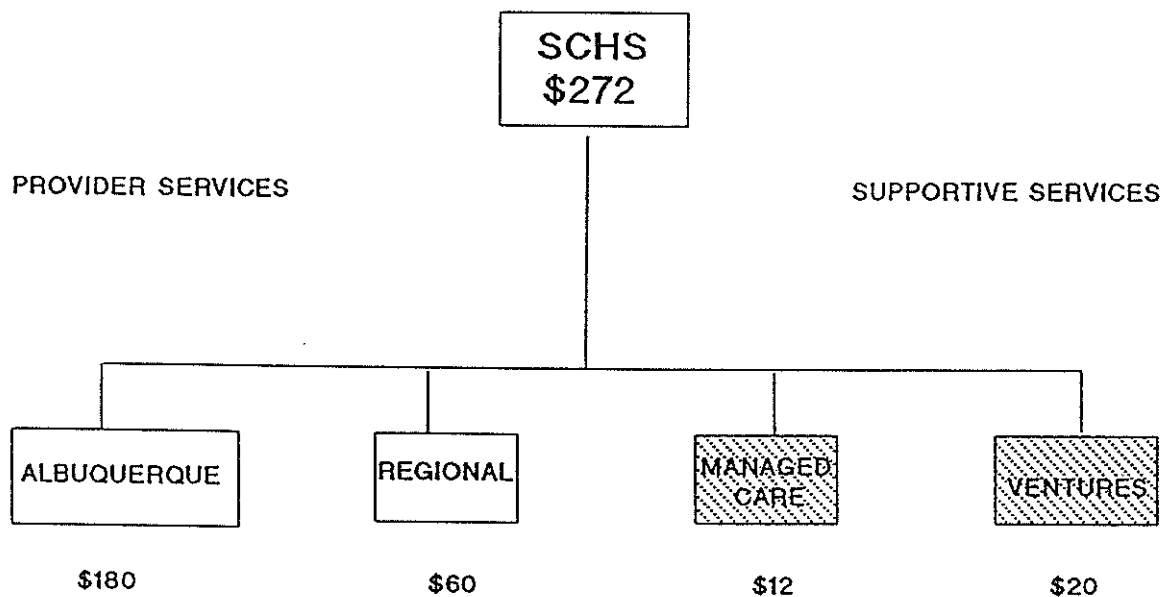
Second, diversification can be defined in terms of specific business opportunities. Either we have excess capacity, we have a unique expertise, or we have a non-SCHS identity that is going to help us gain and serve customers. For example in the case of computer services, we have been successful in bidding on State contracts for income tax refunds where the fact that we were not bidding as a hospital computer services department gave us credibility which, together with a competitive price, allowed us to get the contract.

Finally, organization structure helps define diversification activities. In general, diversified business are organized in separate legal entities, often for profit corporations.

Thus, the activities we refer to as diversification tend to be distinguishable by: a separable yet related business purpose, an external business opportunity or a separate legal structure.

There are exceptions to these three general criteria for identifying diversified business activities. For example, our MRI unit and the ambulance company are each organized in separate corporations, to enable other investors to participate in capitalizing the businesses. We do not consider either to be diversification since each performs a fundamental function as a provider service and each has become an integral component in our Albuquerque provider services network.

### REVENUE PERSPECTIVE (FY'87 MILLIONS \$)



## SCOPE OF DIVERSIFIED BUSINESS

SCHS is a relatively small health care corporation with FY 1987 revenues of \$272 million. The chart on the previous page displays SCHS's primary functions and the associated revenues. Provider services are our base business and constitute \$240 million or almost 90% of our total revenues. An additional \$32 million is generated in two functional areas: managed care and a set of businesses referred to as ventures. In my following comments, I will briefly describe provider services, and then focus on describing current diversified businesses in managed care and ventures.

## PROVIDER SERVICES

When I say provider services are our base business, I am including many services that are often considered diversified services by other hospitals or hospital systems. Inpatient acute care is the cornerstone of our provider services, but we do include in the set of provider services the following: nursing homes, urgent care centers, day surgery centers, a reference lab, home health, ambulance companies, and ambulatory diagnostics such as nuclear magnetic resonance.

To re-emphasize an earlier point, the definition of diversification is highly situational. From an historical perspective, the entire network of hospitals and related provider services that today constitute SCHS can be considered the current result of a series of horizontal diversification efforts. The diversification process took place over the past two decades and each step was frequently preceded by an intense internal debate by physicians, board and management over the wisdom of "diversification".

The original component of our operation was Presbyterian Hospital in Albuquerque. The first diversification occurred eighteen years ago when we added a satellite hospital in the Albuquerque community. That was our first horizontal diversification. Then, SCHS entered a period of rural hospital development. In each year during the 1970s another rural hospital joined the system, and each one of those is an example of horizontal diversification. The early 1980s was a period of expansion in provider services often outside the boundaries of traditional inpatient acute hospital care. Initiatives included ambulatory surgery, long-term care, behavioral medicine, air ambulance, reference laboratory, and urgent care. This third stage of diversification created a number of new business that are today integral parts of an increasingly comprehensive provider service network, particularly for the Albuquerque market.

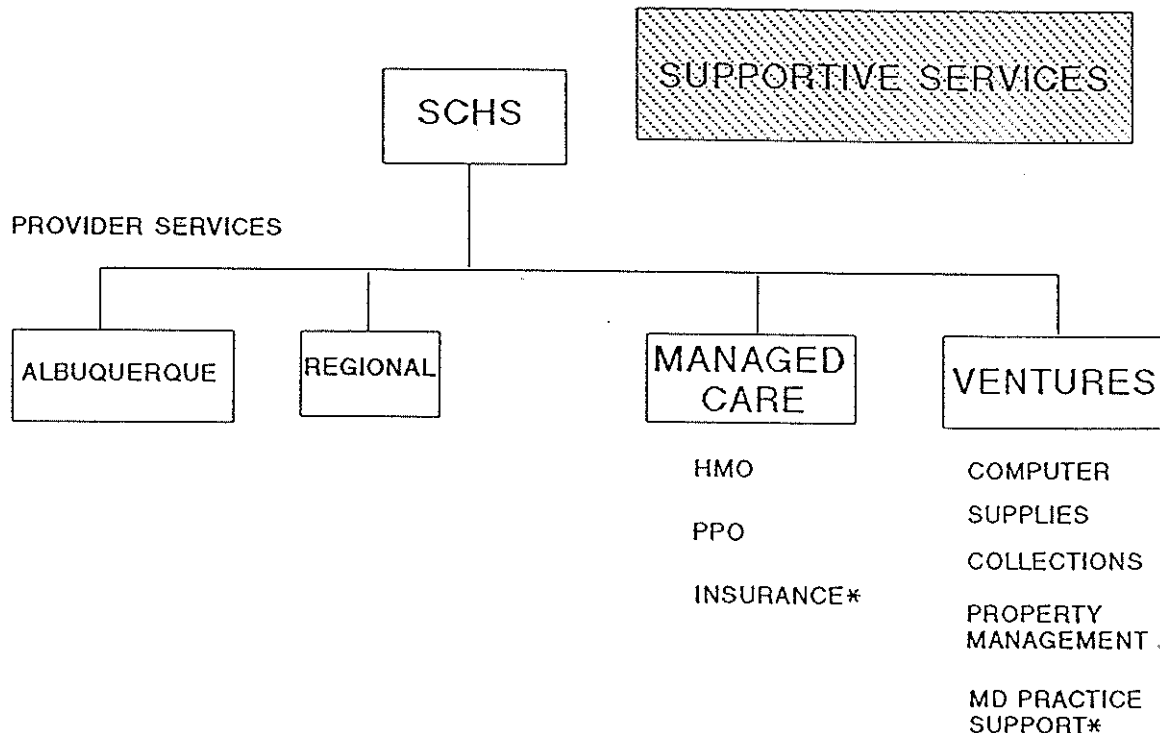
The reason these new provider services are included in the definition of base business is that the function each performs has become integral to the effective operation of our hospitals, and the hospitals have become dependent on each of these businesses. For example, the nursing home helps get patients out of the acute-care hospitals more rapidly, an important consideration under fixed price hospital reimbursement. Urgent

care centers do not have much effect on the hospitals but they do help capture and direct patients for physicians who in turn utilize the hospitals. Ambulatory surgery helps us bid successfully on risk contracts with HMOs. The reference lab allows us to provide some services to other customers, but functionally, the lab is tied to the hospital business and permits economies of scale by allowing the production of specialized, low volume laboratory services to be concentrated in a single location. Home health and the ambulance company are other examples of businesses that are very closely tied to the hospitals. In home health, the majority of clients are referred directly from the acute care setting. The ambulance operates at an earlier stage in the patient care continuum but when the emergency vehicle arrives at the ER, it carries patients who are among the heaviest users of acute care services.

For the balance of this presentation on diversification, I am not going to talk further about regional hospitals, reference labs, home health, ambulance companies, etc. Those businesses are functionally integrated into the provider services operations and are, today, integral components of our base business. Our base business has transitioned from an almost exclusive focus on acute hospital services to a functionally inter-dependent and increasingly comprehensive provider services network.

SUPPORTIVE DIVERSIFICATION: MANAGED CARE AND VENTURES

The figure below displays the key functions in the two major components of what SCHS management would consider our current diversification activities: managed care and ventures.



\* DEVELOPMENT STAGE



Managed care includes an HMO, a PPO, and a developing insurance product that we are looking at very seriously yet, cautiously. Ventures includes, as I mentioned, services that we provide to ourselves but can also provide to others: computer services, supply services, financial collections, property management including physician office buildings, and medical practice support. Again, the rationale for organizing these functions as diversified businesses is that they can and do serve external customers in addition to SCHS. For example, our computer services business serves the State government, a public utility, banks, and it also serves SCHS.

In total, from a revenue perspective, diversified services represent \$32 million, about twelve percent of the total corporate revenues. The ventures represent \$20 million and managed care \$12 million. From a growth perspective, revenues are up about sixty percent in these businesses, but that is very misleading.

*SCHS DIVERSIFICATION*

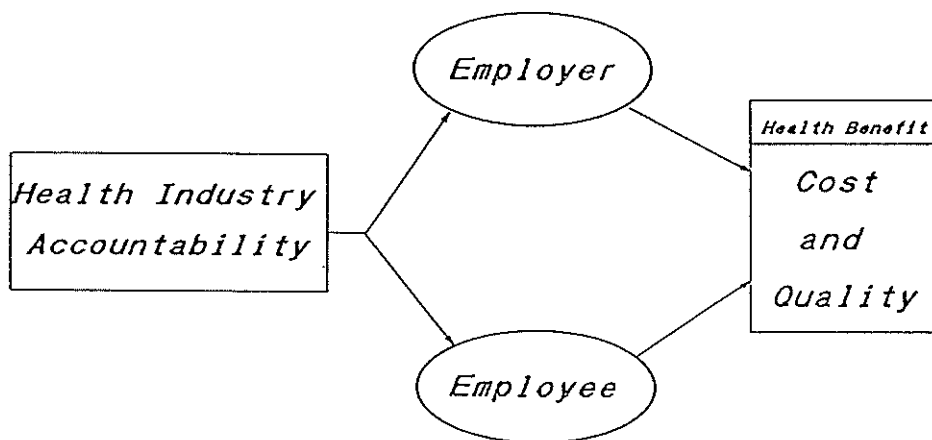
*(\$000,000)*

	<u>FY86</u>	<u>FY87</u>
MANAGED CARE	3.9	12.0
VENTURES		
- Computer	9.3	10.9
- Supplies	4.9	7.6
- Other	<u>1.5</u>	<u>1.5</u>
	15.7	20.0

We do not intend to start an HMO every year, and so this one-year growth trend is not very indicative of sustainable growth.

Let me talk first about managed care. From my perspective, the rationale for managed care is market accountability. Hospitals or physicians are not particularly well configured to respond to employer

### *MANAGED CARE DEVELOPMENT FOCUS*

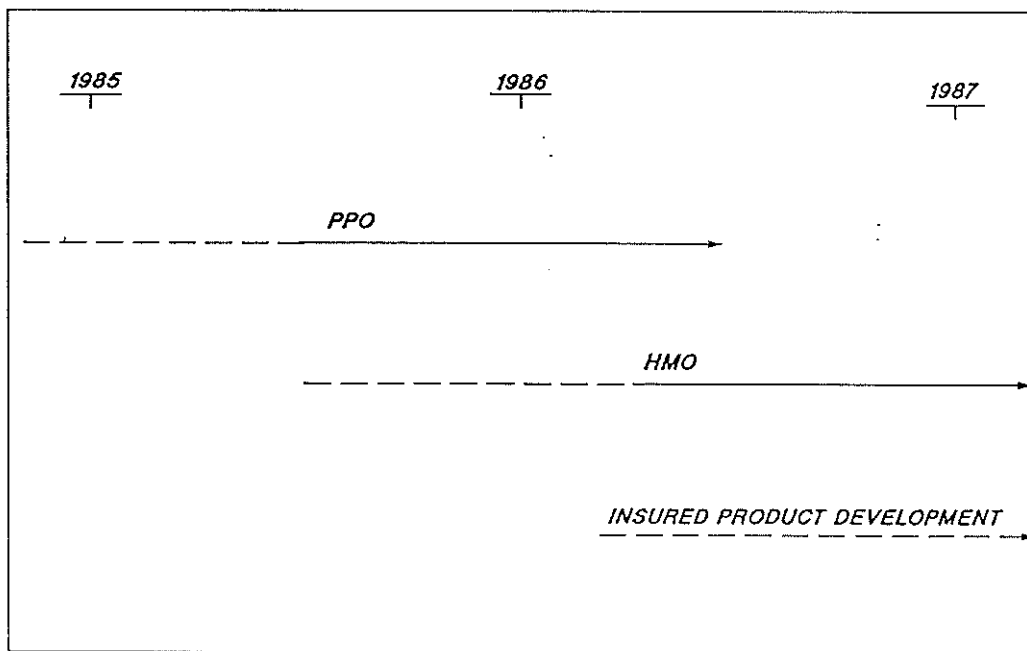


and employee concerns. We have to rebalance the quality/cost trade-off if we are going to get utilization patterns and overall health care costs under control. Of course, optimal quantities of services are the fundamental, long-term answer to government and employer concerns about health care cost. Excess utilization is also an employee concern. An employee who underwent an unnecessary surgical procedure in 1980 and who subsequently learned that the blood supply received was tainted has a very serious problem with over provision of health care services. Patients are concerned about quality and quality is directly related to optimal levels of quantity. We are not very well structured, in my judgment, to be accountable for cost and quality without some kind of managed care entity.

What I mean by accountability is that all services, those we provide, together with those provided by our physician colleagues, must be managed so that employers and employees are assured of value: optimal quantity and quality of care at an acceptable price. In short, a much better value or cost/quality trade-off. Quality without any limit is not going to be affordable. So affordable quality is really going to be the most critical issue confronting health care providers in the future. Rebalancing the cost/quality tradeoff requires translating the fundamental incentives under which we operate. Today's hospital and physician revenue maximization incentives have to shift to rewards based on effective management of total premium dollars and how they are to be distributed. The problem is fundamental for hospitals; no one buys hospital services, as currently organized. For example, no one buys open heart surgery. I do not know how hospitals, isolated in the acute-care niche, are going to be able to do very much about changing the fundamental structures and incentives in the health care industry. I believe the answer lies in the restructuring of incentives which can be produced in managed care structures: HMOs, PPOs and emerging forms of provider and financing entities.

Our current status of managed care development is depicted below.

### ***MANAGED CARE DEVELOPMENT - SCHS***



Key:

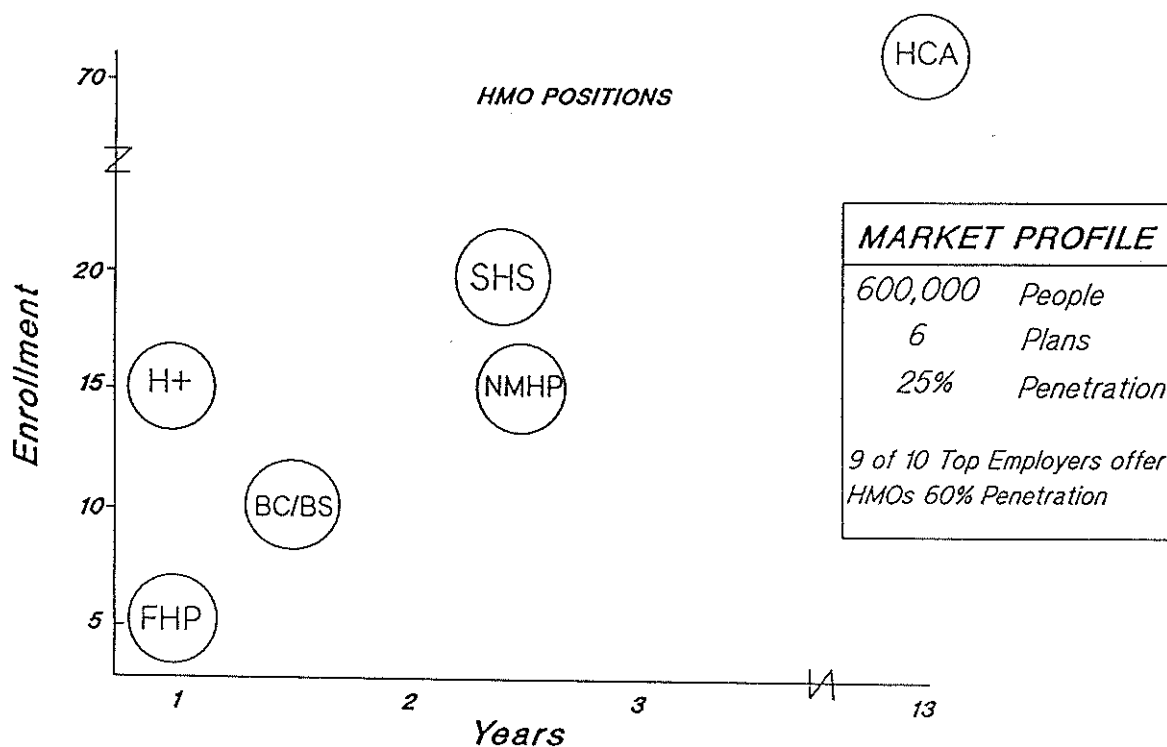
----- *under development*

————— *operational*

We have been working at managed care for a long time. In fact, in the early 1970s, we started an HMO that was forced by physician disaffection and faulty plan incentives to close in late 1981. From a more current view, our development includes: a PPO, an HMO that is now operational, and as I mentioned earlier, some early exploration of insured products.

A little bit about the market. We have 600,000 people in the greater Albuquerque/Santa Fe market. There are six competitive plans, with total penetration of twenty-five percent. Nine of the ten major employers offer HMOs and when they offer the plans, sixty percent of the employees sign up.

