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Does gender influence leadership?

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Leading Change in the Healthcare Industry

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PART I: Leadership Analysis

Reengineering is a new beginning. In doing reengineering in an organization, a leader is responsible for "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed" (Hammer and Champy 1993). In addition, a leader who is able to make an effective change, or reengineer a current process in an organization, is capable of innovating new approaches in creating more effective systems. In other words, the leader may be classified as a change agent, or "a result-oriented individual able to accurately and quickly resolve complex tangible and intangible problems...energy and ambition ready for success" (Burgher 1979). As the change agent in Sentara Health Systems, I successfully generated a positive outcome in the reengineering process, which provided the organization with a more cost-effective and efficient system (Wachel 1994).

In order to improve Sentara Health Systems' performance, I first considered several characteristics of a change agent which are to promote positive feelings about the change, itself, to provide reasons as to why the change

is needed, to act as a role model in the organization, and to use various leadership styles as the change process progresses (Kirkpatrick 1985). In addition, I prepared an outline of steps describing how to implement an organizational change in Donald Kirkpatrick's How to Manage Change Effectively. According to Kirkpatrick, the steps to implement a change in an organization include understanding a need for the change, preparing a plan, looking at the employees reactions to the plans, making a joint decision, establishing a timeline of events to achieve objectives, and finally, communicating and implementing the change (1985).

In promoting a positive image to the Sentara employees, I came into the project feeling enthusiastic and anxious to lead a change in their primary care delivery processes. Furthermore, I felt as if I was the motivator and the visionary for the organization (Hammer and Champy 1993). In addition, I was a futurist for Sentara Health Systems, or a leader who needed "realistic imagination to envision what is really possible and still douable" (Fields 1993). In How to Manage Change Effectively, Kirkpatrick suggests that the leader must remove the organizational employees insecure feelings and transform their perceptions of the change into positive attitudes (1985). Therefore, I knew that my attitude was probably more critical than the change itself. By energizing the medical staff in encouraging them to participate in discussions and showing gradual achievements

throughout the change process, I was able to create a positive working environment, while developing their sense of trust and confidence in the change, itself.

As a Healthcare Consultant, or the change agent in Sentara Health Systems, I also provided the system users with specific examples of why change was needed in their primary care delivery services in order for them to believe in the need for change in the organization (Burgher 1979). For example, I located the areas in the system which failed to support cost-efficiency and effectiveness, such as in the emergency room. In the emergency room, the hospital was not maximizing on the space provided, because the patients would wait for their lab results in examination rooms instead of specified waiting areas. When I presented this research to the physicians at the roundtable discussion, the physicians were supportive of the research data and were willing to help to make the system operate more efficiently. I gained a sense of group commitment when I presented my reasons for making a change in Sentara Health Systems which is needed to successfully support a change in any organization (Wachel 1994).

Another important characteristics of being a change agent in an organization is also acting as a role model for the system users. That is, the people affiliated with the organization depend on the leader's expertise and insight to offer suggestions as to how to implement any change in the

organization (Kirkpatrick 1985). With my past experience at the Medical College of Virginia where I reorganized their outpatient reporting system, I felt capable of making the necessary changes for Sentara Health Systems. In addition, the Sentara employees and other users of the system felt confident in my ability to lead a change in the organization based on my related-experience, as well. I also acted like a catalyst in the system, because I did not have a particular bias or concern with any portion of the problems (Burgher 1979). Therefore, the Sentara employees felt more comfortable voicing their opinions and suggestions to me, because I did not have a stake in the system, itself.

Besides being a role model for the Sentara employees, another characteristic of a change agent in an organization is using several different management styles throughout the change process. For example, when I first became involved in the project, I used a compromising leadership style, which allowed me to be empathetic towards the employees' needs (Kouzes and Posner 1987). Then, as the project progressed, I used a participative leadership style in the physician roundtable discussions, the focus group facilitation of community employees, and in the phone interviews with the best practice healthcare leaders. In a participative leadership style, the leader encourages the subordinates to openly voice their opinions (Kilmann et al. 1988). Therefore, I successfully gathered the information

from discussions with the physicians, community employees, and best practice leaders.

In addition to using compromising and participative leadership styles throughout the change process, I used a directive management style in making a final decision for Sentara based on their responses to several questions. I needed to be assertive in making a final decision for each change, because the plan needed direction and guidance to progress. Throughout the change process, several management styles were critical to leading the success of implementing a change in the organization.

Instead of having to help people in Sentara adjust to the need for change, I was fortunate to have each individual welcome me into the organization. Therefore, I was able to avoid the initial step in implementing a change in an organization which is re-orienting the people to the need for a change, itself (Kilmann et al. 1988). The leaders of Sentara had already identified their areas of concern for the project which they asked the IBM Healthcare Consulting Group to address in a project designed to reengineer their primary care delivery system. In other words, I had a unique experience of group acceptance of the change before I became involved in implementing a change in the organization.

By considering several characteristics of an effective change agent in an organization, I was prepared to lead a

change in Sentara Health Systems by following several steps outlined by Kirkpatrick in How to Manage Change Effectively. Because the Sentara Health Systems' healthcare leaders had already identified specific areas of concern in their primary care delivery model, the first step in implementing a change for this organization was to understand the need for the change in primary care delivery services (Kirkpatrick 1985). In order to understand the need for change in Sentara's primary care delivery, I decided to become familiar with Sentara Health Systems' organizational culture in order to gain a better understanding of how the system currently operates (Jick 1991). By understanding the current primary care delivery system's role in the integrated delivery system, I could prioritize the specific areas of concern in the system which could be restructured to better satisfy the user's needs (Jick 1991).

For example, at one of Sentara Health Systems' primary care models, Sentara Health Plan (SHP), I worked with the medical staff to learn how information flowed throughout their primary care patient services. Eventually, I observed the other six sites of primary care delivery in an effort to be oriented to how each individual system operates. In order to make the necessary changes to generate a more cost-effective and efficient primary care delivery system, I traced the time delays of each primary care delivery model and presented them to each medical staff. By identifying

the high priority areas of concern for each model, the system users also gained a better understanding of why change needed to be implemented in the primary care delivery services.

As I gained a better understanding of the working environment of Sentara Health Systems, I also developed an awareness of the importance of each subordinate's need to contribute to the reengineering process of the primary care delivery system. The majority of the workers were motivated to participate in the project which enabled me to acquire more suggestions and ideas as to how the primary care delivery system could be improved. As the leader, I became cognizant of the importance of empowering the people of the organization, or giving individuals responsibility of the task, in making them feel important to the project's goals (Kilmann et al. 1988). By personally demonstrating an energized and stimulating behavior, I modeled a positive attitude to the organizational workers which enhanced the working atmosphere of the organization (Kilmann et al. 1988).

The next step in implementing a change for the organization is to make a tentative plan of action (Kirkpatrick 1985). In order to ensure the company of continual operational growth, I identified short and long term objectives to demonstrate how the changes in primary care delivery would be accomplished (Judson 1966). For any

change to be successful, "it is essential first to identify the objectives for which that change is a means of accomplishment" (Judson 1966). Although short term objectives reassure accomplishment through immediate results, long term objectives are flexible enough to constantly be modified.

One long term objective of the project initially identified by Sentara leaders was to reduce total costs by improving effectiveness and efficiency of operation, or to develop a best practice of delivering primary care to patients. Along with this long term objective, a short term objective was implemented to trace the information flow of primary care services in each model to eliminate time delays in the individual systems. In other words, the long term objective was more easily obtainable by implementing short term goals that enabled the subordinates to see progress throughout the various stages of a long term action plan (Davis 1987).

Furthermore, in order to enhance the effectiveness of the change in the system, I attempted to be open to changes or flexible in modifying how the long term objectives could be achieved (Judson 1966). In other words, I wanted the organizational employees to understand that plans could change at any time. I wanted the system's users to speak without hesitation, and as frequently as possible to ensure maximum acceptance of the changes in primary care delivery.

By making sure that the subordinates' input was heard and encouraging people to brainstorm ideas, I was able to guide suggestions for a plan that could better meet the organization's needs (Kirkpatrick 1985).

In addition to encouraging people to participate in the action plan, I wanted to facilitate a team setting in the organization. As the structure of the organization changes, the leader should encourage collaboration instead of competition among group members (Sachs 1994). When implementing a change in an organization, the leader must communicate attitudes to the subordinates "to get them in the spirit" (Davis 1987). For example, I made sure that the system users knew that we were looking for innovative solutions to the identified problems and were prepared to make easily correctable mistakes. Additionally, I encouraged the workers that we would not make progress without taking risks (Davis 1987).

Besides encouraging the Sentara employees to take risks, I realized the importance of suggesting new approaches to an organization. Coming from the outside of the organization, I contributed a new perspective to the organization. For example, I introduced a new technique to the organization called process mapping to enhance the delivery of primary care. Process mapping is a method of tracing the information flow in a system from when a patient registers to when the individual leaves a facility. The

process map also indicates the site of service and who receives the information for each step in the information flow process. Then, these areas are traced on a map designed to show the various levels of organization in a system and where each patient receives a service in the system, itself. When interpreting the data collected from process mapping, I could compare and contrast how each primary care model operated. Furthermore, I could specify where the actual time delays were located for each model.

After I gathered my action research data in process mapping, I wanted to provide the Sentara employees with opportunities to voice their opinions as to how they would address any necessary changes in the system. Therefore, I motivated the people of the organization to participate in implementing changes in the primary care delivery services organization by conducting a physician roundtable discussion and focus group facilitations of community employees. According to The Turnaround Prescription, Goldston suggests that "the most valuable asset in successful companies is the ability of the people at all levels to use their knowledge, creativity, and experience to generate ideas" (1992). By hosting the discussions with various physicians and other medical staff employees, I wanted each participant to feel a part of the group's goals in adapting and accepting any changes in the future for primary care delivery services.

Therefore, I also encouraged Sentara employees to

submit ideas to me on a weekly basis that would address topics needed to be discussed concerning any changes that needed to be made in the organization. By having an "idea generating process," I could set up a clear understanding of the system while avoiding ambiguities and possible negative responses after the new changes would be implemented (Goldston 1992).

Although the physicians and other medical staff workers brainstormed ideas to improve the system in discussions, I also could contribute my ideas from my past hospital work experience in making the changes more effective. Throughout the change process, I could see how my past hospital consulting experiences enhanced my input to offer new suggestions to Sentara's primary care delivery. As I contributed my ideas and suggestions, I could see how the Sentara workers were developing a sense of trust in my ability to lead in a change in their organization. Therefore, as a change agent, previous experience and having expertise in a particular field may become an advantageous skill for people who want to make a change in an organization (Burgher 1979).

With the process mapping technique, physician round table discussions, and the focus group facilitation of community employees, the people in the organization had the opportunity to voice their needs and concerns throughout the change process in reengineering their primary care delivery

services. At the discussions with the employees who interact with the system on a routine basis, I prioritized and modified the major areas of concern identified by the Sentara leaders before I became involved in the change process, itself. Because the employees most frequently interact with the system, I believe that their input was the most important aspect in the development of the changes necessary in Sentara's healthcare environment.

Coupled with the information I obtained from process mapping and the discussions with the Sentara medical staff employees, I also profiled the seven best practices in the country that delivered the best primary care. I identified each practice in an area of excellence such as customer satisfaction, physician/patient relationship, or integrated primary care model. Besides making the system more efficient through process mapping and understanding the needs of the users, I used my critical thinking skills to develop the best practice model for Sentara Health Systems based on a combination of the various models already identified for their areas of excellence. When I explained my intent to the system's users and the other IBM Health Solutions consultants, they agreed that my method of profiling the seven best practices in the country would be the most efficient technique for developing an overall best practice model for Sentara Health Systems. In addition, the development of the best practice model for Sentara Health

Systems would deliver the best quality of care to the patients.