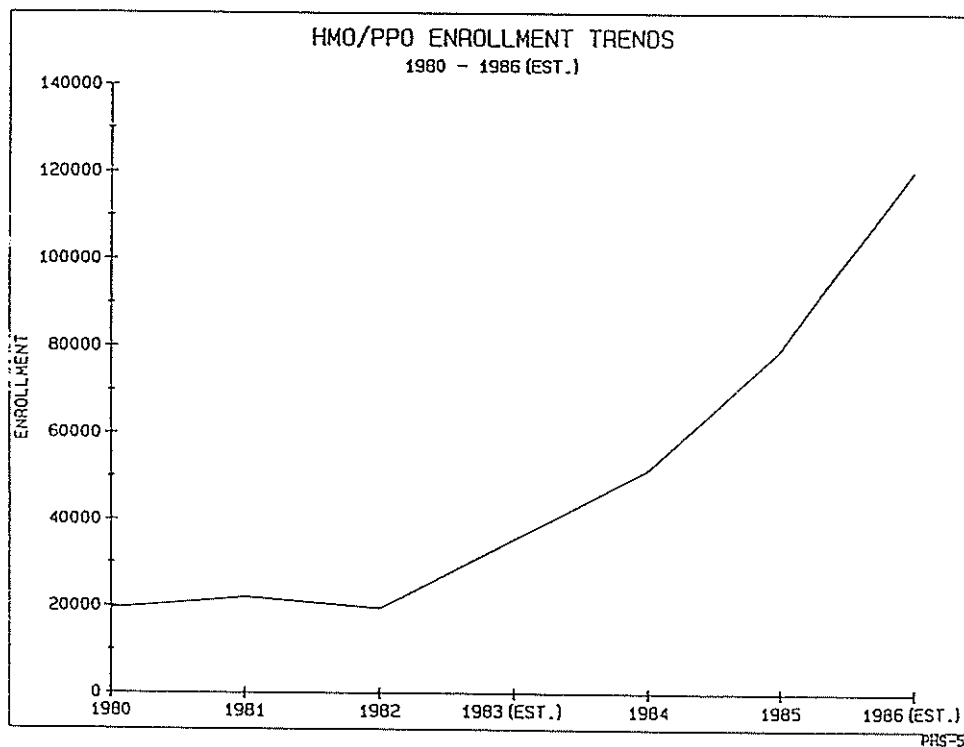
### BACKGROUND -- MANAGED CARE STATUS



We were late entering the market, our plan is Health Plus (H+) depicted on the chart above, at 15,000 enrollees after one year of operation. Clearly the market leader is HCA and the Lovelace Health Plan, an integrated multi-specialty group practice that has over 70,000 enrollees and thirteen years of experience. That 70,000 in the HCA plan is accompanied by

another 70,000 fee-for-service patients. As measured by the physician side of the market, Lovelace has captured about a quarter of the total community. Thus our physicians have lost a lot of patients who are no longer in the network that offers access to them. Physicians are not responding as rationally and as well to the erosion of their market position as I would like to report that they are. The economics in primary care were simply not producing the change in physician behavior in a timely enough fashion, in our judgment. We had to step in and offer an HMO option in order to stop the erosion of our key market channel: primary care physicians.

The growth of HMOs has been dramatic and has accelerated in the last two years.



Market research of employers and employees helps explain the plans' ability to capture nearly 25% of the health benefit market. Employers like the cost and the fact that utilization controls and risk sharing make providers more accountable for the services provided. In addition, employers appreciate the high acceptance of the plans by their employees.

## ***HMO BENEFITS***

### *Employer Perspective*

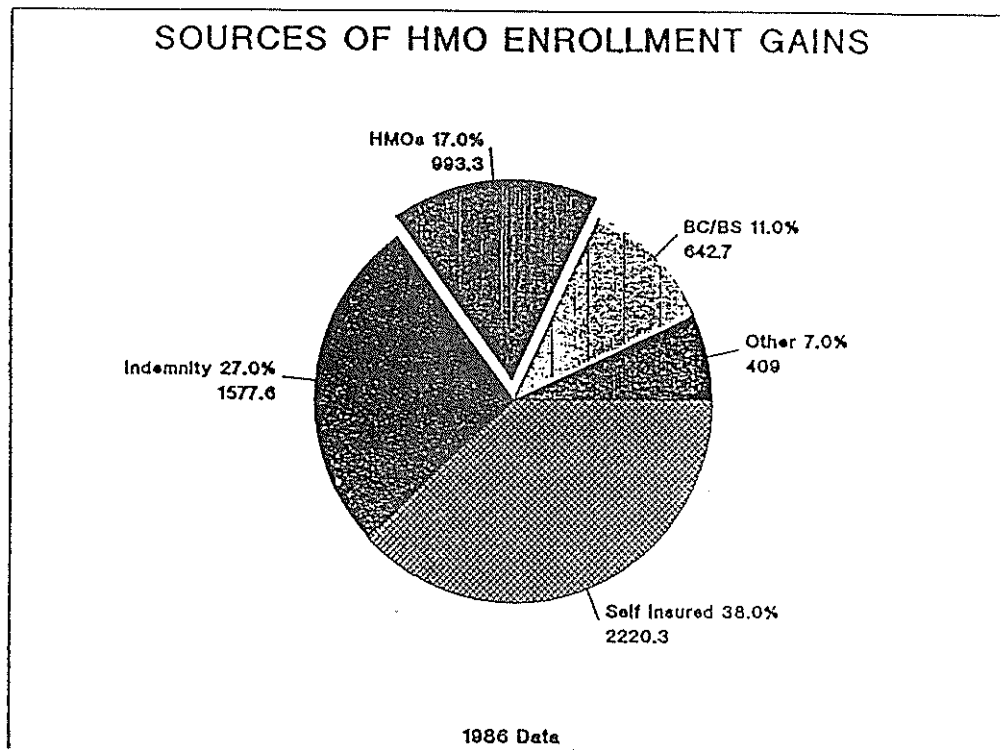
- ▶ *Cost*
- ▶ *Controls*
- ▶ *Accountability*
- ▶ *Risk Bearing*
- ▶ *Employee Acceptance*

### *Employee Perspective*

- ▶ *Low Out-of-Pocket Cost*
- ▶ *Premier Provider Network*
- ▶ *Rich Benefits*
- ▶ *Paper-less Claims*
- ▶ *UR is a Provider Responsibility*
- ▶ *Ease of Access*

Employees like low out-of-pocket costs, the access to known and respected providers, and a number of convenience features including paperless claims.

The sources of SCHS's HMO growth are depicted in the figure below.



Large self-insured employers were the first to offer HMO plans, thus 38% of Health Plus' first year growth (excluding captive markets such as our own employees) has been from self-insured employers. Blue Cross and other indemnity carriers accounted for another 38%. Net shifts from competing HMOs contributed an additional 17%. Looking to the future, new enrollees will come from middle and small employer groups most often covered by an indemnity carrier. Rapid growth should continue for several years. In fact, initial results of January 1987 enrollments indicate HMO market share may now exceed 30%.

## MANAGED CARE RATIONALE AND RESULTS

Why has a hospital or provider services company entered the business of bearing risk? There are three fundamental reasons:

- o Health care restructuring  
Today the HMO represents a point of access to physicians and our system, a market channel. In the future, we believe managed care will help produce a more competitive, integrated health care network.
- o Customer value  
Managed care represents the best means of re-aligning incentives of health care providers to better match the interests of employers and employees. Managed care can enable us to re-balance the quality/cost trade-off and achieve affordable quality in health care services.
- o Defensive -- A modicum of leverage  
Our HMO investment enables us to access customer groups who would otherwise enter the network operated by our major competitor. Also, in contrast to the role of a hospital that merely contracts with health plans, as a health plan owner we believe we can maintain a modicum of leverage over our financial margins. There are no windfall profits, but we believe some added leverage is possible. As we anticipate health care restructuring, SCHS wants the leverage available to active participants in the process. We have no illusions about our ability to unilaterally re-shape the health care system and our role in it. However, we do want a seat at the table where the decisions are to be made. Access to the decision arena is increasingly controlled by those who finance health care and manage premiums.

What have been the results? To date, we and our partner have each invested \$2 million. Our share of the first year loss was \$1 million. Enrollment growth has exceeded predictions but so have utilization levels so our operating losses have exceeded budget. Administrative costs are below budget.

The late entry and the now rapid pace of our development has increased investment requirements. People with HMO experience are in high demand. Health care provider training and experience does not produce the required expertise in information system, ambulatory utilization management, contracting and claims processing. It has not been feasible to meet our timetables and "home-grow" any of the critical components. We are paying a premium to attract new people and to import proven systems and procedures.



Managed care also places incredible stress on physician relationships. The HMO is an IPA model. There are a number of difficult issues to address that center on physician reimbursement. Negotiations with hospital based physicians have been particularly complex and delicate. The readiness of physician leaders to tackle these issues is critical. I do not advise a hospital to venture into this arena without strong support from physician leaders, particularly in primary care. However, it is clear that a change in incentives, lower prices, and a redistribution of income in favor of primary care physicians is inevitable. The only real choice for physicians and SCHS is whether or not to participate and try to shape the process of health care change or be shaped by it.

Managed care does give us a lot of tools for dealing with the cost and quality tradeoff. Under managed care, we are dealing with costs, not just from the hospital perspective, but across the provider network. Similarly, we deal with utilization patterns not just from the hospital perspective, but across the provider network. I think this broader perspective is very very important if we are going to successfully address customer needs -- employers and employees -- and effectively deal with the health care cost issue.

Well, we said we were looking for accountability in the health care industry and as our \$1 million loss suggests, we have found it! We will see in the years ahead how comfortable we are with our position of risk. We do see the industry restructuring. We see provider networks being integrated with insurance. We see managed care as a better way of structuring provider services and increasing the accountability to employers, employees and patients.

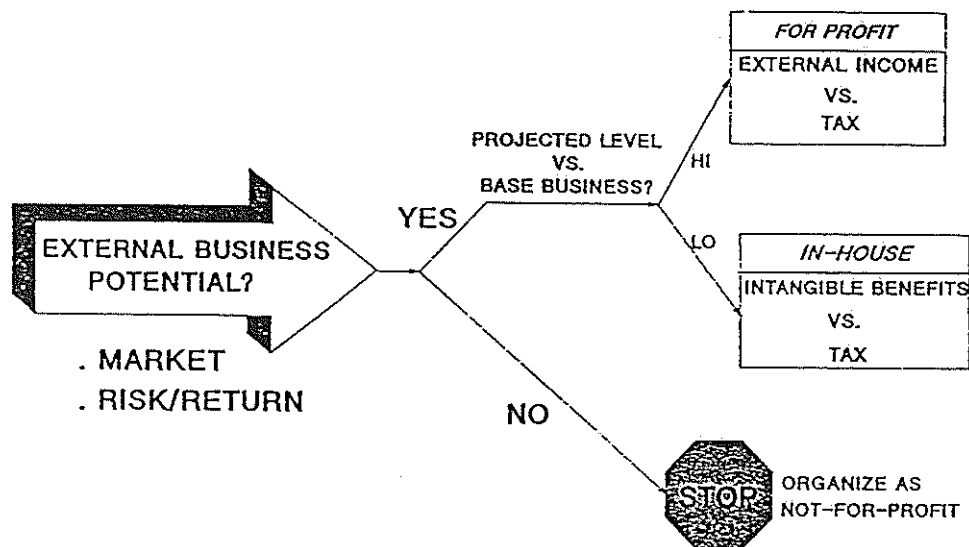
#### DIVERSIFIED BUSINESSES -- VENTURES

Ventures include businesses organized in a for-profit subsidiary of Southwest Health Foundation, a tax exempt corporation. As mentioned previously, the functions included in ventures are: computer services, supplies services, collections, physician support services and property management. As a not-for-profit corporation, we have the option of placing functions in either for-profit or not-for-profit entities, within the limits of the law. We have noted in the healthcare field a misplaced emphasis on the creation of taxable entities. In our judgment, in addition to the fundamental purpose of the activity, the most critical factor to consider is the external business potential.

The process of analysis is depicted in the diagram below.

## ***ANALYSIS PROCESS:***

### ***SCHS DIVERSIFICATION***



The potential external business volume must greatly exceed the amount of business to be done with our own base businesses in order to justify exposing the entire revenue stream to the tax authorities. If the external business potential is limited, it is almost always preferable to keep the function in-house as a not-for-profit cost center instead of diluting the income by taxation.

In SCHS's case, external business activity produced an estimated \$400,000 in incremental income in FY 1987. The chart below compares actual financial results with results re-stated assuming the venture businesses had been operating as internal departments or divisions with no external sales.

***VENTURES -- IF ORGANIZED INTERNALLY***

Financial Results (Millions)			
	ACTUAL	RE-STATE	COMMENTS
Revenues	19.3	15.5	No external sales
Expenses	<u>17.4</u>	<u>14.1</u>	No sales tax
Pre-Tax	1.9	1.4	
TAX EFFECTS			
Taxes	(.8)	N/A	Lower rate in '88
Credits	.3	N/A	Not available in '88
Property Losses	<u>.4</u>	<u>---</u>	No offset
Income	1.8	1.4	
Return on Debt and Equity	18%	14%	\$3.0 Invested \$7.0 loaned

As indicated, returns would have been lower: \$1.4 million compared to \$1.8 million.

Something I want to stress is that our ventures do not produce windfall profits. We are experiencing very marginal impacts. The return would have been 14% on investment, plus equity versus 18%, as it was. Again, we were serving external business that, had we been organized as an internal hospital department or departments, we probably would not have had the opportunity to serve. We also would not have had the opportunity to pay tax, and that is the trade-off that each organization must assess.

To summarize our current diversification experience I think our diversification activity is modest, 12% of revenues. It is expanding, but our one-year growth figure of 60% is misleading due to the HMO start-up. As for incremental income in managed care, we have served some new patients, but the total volume is really difficult to determine. We do not operate in a laboratory with the ability to re-run last year's results without our HMO to test the volume and financial effects. But we do know that we have taken some business away from our key competitor.

Ventures, again, have had some beneficial impact. For-profit structures are increasingly required to service external customers but the only certain beneficiaries are the tax collectors. We are going to see a lot of examination of tax-exempt status in the next couple of years. We are going to see a lot of challenge to the types of structures that I have shared with you. These structures also represent management and governance challenges that are really tough to deal with in terms of effective integration. If required, I think we would be very comfortable in folding much of this business activity back into the parent corporation. Such consolidation would not be a difficult problem for us.

## CONCLUSION

What constitutes diversification for a health care company is a function of the organization's current status including the fundamental mission of the organization and the scope of business activity judged to be essential and feasible for mission fulfillment. The circumstances that fostered development of SCHS from its early days as a single hospital (after many decades as a TB sanatorium!!) to a multi-unit system have changed dramatically. System expansion in multiple, unrelated markets is no longer a rewarding business strategy in most situations. Development of comprehensive provider service networks in concentrated, urban markets like Albuquerque is likely to be well received particularly in those markets where managed care contracting constitutes a predominant influence on the organization of provider services. In some settings such provider networks will form close ties and may ultimately develop or merge with health care financing entities. In these cases, managed care will encompass integrated management of provider networks and the management of risk.

In summarizing our current diversification experience, if strategic advantage is the sum of many small advantages, I think diversification for SCHS represents a net positive. But again, it is of limited magnitude. Diversification is not the answer to indigent care, and it is certainly not the answer to acute-care erosion or other fundamental weaknesses in the provider services business.

## DIVERSIFICATION -- THE SUBURBAN COMMUNITY HOSPITAL EXPERIENCE

MALCOLM MAC COUN: I thought that the way the program was printed was a little presumptuous. With the other two speakers, it indicated "a" experience for the national and "a" experience for the regional. But with my talk it said "the" suburban hospital experience. I want you to know that this is "a" hospital's experience. It may or may not be typical, but I will be glad to tell you where I think it is and isn't.

For those of you who are not familiar with the Chicago metropolitan area, I will give you a little geography because it has some bearing on what I am going to say, in terms of how our hospital developed and why it did some of the things that it did. In 1960, there were no hospitals between Evanston on the lake and Elgin, which is about 35 to 40 miles inland. That is a substantial distance. If you looked at that area in the late 1950s or early 1960s, most of the communities that now exist were there then, but most of them were small villages. There are some brand new communities that did not even exist. The area, particularly following the Chicago & Northwestern railroad tracks and the Northwest Tollway as it comes out of Chicago, became a growth corridor back in the 1960s and 1970s. Our hospital was the first hospital built in that area. Lutheran General Hospital in Park Ridge was under construction at the same time. It was a much larger hospital, at least initially, and still is to some degree. It was not opened until almost nine months later. A couple of years went by and Skokie Valley Hospital was built in Skokie. A couple of years after that, Holy Family Hospital was built in Des Plaines. All of a sudden we had four hospitals in this area where there had been none. Alexian Brothers Medical Center, which is about five miles south of my hospital opened up in 1964.

Then came the glory years. From 1964 until the late 1970s, it was nothing but a growing population. There were no new hospitals, and we could do anything we wanted. The biggest challenge for every hospital was to build enough beds fast enough to take care of the population, and to try to get enough physicians to move in the community. Every one of those communities had been doctor-poor in the sense that although the population was originally sparse, the doctor population was even sparser. Any physician moving out into that area would put up a shingle, and open up an office; if the physician was any good at all -- in fact it was not necessary to be any good at all -- within a year the physician was taking in a partner and in another year another partner. That was sort of the phase that we went through in the 1960s and in most of the 1970s.

In the late 1970s, Good Shepherd Hospital was built north of Barrington, and it serves an area that is really up into McHenry County and Lake County and really does not serve too much of the area that we are talking about. Two other hospitals were added in the early 1980s. One is Glenbrook, which is a branch of Evanston, built in the area of Glenview and Northbrook. The other, Humana Hospital, which is the only

for-profit hospital in our area, was opened up about the same time in Hoffman Estates. My hospital, Northwest Community, then has essentially three major competitors: Holy Family Hospital, about six miles to the east; Alexian Brothers, about six miles to the south; and the Humana Hospital, about eight miles to the west. Lutheran General Hospital is about nine miles away. It is a major competitor of ours in some specialty services. We have at least one unique contract with them, so we are both cooperating with them and they are our competitors in some other services.

During the early years that the hospital was developing, it kept adding beds and building wings. It went from 100 to 200 beds, to 400 beds, and from 400 beds we eventually built 600, and we never occupied 600 beds. By the time we got 600 built, the circumstances had changed. Our competitors were starting to move in, and we went from an under-bedded area to an over-bedded area without ever stopping at the right place, which is not unique in the United States. We therefore operated for a number of years at 520 beds, and for all intents and purposes, it became our capacity. We could have opened up additional beds but we never did. For a number of years we ran an average census that in its peak years got up to about 460.

The slide that we have had in the last few years has pretty much mirrored what has happened nationally. We have dropped from an average census of about 460 down to about 365 over a period of four years. That is less than almost any hospital in our area that has dropped. Whether it is because of some of the things we have done or not, is very difficult to say. We had no knowledge of any special factors that any other hospital in our area did not have. We did not come up with any brainstorming that were different from anybody else's in terms of the facts. But I think perhaps we were more aggressive than most of the other hospitals in our area in terms of what we thought we ought to do to make our hospital and our health systems successful in the future.

We took a look at our service area and took a look at where our patients were coming from, what communities we were dependent on, and how competitive we were in those other communities with the other hospitals in the area. We made a decision some ten years ago that we needed to develop some ambulatory care centers. There had been one or two of those built in the Chicago area. One was near Sherman Hospital in Elgin, which is out in McHenry County. Most of the others that were starting to build up at that time were owned by doctors and this was really before the days when hospitals had done very much with this.

We made the decision to do it right. We went out and bought strategically located land and built impressive buildings in very good locations. We believed that although that gave us higher front end costs, it is one of the reasons why these have been reasonably successful. Between the two that we have in Buffalo Grove and in Schaumburg, we are seeing about 55,000 patients a year now. We have opened up another one

in Palatine which is operated and organized a little differently than the other two. It has only been open for about 8 months and it is too early to tell how that is going to go. We essentially have three campuses besides the hospital. We have a campus in Buffalo Grove, which is a town about six miles north of us. On that campus we have an ambulatory care center and a physician office building that we own. We have an identical campus in Schaumburg, which is a busy, growing area to the southwest of us. The facility there is located almost an equal distance from our hospital, the Humana Hospital, and Alexian Brothers Medical Center.

Our experience with the two facilities have been quite different. The people in the Buffalo Grove area, the older population in that area, are old German and Catholic families. It is one of the few towns that I know around here that has Protestants who are a minority. Most of the young people in the community are Jewish. A lot of them are professional people. That seems to have some bearing on the way these facilities are used because the Jewish population in the Buffalo Grove area is happy to use us as an interim source of care. They still, however, continue to go to Skokie and a whole bunch of other places that are traditional Jewish communities for their after care and their long-term care. So our ability to impact the new population in that area has been somewhat impacted by the kind of population and the aspirations that the people have in those areas. Despite that, we are holding our own in that community. We have 26 percent of the market share on an inpatient basis. We had about 24 percent before we built it. No other hospital has more than 18 percent and the population is really being split about six ways between the other hospitals in the area.

The Schaumburg area is a little different kind of a community. It is at about the same economic level. There is a great deal of turnover in the community. There are an awful lot of retail sales, regional sales offices, light manufacturing, with fairly heavy employment in that area. We get a great deal of business from daytime customers: people who are working in the area and those who use our facility because it is a convenient place when they get sick or injured in that area. We are in an area where we get the lion's share of the population from the north part of that township, and we get a very small percentage from the southern part because of the location of the other two hospitals in the area. We think that it has kept us from being further eroded in the area. Our market share has stayed about the same despite the growth of the other two hospitals and the growth of the services that they have there. If you take a look at the bottom line of all of these facilities, the office buildings we have built plus the ambulatory care centers we have built, they are a plus, adding over \$200,000 to our bottom line. This in terms of the hospital's net income is pretty insignificant.

If you look at it in terms of the fact that our major strategy was to get a foothold in those communities, to get the people in the communities dependent, not necessarily on our hospital, but on doctors who are on our

staff, we think it has been reasonably successful. We have tried to be a primary but certainly not the entire source of health care for the people in the community, and have tried to refer the patients primarily to doctors who are on our staff. There are always those people in the community who don't really want a permanent doctor relationship, and they look at our ambulatory care centers as their family physician. We have got certain families that we see over and over and over again. We are basically their family doctor.

Our doctors have mixed feelings about these enterprises. Our primary care people do not like the idea that we are in the ambulatory care business. Our surgeons think it is a pretty good thing for us to have done. They get extra referrals from our doctors who staff these facilities. The doctors who staff the facilities are part of the same corporation that staff our emergency room, so there is some continuity in terms of the people knowing each other and relating to one another. I think one of the reasons they have done better than many of the other "doc in the box" kinds of operations is that they have been hospital-operated and have been in our service area. Our name is on the door and there is an identification with the hospital. We think that has been a plus.

We have had a couple of focus group sessions where we have asked people why they use ambulatory care centers and particularly why they have used ours. And it was interesting to hear some of the answers we got. We came to the conclusion that the public in our area is a lot more sophisticated than we thought in terms of being able to decide where to go for care and when to get it. There were a number of people in those focus groups who made such a comment. There was one woman in particular whom I remember. She said, "Listen, I'm smart enough to know when to go to the doctor's office, when my kid is sick enough to have to go to the hospital emergency room, and when that ambulatory care center is the proper place because it's somewhere in between." When asked what that meant, she said, "I don't have to wait for my doctor there." What we concluded from that was what we are really selling in that facility is convenience. People's attitude is that they will knowingly pay more for care in that kind of a setting than they will in the doctors office because they want what they want when they want it. A woman picks up her husband at the train station and he has been sick for four days and he is coughing. She says, "You have got to go to the doctor." They call up the doctor and the doctor says, "I can see you in three days." She says, "I'm not going to wait three days," and she takes her husband over to the ambulatory care center. We have gotten a lot of that business. It is very difficult to measure what the effect has been on our operation, but we think it is positive. The net of all of these things together is a slight plus above the bottom line. We have had some physician problems as a result of it.

We have done several other things that I guess fall under the scope of what you would call diversification. There are two that I would like to



spend a little bit of time on. One is a continuing care center that we have built which is essentially a skilled nursing facility on our grounds. This is a 200-bed facility. We have it set up as part of our corporate structure as a separate corporation. It is managed by us. It is a tough business to be in; to do both a quality job and make money in that environment is difficult. If you have got any kind of conscience at all, and you are in this business in the state of Illinois, you have a tough road to hoe. The state of Illinois, for those of you who are from other states, is the third or fourth poorest state in the union in terms of its reimbursement for nursing homes. The reimbursement in the state of Illinois is \$38 a day for nursing homes and we cannot cover our out-of-pocket expenses for that. We have withdrawn from the Medicaid program as have a number of other nursing homes in Illinois. We think that there is going to be a big public relations problem over this in the next year. We are going to try jointly to put the heat on the legislature because that is where the answer has to come from. There is inadequate funding for this program. In Illinois, you either run a Medicaid nursing home or you run one with private pay. If you try to mix the two patients, eventually the patients convert over to Medicaid and under the laws of Illinois you cannot refuse them once you have them as patients. You cannot refuse to let them convert over to Medicaid and once you get over about 20 percent of your patient load in the nursing home on Medicaid, school's out. You start losing money on the bottom line number one, and the thing becomes more and more a total Medicaid kind of operation, and it is a tough kind of operation.

We believe, again, because our name is over the door, that we are getting sicker patients than other units. We have one part of the building as an Alzheimer's unit. We have some very tough to manage patients in that unit. We are making a little bit of money at this, between \$300,000 and \$400,000. There is no question that if making money were the object, you could do a lot better putting this money in almost any other kind of negotiable security and do better than you could in building this kind of a facility and going into this kind of business.

I used to be scornful of people who ran nursing homes and figured that they were all ripping off people because of the articles I read in the newspaper. Believe me, I think that goes on in every state and certainly in Illinois, but I have a lot more sympathy for them than I used to have, because it is a tough business to be in, to try and do the right thing for the patient and at the same time come out ahead economically.

The other venture that I would like to touch on briefly is our involvement in the development of an HMO. Our holding company is 25 percent owner of Health Chicago, which is one of the fastest growing and hopefully will prove to be among the most successful HMOs in the Chicago metropolitan area. This HMO is owned exclusively at this time by four suburban hospitals' holding companies: ourselves, Elmhurst Memorial, Central DuPage, which is also in DuPage County, and Ingalls Memorial Hospital's holding company, which is in Harvey. The chief executive

officers of these hospitals are old friends, and over a drink one day, we decided that we needed to consider what our strategy ought to be because the alternative care financing business was ready to take off and perhaps we ought to be in that business. We hired Touche Ross to do some feasibility studies for us and we asked the people there to tell us what our individual hospital strategies ought to be and whether the four of us really did have something in common so that we could do something with this. We asked them to tell us whether we should do nothing, whether we should try to contract with alternative delivery systems, whether we should develop a PPO, or whether we should develop an HMO. We just happened to hit it at probably the last year that we could have done this. I do not think there is any possibility that we could have gotten started in 1986 or 1987 the company that got started in 1984. We had the naive attitude that we were going to develop a boutique HMO. This HMO was going to serve suburban people who worked and lived in concentric circles around our four hospitals. The idea we had was that we could do this better because we were lower cost hospitals than our competitors. We all had good reputations for quality, so we said we would put together a package that our employers could not turn down.

What we found out was that in the Chicago metropolitan area, the big companies have employees who live all over the area and they said, "That's too small a network. We're not going to sign up with something that is so small." Secondly, we found that if you do not have name recognition, you cannot get in the door. If you cannot get in the door, you cannot sell the employees. The only way you get name recognition is by advertising. In a metropolitan area like Chicago as compared to a smaller city like Albuquerque, the thing that drives the budget of the HMO is the advertising budget. The amount of money we spent on advertising is less than it was two years ago, but it is scary. You take a look at the fact that in order to get the thing going, you have to advertise in the local television stations in Chicago, and you have to use the Chicago Tribune. All of that is very expensive advertising. Now that we have been in operation for three years, we are doing a lot more radio advertising. We are advertising in Crain's Chicago Business, which gets us to the business professionals. We think we have established name recognition and we are trying to save most of our advertising dollars for television and newspaper advertising for about the first of January and the first of July because those are the big enrollment times. Perhaps some of you have seen our ads. There have been ads on the television stations within the last week, and there have also been some print ads recently.

We have gone from scratch to 75,000 in 2½ years. We have moved up from being at the bottom of a list of probably twelve HMOs when we started to now sixth largest out of something like 24 or 30 in the metropolitan area. There is already beginning to be fallout in this business in Chicago. Two HMOs are going out of business this year, and although there are still new ones trying to be licensed, we think that the heyday for this is all over. You are not going to see very many more new ones. Some are

going to go out of business. Some are going to be absorbed by others. There is also going to be some attrition. Our feeling is that within the next four years, we are probably going to end up with maybe ten HMOs in the metropolitan area. There will probably be four to five group and staff model HMOs and maybe another four to five primary care network HMOs operating.

One of the other things that has changed dramatically during the time we have been in this business is the profit margin. There are still small communities in this country where HMOs are running profit margins of 12 to 15 percent. When we got into this 2½ years ago, our feasibility studies said that you could run a profit margin of 8 percent. It is now down to 4 percent and it is falling. The employer pressure on the HMOs to get the price down was very minimal 2½ years ago. It is now getting fierce. A lot of employers are saying, "We're not going to give you all an opportunity. We are going to bring in a consultant." Illinois Bell was one company that did this. It brought in a consultant, put together specifications, and said, "All you primary care people are going to bid against one another. And we are going to end up taking three or four." I think what is happening is that there is a lot of pressure on the bottom line of all the HMOs.

Despite that, I think it is going to be successful. I think it is going to make money. I also think that it is going to be one of the better diversifications in which we have been involved. Whether or not that is guaranteed is dependent on a lot of external conditions and is determined by the quality of management and the way we operate it. We had a good management team for the first two years we were there. We had a contract with Health America in Nashville which operated this for us on a contractual basis. When it was acquired by Maxicare, we terminated that contract. We took over the managing ourselves, put in our own management information system, and we are now running it as a stand-alone operation.

It has not been a bed of roses. We have an accumulated deficit for the period of 2½ years. We are now beginning to make money. We have had to put more capital in this than we ever thought we would when we got started on it. We think that we are through that phase and that we are now into a profitable phase. We should not have to contribute additional capital from our own sources. We may at some point down the line bring in some other owners and get some additional capital that way. We think it has a fairly good chance to be one of the survivors in the shake-out that I think is going to happen. I have personally found this to be a troublesome kind of an operation because while I am at my hospital talking to my doctors, many are very unhappy about the fact that we have gotten into this venture. On the other hand, when I am at Health Chicago as Chairman of the Board, I go to board meetings and try to make it successful. It really requires two entirely different approaches. An HMO is nothing more than a managed insurance company that has contracts with doctors. If you do not run it like an insurance company but try to run it

like a hospital, you are in big trouble. One of the first things we all decided around the board table when we put this thing together, was that we had to leave our hospital hats at home and think like insurance executives when we were in that room, and make decisions on that basis, and then take care of the fallout when we got back home.

We were farsighted enough to add some physicians to the board, and that has taken some of the sting from the physicians who feel left out of the decision making. In most of the original hospitals, the majority of the physicians tend to be the younger physicians, primary care physicians on our staff. In some of the non-member hospitals in the city for which we have participating agreements, there is a much broader participation by the doctors. That is a reflection of what has happened in Chicago. The doctors in the inner city have had it tough for ten years, and they laugh at the ones in the suburbs who are talking about the problems that are beginning to happen out there, because they have dealt with them for 8 to 10 years. We are beginning to get a crunch in the suburbs where physicians' practices are beginning to suffer, where incomes are going down and where physicians are beginning to look around at other alternatives. Interestingly, physicians who would not have considered joining 2½ years ago, quietly call up now and ask for contracts. We are now beginning to see some of the more established physicians join the HMO.

Health Chicago represents in our admission rate, about half of the total patients we get from HMOs. At Northwest Community we're getting a total of about 3 percent of our admissions -- about 1½ percent from our own HMO and the other 1½ percent from a whole variety of HMOs with which we have contracts.

Contrary to what some people have felt about the unlimited future of HMOs, my own personal feeling is that the HMO enrollment in the Chicago metropolitan area is going to level off at about 20 to 25 percent of the population. If you look at managed care, all managed care concepts, it may very well end up being 70 or 80 percent because I think a lot of employers are looking for alternatives other than the indemnity kind of approach. Our HMO is now looking at what has come to be called a triple option, meaning that in addition to an HMO, under one auspice you also provide indemnity insurance and a PPO option so that the employer in effect can put all of his or her employees with one company and let the employees choose among the alternatives. Then you let the actuary set the rate based on the proportion of each patient that you get.

I think the major problem that we have had with all of the things that we have done outside the hospital is that we are dealing with a very successful medical staff. I mean successful both professionally and economically. Unfortunately many have wanted frankly to "circle the wagons" and dig a moat around the hospital and keep out all of the changes that are happening. We have had a big reaction in the last year or two about this. A number of our physicians feel very threatened and

frightened about what is happening, but they have not quite gotten their act together in terms of coming up with their own answers to what to do with these challenges to the traditional system. They have formed an IPA at the hospital but it is not doing very well. It is kind of stumbling along and the physician leadership really does not quite know how to go out and deal with an HMO or any alternative care system themselves. I think as a result of that, sooner or later they are going to have to sit down and look at the fact that they need some professional management if they are going to have any control over what's happening. They are going to have to work out some sort of a partnership kind of arrangement with a hospital if they are going to be successful. In the long run, the hospital is going to be successful; it has both the resources and the management.

If you take a look at all the things we have done, with the exception of the HMO which is really an investment in which we have got 25 percent interest rather than something that we are managing, we are managing everything else with our own manpower and all these ventures are really branches of the hospital or the hospital holding company. The HMO is quite different from that. It is a financial investment. As such, we have an ownership interest and we have seats on the board, and we have a role to play in the management, but it is ours to control exclusively.

The major problem we have had with these ventures is their impact on our physician relationships. The economics have worked out to be reasonably good for us. We think it has helped us stem the erosion on our patient bases. We do think it has been a plus. But we have got some tough problems to resolve yet in terms of relationships with our doctors and ways of making these ventures work better.

QUESTIONS AND ANSWERS FOLLOWING TALKS BY MESSRS. TYLER, SNOW AND MAC COUN:

QUESTION: Do you expect managed care to ultimately replace provider services as the base business for SCHS?

PETER SNOW: Under one set of assumptions which we believe are highly unlikely, we think managed care could predominate. Some of the things that would have to happen would be that we would have to get into the insurance business; we would have to be wildly successful; employers would have to be willing to buy an awful lot of product and service from us; and the insurance industry would have to consolidate a lot more than we think it will. If all of those things happen, then we might be able to build advantage here, something near the 40% share that we have on the acute-care hospital side. However, we do not think that the set of assumptions is going to play out. Therefore, we see managed care as an important complementary business to our provider services, but not becoming the base business. Another point to make is that acute-care health care in the West has gone through a big shake-out, partly because it never had the same level of utilization that you are used to in the Midwest and the East. Our community wide use rate is 500 patients days/1,000 population, including Medicare. At Presbyterian, a tertiary care center doing heart transplants and serving a statewide market, our length of stay is under five days. We have got a lot of utilization squeezed out of the system today, and so I do not expect to see as much acute care shrinkage going forward as I think I would if I were in a market with a use rate of 1,000 patient days per thousand population.

QUESTION: What's Health Chicago's position on the Medicare HMO market?

MALCOLM MAC COUN: We have a separate program within Health Chicago that takes care of Medicare patients. It represents about 10 or 11 percent of our enrollment. It represents about probably 20 percent of our patient days. We are wary of it primarily because we think that the federal government is an unreliable partner. If they decide they are going to cut the budget, it means you are going to get cut. You have nobody with whom to negotiate regarding the matter. We do not want to risk having this become a dominant portion of our business.

RONALD ANDERSEN: I want to thank our panel for a very enlightening discussion of a number of case studies. I appreciate your participation.

## DIVERSIFICATION: WHAT HAVE WE LEARNED AND WHERE ARE WE GOING?

RONALD ANDERSEN: Sometimes it is hard to give someone else the last word. But in this case it is not hard at all. We are very pleased to have Steve Shortell, who is going to be giving a summary view, titled "Diversification: What Have We Learned and Where Are We Going?" Steve is A.C. Buehler Distinguished Professor of Hospital and Health Services Management and Professor of Organizational Behavior in the Department of Organization of the J.L. Kellogg Graduate School of Management at Northwestern University. He lives up to that long title. Steve previously was at the University of Washington. He headed the section on Medical Care Organization, and was previously in charge of the Health Services Research Center. He received an undergraduate degree from the University of Notre Dame, a masters in Public Health from the University of California at Los Angeles, and a Ph.D. degree from the Graduate School of Business at the University of Chicago. Steve, as I am sure most of you know, is the author of numerous articles and books. A recent addition includes his Health Care Management Test and Organizational Theory in Behavior. It is pretty good; I know because I use it. Another recent book certainly relevant for today's session is Hospital Physician Joint Ventures Results and Lessons from a National Demonstration. He serves on numerous boards and has received many awards.

I do want to say in summary that Steve's current work on diversification to which I think he will be alluding balances the case studies and experiences that we have heard today with some effort to look at diversification from the perspective of health services research.

STEPHEN SHORTELL: My remarks this afternoon will address three primary questions: 1) What have we learned from the early diversification experience in the health care industry? 2) What are the correlates of more successful versus less successful diversification efforts?, and 3) Where is diversification headed? In the process, I will also offer some suggestions for improving the probability of successful diversification efforts in the future.

### A. Experience to Date

True diversification is a relatively new phenomenon for many hospitals. As a result, a lot of experimentation is occurring in efforts to discover what works and doesn't work under different sets of circumstances.