Although the IBM Consultants suggested that I research articles which would identify the best practices in the country, I suggested that it would be more efficient for me to conduct phone interviews, or talk directly with the systems' healthcare leaders, in discovering why their practices excel in specific areas. When implementing a change, as a change agent in an organization, I believe it is important for a leader to progress through the change in a system as effectively and efficiently as possible. When interviewing the leaders of the seven best practices in the United States, I asked several questions including "To what do you attribute your success?" and "What are the weaknesses within your company?." According to Turnaround, "people like to talk about their business" (Davis 1987). In my phone interviews, I noticed that the leaders of the best practices communicated openly about organizational strategies, and were willing to talk about their successes and failures.

In addition, I wanted to enhance the culture of the organization by empowering the people with important task responsibilities in making them feel important to the project's objectives. Therefore, I asked the physicians and community employees to report back to me if they had any additional comments or concerns about the necessary changes,

and to represent the concerns of their groups. In developing a sense of commitment to the change, I wanted to make sure that each person at the meetings accepted the changes. After I received maximum acceptance in making the change, the organizational employees formulated a group commitment to the task. Together, the Sentara employees, IBM Consultants and I would make the necessary changes to Sentara Health System by working together through the change process.

One problem that I came across in the change process was trying to convince the system's users to remain committed to making a change in the organization. For example, when I proposed to develop a community center for the indigent to use instead of incurring high expenses in the hospital emergency rooms, the physicians and community workers were hesitant. Because reengineering may involve radical change, people may not feel comfortable with the spontaneous changes (Wachel 1994). Yet, if the leader can inspire the people to look at the change as merit and a long term benefit for the organization, people will be confident in the technological change (Wachel 1994). From the start of the reengineering process, the commitment should be stated in a strategic plan which "is communicated to all employees, medical staff members, board members, and even the community" (Wachel 1994). Furthermore, Whetsell argues that the CEO, or President of a hospital's responsibility

includes "setting the stage, creating the vision, and stating the mandate in front of the senior management team as well as middle managers and employees" (Whetsell 1994). In addition, I wanted to design the re-engineering teams to make sure that all changes in the process are maintained, or to increase the quality of services provided to the customer. In order to effectively communicate the strategic plan of reengineering to other members of the organization, I had other IBM consultants give presentations to the medical board who are responsible for the hospital's financial status, and conduct opinion surveys to medical staff employees to assess their satisfaction with the redesign of the operational plan.

After preparing a tentative plan of action from the input of various system users, I performed the next step in implementing a change which is to analyze reactions to the tentative plan (Kirkpatrick 1985). When I presented my ideas as to how to improve the information flow in the primary care delivery of the various models of Sentara, the majority of the workers did not resist the changes. Yet, some people did resist changes in the delivery of primary care. For example, a few physicians believed that the system operated effectively and efficiently without additional changes. In order to maximize the benefits of a change, maximum acceptance of a change should be achieved (Judson 1966).

Therefore, when I asked the people to explain why they wanted to resist making a change in primary care delivery, their responses were unanimously that they were afraid to make a change that did not guarantee success. In Changing Behavior in Organizations, Judson explains that a relationship exists between attitudes and behaviors (1986). Furthermore, the people who resisted the change in Sentara had negative attitudes toward changing the primary care delivery, because of their feelings of apprehension and commitment to the project resulting in a failure for the organization (Judson 1986).

For those people that rejected the need for reengineering the primary care delivery, I helped them to accept the changes by offering incentives to the employees as to why the changes should me implemented in their primary care delivery model. For example, I suggested that the Sentara Health System should offer health programs for the indigent to become better educated about taking care of their own primary care medical problems. By having health education programs, the physicians cold spend more time with patients who need urgent care instead of the mundane, reoccurring visits which they too often evaluate. In addition, to lower the hospital costs, I thought that a help-line where nurses could answer questions would be beneficial to the organization, since the majority of the office visits can be handled over the phone. The help-line

was indirectly an incentive for physicians to minimize medical problems which could be resolved over the phone. Instead of burdened with trivial medical problems, I encouraged the physicians that they would have more time to see patients with more serious problems. By proposing various suggestions to the workers, they were eventually willing to redesign their job tasks if the hospital would better meet the organization's needs.

An important factor in implementing a change in an organization is making sure that all people in the organization have a clear understanding of the project's goals, and how they are achieved along the way. One of the reasons that some people rejected the idea to reengineer the primary care delivery system was because they did not understand the project's goals, and were afraid of making a change. Nevertheless, people begin to feel secure with the recommended changes in Sentara Health Systems' primary care delivery when they observed signs of progress in the action plan. In addition, the organizational workers developed a sense of trust as they realized that their interests would be protected in the project. Because they did not know me coming into the organization, I felt like I had to earn their trust. I achieved their trust through direct observation and personal experiences with the organization. Eventually, the tension and apprehension disappeared, and was replaced with a feeling of group commitment and unity

(Goldston 1992).

The fourth step in implementing a change as a leader is to make a final decision (Kirkpatrick 1985). In making a final decision, I utilized the options which were created in brainstorming activities in the focus group and physician roundtable, and the employees' positive and negative reactions generated from the tentative plan of action. Because a high level of acceptance existed for the plan to implement a change in the organization, I believe that the change in the organization was derived from team work among the subordinates of the organization and myself.

The next step in implementing a change is to create a time-line of events which will accomplish the plan's objectives (Kirkpatrick 1985). First, in January and February, I traced the information flow for time delays in the various models of primary care delivery. By eliminating the system's time delays, the primary care delivery could possibly be more cost-efficient and effective. Then, in March, I wanted to researched the areas of excellence for each system. By April, I planned to combine the areas of excellence in providing Sentara with innovative ideas and recommendations as to how they could develop the ultimate best practice model based on a combination of the selected best practice models. With a tentative time-line, I gave the plan of action direction and reassured the subordinates that the reengineering process for their primary care

delivery would be implemented.

The six step in implementing a change is communicating the change (Kirkpatrick 1985). Throughout the reengineering process, I facilitated a two-way process of communication by encouraging each individual to participate in the discussion and stages of implementing a change throughout the course of action. As I told and tried to sell the plan of action to the subordinates, I actively listened to their suggestions and concerns (Kirkpatrick 1985). For example, I would repeat their responses to my questions in order to make sure that they understood what I had to say. Even when I presented the final report, I made sure the subordinates completely understood the plan of action before it became implemented in the organization.

Finally, the last step was actually implementing a change in the organization (Kirkpatrick 1985). Nevertheless, I continually evaluated the acceptance of the implementation encouraging the people to make constructive criticism. According to Kirkpatrick, "continuous evaluation is an integral part of this step" (1985). Some of the questions that I considered in evaluating the acceptance of the change by the organization are "Do people understand the new model for primary care delivery? and "Should the final decision be changed?." These questions provided direction to the group's goals and made the change process operate more smoothly.

After going through the steps of implementing a change in Sentara Health Systems, I learned that using my visionary and participatory leadership skills contributed to my success in leading a change in the organization. First, I used my visionary leadership skills to encourage each individual to envision processes, to support each other, and to use resources which would motivate the group to do something that they wanted to do (Kouzes and Posner 1987). Also, I used a participatory leadership to ensure that the subordinates were involved in the group's goals throughout the change process (Kouzes and Posner 1987). By empowering people to have responsibility when changes are made in an organization, the Sentara employees were more motivated and supportive of making a change in the system, itself. As a visionary and participatory leader, I found my role as a change agent in the organization to be positive and worthwhile in contributing to the development of the reengineering process of the primary care delivery services for Sentara Health Systems.

PART II: Sentara Health Systems Report:

A Future Primary Care Delivery "Wellness" Model

I. Introduction

In the past, health systems have been focused on fee-for-service medicine. In fee-for-service medicine, a physician receives payment after performing a routine examination on a patient. Therefore, the physician's incentives has been generated from earning the greatest income from examining as many patients as possible regardless of the quality of care (Sachs 1994). Instead of promoting a "wellness" model of care, past healthcare systems encouraged the patient to stay ill, or provided the physician with incentives to keep the patients returning to their offices for further examinations. Formerly, the physicians worked independently by competing among various to deliver care to the patients (Sachs 1994).

Yet, in the last thirty years, "our healthcare system has grown large and far off of fee-for-service medicine paid for by the government and private industry" (Sachs 1994). Specifically, a change is occurring in the healthcare industry which is designed to provide incentives for the physicians to generate revenue from a "wellness" model instead of the traditional illness model described in the former fee-for service health system. For instance, the current healthcare system is being refocused on a "wellness" model including health promotion, disease prevention, and

eliminating any risk factors in the environment. Changes in the healthcare industry need to be implemented that make the system more efficient and cost effective (Kromoz et al. 1995).

Besides health promotion and disease prevention, a "wellness model" can be based on capitation which uses "40 percent fewer inpatient admissions than fee-for-service systems..." (Sachs 1994). According to "Case Study: From System to Network," capitation is "the payment to providers of a set amount per person per year for a defined package of health care services, regardless of how extensively those services are used" (Ummel 1994). More specifically, capitated payment allots a physician a certain amount of money for each patient. If the physician exceeds the designated amount for a particular patient, the money is detracted from the provider's income. Therefore, the "wellness" model provides physicians with incentives to promote health by controlling costs through capitated payment.

The need for a "wellness" model based on capitation in the healthcare industry has been driven by integrated delivery systems in community care networks (Coddington et al. 1994). An integrated delivery system "is any organization, or group of affiliated organizations, that provides physician and hospital services to patients" (Peters 1994). According to "Management without Frontiers,"

"integration is the health care system's mantra of the 1990s... one that provides a full continuum of care," or a spectrum of heath services from prevention to long term care (Kirkman 1994). In a survey which contained over 1,000 hospital executives performed by Deloitte and Touche in Hospitals and Health Magazine, the results indicated that 71 percent of the respondents claim that they either belong or are developing an IDS (Kirkman 1994). Other advantages of having an IDS are integrating hospital and physician services, establishing financial incentives, and working together to achieve a common goal (Peters 1994).

As healthcare industries are reforming into integrated delivery systems, primary care becomes an essential element in the changing process (Figure 1). Furthermore, primary care consists of 70 percent of medical care, and includes cuts, abrasions, burns, headaches, earaches, sore throats, or any problem that does not require immediate medical attention, or surgery. Therefore, primary care currently represents the basic unit of health plans, because it is receiving the most medical attention in health services.

Besides constituting the majority of medical care, other reasons explaining why primary care is an important focus in an integrated delivery system is to better satisfy the customers' needs, and to produce a more cost-effective system (Coddington et al. 1994). First, an IDS may better satisfy the customer's needs by reassessing the organization

of a primary care facility. By maximizing on physician and staff time and the availability of space and equipment in a facility, the primary care services in a healthcare system will increase in its cost effectiveness and efficiency of patient care delivery (Coddington et al. 1994). In developing a "wellness" model for an IDS which focuses on primary care, satisfaction of customer needs and implementing a cost-efficient system are important for health promotion and disease prevention.

The Volunteer Hospital Association (VHA) is undertaking a major research study to explore the application of business process re-engineering for integrated delivery systems. Business process re-engineering is a term used to describe the process of changing the operation of a business in order to better satisfy the customers' needs (Hammer and Champy 1993). For my senior project, I am working on a business process re-engineering project for Sentara Health Systems (SHS), in Norfolk Virginia, which has been identified by the IBM Healthcare Solutions Consulting Group as one of the leading VHA institutions that is committed to a strategy of integrated primary care delivery. Therefore, the emphasis of this study will be on primary care-centered delivery systems operating in an environment dominated by capitated payment.

II. Purpose

The purpose of this study is two-fold. First, I will identify and evaluate Sentara Health Systems' primary care delivery models while gaining knowledge as to how to improve the performance of the healthcare organization by focusing upon the requirements of the physicians, medical staff, and community employees. Second, I will explore a future best practice, or "wellness" model for Sentara Health Systems by profiling several health systems who are selected for standing out as healthcare leaders in identified areas of excellence.

Because reengineering is consistent with the research focus of this project upon application of healthcare innovations, this study is intended to provide recommendations to improve the business processes of primary care delivery to enhance SHS's overall performance. In addition, an effective primary care network is essential in developing a more cost-efficient integrated delivery system.

III. Processes

A. Sentara Health System's Primary Care Delivery Models

For SHS, seven sites were identified for delivering the majority of primary care to patients in the Norfolk, Virginia area including the Hospital Emergency Room, Community Health Centers, Medical Care Center (MCC), Sentara Health Plan (SHP), Independent Physician Association (IPA) or OPtima, Ambulatory Care Center (ACC), and NAVCARE by the

IBM Healthcare Solutions Consulting Group. Located throughout Norfolk, Virginia, these seven locations were observed to gain a better understanding of how each primary care delivery site operated within its organizational context. Each primary care delivery site is summarized accordingly:

Hospital Emergency Room

The Hospital Emergency Room receives the majority of their primary care from the indigent including 44 percent from Medicaid, self-pay, and welfare patients. In 1992/93, 40 percent of Sentara's emergency room charges were derived from Medicaid patients, and all but ten percent of the 60,000 visits were sought to be for primary care services. Additionally, the average charge per patient was two hundred dollars.

Community Health Centers

Besides the Hospital Emergency Room, the indigent people receive their primary care through City Health Departments and Community Health Centers. In 1993, the nineteen clinics run by the Health Departments in Hampton Roads had over 200,000 visits. These services are used by the low income, uninsured, low income elderly, and Medicaid beneficiaries. Also, Community Health Centers are another source of care with seven federally funded centers in Hampton Roads. Among the seven Community Centers, the Center which sees the majority of primary care is the

Peninsula Institute for Community Health in Newport News, Virginia. In the Community Health Centers, Medicaid and the uninsured constitute 83 percent of the primary care services.

Medical Care Clinics

Another prime location identified for primary care services is the Medical Care Clinic (MCC). The MCC meets the primary care needs of people who value easy access and quick service of treatment. Sentara operates eight MCCs which had a total of 140,000 visits in 1993. The MCCs provide quick service, do not require an appointment, and have evening and weekend hours. In 1992, the Sentara Medical Care Center performed a survey as to how efficient the MCC operates. The results of the MCC survey indicated that 94 percent of the users are being registered in less than fifteen minutes, and are being registered and treated within this specified duration. Also, the MCCs serve a broad range of age groups. Although the MCC is designed to be used for episodic care, many patients use the centers for routine primary care services because of past relationships. In 1993, the diagnosis reports were generated from acute throat and breathing complaints, one out of every four visits of all age groups (23%), routine physicals (15%), and minor emergency work including wounds and injuries (7%). Like the emergency room, Monday is the busiest day at MCCs. Finally, each MCC has two full-time physicians and a further

full-time medical staff including a nurse, lab technicians, x-ray technicians, and an administrative receptionist.

Sentara Health Plan

Third, Sentara Health Plan (SHP) is a HMO, or Health Managed Organization which is another model for delivering primary care to patients. As an HMO, SHP assigns a PCP, or a primary care physician, as a "gatekeeper" to each enrollee. SHP contains thirty primary care physicians (PCPs) in ten locations within a defined current population of 44,243. The PCP is the foundation of the SHP which emphasizes health maintenance through education programs and regular contact, management of the total necessary care requirements, the ability to minimize the user's inconvenience in accessing and using health services, and the reduction of health care costs by neutralizing negative incentives, expensive referrals, and admissions. Although SHP enrollees have reported high satisfaction with services, the patients are restricted in their choices of selecting a preferred physician.

Independent Physician Associations

Unlike the HMO, or the Sentara Health Plan, the Independent Physician Association (IPA) allows an individual to choose his/her "gatekeeper," or preferred physician, given a list of possible choices. The IPA leadership believes that further gains are possible through greater physician selection. In Sentara, OPtima is an IPA that is

utilized by patients who want to pay on the point of service. OPtima's IPA consists of 347 PCPs and 1, 015 specialists that provide care to 60,600 enrollees. Given the low ratio of enrollees to PCPs (175/1), it is surprising that IPA has made a great impact on utilization of services. The advantages of OPtima and other IPAs are that these primary care services allow the patient to form close relationships with the physician, and the patient will always know who his/her physician will be when scheduling an appointment, contrary to the SHP HMO. Yet, the cost of belonging to an IPA such as OPtima is much higher compared to the cost of membership for an HMO like SHP.

Ambulatory Care Centers

Besides HMOs and IPAs, another type of patient care service which is modeled at Sentara is the Ambulatory Care Center (ACC). Generally, the ACC sees the indigent patients, because they do not have insurance to cover the bills. The ACCs are easily accessible to the indigent people in Norfolk. In addition, Careplex is a hospital care center which is similar to the emergency room, but Careplex does not allow overnight stay. For example, many routine appointments at Careplex are outpatient surgeries that do not require overnight stay.

NAVCARE

Finally, NAVCARE is another model that delivers primary care to military dependents. Sentara has a contract with

the DOD to provide primary care services to a defined population group, the spouses and dependents of active military. NAVCARE offers a broad range of primary care services including medication which is an attractive feature. Because of the population, the majority of NAVCARE's work consists of family services with additional baby services, or clinics. Over the past year, NAVCARE has had approximately 120,000 visits making it Sentara's largest primary care/ambulatory facility. Although NAVCARE is one of the most efficient systems for maximizing on time and space available in the facility, as many as one fifth of the total visits are considered unnecessary for examination. Instead of examining medical cases that need immediate attention, the physicians may be distracted with trivial medical problems that could be answered over the phone, or by a midlevel extender such as a registered nurse or associate physician.

Although NAVCARE is cost effective while maximizing on time to see a vast number of patients and availability of space in the facility, the system does not allow a patient to complain about more than one problem each visit. Therefore, the patient inconveniently returns to the NAVCARE site if necessary to receive further medical attention for any additional problems.

The cost structures and levels of the various primary care models are not completely comparable, because the

service offerings and users differ. Balancing capacity to demand is the key variable to improved productivity and hence, lower unit cost. Furthermore, the discrepancies between the types of users and the services offered by the various primary care models are so great that it is difficult to compare the relative cost performance. However, some lessons can be formulated which will be useful for Sentara to build its primary care services.

For example, when comparing office visit rates for each model, patient volume and balancing capacity to demand are the keys to low unit staff costs. Specifically, MCCs average 3.9 visits per hour, NAVCARE receives 5 visits per hour, and an IPA practitioner would receive 3 to 4 visits per hour. An implication for controlling unit costs could be to increase non-staff costs. That is, the medical services should higher less expensive cost per unit professionals such as nurse practitioners, assistant physicians, or registered nurses to perform medical services at a lower cost.

B. Process Mapping

Besides becoming orienting to the various sites of primary care delivery, another important aspect to understand before implementing changes in a system is to trace the flow of information from when a customer registers in a system to when the individual leaves the facility. This technique is called process mapping. Process mapping

allows an individual to identify areas of concern in the information flow of a system. By tracing the time delays of information in a system, an individual can then identify the locations where the information flow is not maximizing on cost efficiency.

For Sentara Health Systems, process mapping is an attempt to trace the turn-around time for primary care delivery from when the patient registers in the system to the last step, when he/she leaves the facility (Figure 2). By evaluating the information flow of the primary care services for Sentara Health Systems, its overall services will be more efficient and cost-effective by eliminating any time delays indicated by process mapping.

Results of Process Mapping in SHS' Seven Primary Care Delivery Sites

For the process mapping of Sentara Health Systems, the flow of information for primary care services has been traced from when the patient registers in a system to when he/she leaves the facility for each of the seven models of the Sentara Health Systems (Figure 2). The levels in the process mapping are divided into customer/member; primary care provider (PCP); registered nurse (RN), nurse practitioner (NP), and physician assistant (PA); technologist; administration; alternated delivery system (ADS); and information technology (IT). At each level, the steps in the flow of information of primary care services is

numbered chronologically. Furthermore, each step is indicated on the line corresponding to the various levels in the organization. After process mapping the primary care delivery services, a description of each action including who is involved in the actions defined at each particular step of the information process has been recorded(Table 1).

By outlining the primary care process steps, the time delays in the various primary care services models were examined. In comparing and contrasting the various models of primary care delivery for Sentara Health Systems, the major areas which prevent the system's cost-effectiveness and efficiency in all models are categorized as the waiting area for results, where the lab tests are performed, and determining who schedules follow-up examinations. For example, in SHS' process map, Step 14 indicates that the medical staff performs a diagnostic test (Figure 2). In SHP, the patient receives the lab test in a designated lab area, unlike Careplex where the patient receives the test in an exam room. Therefore, SHP appears to be more cost-effective in performing tests compared to Careplex, because SHP is not wasting the available space of an exam room to see other patients who need immediate medical attention. In other words, a lab facility designated as a waiting room would in Careplex would make the system more cost-efficient in maximizing on space provided. In addition, Careplex could be more cost-efficient if space was provided for

patients to wait in another area besides the examination rooms in order for the physicians to examine more patients.

Another example of how process mapping is beneficial for tracing time delays for primary care services' information processes may be observed in Step 16 of Sentara's primary care services' process mapping (Figure 2). In Step 16, the results of a medical test are sent to a specific area to be evaluated. At an MCC or in SHP, the lab test results are performed at another location referred to as the Sentara Reference Lab. Yet, for an ACC, the lab results are evaluated at a hospital. Instead of diagnosing the lab tests at another area outside of each primary care facility, the turn-around time for the lab results to get back to the physician could be minimized if a lab was created on each site that would be capable of diagnosing the lab tests. In other words, the system could be more cost-effective if the physician received the lab tests back faster to diagnosis the patients more efficiently.

Another major difference among the various systems is indicated in Step 25 which identifies who follows up in scheduling future visits. At a Medical care Center, the staff makes the call to the member to schedule an appointment. On the other hand, Sentara Health Plan allows the member to take the responsibility to following up in scheduling any additional appointments. In all models, the member either calls the physician or diagnosing facility to

schedule appointments. Instead of being distracted from other demanding areas of work, the medical staff could eliminate the distractions of phone calls from the patients if they sent out reminder cards of appointments to the physicians. In this way, the patients would eliminate their calls to each center which refer to when their appointments are scheduled. Then, the medical staff may accomplish more task responsibilities, effectively and efficiently without the unnecessary phone distractions.

From process mapping, the issues which need to be addressed in the new Wellness Model are how SHS can maximize on physician and staff time and utilization of space and equipment. Nevertheless, the process map indicates the specific areas which need to improve on maximizing personnel and space for each particular SHS primary care site.