Perhaps some initial insight can be derived by examining those services which have been more successful from those that have been less successful. Among the more successful have been outpatient diagnostic and treatment centers, renal dialysis, outpatient surgery centers, ambulatory care centers, oncology services, cardiac care services, home care, elderly services, women's health, industrial medicine, and behavioral medicine.

Among the less successful have been the provision of health insurance, pharmacy services, health promotion, urgent care centers, consulting, management engineering, and real estate ventures.

The less successful efforts have failed due to:

- 1) Lack of knowledge of the business - for example, health insurance.
- 2) Inadequate assessment of the magnitude of the competition - for example, in the case of health insurance, the large insurance companies treated the health insurance business as a loss leader and therefore undercut the products developed by hospital systems.
- 3) Alienation of physicians - who have viewed some of the diversification attempts (e.g. HMO involvement and ambulatory care centers) as outright competition.
- 4) Resources spread too thin - perception that these resources could have been better used elsewhere in terms of the opportunity costs involved.
- 5) Unprofitability of the services.
- 6) Undercapitalization - for example, many efforts to enter the HMO business were undercapitalized by a ratio of two to one.
- 7) Ability to be easily imitated by others - low entry barriers which made it difficult for the diversification strategy to sustain a competitive advantage over the long run.
- 8) Inability to recognize and apply the experience curve concept.

The more successful efforts have been characterized by:

- 1) Greater knowledge of the business.
- 2) Compatibility with selected physician interests.
- 3) Synergies with inpatient services - in other words, truly related as opposed to unrelated diversification. A distinction needs to be made between related, partially related and unrelated diversification. Examples of related diversification include cardiac rehab programs, outpatient diagnostic and treatment programs, ambulatory surgery centers and so on. Examples of partially related diversification include health insurance and health promotion. Many hospitals perceive these as related diversification in which they possess knowledge and experience because they seem to be related to "health". They fail to recognize that writing and marketing health insurance is a fundamentally different process from providing acute inpatient care services. In a similar vein, getting involved in health promotion is a radical change from the illness-oriented acute inpatient hospital setting. The third category, unrelated diversification would include such activities as consulting, real estate, and data processing services. Again, the main point being that the more successful efforts built synergies with existing strengths in inpatient service lines.
- 4) Ability to regenerate patients - for example from hospital care to



- ambulatory care, to home care to lifetime retirement center.
- 5) Ability to recognize and capture experience curve effects.  
A contrast may be offered here between ambulatory surgery centers and urgent care centers. Ambulatory surgery centers' "first movers" could indeed accrue advantages by being first in the market, increasing volume over time, gaining experience, and lowering unit costs relative to later entrants in the market. In contrast, the experience curve phenomenon held no relevance for urgent care centers which essentially represented a mixed strategy in an already very crowded market including the hospital's own emergency room, private practitioners, small group practices, and larger multi-specialty practices. The successful urgent care centers that are still around have followed an implicit differentiation strategy rather than relying on experience curve effects.

#### B. Correlates of Successful Diversification - Lessons from Other Industries

Many of our speakers today have emphasized the importance of a strategic planning infrastructure to support diversification activities. Elements of such an infrastructure include (a) knowledge of the strengths and weaknesses of one's competitors relative to one's own strengths and weaknesses specific to given product/market segments; (b) a strong management information system to track costs, revenues, utilization and quality and (c) a reward and compensation system based on accomplishing the strategic objectives of the firm.

Second, current research suggests that related diversification is more successful than unrelated. This is because related diversification permits the opportunity to leverage existing resources and make use of one's existing product and market knowledge. The greater the organization's familiarity with new markets and new products, the more likely the diversification effort is to be successful. At the same time, the choice of entry strategy is extremely important. Among the entry strategies to be considered are the following:

- a) internal development - permits the organization to have greater control but often takes many years for a positive return on investment.
- b) acquisition - can be done quickly with a low cost of entry. In order to make this strategy pay off, one needs to get a rapid understanding of the newly-acquired business through establishing a communication, information, and intelligence system.
- c) licensing arrangements - often useful for acquiring new technology. This choice of entry strategy exploits the experience of other firms who have already developed and marketed the product.
- d) internal ventures - exist where a separate entity is established within the existing organization. One example is 3M's success. On the down side, the parent organization can often stifle the new internal venture unit.

- e) joint ventures or alliances - may be particularly useful for areas involving expensive technology, large projects, and high-cost diversification efforts, such as expensive diagnostic radiology equipment. Some of these arrangements are between small organizations and large organizations in which the small organization provides the technology and the large organization provides the marketing capability and distribution channels. In health care this may be rearranged such that the large hospital or health care company provides some of the technology and the marketing capability but the smaller health care organization provides the distribution channel outlets. Examples here include developing relationships between urban and rural hospitals.
- f) internal corporate joint ventures - these relatively new organizational forms (2) resemble both the internal corporate venture and the joint venture. They are like internal ventures in that the parent organization establishes the new unit but they are like joint ventures in that the new unit is established apart from the parent corporation. This entry strategy attempts to balance autonomy and control considerations. There tends to be more autonomy for the new unit than is true with the internal venture but more control than is true with an arms-length joint venture. Examples in the health care area include hospital-physician joint ventures.
- g) venture capital/nurturing - as discussed by Steve Lazarus this morning, this entry strategy involves investment of money in small companies and provides the investor with "a window on technology". In addition, the investing company might provide managerial assistance to the recipient of the capital. It is not likely that this approach alone results in significant growth and profitability unless it is accompanied by some of the other entry strategies noted above.

I dwell at some length on the issue of how to best enter or approach diversification efforts separate from what services to diversify into, because I believe they have been relatively ignored by most health care organizations to date. Some guidelines which might be followed in considering these entry strategies include the following:

- 1) Because internal development, acquisitions, and licensing arrangements require a high level of organizational involvement, they should be limited to more familiar markets and products. Thus, hospitals, which have had a fair degree of experience in ambulatory surgery, cardiac surgery, oncology or other areas might indeed diversify through internal development efforts, acquisitions of others working in these areas, or through licensing arrangements.

In contrast, when one is considering diversification opportunities that are in relatively unfamiliar areas involving unfamiliar markets and products, one needs to consider entry strategies which build familiarity such as through venture capital arrangements, or small scale acquisitions for the sole purpose of trying to learn the new

technology or service area. After familiarity has been developed then a decision can be made whether or not to pursue the opportunity further.

Many of the opportunities in health care, however, fall in between these two extremes. In other words, they involve relatively new services in new markets but ones that aren't totally unfamiliar to hospitals. In these cases, various joint venture arrangements and internal corporate joint venture arrangements may be helpful. These enable the joint venture partner to provide the experience, expertise, resources, and knowledge which may be lacking by the hospital. Over time, one might shift to an internal development or acquisition strategy.

There is some modest empirical support for these suggestions. For example, in one study of fourteen new business developments,<sup>3</sup> it was found that 1) familiar diversification activities which involve the high corporate involvement mechanisms (internal development, acquisition and licensing) were successful while those involving unfamiliar products and markets tended to be more successful if a venture capital approach was used.

#### C. Suggestions for Improving the Likelihood of Success

In addition to recognizing the issues which have been mentioned, the following are some guidelines which might be followed for improving the probability of successful diversification in the future.

1. Doing a more thorough job of locating and screening opportunities for diversification. Among the specific criteria which might be applied are the following:
  - a. Consistency with the organization's strategic plan and mission.
  - b. Opportunities for synergy with existing services.
  - c. Opportunity to leverage existing human and technical and financial resources.
  - d. The size of the potential market.
  - e. The market growth potential.
  - f. The potential profitability including an examination of present and future reimbursement trends.
  - g. The ability to sustain a competitive advantage in terms of the likelihood of a successful competitive or imitative response by competitors.
2. Recognize that diversification can be too little or too much. Too little results in no synergies. Too much results in spreading oneself too thin. The key lies in finding the right balance. There is a need to have reasonable expectations for the diversification activity. For example, the more unfamiliar the activity being undertaken, the longer

the time it will likely take to pay back. At present, revenues derived from diversified and non-acute hospital activities represent about 10 to 15 percent of most hospitals' revenues three to five years after explicit diversification activities have been undertaken. Some hospitals are, of course, higher than this in the neighborhood of 25 to 30 percent but many are in the neighborhood of only 5 to 10 percent with the remainder continuing to be derived from the acute inpatient hospital business.

3. Choosing the right entry strategies for the diversification effort as noted above.
4. Top management commitment.
5. A well documented strategic plan and detailed business plan for each new venture.
6. Sufficient financial commitment.
7. Expectation that there is to be some failures and the need for prudent risk-taking attitudes.

D. Where is Diversification Going?

There is a time for sowing and a time for reaping. Many hospitals did not like what was reaped with the first sowing of diversification strategies. They have now initiated a second sowing and I believe we are about to observe a second reaping stage.

I think there are three general principles which will guide hospital diversification efforts in the near future. These are: 1) it will be local-market driven; 2) it will be closely linked in most, but not all cases, to physicians, and 3) it will be aimed at developing synergies with hospital operations.

It will be local market driven because health care is primarily a local market phenomenon. What third-party payers, employers and business coalitions are looking for is an integrated range of services for employees in their own community. Thus the successful hospitals of the future will be those that themselves offer such a range of services or have various interorganizational arrangements to deliver such care.

These activities will be increasingly closely linked to physicians for several reasons. First, the lessons of the past few years regarding the necessity of involving physicians have not been lost. Secondly, physicians themselves will be increasingly interested in entrepreneurial activities and looking for ways to expand their own market share. Physicians will increasingly see hospitals as useful partners for these purposes. Third, one should recognize that for the majority of patients, physicians are still

the main entry point into the health care system and are likely to remain so for the foreseeable future.

Diversification activities will be closely tied to the development of synergies with hospitals' activities because for most hospitals acute care services remain 85 to 90 percent of the revenues which are generated. While this will change over time, it is likely that hospitals will continue to remain the central focal point for the organization of many of the community's health services.

It is also important to recognize that diversification activities will be largely driven by third party payment reforms, new non-invasive technology, and consumer's desires for more convenient services. In regard to specific categories for diversification activity, I would place my bets on a wide range of services to the elderly, and to women. The diseases of the elderly will dictate more alternate site provision and conversion of inpatient beds. For example, arthritis, heart disease, hypertension, osteoporosis in women and Alzheimer's disease serve as examples.

Diversification activities that are less related to current hospital activities will be pursued increasingly in the form of joint ventures and venture capital arrangements rather than internal development or acquisition. Some of the joint ventures and venture capital arrangements will involve firms currently outside the health care industry as health care organizations attempt to learn from other's experiences. Obvious examples include some of the current joint ventures between health care companies and insurance firms such as HCA and Equitable and the VHA affiliation with Aetna.

Perhaps the most important consideration for diversification efforts is the extent to which it will enable the hospital to sustain its financial and service viability in an increasingly managed care environment. There is an overriding lesson from our research and the experiences we have heard about over the past day and a half. The lesson is that hospitals and hospital systems are getting a stronger sense of who they are in the new competitive environment rather than an abstract understanding of how others think they should be. They are beginning to chart their own paths and taking on an increased sense of confidence in their ability to control, at least to some extent, their own destiny. The diversification strategies which were discussed today are part of that process.

## REFERENCES

1. Roberts, E.B. and C.A. Berry, "Entering New Businesses: Selecting Strategies for Success", Sloan Management Review, Spring, 1985, 26, 3-17.
2. Shortell, S.M. and E.J. Zajac, "Internal Corporate Joint Ventures: Development Processes and Performance Outcomes," Department of Organizational Behavior, J.L. Kellogg Graduate School of Management, Northwestern University, August, 1987.
3. Berry, C.A. "New Business Development in a Diversified Technological Corporation", MIT Sloan School of Management, Master of Science Thesis, 1983.

**MICHAEL M. DAVIS LECTURE: PHYSICIANS AND SOCIETY:  
RENEGOTIATING THE CONTRACT**

ODIN ANDERSON: One of the rewards I have with continuing with the University of Chicago is that for quite a few years I have enjoyed the privilege of introducing the Michael M. Davis Lecture. I also get to assist in selecting the lecturer. As you all know, in 1934, Michael M. Davis was the founder of the program in health administration. He died in the early 1970s at the age of 91. I knew him for 25 years, the last period of his life. He was a very lively fellow, and very lively in the health field. One thing I like to tell about him is that he received a Ph.D. degree in Sociology in 1906 at Columbia University! I received mine in 1948 at the University of Michigan. I believe he is one of the first medical sociologists that ever existed.

I want to give a little background of John K. Iglehart, who is the Michael M. Davis Lecturer today. Instead of going chronologically forward, I will be in retrospect. He is the founding editor of Health Affairs, an award-winning policy journal published by Project HOPE, correspondent for the New England Journal of Medicine and author of a monthly health policy and essay published in the Journal. He is former editor of the National Journal, published weekly in Washington on several policy makings. He was a member of the National Journal reporting team, which wrote a book length study of the Nixon Administration philosophy of new federalism. He was elected in 1977 to the Institute of Medicine, the National Academy of Sciences. His current position is with Health Affairs and with the New England Journal of Medicine in Boston. As vice president with the Kaiser Foundation Health Plans, Inc., from 1979 to 1981, he directed the Washington office of the Kaiser-Permanente Medical Care Program, and represented its interests before the federal government. He resigned the post to return to writing.

From 1968 through 1969, he was Congressional Fellow at the American Political Science Association. He worked on the staff of the Senate Labor and Human Resources Committee on Employment, Manpower and Poverty. From 1962 to 1968 he was with The Associated Press, Chicago, Milwaukee and Madison, Wisconsin. His education interested me very much because he received a Bachelor of Science in Journalism from the University of Wisconsin in 1961. I entered journalism at the University of Wisconsin in 1932. Now I realize that if I had continued in journalism, I would be giving the Michael M. Davis Lecture. But as it is, I didn't have the staying power that he had in journalism because after the first year in journalism at the University of Wisconsin, I realized that I could not become a Walter Supporan immediately. I eventually got into medical sociology and health services and what have you.

He was born in 1939. He says this on his own resume that he is in excellent health. So am I. He is married and has two children. I am

pleased to present John K. Iglehart on the title of "Physicians and Society: Renegotiating the Contract."

JOHN IGLEHART: America's relationship with its physicians, never a simple equation to describe or define, is changing. While physicians will remain a self-regulated profession, the public is demanding through a variety of mechanisms that it be granted greater access to the doctor's world (and the hospital's as well, I might add) and how they function. Whether, in the end, these developments will improve the quality of care and the physician's relationship with his or her patient is open. But one thing seems quite clear. The doctor's world is changing, and many of the changes revolve around the social responsibilities of the profession.

The importance of public opinion regarding the behavior of the medical profession cannot be underestimated. Indeed, the gauging of public opinion has become an almost consuming pastime in many walks of American life. Whether in politics, industry, medicine or other enterprises, leaders seek an understanding of changing public opinion on pressing issues of the day. In this regard, the medical profession is no different.

For a decade now, the American Medical Association (AMA) has conducted periodic nationwide surveys of public attitudes on health care issues. At the same time, the AMA has kept track of the changing attitudes of physicians. I do not plan to discuss in any detail the results of these surveys, but I will point to one interesting finding in the association's 1986 results.

Every year, citizens who participate in the AMA survey are asked early in the interview: "What do you feel is the main problem facing health care and medicine in the United States today?" A vast majority of the public consistently views cost as the main problem facing health care and medicine. A similar question was put to the random sample of physicians who participated in the survey last year. These answers represented a dramatic break with opinions of the past. Last year, for the first time, professional liability was defined by a plurality of physicians as the biggest problem currently confronting American medicine. When the association's pollsters asked physicians in years past to identify the main problem, "professional liability" as a response was so rare that it was not even coded separately; instead, it was buried in the category "other" and cost commanded the majority's attention.

I underscore this finding because I believe it points to the diverging view that the public has of physicians and that physicians have of themselves. While there are many explanations attached to the difficulties that physicians are having with medical malpractice, one that cannot be dismissed without additional examination is that many patients employ lawsuits against their doctors as a surrogate for dissatisfaction with their medical care. This vexing phenomenon is only one reflection of a larger



reality and that is that Americans expect a great deal--and perhaps too much in many instances--of their physicians. It is after all, still very much a science and an art. Nevertheless, the fact that physicians are never far from the public's mind underscores the importance it attaches to medical doctors and the services they deliver. Indeed, there is no more valued service in America today than medical care. One solid indication of this high standing enjoyed by physicians and the care they render is that in one public opinion poll after another, Americans express themselves in support of increased taxation to finance more and better care, particularly among elderly people.

When I think of the changing relationship of the public to the medical profession, four developments come to mind that I will discuss. At the outset, I should make clear that while I emphasize these four developments, there are many others as well that reflect my intense belief that Americans are searching for a new paradigm in their relationship with doctors. Reaching that point will doubtless be a painful and long struggle, marked by valleys and peaks that are the hallmark of a dynamic, unplanned society. While change will not come easy--does it ever?--there is little to suggest that Americans really want to see in their physicians the attitudes and behavior patterns that more nearly reflect those of a businessman rather than those of a caring practitioner.

I will summarize the four developments and then discuss them at greater length. The first item is a new law that underscores the public's willingness to help medicine with its legal problems, but only at a social price. The second item revolves around another new law, a Massachusetts state statute that, even though under legal challenge, is influencing federal and other states' policies. The Massachusetts law reflects the public's concern over the cost of care and government's willingness to accommodate it through controversial policies. The third development is an evolving change in the physician's role from one of total patient advocate without serious concern for medical economics to a prudent resource allocator living on a fixed budget. The fourth item revolves around the government's, and through it, the public's interest in having at its disposal more comprehensive information about the performances of physicians and hospitals.

I will discuss these points in turn. The first item is a new law that strongly suggests that the public wants the profession to take a more aggressive stance regarding the removal of incompetent physicians from medicine. In this regard, the public and professional interests are coming closer together because of the growing number of practitioners and because of a greater recognition that care providers can and do occasionally harm people. One example of the profession's tougher attitude toward the errant practitioner came in the 1986 inaugural speech of the AMA president, who said the profession must remove its "sore spots: the incompetent, the arrogant, the fraudulent, the impaired, the greedy. We must rid them from the profession or rehabilitate them," Dr. John Coury said.

Beyond the obvious professional obligation to remove incompetent doctors from patient care, there is a practical political reason as well. Representative Henry Waxman, (D-CA.), articulated it recently in The New England Journal of Medicine (April 9, 1987). Waxman, who despite his liberal instincts has become one of the medical profession's better friends on Capitol Hill, wrote: "Before the medical profession can expect greater protection from malpractice suits, it has to convince the public that it is doing everything reasonable to police itself. Incompetent physicians must be identified and then must either improve their performance or be removed from practice. Simply allowing an incompetent physician to move quietly to another hospital or another state is not good enough to warrant the public's trust."

The public is not only demanding--through their elected representatives if no place else--that incompetent physicians be removed from practice. But Congress is also carving out a public role as well. A solid reflection of this interest in public participation in the professional affairs of medicine can be found in a new law entitled the Health Care Quality Improvement Act of 1986. The law offers hospitals and physicians that engage in peer review broader legal protection against the threat of being sued by doctors who are disciplined as a result of the review process. At the same time, however, and this is the provision that reflects congressional interest in strengthening the public's capacity to scrutinize the medical profession, the law also requires professional societies, health care organizations and insurance companies to report to a national data bank all disciplinary actions taken against physicians and all settlements and verdicts in medical malpractice cases.

The AMA, which supported the new legal protections for peer review, strongly opposed the creation of a publicly-sponsored national clearinghouse for data on physicians in testimony, in lobbying and in meetings with elected officials. The AMA favored establishing the clearinghouse within the private sector and had initiated steps toward creating such an organization before the peer-review protection bill was introduced. In contrast, three other medical organizations--the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists and the American College of Physicians--supported both major provisions of the law.

Another solid indication that policymakers tie the likelihood of any legislative relief from questionable malpractice actions to the profession's willingness to police itself more aggressively came in the remarks of Representative Ron Wyden, who introduced the peer review protection bill March 12, 1986. Wyden, surrounded by representatives of the American Association of Retired Persons, the American Hospital Association, and the AMA, which he said were "jointly backing the legislation...after months of negotiations between my office and these groups," emphasized the importance of the bill in relation to the issue of medical malpractice. "There is no quick fix for the malpractice problem. But a good place to

start is with the medical profession itself. Doctors are in the best position to do something about malpractice--because they see it happening around them. Most doctors are honest, hard-working, competent professionals. What's needed are new systems that encourage doctors to bring cases of incompetence to disciplinary authorities."

My second item relates to the public's continuing concern over the cost of medical care. As an aside I would note that while the concern is certainly genuine it seems to bear little relationship to another priority that the public attaches to medical care, and that is the pursuit of ever new treatments and technologies, regardless of their economic implications. Nevertheless, a new Massachusetts law points to the willingness of legislators there to tie new economic restrictions to medical licensure.

The law, supported by the administration of Governor Michael Dukakis, bars physicians, as a condition of licensure, from charging elderly and disabled Medicare patients more than the fees set by the federal program. The two-year-old law was recently upheld unanimously by a three-judge federal appeals court. The Massachusetts Medical Society and the AMA are appealing the decision to the U.S. Supreme Court.

The importance of the decision is less in the likely impact it will have on the incomes of Massachusetts physicians--over 90 percent of payment claims were on an assigned basis anyway--than as a precedent that other states will follow. Similar legislation has been introduced in California, Washington, Florida, Illinois, Indiana, Iowa, New York, New Jersey, Rhode Island and Vermont, according to the National Health Care Campaign, a clearinghouse organization concerned with health policy. On the other hand, New Hampshire, Maryland, Arkansas and Montana have recently defeated proposals that would have required physicians to accept Medicare fees as payment in full.

Dr. Barbara Rockett, president of the Massachusetts Medical Society at the time of the decision of the U.S. Court of Appeals, emphasized in her reaction to the ruling that, "it's the principle that we have been very concerned with." In addition to the loss of authority to set rates, she told The New York Times, "to be threatened with a loss of licensure is just beyond reality--we feel it's outrageous. The standards for licensure, as everyone knows," she continued, "should be ethical moral standards, the ability to practice, the ability to pass an exam." In Massachusetts at least, the state is adding a new economic standard to its requirements for medical licensure.

Interestingly, the state was represented in the case by its attorney general, James Shannon, who formerly pressed a similar Medicare payment policy approach while a member of the U.S. House of Representatives and its powerful Ways and Means Committee. Shannon, incidentally, comes from a family of physicians. There is well-founded skepticism in the ranks of physicians and hospital administrators about the motivations of government

today regarding health care. There is no question that government's agenda is essentially wanting more medical care for less money, but that is no reason to abandon efforts to work with the public sector on behalf of your common constituent--the patient. If nothing else, the new peer review protection law underscores the willingness of government to work out accommodations with the medical profession, particularly when the interests of patients are prominent in relation to the issue at hand.

The third development that is reshaping American medicine is a change in the method of payment, from unfettered fee-for-service to a variety of prepaid modes. This change is most apparent in health maintenance organizations (HMOs), which voluntarily enroll individuals and provide them a comprehensive range of services for a fixed, monthly premium. These organizations are providing services under a set of philosophic tenets that parallels in a number of respects some of America's deepest beliefs, including a preference for private decision-making in a decentralized fashion. There are variations on the HMO theme as well. Most of these alternatives strive to place the patient and provider of care at some financial risk, thus making them more sensitive to the economics of medical care.

This movement away from fee-for-service--which is essentially an attempt to control the escalation of costs--usually involves the modification of two basic conditions of the traditional physician-patient relationship, as Professor David Mechanic noted in Health Affairs several years ago. First, these alternatives often seek to lock patients into a particular category of providers or restrict choice to a provider who becomes a gatekeeper to more specialized and expensive services. Second, they modify the definition of the provider's role as sole agent of the patient's welfare to a role of balancing the patient's wants and needs against the aggregate population and a fixed budget. The physician or hospital role, thus, as Mechanic characterized it, is transformed from advocating to allocating. Such transformations are inherent in capitation, rate regulation and diagnosis-related group methodologies. While this change represents a major shift in the physician's role, recognize that every health system in the world employs allocative mechanisms. Summing up the axiom of allocation, Mechanic said, "No system in the world is willing to provide as much care as people will use, and all such systems develop mechanisms that ration...services."

The United States has already adopted allocative mechanisms in a variety of forms that call for the rationing of services. Now, economist Victor Fuchs may say in response to that declaration, so what? He is of the strong view that the United States has always rationed medical care, just as every country always has and always will ration care. Nevertheless, what is news is a recognition, particularly in relation to Medicare, that the federal government has established new payment mechanisms that explicitly recognize limits on the availability of resources.

When Medicare was enacted, the federal government placed the financial risk for its operation squarely on the shoulders of government. With the enactment of the Tax Equity and Fiscal Responsibility Act, Congress shifted Medicare's financial risk from a total federal responsibility to one that it now shares with care providers and patients. This policy change represented a quantum leap in government thinking. Its willingness to place providers and patients at greater financial risk reflected the awesome federal budget deficit facing the government. It also suggested a willingness of government to move from implicit to more explicit forms of rationing. In the process, of course, government made certain that this responsibility was placed squarely on the shoulders of providers. As discomfoting as that new role may be for physicians, where else would one logically place the awesome responsibility to decide how best to employ limited resources if there is a perceived need to adopt more stringent budgetary policies because of the insatiable demands?

Relations between hospitals and their medical staffs have been greatly affected by new public policy that places upon them conflicting economic imperatives. Creation of a Medicare payment mechanism that essentially places a hospital at financial risk for the behavior of its medical staff is the latest government action to upset these relations. In the years prior to 1982, Congress was reluctant to place at odds the incentives of the physicians to provide care to Medicare's beneficiaries without serious regard for the financial consequences. When the federal government took this step with the enactment of TEFRA, it was essentially recognizing the need to adopt more stringent policy steps in its efforts to moderate the growth of public health spending.

The final development that I think will change the physician-patient relationship revolves around the growing interest of the public in having at its disposal more and better information about the performances of individual physicians and the hospitals where they practice. As a consequence of this demand, it will become incumbent upon the profession to examine more aggressively the efficacy of medical practice--what works best and what works less well. There are a number of pressures pointing in this direction, but none is more compelling than the wide variations in medical practice patterns that have been identified by researchers. Chief among them is Dr. John E. Wennberg of Dartmouth Medical School.

Wennberg's work had languished in the medical literature for almost a decade, largely ignored by the profession as the work of a dedicated, but irrelevant scholar. But as private and public third parties have sought to identify new economies, Wennberg's work has emerged as of signal importance, a reflection of the reality that medicine remains art and science. Wennberg has found that for most diseases, treatments patients receive depend more on the practice styles of their physicians than on the severity of their illnesses or the outcomes they seek. While practice style has great consequences for the economics of health care, it is largely independent of the way health care is organized and financed.

The degree of variation in rates of many common operations is as great among health districts in England's National Health Service and among counties in the Norwegian health care system as it is among fee-for-service medical care in North America. The research of Wennberg and others (Drs. Robert H. Brook, Philip Caper, and Mark R. Chassin in the United States, Professors Leslie L. and Noralou P. Roos of Canada and Professor Klim McPherson of England) also shows that the degree of variation does not relate in any close way to differences in illness rates or access to care among residents of hospital market areas. The common denominator behind the variations, according to this important body of research, is the uncertainty that physicians face in knowing the best way to solve specific clinical problems.

One of the most compelling points that Wennberg makes on behalf of his belief that the medical profession should devote itself more seriously to ferreting out efficacious care from inappropriate treatment is a comparison he has done of the per capita costs and utilization experiences of residents of Boston and New Haven. The residents of these two cities receive most of their care from physicians who are affiliated with a major teaching institution--Yale, in the case of New Haven, and Harvard, Tufts and Boston University in Boston.

Although the populations of these communities are remarkably similar demographically, about twice as much per capita is spent on hospitalizing Bostonians than on hospitalizing the residents of New Haven. The use of hospital beds in Boston is also considerably greater. The 684,000 residents of Boston use 650 more beds than they would if the utilization rates of New Haven were applied. Five hundred of the 650 extra beds of Boston are invested in patients with "high variation" medical conditions, conditions for which practice style plays an important role. By contrast, admission rates for "low variation" conditions in which the hospitalization rate is closely related to illness rates are about the same in the two cities.

The work of Wennberg and other qualified researchers makes it clear that the medical profession has a problem with which it should be devoting more of its resources than it is today. For starters, physicians could do more to admit to patients the existence of genuine uncertainty. Broaching uncertainty would demonstrate real respect for the patient. But as Yale Professor Jay Katz pointed out in his splendid book, The Silent World of Doctor and Patient, a better appreciation and, in turn, a better management of uncertainty will not emerge simply out of more refined technical knowledge, but must also engage the patient as well. Obviously the admission of uncertainty must be handled sensitively, given our litigious society. But with the increasing limits society is placing on the growth of medical spending, it is important that resources be spent on the most efficacious treatments.

The federal government obviously has an important role to play as well in identifying the best of what medical care has to offer. The National

Institutes of Health currently spend \$7 billion a year to learn more about diseases and develop new tests and procedures. But it allocates relatively few resources to clinical trials and consensus conferences that seek to determine what of current medical practice works best. Strong arguments can be made that more trials, as expensive and time-consuming as they are, would be a sound investment of tax dollars. For the medical profession, helping to identify the most efficacious procedures would underscore its commitment to the physician-patient relationship.

The Health Care Financing Administration (HCFA) also is playing an important role in pressing the case for the availability of more and better information about medical care and those professionals who render it. Last year, HCFA released comparative hospital mortality data of institutions that participate in Medicare. While the data was unadjusted for the severity of patient illness and thus in many instances misleading, it nevertheless set a precedent that HCFA is determined to repeat this year and beyond. HCFA's administrator, Dr. William Roper, is committed to the release of this data and is seeking to improve its accuracy. Roper's commitment is based on a belief that the public finds appealing the concept that it know more about the performances of physicians and hospitals. Roper also is committed to the notion because he believes that a medical care delivery system based on market principles cannot function without knowledgeable consumers.

While market advocates are wedded to the importance of informed consumers, it would be a mistake to believe that once the Reagan Administration departs government the idea of providing more information to payers and patients alike about medical decision-making, efficacy and performance will disappear. The commitment to this objective runs far deeper. It has been embraced by policymakers across the philosophic spectrum, private third parties and by the more enlightened leaders of organized medicine as well.

The public gives doctors special advantages and privileges in exchange for a commitment to place the public's interest ahead of any economic gain. As a consequence of physicians' abiding faith, the profession is largely self-regulated, self-credentialed and self-disciplined. It is unlikely over the coming decades that the essential equation that has long existed between the profession and the public will be overturned. The public, however, is demanding new forms of accountability from the profession. It is in meeting these emerging demands that the shape of American medicine in the 21st Century will take form.

DIVERSIFICATION STRATEGIES AND IMPACTS FOR HOSPITALS IN  
EIGHT MULTI HOSPITAL SYSTEMS, 1983 AND 1985

BERNARD FRIEDMAN, Ph.D., AND  
STEPHEN SHORTELL, Ph.D.

INTRODUCTION

This paper offers evidence about determinants of cost and profitability for a group of about 300 hospitals for fiscal years 1983 and 1985, years bracketing the initiation of the Medicare Prospective Payment System (PPS). The hospitals were members of 3 investor-owned (IO) and 5 not-for-profit (NFP) companies. They were located in a total of 43 states, but with a concentration in central, southern and southwestern states. Average bed capacity was about 200, and about one-fifth were the only hospital in their service areas. The analyses presented here constitute one component of a broader investigation of strategies, structure and performance of multi-hospital systems. (1)

Extensive research has been published in recent years about cost and profitability variation across hospitals. This study offers advances in three major areas: (1) the use of internal corporate data to improve financial comparability of hospital data across systems, (2) the inclusion of quality and strategy measures, as well as measures of casemix and scope of diversified services in the analysis of financial performance, (3) intensive efforts to include secondary data on market area competition and intensity of state regulation.

In view of the history of cost-plus third-party reimbursement, philanthropic and religious sponsorship of hospitals, and tax advantages for non-profit status, it is plausible that a relatively mild "market discipline" has permitted a considerable variety of managerial strategies and structures to survive regardless of their efficiency. The environment appears to be changing with Medicare PPS, HMO efforts to constrain hospital utilization, and more price sensitivity shown by other third-party payers. This is

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<sup>1</sup> The overall study includes 570 owned or managed hospitals in eight systems, together with a selection of 855 market area competitor or comparison hospitals. More background on the study is given in Shortell, et al. (1987) and in unpublished reports available from the authors.



generating greater interest in strategic planning by hospitals and policy analysts seeking to understand behavioral responses of hospitals.

### Conceptual Approach

A basic economic model of cost-minimizing behavior would restrict attention to input prices, the mix and levels of outputs, and environmental factors leading to efficiency differences as determinants of total cost of an enterprise. For many applications in the hospital industry, such a model is too narrow. Because of the influences of public regulatory agencies, and of philanthropists and "parent" sponsors such as religious associations, hospital managers may have less freedom to minimize cost or maximize profit. Moreover, it is generally recognized that competition among hospitals has not been based primarily on price but rather amenity and "quality" levels designed to attract physicians and patients.

A realistic model of hospital behavior can begin with several performance measures with which managers are evaluated by parties having an influence on hospital policy. Equity owners, donors, and public agencies have varying degrees of influence over individual hospitals, affecting the tradeoffs among major performance measures such as net financial return, costliness of services, quality of care, and charitable care to indigent patients. Physicians and patients can affect hospital financial performance through their utilization decisions. Given the environment of demand conditions, regulation and ownership influences, strategic managerial choices might be sorted into the following major categories: (a) cost-minimizing input decisions for given levels of utilization and quality, (b) establishment of quality and amenity levels that affect cost and also affect demand, (c) pricing decisions for the current mix of services, and (d) choices about the mix of services offered, markets in which to compete, and planned growth or curtailment of services. The latter category of corporate behavior can be approached with objective measures of "realized" strategy -- casemix and scope of services measures that are jointly determined by offering of services and demand response. It is more difficult to measure "intended" strategy regarding the mix of products and markets. Advances in this area are pursued in the present study.

Differences in costliness associated with investor ownership vs. not-for-profit ownership have received a lot of attention, as noted below (a noteworthy recent review is by the Institute of Medicine, 1986). Our study attempts to capture differences in strategies and environment that would "explain" performances otherwise attributed to ownership; but we continue to test for unmeasurable effects of ownership. In the context of multi-hospital systems, the greater potential of for-profit hospitals in general to raise capital and achieve various managerial economies of scale would tend to be neutralized. Remaining differences due to ownership might result from differing standards of labor productivity, and perhaps stronger or more rapid adjustment to competitive pressures and financial

incentives in third-party payments.

### Specific Hypotheses

Building upon previous research on hospital costs, we expect average cost per case, adjusted by an input price index, to be strongly affected by casemix measures, scope of services offered, and volume of adjusted admissions (a modest negative slope). Age of facility is expected to increase costs because of accounting for depreciation on the basis of historical costs. Central city location is expected to be a proxy for higher input costs. We expect regulatory and competitive pressures to affect cost (not necessarily to reduce them, since hospitals may compete on amenities and quality). Net differences associated with ownership may persist. However, we hypothesize that the other variables of "realized" and "intended" strategy will largely explain ownership differences in cost.

Adaptations of recent methodologies in the field of corporate strategy analysis offer several alternatives for distinguishing those strategies concentrating on efficiencies and growth in existing services versus those directed at diversification into newer areas. The latter strategies are expected to generate higher observable costs in the short-run. Longer-run effects may be opposite by contributing to survival in an increasingly competitive marketplace.

We expect operating margins before income taxes to be higher for hospitals in for-profit systems, independent of other determinants, achieved primarily by pricing differences rather than quality or efficiency differences. We expect non-operating income, estimated taxes, and allowance for duration of system membership to reduce these differences.

### SOURCES AND LIMITATIONS OF DATA

#### Hospital Financial Data

Our analysis is based on 236 owned or leased hospitals in three IO systems plus 54 hospitals in 5 NFP systems for 1983 and 1985. These hospitals span 43 states. Each system responded to our request for standardized internal data on costs, revenue, assets and volume of care. Specific line item references were made to Medicare Cost Reports, and supplementary data were requested that are not available from that source. Patient care expense, revenue and assets were distinguished from other transactions and totals. Such data are not available for managed hospitals and they are henceforth excluded from the cost and profitability analyses.

Depreciation was provided on the straight-line method required by Medicare; contractual allowances, uncollectible bills, and free care were deducted from gross patient revenue. Interest expenses, including intra-company interest and other imputations for capital cost, and home office costs (sometimes called "management fees") were obtained.

For a sample of more than 50 hospitals in three systems in 1983, total hospital cost was compared between the internal system data (S), reports of state commissions in Florida and California (C) and the AHA annual survey (A). In the state of Florida, where audited reports are used, in 15 of 18 cases S differed from C by less than 1 percent. However, A differed from C by an average of more than 10 percent in absolute value. This appeared to be due primarily to a high proportion of inaccurate estimated values by the AHA due to incomplete reporting of financial data on the Annual Survey.

Corporate "home office" and divisional costs ranged between 2.6 percent and 6.4 percent of net patient revenue across the eight systems in 1983. In each system the standard deviation of this percentage was only about one-third of the mean. This was smaller than expected, but we did find an expected significant correlation of these imputed costs with the proportion of revenue from Medicare in 1983 ( $P < .05$ ). We proceeded to aggregate net revenue and the home office cost within each system and use the resulting ratio to impute a substitute value for this cost item for each included hospital. Thus the variance within system that may be primarily due to "strategic accounting" was eliminated.