D. Physician Round Table Discussion

Along with process mapping, another method utilized in this study to improve the cost-efficiency and performance of Sentara Health Systems are the ideas and suggestions provided by the physicians in two round table discussions (Interview Notes 1). In each physician round table discussion, several selected physicians of the various primary care models were asked to contribute their views as to how Sentara Health System could better satisfy their needs. Other topics in the physician round table discussion included the role of mid-level extenders and specialists,

scheduling of patients, customer expectations and education, managed care issues and performance, physician communication, health system's responsibilities to physicians, and physician incentives. The physicians' input is needed to enhance the effectiveness of the new Wellness Model in increasing SHS' overall performance.

Results of Physician Roundtable Discussions

The results from the round table discussion with the physicians may be summarized in the following categories:

The role of mid-level extenders

Mid-level extenders include nurse practitioners, registered nurses, or assistant physicians. The physicians believe that the mid-levels should be responsible for routine follow-ups including checking blood pressure check, temperature, diabetes training, and patient education. The physicians recommend a PA, or a Physician Assistant, for every two physicians, or suggest to match up a generalist midlevel with a specialist, or vice versa.

Scheduling of patients

The physicians believe that it is difficult to fit in unscheduled with scheduled appointments, especially on Mondays. Furthermore, the physicians say that some locations designate individuals to handle urgent care on given days, but this increases the chances that the patient will not see their own PCP. In addition, a physician commented that extended hours do not increase volumes,

merely spread out patient visits.

Customer Expectations and Education

First, all physicians during the discussion referred to the customer as a patient instead of a member or customer. Therefore, the physicians may feel as if they are the only users of the system instead of considering the customer or member's needs, as well. The physicians argue that a patient should not have to wait to see their PCP if they are extremely ill. These professionals recommend that the marketing and benefits department set up PCP by using term "gatekeeper" and by saying things like "you can go if your PCP lets you..." which gives the person authorizations to see another physician outside of their own PCP. Another suggestion in improving customer satisfaction is to offer designated urgent care slots.

Another issue proposed by a physician during focus group facilitation is increasing customer education or what to do when he/she visits the physician. For example, often, the patient will not bring his/her bag of drugs which the physician may need to diagnose an illness. In addition, a family practitioner in SHP, suggests that adolescents should be educated on what to expect from the medical community including how to take care of oneself. Besides customer education, many physicians believe that another incentive to improve customer satisfaction is to offer office brochures indicating available times for the physicians, what he/she

can do for the patient, office hours, etc.

Managed Care Issues and Performance

Concerning the issue of managed care and performance, the physicians believe that each PCP has more visits, because the patients can not see specialists in managed care. Also, many physicians agreed that members rely more heavily on PCPs for navigation through the primary care delivery system.

Physician Communication

Physician communication is a major issue in primary care services. In managed care, the physician's responsibility is to know who the patient's medical history. In fee-for-service, the physician does not know if the patient is seeing another doctor unless he/she is informed by the patient or another source. Yet, in managed care, such as the SHP, communication is better when the PCP is the referral director, because often, the patient chooses a specialist who the PCP does not know. Therefore, according to one physician, communication may become "abysmal."

Another issue of concern in physician communication appears to be how the physicians can effectively communicate with the Ambulatory Services. For example, ER residents will call PCPs at 2am to find out what is wrong with a patient. In addition, the ER physicians believe that other doctors are interfering with their work when the generalists want to check up on their patients. Therefore, more

effective communication is needed between PCPs and the ER physicians including specialists. Furthermore, the patient will often see the specialist before the PCP informs the specialist of the patient's problems. A suggestion offered during the physician roundtable discussion is to enhance physician communication by operating in teams for primary care including Family Practice, Ob/Gyn, and Pediatrics.

Ultimately, partially shifting the responsibility of managed care off of the PCPs onto another medical support is a key element in enhancing physician communication. The physicians need to have guidelines for access and referrals of patients to clearly define the roles of the specialist and the PCP. Furthermore, the PCPs believe that the specialists need to be available by phone to decide whether or not to proceed with a medical action. Specifically, the PCPs want to see the patients without any hassle referrals.

System Responsibilities to Physicians

According to the physicians who attended the focus group facilitation discussions, overall, they believe that the primary care services should provide sufficient information which defines the roles of the PCPs and specialists, does complete work ups for patients, keeps up professional responsibility, training, and encourages patients to maintain PCP/patient relationship. Also, in the next few years, the physicians believe that the system's responsibilities will be to determine guidelines which

specify what is being reimbursed, deciding between implementing a closed vs. open system, allowing physicians to continue seeing their patients, enhancing interaction between the physician and specialist, and defining roles to determine when and when not to refer a patient.

Also, the physicians believe that the system is accountable for all medical areas including access to information including ER data, a broad patient base, training, especially on ambulatory care, and relieving barriers between family practice and pediatricians. One recommendation from a physician is to help resolve the barrier issue is to have physician "report cards" which gives feedback from other physicians in evaluating each other's performance.

Lastly, a suggestion offered by another physician is to offer a managed care system which allows members look at centers instead of individual PCPs as being held responsible for their care. In other words, the physician is suggesting to offer a variety of primary care services by having a physician representing family practice, pediatrics, Geriatrics, Ob/Gyn, a social worker, and medical representatives in other areas of care to construct different panels in various areas.

Physician Incentives

The physicians claim that it is difficult to change with healthcare reform, because they are not doing the work

that they have been trained to do in their specialty fields. Therefore, the physicians feel that their work can get mundane and burdensome, because the primary care cases are not as difficult as the specialty cases which require much information. Financially, the physicians do not contribute to determining their incomes, and when they get paid in managed care systems. Therefore, physicians need to be offered incentives to drive efficient care, and decides how the physicians will get paid. Physicians want to take responsibility in being involved in defining compensation and fee structures.

Additionally, the physicians want to work in a setting where they can do what they like to do. For example, the physicians want to be able to follow patients over time and not worry about administrative or non-patient care issues. Additionally, the physicians want to spend non-patient time with lifestyle and community health issues. Besides spending more time with patient issues, the physicians would rather work longer hours to be relieved of constant unexpected calls.

After listening to the physician's needs, the issues which need to be further discussed are role definition of physicians and specialists, communication among medical staff members, patient education, retraining of physicians, and empowering the physician to have more work-related responsibilities. These issues will be further addressed in

the development of the best practice model for SHS.

E. Focus Group Facilitation

Another important aspect of evaluating primary care delivery models in the Sentara Health System is to examine how the needs of the customers who are affected by the health system, itself. Therefore, I lead a focus group facilitation with Sentara Health System and community group employees who have expertise in working with the majority of primary care services' users, the Indigent and Medicaid (Interview Notes 2). Participants in the focus group included employees from the Community Health Adult Clinic, CANDII House, SHGH Emergency Department, Hampton Health Department, Beach Health Clinic, SNGH Emergency Department, and SNGH Ambulatory Care Center. The objectives of the session was to access the special and primary care needs of the Medicaid and Indigent, to understand the current issues and problems in serving these groups, and to develop innovative approaches for improving overall health status and primary care for these groups.

Topics discussed in the focus group facilitation included the special healthcare needs of the indigent and Medicaid groups such as accessibility to services, case management, education, preventative and wellness services, continuity of care, transportation, and costs. In addition, the community health employees discussed financial and institutional constraints which are preventing good health

including environment issues, system's lack of understanding of their needs, and social prejudice concerns. Similar to the fundamental purpose of the physician round table, the focus group facilitation provides a greater understanding of how to improve Sentara Health Systems' primary care delivery performance model by focusing on the customer requirements.

Results of Focus Group Facilitation

The results of the focus group facilitation with the community health employees are summarized in the following categories:

Accessibility to Primary Care Services, Case Management, and Education

According to the community group employees, the Indigent and Medicaid members need easy access to specialty care, schedules, child care, transportation, health care providers, and doctors. Another suggestion is that the Indigent and Medicaid users need to feel like they are cared for by giving encouragement to the working poor, generating support groups, family centered care, coordination of care, meeting special nutrition needs, and follow-up services. Third, a special need of the Indigent and Medicaid groups discussed by the focus group is health and wellness education. Education should include why, how, and where services are available. In addition, the Indigent and Medicaid groups should be educated to understand diagnosis and implications.

Preventative and Wellness Services, Continuity of Care, Transportation, and Costs

Other topics discussed in the focus group of Community Group Employees related to the needs of the Medicaid and Indigent Groups include preventative services, continuity of care, transportation, and costs. First, the attendees suggest that preventative and wellness services are needed by the group members including early intervention, health maintenance, checkups, mammograms, or other forms of prevention and wellness. Second, the community care employees believe that the Indigent and Medicaid groups need improved continuity of care, predictability of continuation of services, and limited access to care on a continuity care basis.

According to the Community group employees, another special need of the Indigent and Medicaid groups include transportation to delivery site. Finally, another objective designed by the community employees to meet the needs of the Indigent and Medicaid groups focuses on access to services without increasing the costs. In other words, the community employees suggest that the services could be more affordable to the groups, or more money could be donated to support the working poor.

Financial and Institutional constraints: environment, lack of understanding, and social prejudice

After defining the needs of the Indigent and Medicaid

groups, the next step in the focus group was to determine economical barriers which prevent good health. The Community employees identified the financial barriers for the Indigent and Medicaid group members as having limited income, food, shelter, heat, or medical care. In addition, the focus group participants claim that the Indigent and Medicaid members do not have money for medicine, sick days for low paying jobs, or affordable health insurance. Besides financial constraints, environment issues are also barriers which force the patients to move frequently, and use welfare as a way of life.

In the focus group of community group employees, two other issues were discussed concerning the financial constraints of the Indigent and Medicaid including their lack of health education and social prejudices. First, the community health employees believe that the group members have a poor understanding of preventative health care methods, such as basic nutrition needs. Many of the low income families do not have an education to provide them with an understanding of basic health needs. Also, the community health leaders identified social prejudice as a barrier to good health for Indigent and Medicaid groups, because of stereotypes of the welfare group, the working poor, and in the health care community.

By listening to the suggestions and recommendations of the community employees, the issues which need to be further

addressed are the Indigent and Medicaid members' access to education, transportation, pharmacy, service, and continuity of care in a family-center approach for primary care delivery services. Because Sentara Health Systems provides the majority of uninsured care, the Medicaid and Indigent's concerns will be addressed in the development of the best practice model.

IV. Profiles of Seven Best Practices in the United States

The second part of the project is to use the recommendations and concerns from process mapping, the physician round table discussions. and the focus group facilitation of community employees to determine the best healthcare practice model for Sentara Health Systems. As part of this initiative, I have profiled seven best practices at selected health systems recognized as industry leaders and innovators (Interview Notes 3). These seven best practice profiles include PacifiCare, Friendly Hills, Sutter Health, Group Health Puget Sound, Sharp Healthcare System, Florida Medicaid, and Parkland Hospital. The seven best healthcare systems have been selected for standing out among their competitors in a specific area of excellence (Table 2). The areas of excellence in primary care delivery best practice models include:

- Innovative approach to primary care delivery
- Excellent customer satisfaction and retention
- Wellness and prevention programs
- Exceptional physician partnership or organizational structure
- Strong market share combined with solid financial

results
- Outcomes analysis used to improve quality of care
- Effective use of leading edge technology, especially in clinical support
- Complimentary affiliations with other health organizations
- Community partnership

To supplement secondary research, I have conducted phone interviews with a list of standard questions for executives from relevant organizations like VP of Medical Affairs, VP of Marketing, and VP of Managed Care Strategy (Table 3). Each interview took at least thirty minutes. Participating executives will receive a summary of key information of participating individuals and organizations.