A similar approach was taken for interest expense and other capital transfers. These expenses varied widely from 4.5 percent to 15.4 percent of net assets, and variance within systems was quite substantial in relation to the mean value. Since capital borrowing policies are assumed to be largely directed by corporate headquarters, we again eliminated the within-system variation in the interest expense ratio to net assets. This can have substantial effects -- for example, in one system the "cost of capital" was originally reported as greater than 20 percent of total expenses for several large hospitals in 1985, but much smaller for the smaller hospitals. After reallocation, that cost item was approximately 10 percent of total expenses within the system.

We were prepared to conduct separate analyses with and without depreciation because of possible large variations in the definition and size of this accounting cost. We found, however, very small variation between systems and within systems around the overall average of 7.5 percent of net assets. Therefore, depreciation is included in all cost measures.

Costliness of patient care is calculated as cost per adjusted patient admission. We followed the AHA formula of weighting admissions and outpatient visits by charges in order to obtain a measure of volume. Both the volume and gross revenue data were obtained directly from the systems. Two approaches to comparing net financial returns are used in this study, and neither is wholly satisfactory. In the first approach, operating margin is calculated as net patient revenue less expenses and expressed as a proportion of net revenue. This ignores the substantial level and variation of non-operating revenue for NFP systems, and the substantial level of federal income tax liability for the IO systems. The second approach

estimates income to include net operating revenue and non-operating revenue. The non-operating revenue for each system is typically found in annual reports and an overall ratio to operating revenue for the corporation was applied to each hospital in the study. For IO systems, an average of about 40 percent of operating income is allowed for federal income taxes in the annual reports. (2) We applied both these assumptions in estimating net income after taxes as a proportion of total income. This could be misleading in that some non-operating income of the corporation may be restricted as to which hospitals can use these funds.

### Scope of Diversified Services and Quality

Original data were obtained from each hospital on their non-traditional diversified health services (other than acute inpatient care, emergency and primary clinic visits) offered in 1985. Examples include ambulatory surgery centers, home health programs, geriatric day care and health promotion programs. Information was obtained on when each service was implemented, how the service was provided, the number of encounters or procedures, percentage of charity care, and whether or not the service was profitable. More details about the data collection and significant differences across the systems and by comparison with "freestanding" hospitals are given in Shortell et al. (1986).

In the present study, a measure of quality of care is developed from structural/process indicators, based on data from the Joint Commission on Accreditation of Hospitals (JCAH). We surveyed senior officials of the JCAH to rank their most sensitive standards for predicting patient health outcomes. As a result, 22 standards relating to medical staff, nursing review, medical records and quality assurance were selected. Each standard is scored as either 0 (failure), 1 (pass with contingencies) or 2 (full pass). A cumulative score weighted by the subjective importance expressed by JCAH reviewers is used in the analyses.

### Casemix and Facility Characteristics

Casemix is measured by the 1984 unpublished HCFA casemix index for each hospital, which is based on 100 percent reporting and believed to represent more accurate data than in earlier years. We also use the proportion of inpatient days in obstetrical units, pediatric units, and psychiatric units, the proportion of surgeons to total active and associate medical staff, the number of medical and dental residents per adjusted

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<sup>2</sup> The actual taxes paid for a given year tend to be substantially less than the accrued amounts.

admission, and whether the hospital has AMA residency certification. Approved residency programs may be correlated both with the costliness of the casemix of patients and the quality of medical supervision. The correlations among these various measures are not very high. However, we do not include all possible casemix measures in regressions where missing data may seriously reduce the degrees of freedom for the estimation.

Two other facility characteristics are expected to have an influence on the measured costs. Older facilities may have lower costs because depreciation does not fully measure replacement cost of assets. The "economic age of investment" is measured by the ratio of accumulated depreciation to current annual depreciation. This could represent, for some hospitals, not the age of real capital assets but the age of unrealized capital value purchased by a system. Whether the hospital is a new member of a system is also likely to influence observed cost in view of the time that is likely required to achieve training (or readjustment) of staff and achieve operating efficiencies.

Watt et al. (1986) and Coelen et al. (1984) used a casemix measure in their regressions of hospital cost. These studies find ownership differences in cost remaining after allowing for casemix. However, both studies have limitations in addressing environmental differences that would affect cost, to which we now turn.

#### Environment -- Competition

The degree of competition in the market for hospital inpatient services is measured by the number of competing hospitals perceived by the chief executive officer, in a radius of 15 miles around the hospital's location. Farley (1985) measured the degree of competition by a Herfindahl index of the concentration of bed capacity within a fixed mileage radius, but eventually reported data only for sole-provider communities versus "highly competitive" areas. Interestingly, Farley found that greater competition was associated with both higher costs and higher prices.

A second measure takes into account competition from freestanding ambulatory surgery centers and ambulatory emergency care centers. We obtained from each trade association a zip code list of the location of their members, and matched the zip codes to those of our study hospitals. About 25 percent of all the hospitals in our study have at least one of the two types of ambulatory care centers in the same zip code area.

#### Environment -- Regulation

Measures of regulatory intensity by state where the hospital is located were taken from the work of Chapko, et al. (1984), and Shortell et al. (1985). One intensity measure pertains to Certificate of Need approval programs -- this type of regulation may inhibit the scope of services and bed capacity more than the costliness of care. Specific factors combined

into the CON measure included the scope of regulatory activity, stringency of review, degree of enforcement, dollar value of threshold limits, and the length of time that the regulation had been in existence. The second regulatory measure is the intensity of state rate review programs, which may be mandatory or voluntary, and may use rigid formulas, complete budget review, or other methods to determine appropriate rates.

Inferences about the effects of these measures of regulatory intensity in a cross-section regression are somewhat risky and debatable. While there is evidence of slower growth of expenses since the mid-1970s in states with rate review programs, states with relatively high hospital costs for other reasons may have been more aggressive in imposing such programs. Cone and Dranove (1986) argue that the observed association between level of hospital costs and enactment of rate review masks a better explanation of rate review enactment by the size of Medicaid hospital expenditures per capita. In our sample of hospitals, we found a quite small correlation between intensity of rate review and either Medicaid eligibility per poor person, or Medicaid hospital payments per recipient. Nevertheless, in view of these considerations, the estimated effect of intensity of rate review on cost may not be negative, but instead may reflect other unmeasured locational differences that were historically associated with relatively higher cost.

The above measures are a subset of all the possible measures that are embodied in the notion of competitive and regulatory environment, affecting the level of demand and sensitivity to price or qualitative aspects of service at the individual hospital. Other measures of alternative resource availability in the county of each hospital are used in the study, such as active MDs per capita, nursing home beds per capita, and HMO membership. These variables are obtained from the 1985 version of the Area Resource File made available from the Health Resources Administration, except in the case of HMO membership which is a state-wide average taken from the DHHS census of HMOs in 1984. We use these variables in estimating reduced form equations, and as determinants of the volume of demand facing an individual hospital.

### Strategy Measures

Strategy is defined as "the plans and activities developed by an organization in pursuit of its goals and objectives, particularly in regard to positioning itself to meet external environmental demands relative to its competition" (Shortell, Morrison and Robbins, 1985). We are interested in the overall strategic direction of hospitals as well as more specific product-service/market strategies. Based on Miles and Snow (1978) and Hambrick (1979), we measure the overall strategic orientation of hospitals with the following four categories: prospector, analyzer, defender and reactor. A prospector organization is one which is consistently first in providing a new product or service. It consistently attempts to pioneer. An analyzer is an organization which is seldom first in providing a new

product or service but, by carefully analyzing the market and what others are doing, will often enter later and attempt to provide the service better or somewhat differently (that is, create a market niche) than the early entrants. The defender is an organization that offers a relatively stable set of products and services. It tends to ignore changes that have no direct impact on current areas of operation and concentrates instead on doing the best job possible in its own area. A reactor organization does not have a consistent pattern. Sometimes it is an early entrant into a new market, sometimes it will wait until others have entered, and sometimes it will not do anything unless forced by external pressures. Perceptions of each hospital's overall strategic orientation were obtained from the hospital's chief executive officer. Test-retest reliability on a sample of 19 respondents across the eight systems resulted in agreement in 71 percent of the cases.

The extent to which hospitals explicitly undertake diversification strategies (as opposed to market penetration strategies) was measured by the degree of emphasis (a scale from 0 to 100 points) given by chief executive officers to new product/service development and new market development for fifteen specific services. (3) Test-retest reliability indicated agreement in 69 percent of the cases.

Based in part on the work of the Boston Consulting Group, (Henderson, 1973) we also measured each hospital's overall product/service portfolio. The BCG matrix groups services into four cells using market share (high/low) and market growth potential (high/low). Services with low market share but high growth potential are considered "wildcats", those with both high market share and high market growth potential are considered "stars", those with high market share but low market growth potential are considered "cash cows", and those with both low market share and low growth potential are labelled "dogs". Responses were received for each of the 15 services noted earlier in regard to their market share, market growth potential and profitability. Test-retest reliability indicated general agreement in 82 percent of the cases for market share, 81 percent for market growth potential and 92 percent for profitability.

In addition to the above strategy measures, we measured the level at which decisions were made. The degree of centralization of decision-making was determined by each hospital's chief executive officer's perception of the level at which 12 pre-tested standardized decisions were made. Examples of

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<sup>3</sup> The list of services was as follows: inpatient surgery, inpatient general medicine, inpatient obstetrics, inpatient pediatrics, inpatient psychiatric, outpatient renal dialysis, outpatient diagnostic centers, home health care, long-term care, ambulatory surgery, urgent care centers, inpatient or outpatient rehabilitation, inpatient and outpatient alcoholism treatment, and health promotion.

such decisions included: 1) choosing a marketing plan for a new outpatient service at an individual hospital, 2) deciding to involve more physicians in individual hospital governance, 3) acquiring a new hospital and 4) deciding to add an ambulatory surgery center at an individual hospital. Decision making levels were ordered from one (low) to six (high), beginning at levels below the individual hospital chief executive officer and ending at the level of the corporate board.

These measures of strategy and centralization of decision-making were hypothesized to have a number of effects on scope of diversified services, quality, cost and profitability. Since scope of diversification enters the cost function directly, it may subsume some of the strategic differences such as the prospector-defender classification. New product or market development is less geared to achieving short-run efficiencies at increased volume of production and to raising short-run profitability than would be a strategy of market penetration. Similarly, an observed tendency to risk "wildcat" service ventures would be expected to raise short-run costs and reduce profitability. Centralization of decision making is thought to have more complex interactive effects. Decentralization of decisions gives local managers more flexibility in dealing with cost impact of new services, and also gives clearer direct responsibility for performance. Therefore, one might expect other effects on cost (e.g., due to new market development or to wildcats) to be lower for hospitals with greater decentralization of decisions. However, it is not clear that the local managers would be as concerned with cost containment as would central managers.

### ANALYSIS AND FINDINGS

Table 1 presents descriptive data for all of the variables in the study. The first pair of data columns is descriptive of the 290 system hospitals owned for the full year of 1983. The cost and revenue items were adjusted to a common fiscal year definition, using a national HCFA quarterly index of hospital input prices. The second group of data columns pertains to the same hospitals in 1985, after dropping four cases of hospitals that were sold or closed by the systems.

Average cost per adjusted admission, divided by the local area wage index, was about 10.6 percent higher in 1985 than in 1983, and average operating margin increased somewhat overall from 7.3 percent to 8 percent. By comparison, the American Hospital Association ("Economic Trends" Spring, 1987) reports somewhat higher growth of costs for community hospitals overall during this period (about 16 percent), and operating margins rising from 5.1 percent in 1983 to 6 percent in 1985 falling back to 5.1 percent in 1986. As our study population is not designed to be representative of all hospitals in the nation, levels of financial performance may differ from broader surveys. It should also be noted that there is quite substantial variation within our sample where changes for larger hospitals are more important to system results than are changes for smaller hospitals.



TABLE 1: DESCRIPTIVE DATA FOR VARIABLES USED IN REGRESSIONS

Variables	1983		1985	
	mean	s.d.	mean	s.d.
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Cost per Adjusted Admission, divided by area wage index (log)	7.859	0.269	7.965	0.254
Operating Margin, proportion of net revenue	0.073	0.133	0.080	0.116
Net Income After Tax, proportion of total income	0.053	0.077	0.060	0.072
Adjusted Admissions (log)	8.657	0.642	8.598	0.630
Overall Scope of Services Measure (log) 1985	2.178	0.452	2.177	0.450
Quality score, 22 weighted JCAH measures (log)	4.869	0.113	4.869	0.113
Medicare Casemix, FY1984 (log)	0.084	0.083	0.084	0.082
AMA Certified Residency (0/1)	0.044	0.206	0.045	0.207
Economic Age of Facility (accumulated/annual depreciation)	4.828	4.596	2.940	2.800
Amb. Surgery or Emergency Center in same zipcode	0.270	0.460	0.270	0.450
Intensity of State Certificate of Need prog. 1981	-2.478	3.519	-2.457	3.518
Intensity of State Rate Review prog. 1981	-3.283	7.311	-3.310	7.303
Number of Perceived Competing Hospitals	2.341	1.650	2.359	1.646
Location in Central City of SMSA	0.221	0.416	0.215	0.412
Location in County not contiguous to SMSA (Non-Met)	0.208	0.407	0.206	0.406
Proportion of State Population in HMOs (1984)	0.067	0.076	0.066	0.075
Prospector Strategy (a)	0.106	0.309	0.229	0.420
Analyzer Strategy (a)	0.482	0.501	0.614	0.488
Defender Strategy (a)	0.332	0.472	0.013	0.115
Market Penetration Strategy score (a)			38.210	18.180
New Service/New Market Development score (a)			40.790	16.830
Percentage of Wildcat Services (a)			31.490	27.190
Interaction: Decentralization of Decisions X New Service and New Market Development (a)		47.630	-101.370	47.910
Interaction: Decentralization of Decisions X Percent Wildcat Services (a)		68.846	-76.750	68.180
Member of Investor-Owned System in Study	0.858	0.349	0.857	0.351
Member of System For Two Years or Less (in 1983)	0.239	0.427	0.238	0.430
Median Family Income, deflated 1980 (log) (census place or tract in urban area)	9.906	0.300		
Median Years of Schooling, persons age 25+ (c)	11.804	0.669		
Percent of Population under age 15 (c)	23.353	3.939		
Percent of Population age 65 and over (c)	1.171	0.499		
Population Per Square Mile (c)	651.187	1025.217		
Unemployment Rate, age 16+ (c)	7.744	2.883		
Medicaid Recipients, ratio to poverty pop. (s)	0.483	0.276		
Medicaid Hospital Payments per Recipient, ratio to avg. cost per hospital day (s)	1.957	0.474		
Active MDs per 1000 Population (c)	1.686	0.904		
Nursing Home Beds per 1000 Population (c)	5.921	3.113		
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(a) denotes measures obtained in 1985 strategy survey. Overall strategic orientation was asked for both 1985 and "two years ago".

(c) denotes county aggregate data from 1985 Edition of Area Resource File

(s) denotes state aggregate data

Original N of cases for the two samples is 290. With "listwise" deletion for missing data, N is 227 and 223 respectively.

Our basic approach to hypothesis testing about cost variation is single-equation ordinary least squares (OLS) regression, as is prominent in most of the literature on cost functions. We recognize that the volume of care and some of the strategy measures might be considered jointly determined (endogenous) with costs -- i.e., costs affect pricing and demand and may lead to changes in strategy. In supplementary appendices we provide two-stage least squares regression estimates, and in later work we would attempt to study effects over time of cost and margins on changes in demand and strategic choices. The dependent variable in our current analysis is patient care expense per adjusted admission, divided by an area wage index to adjust for local input cost differences. We use the wage rate indexes for metropolitan and rural areas in 1983 and 1985 (national average 1.0 in each year) published by HCFA in the Federal Register. Costs have been adjusted to common fiscal year definitions, depreciation is uniformly measured by straight-line methods, and imputed items (interest and home office costs) are "smoothed out" within systems as explained earlier. A log-linear model is used, with volume (adjusted admissions), scope of diversified services, and the JCAH quality score, transformed into natural log values permitting estimation of proportional and multiplicative effects rather than simple additive effects. Also, instead of adjusting average cost by dividing by a casemix index, we put the log of the Medicare casemix index on the right-hand side of the model. A coefficient estimate of 1.0 would then give the same effect as if average cost had been simply divided by the casemix index.

Table 2 offers estimates of a "basic" model for 1983 and for 1985 separately, excluding the strategy measures developed in this study, but including the following determinants not frequently found in studies addressing ownership differences: a measure of quality (the process measure developed from JCAH records), scope of diversified services, age of facility (as inferred from depreciation data), and degrees of competition and regulatory pressures, as well as length of time belonging to a system.

Several influences on cost are pronounced. Average cost falls with volume, although the coefficient implies that marginal cost is about 85-88 percent of average cost. This relatively high ratio (albeit not quite as high as if depreciation were the only fixed cost) is typical of cross-sectional studies. The scope of diversified services has a significant effect on cost, as expected. The Medicare casemix index has an elasticity of nearly 1.0 in both years. Indicating that it was closely proportional to average cost, even controlling for so many other factors and recognizing that Medicare represents less than half of the workload of most hospitals.

The quality measure had a positive effect on cost that was not significant. The crude correlation of the process quality measure with average cost was only .077, and the correlation with other independent variables was typically less than .10 in absolute value, so it is unlikely that

TABLE 2: COST REGRESSIONS, BASIC MODEL, 1983 AND 1985

DEPENDENT VARIABLE: Log of Cost per adjusted Admission divided by area wage index  
 METHOD: Ordinary Least Squares  
 (Coefficients with standard errors in parentheses)

Independent Variables	1983	1985
Adjusted admissions (log)	-0.125 ** (.030)	-0.158 ** (.031)
Scope of Services (log)	0.087 * (.036)	0.111 ** (.037)
Quality - weighted JCAH measures (log)	0.154 (.125)	0.039 (.125)
Medicare casemix index (log)	0.947 ** (.216)	1.095 ** (.221)
Facility age	-0.010 ** (.003)	-0.004 (.007)
AMA approved residency	0.195 ** (.070)	0.237 ** (.069)
Number of Competing Hospitals	0.039 ** (.011)	0.040 ** (.011)
Location in Central City	0.112 ** (.039)	0.053 (.040)
Location Outside SMSA	-0.013 (.039)	-0.033 (.038)
Competition from A.C. centers	0.008 (.034)	0.025 (.033)
C.O.N. intensity measure	0.006 (.004)	0.009 * (.004)
Rate Review intensity measure	0.009 ** (.002)	0.011 ** (.002)
HMO share of pop. in state	0.115 (.224)	-0.743 ** (.225)
Investor-owned system	-0.007 (.045)	0.044 (.052)
System member, 2 years or less (in 1983)	0.055 (.034)	0.061 (.033)
Intercept	7.879 ** (.624)	8.755 ** (.619)
	R-squared	0.43
	Residual degrees of freedom	225
		0.39
		221

\*p<.05 \*\*p<.01

Costs have been adjusted to common fiscal year end.  
 Corporate office costs and interest expense have been reallocated across facilities.  
 Depreciation is measured with "straight-line" method.  
 Medicare casemix index is for FY1984.  
 Extended definitions of the determinants are given in Table 1 and the text.

the regression finding was due primarily to multicollinearity of the independent variables. Absence of a significant effect on cost could indicate that quality has been uniformly maintained at a rather high level so that the variation in our JCAH measure represents only a relatively small component of expenses on quality assurance. This possibility and alternative explanations are under further investigation. Presence of an approved residency program, which may be an indicator of quality of medical supervision, had a strong positive influence on average cost in both years.

The positive effect of the number of competing hospitals is consistent with the view that non-price competition required hospitals to spend more on amenities and quality in more competitive localities (Farley, 1985). Neither competition from ambulatory care centers nor the HMO membership rate in the state was found to be significant for cost in 1983. But for 1985 a significant negative effect of HMO market share appeared, suggesting an increase in price competition associated with HMOs. The positive coefficient for rate review was unexpected in terms of cost-containment goals of such programs, and the general thrust of past research on the effects of the early rate review programs. We view this finding with the cautions already noted about unmeasured geographic differences in adoption of rate review as a response to relatively high costs. The positive significance of C.O.N. in the latter year suggests that the long-term effects of such regulation could be "protective" of established hospitals with higher costs.

Facility age had a significant negative effect on observed cost in 1983, as expected, and central city location had a significant positive coefficient for 1983. Neither coefficient was significant for 1985. The impression one obtains from these changes is that hospitals under PPS have been able to neutralize some cost-increasing factors while managing resources more closely in accord with casemix, volume changes and competitive challenges.

The independent effect of investor ownership was not significant, nor was the duration of system membership, although the latter had higher coefficients. This indicates that the model does tend to improve understanding of ownership differences in cost by considering locational contexts, strategic choices of diversified services, casemix, and response to competition.

Table 3 provides results from an expanded model with inclusion of the intended strategy measures. Because of the several overlapping approaches to measuring strategy, we use the regression technique of backward elimination. Starting with all variables in the model, insignificant variables are dropped one at a time until only those variables with a significance level of .10 or higher are retained. Therefore, any inference drawn about a particular variable is free of the reservation that it is hiding the influence of a variable that would simultaneously be significant.

An important finding is that investor-ownership remains not

TABLE 3: COST REGRESSIONS, EXPANDED MODEL, 1983 AND 1985

DEPENDENT VARIABLE: Log of Cost per adjusted Admission divided by area wage index  
 METHOD: Ordinary Least Squares, with Backward Elimination, tolerance level .10  
 (Coefficients with standard errors in parentheses)

Independent Variables	1983	1985
Adjusted admissions (log)	-0.093 ** (.030)	-0.131 ** (.032)
Scope of Services (log)	0.084 * (.037)	0.090 ** (.037)
Quality - wighted JCAH measures (log)		
Medicare casemix index (log)	0.945 ** (.205)	1.055 ** (.222)
Facility age	-0.009 ** (.003)	-0.012 * (.005)
AMA approved residency	0.171 * (.075)	0.205 ** (.071)
Number of Competing Hospitals	0.039 ** (.011)	0.042 ** (.010)
Location in Central City	0.132 ** (.038)	0.068 (.040)
Competition from A.C. centers		
C.O.N. intensity measure		0.008 (.004)
Rate Review intensity measure	0.008 ** (.002)	0.011 ** (.002)
HMO share of pop. in state		-0.744 ** (.221)
Investor-owned system		
System member for two years or less (in 1983)	0.061 (.034)	0.055 (.032)
Prospector Strategy		
Analyzer Strategy		
Defender Strategy		-0.284 * (.124)
New service/market devel score		
Penetration strategy score		
Percent wildcat services	.0007 (.0006)	0.001 (.0005)
Interaction: decentralization X new service/market strategy		
Interaction: decentralization X percent wildcat services		
Intercept	8.305 ** (.250)	8.775 ** (.253)
R-squared	0.42	0.40
valid cases	227	222

\*p<.05    \*\*p<.01

Costs have been adjusted to common fiscal year end.  
 Corporate office costs and interest expense have been reallocated across facilities.  
 Depreciation is measured with "straight-line" method.  
 Medicare casemix index is for FY1984.  
 Extended definitions of the determinants are given in Table 1 and the text.

significant. Newer members of systems had higher costs in both years at the significance level of  $P < 0.10$ . Other coefficients reflect no changes in the inferences drawn from the basic model. Of the strategy measures, none had a significant independent effect in 1983, but in 1985 the defender strategy was associated with substantially lower cost. Recall that this measure indicates those hospitals with managers aiming at better performance in traditional business as opposed to expansions in newer services and markets.

### Profitability Regressions

Profitability variation presents some additional thorny issues conceptually and for regression analysis. In our conceptual approach, hospitals do not all seek the same profit margin, since they are willing to trade for other outcomes such as care of the indigent. Moreover, historical reimbursement policies, philanthropy, and barriers to entry and exit have permitted varying levels of margins. We suppose that given the controlling influences at the individual hospital level, varying targets of profitability (which are not measured) are established. This has consequences both for regression methodology and for interpretation of results. We are primarily interested in estimating effects of strategy and environment on actual profit margins independent of the target levels.

Over the period of a year, managers would have opportunities to modify budgets, prices and other strategies to reduce discrepancies between actual and desired profit margins. We suppose that observed implementation and intermediate outcomes of intended strategy such as scope of diversified services, volume of service, and process measures of quality would be subject to important feedback effects from profitability level. Therefore, instead of the OLS model employed for the cost function, we drop several variables potentially subject to feedback effects, leaving environment and facility characteristics, Medicare casemix, and intended strategies. We add variables predictive of demand and insurance coverage such as family income and education levels, medicaid coverage, and proportion of elderly in the local population. This approach is essentially a "reduced form" model in the parlance of econometrics, although depending on the length of the time period, any facility characteristic and casemix index could be considered endogenous.

There is no particular specification of the functional form most compelling for these regressions. We measure financial performance in two ways -- net operating margin before taxes as a proportion of patient care revenue (NBT), and net income margin after estimated federal income taxes as a proportion of total income (NIM). We do not use a return-on-equity measure, because the allocation of debt across the balance sheets of hospitals owned by a multi-unit corporation is essentially arbitrary. Moreover, the debt issued by the system or the hospital may be used to finance ventures other than the patient care addressed in this study.

Regression results for NBT are compared between 1983 and 1985 in Table 4. The explanatory power of the regression is somewhat larger in 1985. The large difference associated with IO hospitals previewed remains significant in the multivariate context, and it did not change meaningfully between the two years. The significant difference associated with newer members is also noteworthy, and warrants attention in any study containing both system and freestanding hospitals.

The competitive environment, indicated by variables such as the number of competing hospitals and HMO membership were not significant here as they were for average cost. Physician availability was not significant, but nursing home bed availability had a significantly negative effect on hospital margins. While nursing home beds may permit earlier hospital discharges with some beneficial cost savings under Medicare PPS, the overall effect of nursing home beds as an alternative site of care appears to reduce margins in both years. Rate Review intensity had no significant effect on margins, which may mean these programs are more successful in regulating prices than restraining costs.

Medicare casemix has a somewhat lower but still significant coefficient in 1985. The significance of the casemix index suggests that those services provided to cases with more intensive needs and procedures tended to bear higher profit margins. This may be due to higher use of ancillary services that are typically billed to non-Medicare payers at higher ratios of charge to cost. The short-term effect of Medicare PPS on margins is also inferred from the significant coefficient in 1985 for the percent elderly population in the local county population.

The significant positive effect of median family income reflects better ability to pay (probably due to health insurance coverage rather than wealth per se), and therefore greater potential for the hospital to compete on quality and amenities and to cross-subsidize for care to the indigent. It is interesting that this demand predictor was more important in 1985 than in 1983.

The influence of strategy measures on profitability is of particular interest. In 1983, a prospector strategy is clearly associated with lower profitability, as is the percentage of wildcat services, while a market penetration strategy had significant positive effect. But in 1985, neither the prospector strategy nor the market penetration score has an association with profitability while the defender strategy is associated with lower profitability.

The regressions for NIM are presented in Table 5. The differences associated with investor ownership appeared to change between the two years. The simple independent difference of a 3.5 percent in 1985 was not found in 1983. Instead, in the earlier year, competition from other hospitals had a depressing effect on NIM which was mitigated for IO hospitals as indicated by the positive coefficient of the interaction term.





The other results in this table are essentially similar to the findings for operating margin in Table 4.

In view of our tentative findings that a more defensive strategic orientation had a negative effect on profitability in 1985 compared to 1983, we have briefly examined the change in strategy between the two years, and compared these changes between ownership types. Over our sample of 290 hospitals, roughly half, 143, perceived a change in strategic orientation. Of those with changes, 100 became more aggressive by moving from analyzer to prospector (32 cases) or from defender to analyzer (68 cases). In general, IO hospitals were more likely to have moved to the prospector category in 1985, as were hospitals that were newer members of systems in 1983.

An intriguing question is why the IO corporations in our study did not improve in financial performance between 1983 and 1985 (as shown in their annual reports) to the degree that their individual owned and leased hospitals did. A possible reason may lie in the disappointing financial performance of some of the corporate diversifications into insurance, HMO management, pharmacies, and related ventures (major "restructurings" were reported in the Wall Street Journal and Modern Health Care in the summer and fall of 1986). Qualitative data from our ongoing telephone interviews with participating companies suggest that both IO and NFP systems recently are retrenching and focusing again on the base hospital business and closely integrated local ventures.

#### CONCLUDING DISCUSSION

Specific hypotheses about the determinants of average cost per adjusted admission were significantly supported with regard to casemix, volume, scope of diversified services, central city location and age of facility. Our measure of process quality did not have a significant association with cost, contrary to expectation. This is a meaningful stimulus to further research on the so-called "cost/quality" tradeoffs.

The positive association of cost with number of competitors appears to reflect a continuing bias of competition on the basis of amenities and quality rather than price. Anecdotal evidence suggests that price or cost competition is only beginning to take effect, particularly in markets heavily penetrated by HMOs and related managed care systems. For example, we do find a negative impact on costs in 1985 associated with higher HMO market penetration in the state. Intensity of state rate review had a positive association with cost, which may be less reflective of the effects of regulation than of persisting geographic cost differences that led to variations in intensity of regulation.

As hypothesized, the results suggest no differences in cost per adjusted admission between IO and NFP system hospitals, after allowing for the many determinants already discussed as well as the measures of

TABLE 5: NET INCOME MARGIN OF SYSTEM HOSPITALS, 1983 and 1985

Dependent Variable: NET INCOME AFTER TAXES AS A PROPORTION OF TOTAL INCOME  
 Method: Ordinary Least Squares ("reduced form" model, with backward elimination)  
 (Coefficients with standard errors in parentheses)

Independent Variables	1983	1985
<b>A. COMMUNITY DEMAND FACTORS</b>		
Median family income, deflated		0.003 ** (.0007)
Median years of schooling		
Medicaid recipients per poor person		
Medicaid payment generosity		
Percent of population age 65 and over		0.003 ** (.0009)
<b>B. SUPPLY AND COMPETITION</b>		
Active MDs per thousand pop.		
Number of Competing Hospitals	-0.012 ** (.005)	
Location in Central City		
Location Outside Metropolitan Area		-0.018 (.011)
HMO membership per capita		
Nursing home beds per thousand	-0.004 ** (.001)	-0.002 (.001)
Competition from Ambulatory Care Centers		
C.O.N. intensity index		
Rate Review intensity index		
<b>C. FACILITY CHARACTERISTICS, STRATEGY</b>		
Facility age		
Medicare casemix index, 1984	0.201 ** (.052)	0.123 ** (.046)
Prospector Strategy	-0.026 (.014)	
Analyzer Strategy		
Defender Strategy		-0.077 * (.033)
Score for new service/market strategy		
Score for mkt. penetration strategy	0.0006 (.0003)	
Percentage "wildcat" services	-0.0003 (.0002)	-0.0003 * (.0002)
Interaction: decentralization X new service/market strategy	-.0004 ** (.0001)	
Interaction: decentralization X percent "wildcat" services		
Interaction: Investor-owned x number of competing hospitals	0.014 * (.005)	
Investor-owned system		0.035 ** (.012)
System member for two years or less (in 1983)	-0.041 ** (.010)	-0.037 ** (.009)
Intercept	-0.217 * (.062)	-0.160 ** (.057)
	R-squared	0.24
	Residual degrees of freedom	238
		0.26
		237

\*p<.05    \*\*p<.01

strategy towards diversification and growth. Higher operating margins for the IO hospitals are shown. The differences are reduced greatly when one estimates total net income after taxes, and the differences appeared to narrow between 1983 and 1985 when volume of adjusted admissions fell more sharply for the IO hospitals than for the NFP hospitals in our study.

In a cost-plus reimbursement environment, hospitals did not have to think or behave strategically. In the new competitive environment, hospital strategic behavior becomes increasingly important. Our preliminary findings on the influence of strategy suggests that while a defender strategy is associated with lower costs in 1985, it is also associated with lower profitability. This suggests that "hunkering down" to protect one's turf is only part of the formula for survival. At the same time one may need to adopt more aggressive marketplace strategies which balance cost containment features with new services differentiated from one's competitors based on technical quality and consumer access, convenience, and comfort. Ongoing research is examining the success of these strategies on cost, profitability, quality and patient outcomes.

## REFERENCES

- American Hospital Association (1987). Economic Trends. Volume 3, Number 1, Spring 1987.
- Chapko, M. et. al. (1984). Development of a multi-dimensional measure of capital expenditure and rate regulation for hospitals. Working Paper, Department of Health Services. School of Public Health and Community Medicine, University of Washington, Seattle.
- Cleverly, W. (1978) Essentials of Hospital Finance. Germantown, MD: Aspen Systems.
- Coelen, C. (1985). Hospital ownership and comparative hospital costs. Unpublished paper. Abt Associates, Inc., Cambridge, MA.
- Cone, K., and D. Dranove (1986). Why Did States Enact Hospital Rate-Setting Laws? Journal of Law and Economics. 29:287-302.
- Cowing, T.G. et. al. (1983). Hospital cost analysis: a survey and evaluation of recent studies. Advances in Health Economics Research, 4:257-303.
- Coyne, J. (1985, Winter). A comparative financial analysis of multi-institutional organizations by ownership type. Hospital and Health Services Administration, 48:63.
- Ermann, D., & Gabel, J. (1984, Spring). Multihospital systems: Issues and empirical findings. Health Affairs. 50-64.
- Farley, D. (1985). Competition among hospitals: Market structure and its relation to utilization, costs and financial position. Research note 7, Hospital Studies Program, DHHS Publication No. [PHS]85-3353. U.S. Department of Health and Human Services, National Center for Health Services Research and Health Care Technology.
- Feldstein, M. (1981). Hospital Costs and Health Insurance. Cambridge, MA: Harvard University Press.
- Friedman, B. & Pauly, M. (March, 1983). A new approach to hospital cost functions and some issues in revenue regulation. Health Care Financing Review. 4, 3:105-114.
- Gordon, N., (1987) Statement prepared at Congressional Budget Office for the Subcommittee on Health, Committee on Finance, U.S. Senate, April 7, 1987.
- Hambrick, D.C. (1979). Environmental Scanning, Organizational Strategy and Executive Roles: A Study in Three Industries. Doctoral dissertation. Pennsylvania State University.

- Henderson, B. (1973). The Experience Curve Reviewed: IV. The Growth Share Matrix of the Product Portfolio. (Boston: The Boston Consulting Group, 1973).
- Herzlinger, R., and W. Krasker (1987). Who Profits from Non-Profits? Harvard Business Review. January-February, 1987.
- Institute of Medicine, B. Gray (ed). For-Profit Enterprise in Health Care, (Washington, D.C.: National Academy Press. 1986).
- Joskow, P. (1980). The effects of competition and regulation on hospital bed supply and the reservation quality of the hospital. Bell Journal of Economics. 11:421-447.
- Lave, J. & Lave, L. (1978). Hospital cost function analysis: Implications for cost controls. In M.Zubkoff et. al. (eds.) Hospital Cost Containment. New York: Milbank Memorial Fund.
- Lewin, L. et. al. (1981, July 1). Investor-owned and nonprofits differ in economic performance. Hospitals, 55.
- Lipscomb, J. et. al. (1978). The use of marginal cost estimates in hospital cost-containment policy. In Z. Zubkoff et. al. (eds.) Hospital Cost Containment. New York: Milbank Memorial Fund.
- Miles, R.E. & Snow, C.C. (1978). Organizational Strategy, Structure and Progress. New York: McGraw-Hill.
- Pattison, R., & Katz, H. (1983). Investor-owned and not-for-profit hospitals: A comparison based on California data. New England Journal of Medicine. 309, 347-353.
- Shortell, S. et. al. (1985). Strategy making in health care organizations: A framework and agenda for research. Medical Care Review, 42:2.
- Shortell, S. et. al. (1986a). Diversification of Health Care Services: The Effects of Ownership, Environment, and Strategy. In Scheffler and Rossiter (eds.) Advances in Health Economics and Health Services Research. Volume 7, (Greenwich, Conn: JAI Press, 1986).
- Sloan, F., & Vraciu, R. (1983, Spring). Investor-owned and not-for-profit hospitals: Addressing some issues. Health Affairs. 2.
- Watt, J.M., Derzon, R.A., Renn, S.C., and Schramm, C.J., et. al. "The comparative economic performance of investor-owned chain and not-for-profit hospitals." The New England Journal of Medicine, January 9, 1986. pp. 89-96.
- Young, D.W., et. al. (1982). Ambulatory care costs and the Medicare cost report: managerial and public policy implications. Journal of Ambulatory Care Management. 5,1:13-29.