The results from the best practice phone interviews in each area of excellence will contribute to the construction of a Best Practice, or "Wellness" Model for Sentara Health Systems. The results from the phone interviews are summarized below:

PacifiCare

PacifiCare is a leading managed healthcare practice in California, and serves over 700,000 state members. PacifiCare has been selected as a leading healthcare practice for its success in customer satisfaction. Besides offering employers health care coverage for their employees at a fixed rate, PacifiCare has established one of the most effective quality assurance programs. PacifiCare has a team of experts who constantly monitor the medical providers' delivery of care to their customers. In addition,

PacifiCare has installed a utilization review process which is designed to reinforce that patients are receiving appropriate care. For chronically-ill or long term care patients, PacifiCare has a team of nurse case managers who create treatment plans to meet each individual's medical needs.

In each region, PacifiCare has organized physicians and hospitals to treat the members. Besides having easy assess to medical centers which provide quality care, PacifiCare offers a benefits package including physician visits, hospitalization, emergency coverage, prescriptions, and a variety of preventative care services. Additionally, PacifiCare offers specialized services which include Execu-Fit, LifeLink, and Secure Horizons. First, Execu-Fit is one of the nation's leading health education programs providers. The program focuses on employee health while reducing hospitalization costs, absences, and work compensation claims. Second, LifeLink is a mental health and chemical dependency program offered to members who may need personal assessment or treatment. Finally, PacifiCare offers Secure Horizons, the state's largest health plan for Medicare and retirees. Unlike other Medicare plans, Secure Horizons offers fixed costs. Therefore, employers may save 50% over conventional coverage and project their retiree health care costs.

San Diego is a strong region of PacifiCare and includes

40,000 members, along with 50,000 members of Secure Horizons. The IPAs and hospitals are apart the San Diego PacifiCare network, which attributes to its success. One advancement for San Diego PacifiCare's success is the establishment of several pharmacies exclusively for PacifiCare members. The pharmacies deliver prescription drugs directly and by mail to PacifiCare and Secure Horizon members. The pharmacy centers give members convenient accessibility to prescribed drugs, and enhance communication between the physicians and pharmacists. Therefore, the pharmacy centers are providing a greater continuity of care for PacifiCare patients.

Friendly Hills Healthcare Network

Friendly Hills Healthcare Network has been selected as a best practice for developing a successful integrated delivery system. In 1993, Friendly Hills became the first physician integrated delivery system to have tax exempt status approved by the IRS. Friendly Hills' head quarters is in La Habra, California, and consists of Friendly Hills Medical Group with 160 physicians, the Friendly Hills Regional Medical Center in La Habra, a 274 acute bed hospital a dialysis unit, 14 office sites in north Orange County and east Los Angeles County, home care, and tertiary services. Friendly Hills serves over 100,000 members of Medicare, fee-for-service, IPA, and PPO members, and has established contracts with over 24 HMOs.

Friendly Hills Healthcare Network is designed so that their patients are never really discharged, and receive constant care from the physicians. Another important aspect of Friendly Hills' successful practice is their opportunities for the patients to get involved in their health education programs. In addition, the patients do not wait to receive care from the physicians, because Friendly Hills offers many services to help the patients receive immediate care, such as the Telephone Advice System for pediatrics and adults. The Telephone Advice System is available seven days each week from 7am-7pm. On-line nurses take calls from patients who can be treated without visits to the doctors' offices. The Telephone Advice System is one of the many systems offered by Friendly Hills to provide more effective and efficient care to their patients.

Besides offering a variety of services to their patients, Friendly Hills has developed a MAP Program, or a Multi-disciplinary Action Plan, which is a treatment plan for all physicians to follow when treating their patients. The MAP Program allows all physicians to diagram specific diagnoses which is a method designed to standardize treatment of care.

In the next month, Friendly Hills will have merged with a multi-million dollar healthcare organization known as Caremark, which is located in Northbrook, Illinois. Caremark is a provider of health care services including

home healthcare, prescription drug management, physician practice management, nephrology, oncology, and orthopedic services. Currently, Caremark operates in major regions including Kelsey-Seybold Clinic, a 165 physician practice in Houston, and Oklahoma City Clinic, which consists of 100 physicians. Caremark will provide Friendly Hills with more capital, advanced information systems, and other resources needed for a more innovative health system. With Caremark, Friendly Hills will be a top competitor among other California health systems, such as Mulligan or Kaiser Permanente.

For Friendly Hills, the biggest challenge in its future years is to continue as a successful health system innovator in providing the patients with quality care through an efficient patient care system.

Sutter Health

Sutter Health operates 14 acute-care hospitals in Northern California and Hawaii and consists of 3,000 physicians within a total of 16,000 employees. In addition, Sutter compromises six long-term care facilities, 57 physician care centers, 82 independent service facilities, 11 associated physician groups, and three health plans. Its biggest hospitals are in Sacramento, the East Bay and Marin County, and throughout Northern California's rural sector. While organized into three regions, Sutter Health has become an effective integrated healthcare organization with

hospitals, medical foundations, and managed care facilities.

Under the new integrated delivery model, doctors' groups, hospitals, and other types of medical facilities are supervised by one senior executive in each region. As part of the reorganization, Sutter facilities are regional providers who integrate its components on a continuum of care. The integrated delivery system allows one individual and the local boards to determine how the health care needs of the people in each region can be met from a global perspective not from hospitals, physicians, or financial resources. The responsibility of the system is to provide managed care on a prepaid basis to the community to ensure proper care while focusing on prevention.

As a leader of physician education, Sutter has created a leadership development curriculum for physicians throughout the integrated delivery system from IPAs, medical foundations, or hospital staff members. One of the most important aspects in Sutter's integrated model is the development of medical foundations for each of its three regions. The foundation enables the clinical and operational integrated strategies to work together and is at an advantage because it acquires tax-exempt capital. Currently, Sutter has five foundations with 478 physicians, over 2,000 associated IPA physicians, and more than 2,400 hospital staff physicians.

Group Health Puget Sound

Group Health Puget Sound has been selected as a best practice for its success in primary care delivery. Group Health operates 30 primary care facilities, two hospitals, and inpatient and nursing center, and five specialty medical centers. In addition, Group Health serves over 477,000 Washington and Idaho residents. Its strategy is designed to improve the quality of patient care, lowering costs, and increasing access to primary and specialty care delivery. Group Health's healthcare reform focuses on primary care physicians who will manage referrals to specialists and hospitals in order to control costs.

Sharp Healthcare

Sharp Healthcare has been selected as a best practice for its effective and efficient information systems. Sharp has developed a computerized patient record system that includes all clinical sources of information including labs, radiology, physician offices, and other locations. The computerized information system consists of each members visit and diagnoses records and historical information to guide them through current visits. After breaking down the communication barriers among the various departments, Sharp had to replace the different record keeping systems with one integrated information system that would be most beneficial to all departments.

The main components of their information system are a clinical and service quality repository, a point of care

computer systems that can send information where its generated and receive reports where they are needed, and an ambulatory care information systems that serves the multitude of clinics in connecting it with the overall healthcare network. The system contains several priorities including identifying each patient the same way across the network, a consensus of the data included for department information, and a systematic approach to feed information to a patient's record. Sharp is able to have a "master patient identifier" which is used for existing patient records and future visits. Sharp discovered that the information in a patient's record often becomes irrelevant after a few years. Therefore, the charts can be altered easily in the computerized system.

Florida Medicaid

Florida Medicaid is eleven years old, and is a 650 million dollar managed care program which is one of the country's largest establishments. Florida Medicaid consists of over 34 million members. Although only 23 percent of Florida's poor people are in managed care programs, the number is expected to significantly increase in the next few years. The Medicaid program has constant reviews examining quality of care, patient/physician satisfaction, business activities, and other areas of concern.

One of the reasons why Florida Medicaid receives maximum physician and customer satisfaction is its

operational structure. Florida Medicaid operates under block scheduling in conjunction with pod system which optimizes time and space in the system, itself. First, block scheduling is when physician office visits are blocked into a certain period of time and two or three physicians are on schedule for these blocks. This results in improved utilization of office space. In addition, the pod system is an office consisting of six exam rooms. Each physician received three exam rooms which improves patient flow and utilization of space.

Parkland Hospital

Parkland Hospital has been selected as one of the best practices for indigent care. Parkland has established community-oriented primary care programs to work with other HMOs or their own managed care program. The community driven programs are focused on the working poor where patients are free to decide whether or not to stay in Parkland's program. One example of how Parkland contributes to filling the indigent's needs is the nurse and midwifery program. This program allows a woman to request a midwife during childbirth and relieves the obstetrics' work responsibilities.

Parkland has engaged in eight community centers which are designated to help the indigent. The clinics save the hospital over two million dollars by treating patients in the clinics and not in the emergency room. An estimated

figure for a visit at one of Parkland's outpatient facilities is $126 compared to the $49 visit at one of the community centers. The clinics are operated by physicians of the University of Texas Southwestern Medical School. The staff is comprised of diverse backgrounds of half African Americans and women.

One of the neighborhood centers is jointly operated with Presbyterian Healthcare System to fight the health problems of the indigent who live near Presbyterian Hospital in Dallas. The clinic will hold wellness programs, primary health care initiatives, which are helping to reduce costs. The program is affiliated with Parkland's community-oriented program and is designed to offer primary care in indigent populated areas. Parkland spends about 22 million dollars on its primary care delivery system, and the center costs over 300,000 dollars each year. Each year, the primary care center sees 20,000 visits primarily in obstetrics, gynecology, family and pediatrics.

Another aspect of how Parkland reaches the needs of the indigent is the Outreach Medical Services which consists of two medical vans that take care of homeless people. About 12,000 people need use these services each year. Other Parkland projects designed to help the indigent are a Sudden Infant Death Syndrome that provides counseling; Project First Step, which provides health examinations, immunizations, and home visits to the poor; a refugee

program that includes language assistance; and Healthy Tomorrows, a family-focused program to rebuild parent-child relationships and self-esteem for the youth.

V. Development of SHS Best Practice Model in Primary Care Delivery Services

Based on the information obtained from the seven best practice profiles and the previous issues identified from the process mapping, physician roundtable discussions, and the focus group facilitation of community employees, several recommendations for the development of a SHS Best Practice, or "Wellness" Model can be made to improve the System's overall performance of primary care delivery.

First, the new SHS "Wellness" Model should be organized within two fundamental operating principles including maximizing physician and staff time, and completely utilizing space and equipment for each primary care delivery site. The former operating principle may be more effective by using a technique called block management which is suggested by of the best practice profiles, or Florida Medicaid. Block management is the grouping of physician office visits into blocks of 3.5 hours. Physicians and staff are scheduled during available blocks. At most two out of three physicians will be on duty for any one of those blocks. This will result in improved utilization of staff support.

Another recommendation to maximize physician and staff

time is to purchase an appointment scheduling system and implement as a common service, similar to Sharp Healthcare. Because patients spend much time registering in the system, an appointment service would make operation flow more smoothly. In addition, physicians and staff would not be consumed with locating patients records with the standardization of a medical record and lab system which could be implemented at all Sentara settings. Often, the medical staff spends unnecessary time searching for a medical record, because each system varies depending on the primary care site. Therefore, a standardized medical record system would allow the staff to find patients' medical records more efficiently.

Second, in order to maximize on space and equipment to minimize overhead expenses, a recommendation for Sentara Health Systems is to set up each facility in a pod system similar to Florida Medicaid. A pod is an office which consists of six exam rooms. Three rooms per practicing physician will allow pre-and post- exam transition time. This will result in improved patient flow and improved utilization of space and equipment. The pod set up, in conjunction with the block system, provides for the optimal sharing of office space.

Besides maximizing on physician and staff time and on space and equipment, the new Health/"Wellness" Model for Sentara Health Systems will result in four features

including the ability to monitor the health of the population, manage the health of the Sentara Health Systems members, provide education and prevention screening, and manage episodes of disease. From the discussions with physicians and medical staff and various employees of SHS, several parameters are considered in the features of the new "Wellness" Model including screening, education, prevention, health status, health risk, psychological needs, prevention, and lifestyle.

First, monitoring the health of the 1.4 million non-member population will be required as the potential will exist to join in membership of Sentara Health Systems. In contributing to the Wellness Model, several factors should be addressed to meet the public's needs including health status, health risk, education, prevention, and screening. In order to meet the community's needs, the community resources must be strengthened to provide education, prevention, and screening services. Also, Sentara can measure health status and health risk by creating a wellness coalition with other integrated health systems to ensure the patients are receiving the best quality of care.

In addition, Sentara can develop community "report cards" for health status, or a local health information network that provides linkages and information to customers, providers, and the provider's system. Finally, monitoring the non-member population's needs will require Sentara

Health Systems to position the community to bear risk for wellness/health status.

The second feature of the Best Practice or "Wellness" Model for Sentara Health Systems is that the management of the SHS member health will be based on an agreement between the enrollee and SHS. Therefore, a "Wellness/Health Status Contract" may be developed between member and SHS provider describing areas such as the development of parameters, targets, and life cycle guidelines. In addition, education prevention, screening, prevention, and lifestyle education must begin with enrollment through home use of videotape or other future linkage information technology equipment. Furthermore, the 600,000 member population should be stratified based on health status and risk, and an incentive system should be implemented upon enrollment in SHS.

Third, education, prevention, and screening should be provided by SHS, and the member should be responsible for completion. Concerning the Wellness Model, each enrollee should receive general education on their life cycle plan, specific education on expected disease episodes based on health status and risks, and prevention and screening in accordance with guidelines. In addition, lifestyle, psychological needs will be included. The responsibilities of the program delivery will be the SHS and Wellness maintenance provider including mid-level extender, PCP, and the specialist. On the other side, the primary

accountability for a positive outcome will become the patient's responsibility.

Finally, another feature in the new "Wellness" Model to consider is managing the episodes of disease. Although managing the episodes of disease under the new model will require less interaction of medical staff employees, this intervention will continue to occur. In the new "Wellness" model, the member must understand the appropriate measures of action for each disease episode. The place and provider of entry will be determined from the disease acuity. The episodes will be classified in three categories: non-emergent, urgent, and emergent disease acuity. First, non-emergent may be handled at home or on-line with provider. Second, urgent care may be treated at home or in the office, or on-line with mid level provider. Third, emergent care requires physician, PCP, or specialist evaluation in out-patient or in-patient setting.

Included in the four features of the new "Wellness" Model are two other recommendations, namely, a focus on a Health/Wellness Maintenance Physician Model and defining the role of the mid level extender. First, a Health/Maintenance Physician Model will focus on life cycle wellness and health status management. Instead of the PCP acting as a "gatekeeper" for the members, the enrollees will be more accountable for maintaining health status through educational prevention programs. Furthermore, the

Health/Wellness Physician and member will be based on cost benefit, member health status and risk, and physician/patient choice, or relationship.

Second, the mid level extender will become more influential in the new Wellness model. The role of the mid level extender will be focused on prevention, education, and screening. In addition, the mid level extender will assist with home health requirements of members, and manage the members expectations of the SHS plan.

Other recommendations in creating the best practice model for SHS are to change the acute hospitals to long term care delivery settings and to integrate the Ambulatory Care System with Sentara's Insurance, Inpatient, Home Health, and other services (Figure 3a and 3b). Because many patients are long term care, a facility could be designed to offer a continuity of care to the SHS members. In addition, specialists could work in the long term care facility for easier access to patients. Second, a new integrated Ambulatory Care System would increase the communication between specialist and physicians who dod not work in the same facility. Often, the specialists will not talk to a PCP before he/she receives a referral which frustrates the specialist. Therefore, my integrating the Ambulatory Care System with all services of SHS, communication among various generalists and specialists would increase.

By focusing on issues addressed from the process

mapping of SHS' primary care delivery, the physician roundtable discussions, the focus group facilitation of community employees, and ideas generated from the best practice profiles, Sentara Health Systems has the potential to develop the Best Practice, or "Wellness" Model for the future healthcare environment. In maximizing on physician and staff time and utilization of space and equipment while considering the four features of the new "Wellness" Model previously described, Sentara Health Systems will increase its overall performance in primary care delivery services. My recommendations in developing a Best Practice, or "Wellness" Model for Sentara Health Systems, were included with other suggestions developed from the other members of the IBM Healhcare Soultions Consulting Team in a final report.

After Sentara Health Systems receives the final report, the IBM Healthcare Solutions Group has been asked to evaluate the group's acceptance and the success of the new "Wellness" Model which is proposed to be implemented in June 1995. In joining the IBM Healthcare Solutions Group, my first assignment is to evaluate the implementation of the new "Wellness" Model for Sentara Health Systems, which I helped to develop as my senior project for the Jepson School of Leadership Studies.

Table 1

Sentara Primary Care Process Steps - Descriptions

1. Customer comes to Delivery Site
   a) Walk-in

2. Scheduled or Walk In
   a) Check schedule to determine if appointment exists

3. Emergent/urgent
   a) Determine if customer is emergent

4. Intervention/ stabilization
   a) Intervene as necessary to stabilize

5. Register
   a) Customer info: name, address
   b) Insurer info
   c) Reason for visit
   d) Update any changed member info
   e) Collect fee / co-pay (SHP - member, Teach Clinic)

6. Pull chart, prepare labels, etc.
   a) Locate Chart on desk (if appointed, would have been brought to desk prior to visit - previous evening or in morning)
   b) Pull chart from Medical Records if unscheduled
   c) Prepare labels (prior if appointed)

7. Complete Forms (only if new or long time since visit)
   a) Complete Patient Physical form
   b) Complete Insurance forms
      i) SHS: FFS only

8. Wait
   a) Patient waits for nurse to perform triage and/or thake H&P
      i) Navcare: wait in triage waiting area
      ii) SHP, MCC, Optima: wait in reception area

9. Take to Exam Room / Triage Area

a) Escort Patient to area for triage
    i) Navcare: Triage rooms
    ii) MCC: Open triage area near reception
    iii) SHP, Careplex: Exam room which will be used by physician
    iv) Teaching Clinic: ?

10. Triage / H&P
    a) Take H&P, Vital signs
    b) Perform any standing tests

11. Wait for Care Giver
    a) Customer wait to see physician, NP, PA
        i) Navcare: In adult or pediatric waiting area, then move to exam room
        ii) All others: In Exam Rm

12. Examine, Evaluate/assess
    a) Medical examination of customer
    b) Order any required diagnostic test

13. combined w/ 12

14. Perform Diagnostic Tests
    a) Draw Blood, collect urine, take X-rays, as needed
    b) SHP: In Lab area... Patient moved to Lab waiting area
    c) MCC Teach Clinic?
    d) Careplex: in exam room

15. On-Site Analysis?
        i) SHP, MCC, Navcare, Careplex: Full lab & X-ray
        ii) TC

16. Send out to remote diagnostic facility
    a) Prepare specimen
    b) Send to Sentara Reference lab
    c) TCC: use in-hospital ??

17. Wait for results
    a) Customer wait for on-site analysis
        i) SHP: Lab & X-ray waiting area
        ii) Exam Rm: Cplex
        iii) Teach Clinic, MCC??

18. Analyze and report results
    a) Conduct lab analysis, rReview X-ray, etc.
    b) Interpret and document results

i) System???

19. Review results
20. Develop Plan of Care
21. Additional rest or referral ?
22. Write orders, referral
    a) Write Orders:
        i) SHP: Fill out 3 part form (Lab, member, center) - manually tracked until Claim comes in to ADS
    b) Write Referral:
        i) SHP: Use referral form which authorization coordinator loads into Comtec for tracking
    c) Write Prescription
23. Give instructions to customer
    a) Discuss plan of care, orders with customer
24. Discharge
    a) Return encounter form to desk
    b) Print bill
    c) Collect payment
        i) MCC
        ii) SHP: FFS only
        iii) Navcare, Teach Clinic
    d) Schedule follow up internal visit
25. Schedule follow up external
    a) Call consulting physician or diagnostic facility to schedule appointment
        i) MCC: Staff makes call
        ii) SHP: Member makes call
26. Make Follow up Phone call
        i) MCC: all customers called within 48 hours
        ii) SHP: only if high risk on referral, not for routing
        iii) Teaching Clinic
27. Comply
28. SHP: no triggers
29. Action
    a) To Health Status Management
    b) Connect to Health Status Management Process

Table 2

Best Practice Candidate	Area of Excellence
PacifiCare	Customer satisfaction/customer retention
Friendly Hills	Physician organization/primary care delivery
Sutter Health	Integrated Model
Group Health Puget Sound	Primary Care Delivery
Sharp Healthcare System	Information Systems
Florida Medicaid	Medicaid
Parkland Hospital	Indigent Care

Table 3

Phone Interview Questionnaire for Best Practice Models

Name:

Healthcare Organization:

Area of Excellence:

Questions:

1. Name three important things which make you successful.

2. What things distinguish you from other organizations?

3. How successful are you at the following:
    a. customer satisfaction?
    b. physician satisfaction?
    c. attracting the best healthcare provider?