LIST OF REGISTRANTS, 29th Bugbee Symposium

Robin Allen, Ph.D.  
Kramer Fellow, University of Chicago Law School  
Staff Economist, Anti-Trust Division  
U.S. Department of Justice  
1326 Chicago Avenue #402  
Evanston, Illinois 60202

Ronald M. Andersen, Ph.D.  
Professor and Director  
Center for Health Administration Studies and  
Graduate Program in Health Administration  
1101 E. 58th St.  
Chicago, Illinois 60637

Odin W. Anderson, Ph.D.  
Professor Emeritus  
Center for Health Administration Studies  
The University of Chicago  
1101 E. 58th St.  
Chicago, Illinois 60637

Lynd D. Bacon, Ph.D., M.B.A.  
Lecturer  
Graduate Program in Health Administration  
University of Chicago  
1101 E. 58th St.  
Chicago, Illinois 60637

Ann Barret  
Managing Editor  
GSB Chicago  
6030 S. Ellis  
Chicago, Illinois 60637

John R. Beberman  
Director of Capital Budget  
The University of Chicago Hospitals  
5841 South Maryland Ave.  
Box 257  
Chicago, Illinois 60637

Jay E. Berkelhamer, Ph.D.  
Professor and Associate Chairman  
Department of Pediatrics  
University of Chicago Medical Center  
C126 (295)  
5841 South Maryland Ave.  
Chicago, Illinois 60637

Greg Binns  
Lexecon Health Service  
332 South Michigan Ave.  
Suite 1300  
Chicago, Illinois 60604-4301

Myer Blank  
Research Assistant  
Center for Health Administration Studies  
1101 E. 58th St.  
Chicago, Illinois 60637

Anke Brown  
Research Assistant  
Center for Health Administration Studies  
1101 E. 58th St.  
Chicago, Illinois 60637

Kaye Brown  
Student  
University of Chicago  
5128 S. Hyde Park Boulevard #2  
Chicago, Illinois 60615

Benjamin Bugbee  
Nashotah, Wisconsin 53058

George Bugbee  
P.O. Box 65  
Genesee Depot, Wisconsin 53127

Wilton H. Bunch, M.D.  
Dean, Medical Affairs  
University of Chicago Hospitals  
5841 South Maryland  
Box 417  
Chicago, Illinois 60637

Michael E. Burack  
President  
Multi-Risk Management, Inc.  
350 N. Clark St.  
Chicago, Illinois 60610

Lawton Robert Burns, Ph.D., M.B.A.  
Way College  
Rome, Indiana 46784

Rohn J. Butterfield  
Associate Director  
University Hospital  
42nd & Dewey Ave.  
Omaha, Nebraska 68105

Dominic Calabrese  
Public Relations Specialist, Public Relations  
Graduate School of Business  
University of Chicago  
6030 South Ellis  
Chicago, Illinois 60637

Douglas C. Carr  
Vice President - Support Service Department  
The ServiceMaster Company  
2300 Warrenville Road  
Downers Grove, Illinois 60515

Danielle Carrier  
Student  
University of Chicago  
5200 North Sheridan #732  
Chicago, Illinois 60640

Jay Caturia  
City of Chicago Health Systems Agency  
500 North Peshtigo Court (4th Fl)  
Chicago, Illinois 60611

Edward G. Chadwick  
Controller  
The University of Chicago Hospitals  
5841 South Maryland Avenue  
Chicago, Illinois 60637

Jan Clement, Ph.D.  
Health Services Management and Policy  
University of Michigan  
1420 Washington Heights  
Ann Arbor, Michigan 48109-2029

Barney Cohen  
General Counsel  
Michael Reese Hospital and Medical Center  
Lake Shore Drive at 31st Street  
Chicago, Illinois 60616



Ken Cone, Ph.D.  
Director of Regulatory Studies  
Chicago Mercantile Exchange  
30 South Wacker Dr.  
Chicago, Illinois 60606

Llewellyn Cornelius  
Research Project Assistant  
Center for Health Administration Studies  
1101 East 58th St.  
Chicago, Illinois 60637

Anne E. Crowley, Ph.D.  
Director, Office of Educational Directories  
American Medical Association  
535 North Dearborn St.  
Chicago, Illinois 60610

Joseph Curl  
Vice President-Partner  
Korn/Ferry International  
120 South Riverside Plaza  
Chicago, Illinois 60606

Barry Datlof  
Health Administration Student  
University of Chicago  
Graduate School of Business  
5135 S. Kenwood Ave.  
Chicago, Illinois 60615

Harvey Dershin  
Executive Vice President and Chief Operating Officer  
Grant Hospital of Chicago  
550 West Webster Ave.  
Chicago, Illinois 60614

Tim Dickman  
Administrator  
Lutheran General Health Plan  
1875 Dempster, Suite 290  
Park Ridge, Illinois 60068

Barclay Dorman  
Manager, National Account Marketing  
GE Medical Systems  
3000 N. Grandview Boulevard  
Waukesha, Wisconsin 53188

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

Mary Draper  
508 Scoville Avenue  
Oak Park, Illinois 60304

Luisa H. Dwyer  
Health Administration - MBA Student  
University of Chicago  
1414 E. 59th St., #531  
Chicago, Illinois 60637

Tobi Ehrenpreis  
Coordinator, Geriatrics/Gerontology  
Department of Medicine  
University of Chicago Hospitals  
5841 South Maryland  
Box 72  
Chicago, Illinois 60637

Dana Elbein  
Sociology Student  
University of Chicago  
5522 S. Everett #2  
Chicago, Illinois 60637

David W. Ennis  
Vice President  
Karlsberger Companies  
99 E. Main Street  
Columbus, Ohio 43215

Noah Lewin Epstein  
Department of Sociology  
University of Chicago  
1126 E. 59th St.  
Chicago, Illinois 60637

Judy Federa  
Consultant  
TriBrook Group, Inc.  
1100 Jorie Boulevard, Suite 173  
Oak Brook, Illinois 60521

Peggy Finger  
Student  
University of Chicago  
1414 E. 59th St., #478  
Chicago, Illinois 60637

Marlene Fisher  
Public Health Nursing  
University of Illinois  
845 S. Damen Avenue, Room 943  
Chicago, Illinois 60612

J. Daniel Ford  
Senior Partner  
Kieffer, Ford & Associates, Ltd.  
666 N. Lake Shore Dr., Suite 1322  
Chicago, Illinois 60611

Eloise Foster  
American Hospital Association Library  
840 N. Michigan Ave.  
Chicago, Illinois 60611

Evan Freund  
1323 E. 50th St.  
Chicago, Illinois 60615

Bernard Friedman, Ph.D.  
Associate Director  
Center for Health Services and Policy Research  
Northwestern University  
629 Noyes  
Evanston, Illinois 60201

Peggy Friesenhahn  
Program Specialist  
National Easter Seal Society  
2023 W. Ogden  
Chicago, Illinois 60612

Francis Fullam  
Project Manager  
Department of Marketing and Corporate Development  
University of Chicago Hospitals  
5841 South Maryland  
Box 309  
Chicago, Illinois 60637

Pierce Gardner, M.D.  
Professor of Medicine  
University of Chicago Hospitals  
5841 S. Maryland  
Box 415  
Chicago, Illinois 60637

Scott Geron  
SSA Student  
University of Chicago  
1125 W. Oakdale Avenue  
Chicago, Illinois 60657

Aida Giachello  
Lecturer, College of Social Work  
University of Illinois  
1040 W. Harrison  
Chicago, Illinois 60612

Gerald L. Glandon, Ph.D.  
Associate Professor  
Department of Health Services Research  
Rush University  
1753 W. Congress Parkway  
Chicago, Illinois 60612

John P. Gould  
Dean  
Graduate School of Business  
University of Chicago  
1101 E. 58th St.  
Chicago, Illinois 60637

Leda Hanin  
Director  
Public Relations  
Graduate School of Business  
University of Chicago  
6030 S. Ellis  
Chicago, Illinois 60637

Dean Harrison  
QV, Inc. (Quadrangle Ventures, Inc.)  
5841 S. Maryland  
Box 309  
Chicago, Illinois 60637

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

Jeffrey A. Hoffen, DDS  
Student  
University of Chicago  
6611 N. Navajo  
Lincolnwood, Illinois 60646

Richard L. Hughes, M.D.  
The Medical School  
Wesley Pavilion #296  
250 E. Superior St.  
Chicago, Illinois 60611

John K. Iglehart  
Editor, Health Affairs  
National Correspondent, NEJM  
Project Hope  
Two Wisconsin Circle  
Suite 500  
Chevy Chase, Maryland 20815

Judy D. Jacobson  
190/MBA Student  
University of Chicago  
1709-2 N. North Park  
Chicago, Illinois 60614

Everett A. Johnson, Ph.D.  
Director  
Institute of Health Administration  
Georgia State University  
University Plaza  
Atlanta, Georgia 30303

Gary E. Kaatz  
Assistant Vice President  
Rush-Presbyterian-St. Luke's Medical Center  
1753 W. Congress Parkway  
Chicago, Illinois 60612

Robert Katzfey  
Director, Section for Metropolitan Hospitals  
American Hospital Association  
840 N. Lake Shore Drive  
Chicago, Illinois 60611

John W. Kelly  
Research Assistant  
Center for Health Administration Studies  
1101 E. 58th St.  
Chicago, Illinois 60637

Arthur F. Kohrman, M.D.  
Professor and Director  
La Rabida Children's Hospital and Research Center  
East 65th at Lake Michigan  
Chicago, Illinois 60649

Christine Kops  
Operations Auditor  
Alexian Brothers Health System  
600 Alexian Way  
Elk Grove Village, Illinois 60007

Leah Krevitz  
Vice President of Medical Services  
Share Health Plan of Illinois  
1 Pierce Plaza  
Itasca, Illinois 60143

Roger Krueger  
Student  
University of Chicago  
27 South Stone Ave. #J2  
La Grange, Illinois 60525

Michele LaMothe  
Illinois Health Facilities Authority  
35 E. Wacker Dr.  
Chicago, Illinois 60601

Edward Lawlor, Ph.D.  
Assistant Professor  
School of Social Service Administration  
University of Chicago  
969 E. 60th St.  
Chicago, Illinois 60637

Evelyn H. Lazare  
Principal  
Lazare Associates  
28 Glenrose Avenue  
Toronto, Ontario M4T 1K4, Canada

Steven Lazarus  
President, ARCH Development Corporation  
Graduate School of Business  
University of Chicago  
1101 E. 58th St.  
Chicago, Illinois 60637

Winkle Lee  
Vice President  
Mercy Hospital and Medical Center  
Stevenson Expressway at King Drive  
Chicago, Illinois 60616

John Lorant  
Blue Cross/Blue Shield Association  
676 N. St. Clair St.  
Chicago, Illinois 60611

Sister Sheila Lyne, R.S.M.  
President  
Mercy Hospital and Medical Center  
Stevenson Expressway at King Drive  
Chicago, Illinois 60616

Anne Lednicer  
MBA/HA Student  
University of Chicago  
521 Northbrook Dr.  
Michigan City, Indiana 46360

Edward F. Lis, M.D.  
Director  
Division of Services for Crippled Children  
1919 W. Taylor St., Room 808  
Chicago, Illinois 60612

Sara Segal Loevy, Dr. PH  
Senior Survey Director  
NORC  
1155 E. 58th St.  
Chicago, Illinois 60637

James E. Lyons  
President  
New Berlin Memorial Hospital  
13750 W. National Avenue  
New Berlin, Wisconsin 53151

Christopher Lyttle  
Data Base Manager and Study Director  
Center for Health Administration Studies  
1101 E. 58th St.  
Chicago, Illinois 60637

Malcolm D. MacCoun, M.B.A.  
President and Chief Executive Officer  
Northwest Community Hospital  
800 W. Central Road  
Arlington Heights, Illinois 60005

John R. Mannix  
Consultant  
1127 Euclid Ave.  
Suite 431  
Cleveland, Ohio 44115

Barry Maram  
Illinois Health Facilities Authority  
35 E. Wacker Drive  
Chicago, Illinois 60601

Joseph Martin  
Economic Studies and Hospital Data Center  
American Hospital Association  
840 N. Lake Shore Drive, - 1003W  
Chicago, Illinois 60611

Myra Mason  
Assistant Professor  
Community Dentistry  
Indiana University School of Dentistry  
1121 W. Michigan St.  
Indianapolis, Indiana 46202

Michelle McArthur  
HA Student  
University of Chicago  
5316 S. Dorchester Ave., #226  
Chicago, Illinois 60615

Thomas N. McMillian  
HA Student  
University of Chicago  
5528 S. Hyde Park Boulevard, #901  
Chicago, Illinois 60637



Gary Mecklenburg  
President and CEO  
Northwestern Memorial Hospital  
250 E. Superior Street  
Chicago, Illinois 60611

Frank Merrill  
Student  
University of Chicago  
5528 South Hyde Park Boulevard, #602  
Chicago, Illinois 60637

Irwin Miller, M.P.H.  
University Professor  
Governors State University  
College of Health Professions  
University Park, Illinois 60466-3187

Richard B. Miller  
Assistant Controller  
The University of Chicago Hospitals  
5841 South Maryland Ave.  
Chicago, Illinois 60637

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

Michele Moreault  
Consultant  
Grant Thornton  
600 Prudential Plaza  
130 E. Randolph St.  
Chicago, Illinois 60601

Ellen Morrison  
Project Director  
Center for Health Services and Policy Research  
Northwestern University  
629 Noyes St.  
Evanston, Illinois 60201

Ed Mortimore  
SSA Student  
University of Chicago  
1005 E. 60th #340A  
Chicago, Illinois 60637

Reed L. Morton, Ph.D.  
Memorial Health Systems  
205 W. Jefferson  
Suite 600  
South Bend, Indiana 46601

Ralph W. Muller  
President  
Hospital Administration  
University of Chicago Hospitals  
5841 S. Maryland Avenue  
Box 430  
Chicago, Illinois 60637

Gerald W. Mungerson  
Administration  
Illinois Masonic Medical Center  
836 W. Wellington  
Chicago, Illinois 60657

B. Joan Newcomb  
Doctoral Student  
University of Chicago-SSA  
960 E. 60th St.  
Chicago, Illinois 60637

Mark Newton  
Vice President  
Planning and Marketing  
Highland Park Hospital  
718 Glenview  
Highland Park, Illinois 60035

Donald Oder  
Senior Vice President  
Rush-Presbyterian-St. Luke's Medical Center  
1653 W. Congress Parkway  
Chicago, Illinois 60612

Linda Olsen  
HA Student  
University of Chicago  
800 Main St.  
Apt. 2NE  
Evanston, Illinois 60202

Sarah H. Pedersen  
Center for Cost Effective Care  
Brigham and Women's Hospital  
75 Francis St.  
Boston, Massachusetts 02115

John A. Pichler  
Senior Vice President/Operations  
Administration  
Victory Memorial Hospital  
1324 N. Sheridan Road  
Waukegan, Illinois 60085

Judy Ploszek  
Student  
University of Chicago  
4800 S. Chicago Beach Drive  
Unit 1203 South  
Chicago, Illinois 60615

Jeanne Polydoris  
Student  
Committee on Public Policy Studies  
University of Chicago  
125 N. Ridge Road  
Lake Forest, Illinois 60075

Ann Reed  
Student  
University of Chicago  
1642 E. 56th St.  
Apt. 1113  
Chicago, Illinois 60637

Thomas Reepmeyer  
Director of Finance  
Division of Biological Sciences  
Dean's Office  
Room S-138, Box 417  
5841 South Maryland  
Chicago, Illinois 60637

Sang-O Rhee, Ph.D.  
University Professor  
Governors State University  
College of Health Professions  
University Park, Illinois 60466-3187

William C. Richardson, Ph.D.  
Executive Vice President and Provost  
The Pennsylvania State University  
201 Old Main  
University Park, Pennsylvania 16802

Richard R. Risk  
Planning and Marketing  
Evangelical Health Systems  
2025 Windsor Drive  
Oak Brook, Illinois 60521

Mike Roizen, M.D.  
Professor and Chairman  
Department of Anesthesiology and Critical Care  
University of Chicago Hospitals  
5841 S. Maryland  
Box 428  
Chicago, Illinois 60637

Lisa Rolfe  
Student  
GSB  
University of Chicago  
5050 S. Lake Shore Drive  
Apt. 3112 South  
Chicago, Illinois 60615

Vicki Ross  
HA Student  
University of Chicago  
219 Center St.  
Naperville, Illinois 60540

Jay R. Scharoff, M.D.  
Medical Affairs Director  
St. Catherine Hospital  
4321 Fir St.  
East Chicago, Indiana 46312

Elaine S. Scheye  
Health Care Consultant  
Alternative Delivery Systems  
Scheye & Co.  
5445 N. Sheridan Road  
Suite 3605  
Chicago, Illinois 60640

Christian Schmidt  
Student  
University of Chicago  
5020 S. Lake Shore Drive  
Apt. 1003-N  
Chicago, Illinois 60615

David Seckman  
President  
Illinois Health Care Association  
1029 S. 4th Street  
Springfield, Illinois 62703

Mridu Sekhar  
Director, Medical Center Information Services  
The University of Chicago Hospitals  
5841 S. Maryland  
Box 76  
Chicago, Illinois 60637

Robert Sellers  
Student  
University of Chicago  
5345 S. Harper #207  
Chicago, Illinois 60615

Donna Seltin  
190 Student

Mervin Shalowitz, M.D.  
Vice President and Medical Director  
Share Health Plan  
1 Pierce Place  
Itasca, Illinois 60143

Mark T. Shanley, Ph.D.  
Assistant Professor  
Policy and Organizational Behavior  
Graduate School of Business  
University of Chicago  
1101 E. 58th St.  
Chicago, Illinois 60637

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

Stephen M. Shortell, Ph.D.  
A.C. Buehler Distinguished Professor of Hospital  
and Health Services Management and Professor of  
Organizational Behavior  
The Graduate Program in Hospital and Health Services Management  
J.L. Kellogg Graduate School of Management  
Northwestern University  
Leverone Hall  
2001 Sheridan Road  
Evanston, Illinois 60201

Frances Skolnick  
Student  
Graduate Program in Health Administration  
University of Chicago  
1307 E. 60th St., #320  
Chicago, Illinois 60637

Peter J. Snow  
Vice President Policy and Planning  
Southwest Community Health Services  
P.O. Box 26666  
6100 Pan American Freeway  
Albuquerque, New Mexico 87125

Hilmon S. Sorey, Jr.  
Professor and Program Director  
Hospital and Health Kellogg School  
Northwestern University  
2001 Sheridan Rd.  
Evanston, Illinois 60201

Beth Speck  
MBA Student, Health Administration  
University of Chicago  
3323 N. Lakewood  
Chicago, Illinois 60657

Sidney F. Tyler, Jr.  
Executive Vice President, Hospital Group  
National Medical Enterprises, Inc.  
2901 28th St.  
Santa Monica, California 90405

Vivian G. Valdmanis  
Health Services Management and Policy  
The University of Michigan  
1420 Washington Heights  
Ann Arbor, Michigan 48103

Melinda Walter  
Illinois Department of Public Health  
100 W. Randolph, Suite 6-600  
Chicago, Illinois 60601

Ross H. Weaver, Pharm.D.  
Technology Management  
American Medical Association  
535 North Dearborn Street  
Chicago, Illinois 60610

Peter A. Weil, Ph.D.  
Director, Research and Development  
American College of Healthcare Executives  
840 N. Lake Shore Dr.  
Chicago, Illinois 60611

Walter J. Wentz, Ph.D.  
Professor and Chairperson  
Governors State University  
College of Health Professions  
University Park, Illinois 60466

Randy Whittell  
National Account Manager  
GE Medical Systems  
3000 N. Grandview Boulevard  
Waukesha, Wisconsin 53188

Gail J.H. Wilson  
Administration  
University of Chicago Hospitals  
5841 South Maryland Ave.  
Box 240  
Chicago, Illinois 60637

Lisa Witcoff  
Assistant to the Vice President  
Administration  
University of Chicago Hospitals  
5841 South Maryland  
Box 240  
Chicago, Illinois 60637

Brenda J. Wolf  
HA Student  
University of Chicago  
222 E. Pearson  
Apt. 2109  
Chicago, Illinois 60611

Jason Yuan  
Student  
University of Chicago  
5110 S. Kenwood Avenue #207  
Chicago, Illinois 60615

Ann L. Zercher  
Vice President, Nursing  
University of Chicago Hospitals  
5841 South Maryland  
Box 416  
Chicago, Illinois 60637