4. How would you define your financial satisfaction?

5. What are your biggest challenges over the next three years?

6. What changes seem necessary to maintain your success?

7. What are the most innovative improvements of Integrated Delivery Systems?

8. Would you agree if a large regional provider contacted you for further information in the future?

***Send summary of phone interview to each best practice healthcare leader

Integrated Health Care Delivery

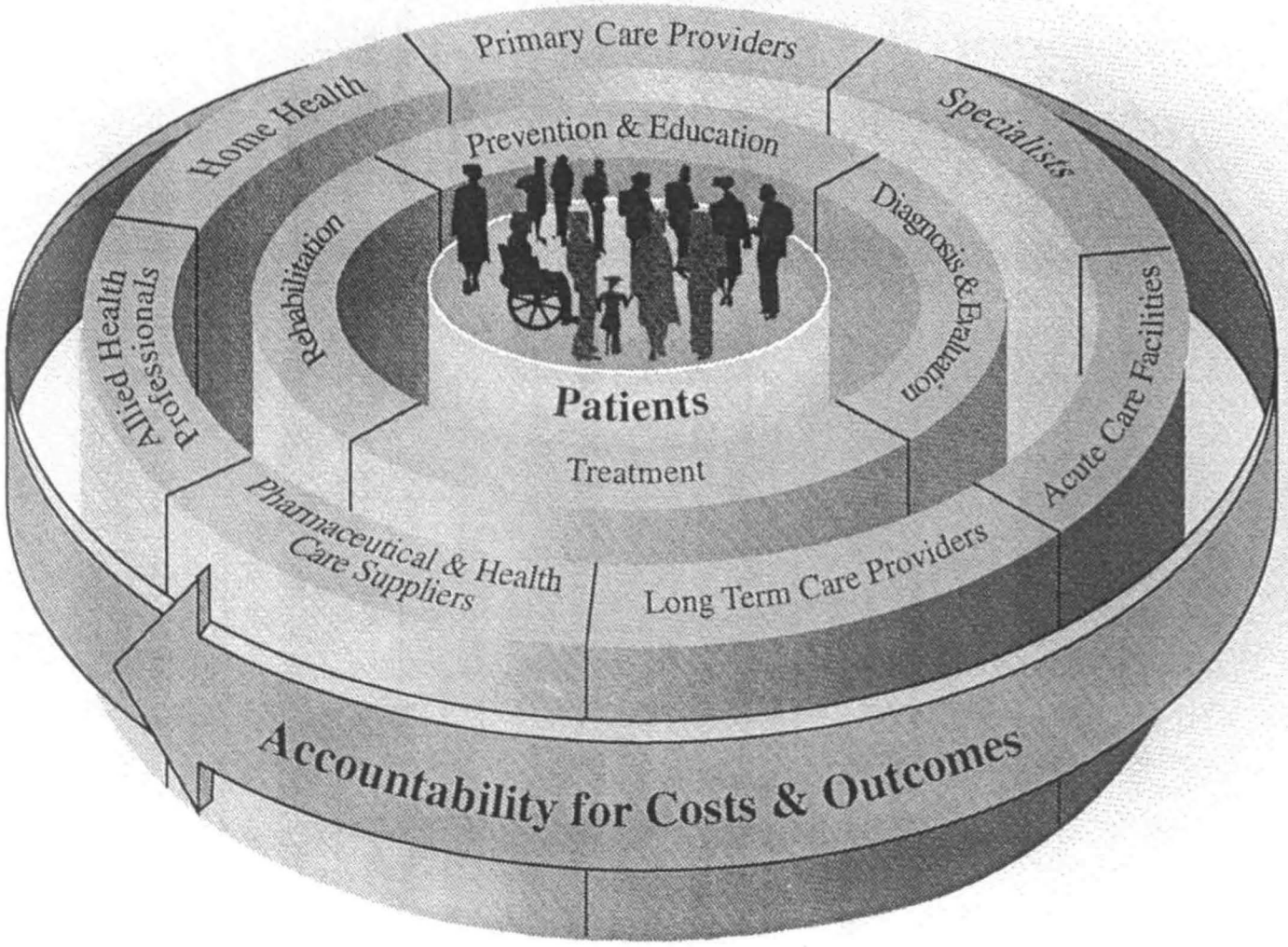
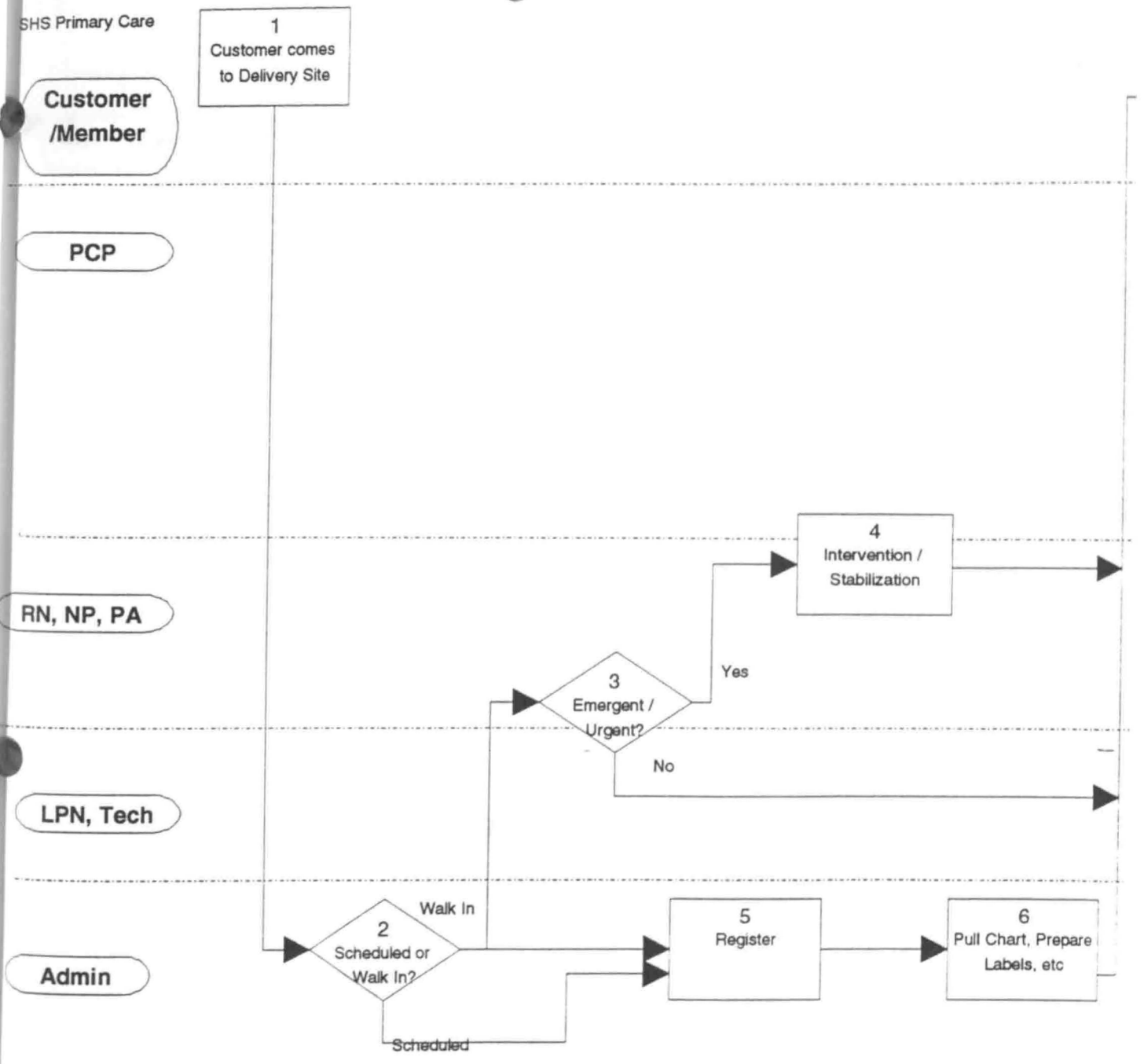
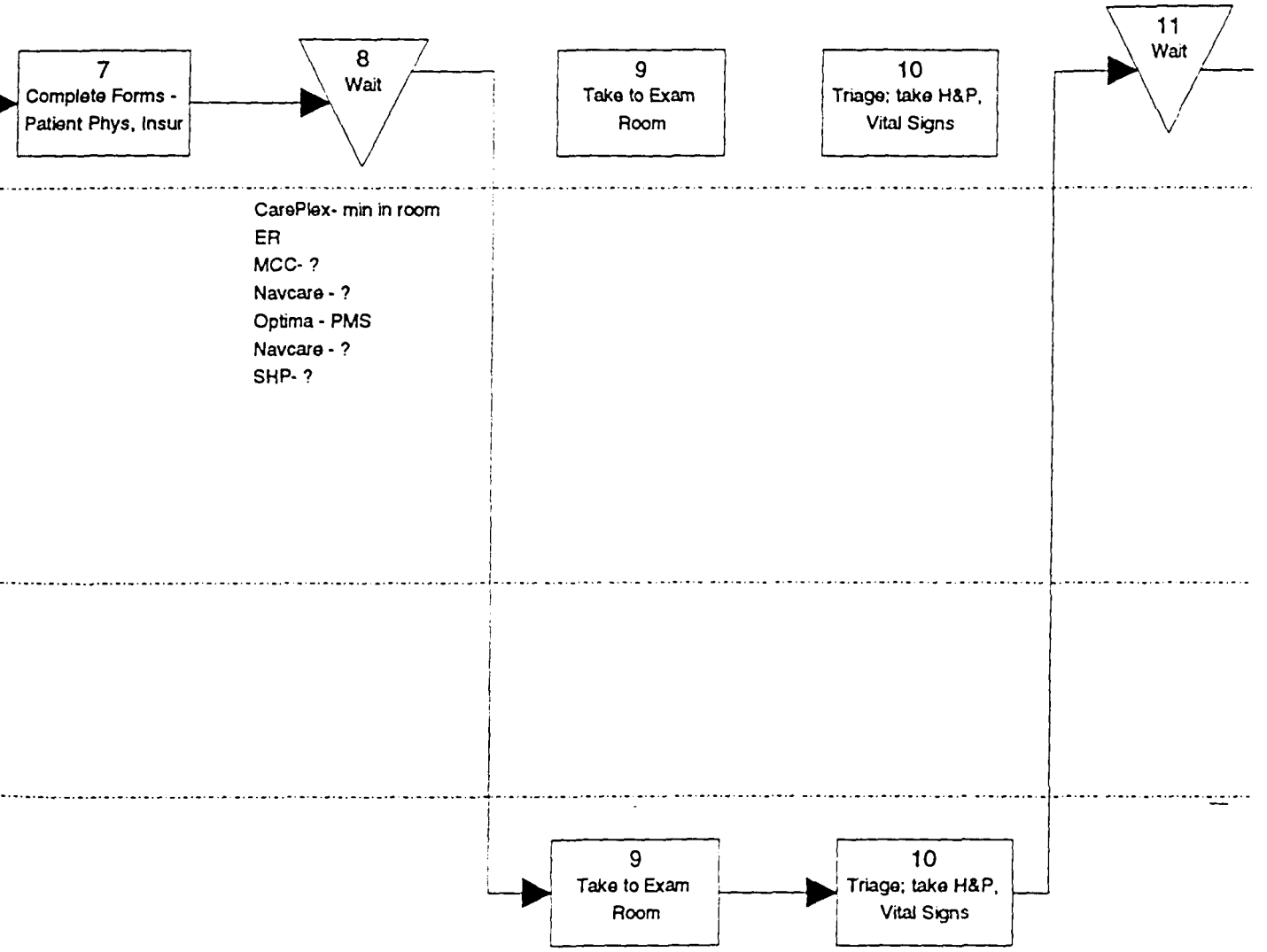


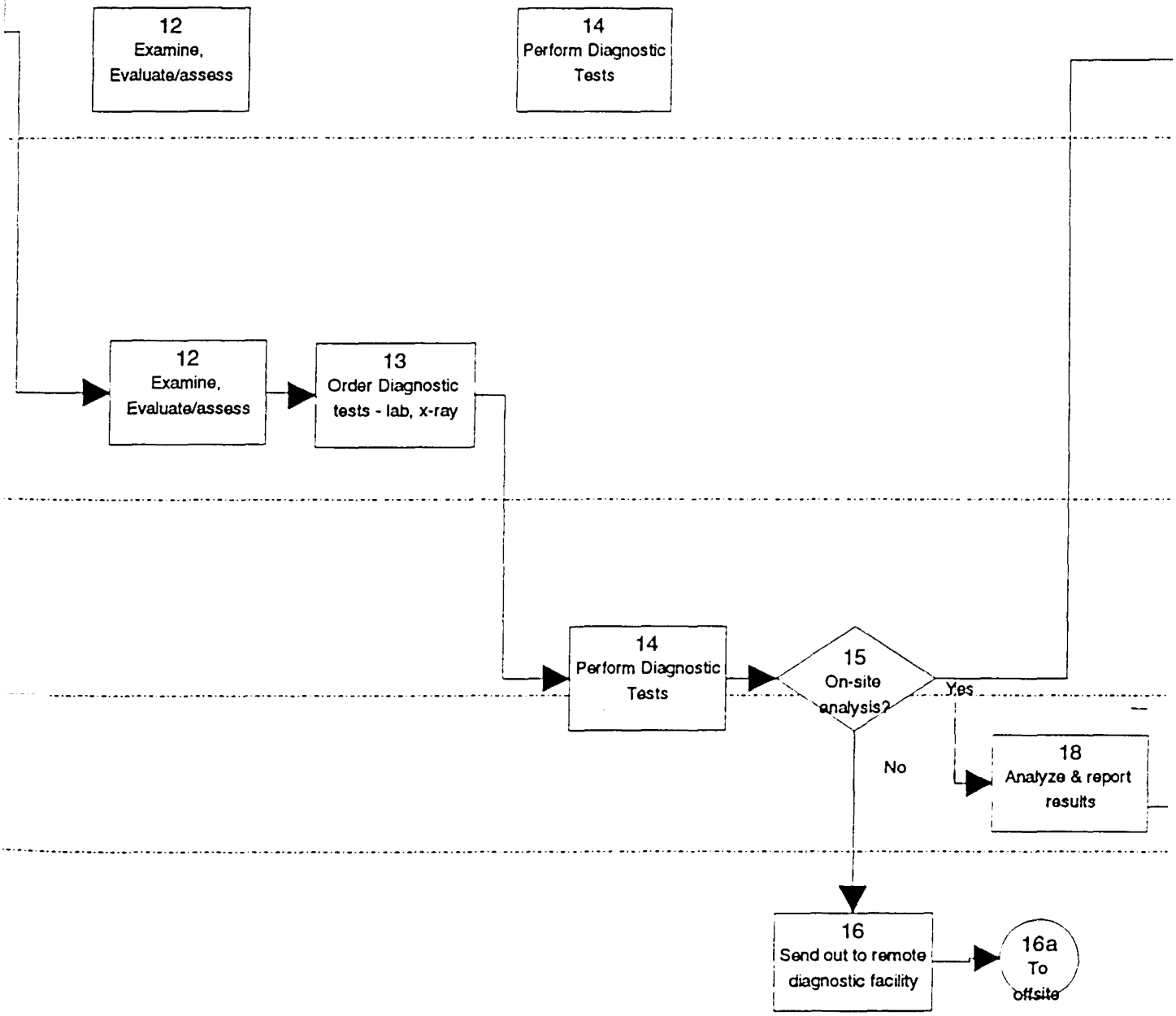
Figure 1

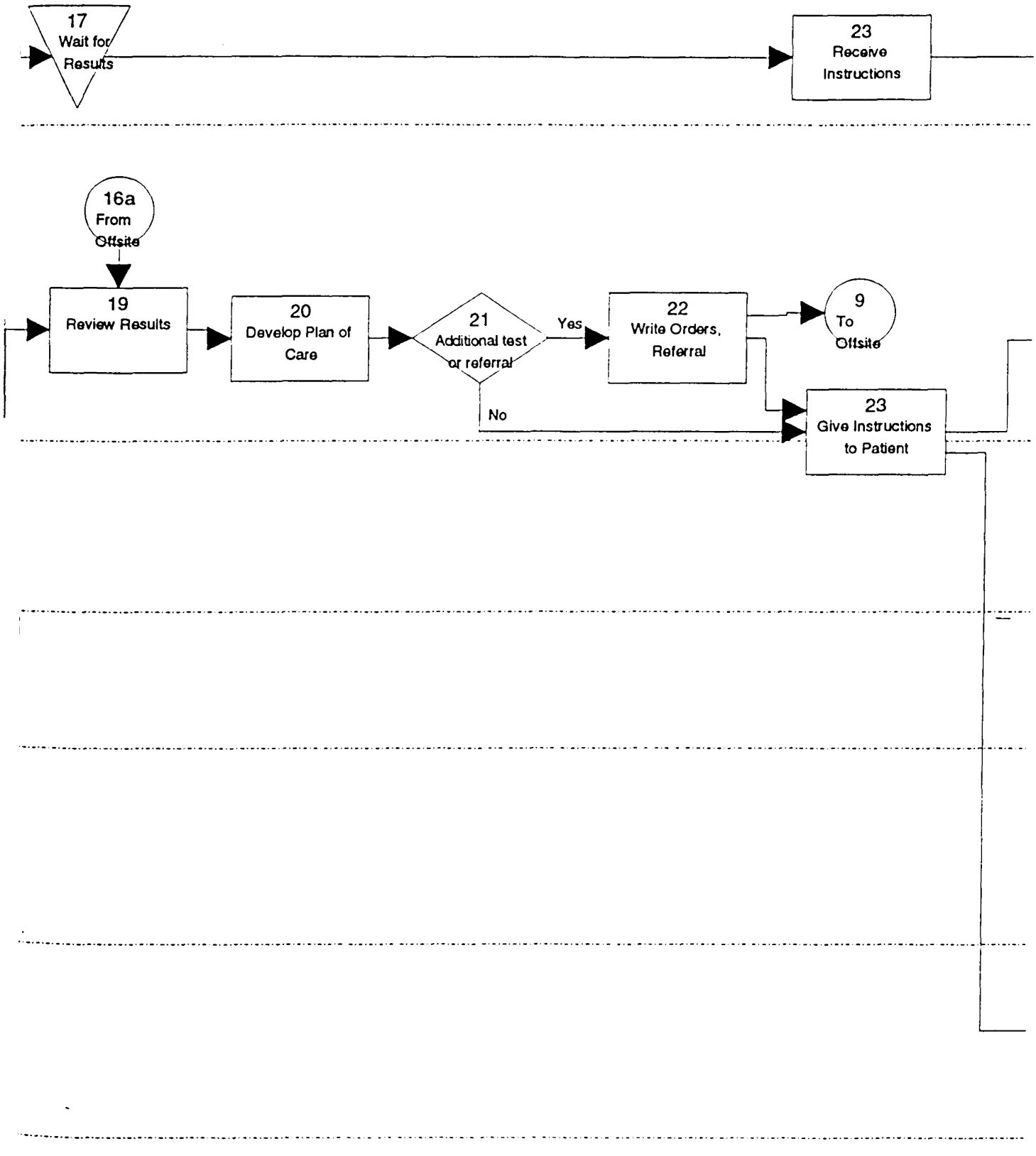
Figure 2

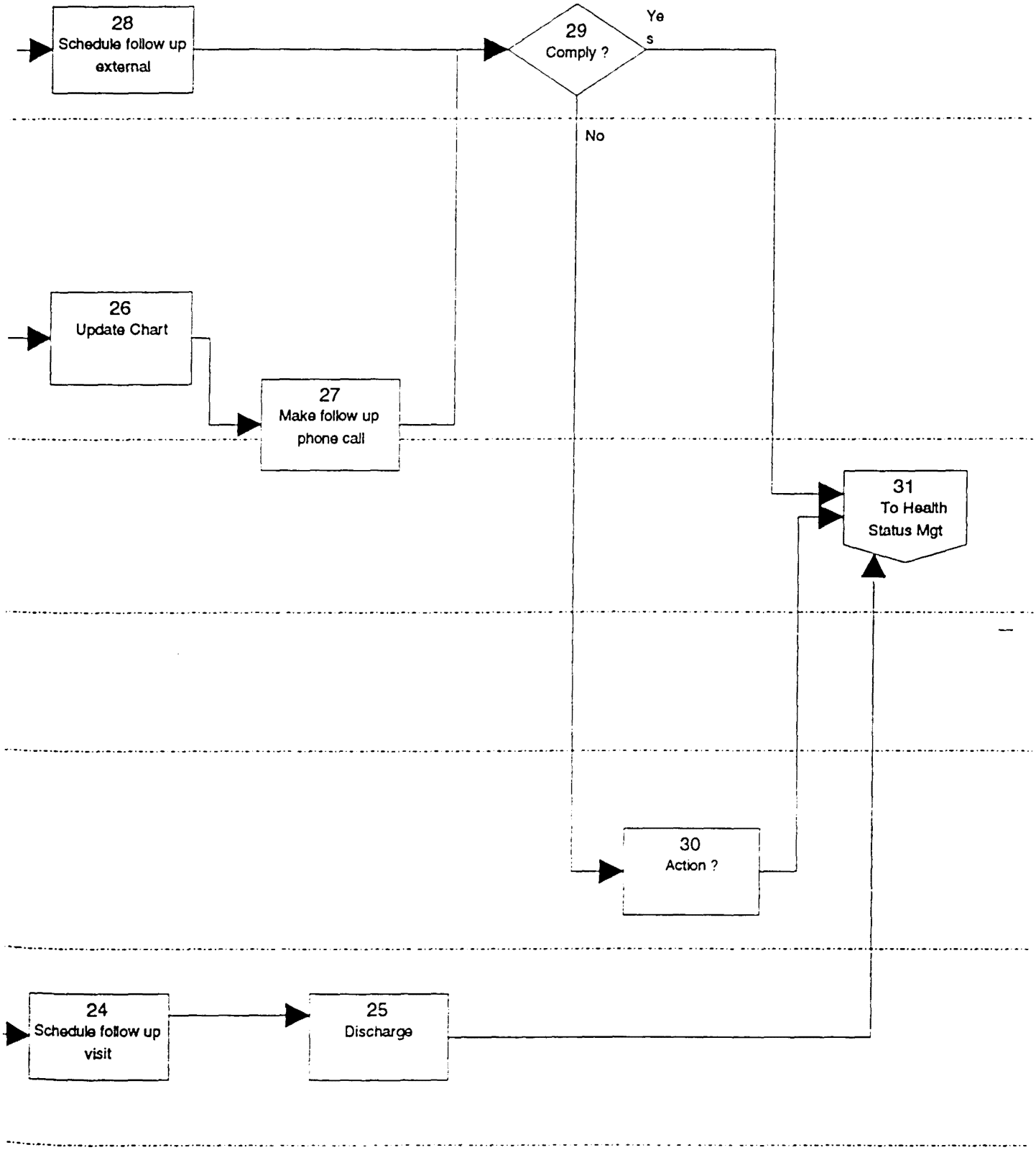


CarePlex-Encompass
ER - n/a
MCC- Manual,
Navcare - ?
Optima - PMS
SHP- ?
Teach Clinic- Manual Block schedule


7
Complete Forms - Patient Phys, Insur
8
Wait
9
Take to Exam Room
10
Triage; take H&P, Vital Signs
11
Wait
CarePlex- min in room
ER
MCC- ?
Navcare - ?
Optima - PMS
Navcare - ?
SHP- ?
9
Take to Exam Room
10
Triage; take H&P, Vital Signs


12
Examine,
Evaluate/assess
14
Perform Diagnostic
Tests
12
Examine,
Evaluate/assess
13
Order Diagnostic
tests - lab, x-ray
14
Perform Diagnostic
Tests
15
On-site
analysis?
Yes
No
18
Analyze & report
results
16
Send out to remote
diagnostic facility
16a
To
offsite


17
Wait for Results
23
Receive Instructions
16a
From Offsite
19
Review Results
20
Develop Plan of Care
21
Additional test or referral
Yes
22
Write Orders, Referral
9
To Offsite
No
23
Give Instructions to Patient


28
Schedule follow up external
29
Comply ?
Ye
s
No
26
Update Chart
27
Make follow up phone call
31
To Health Status Mgt
30
Action ?
24
Schedule follow up visit
25
Discharge

Current Systems Environment

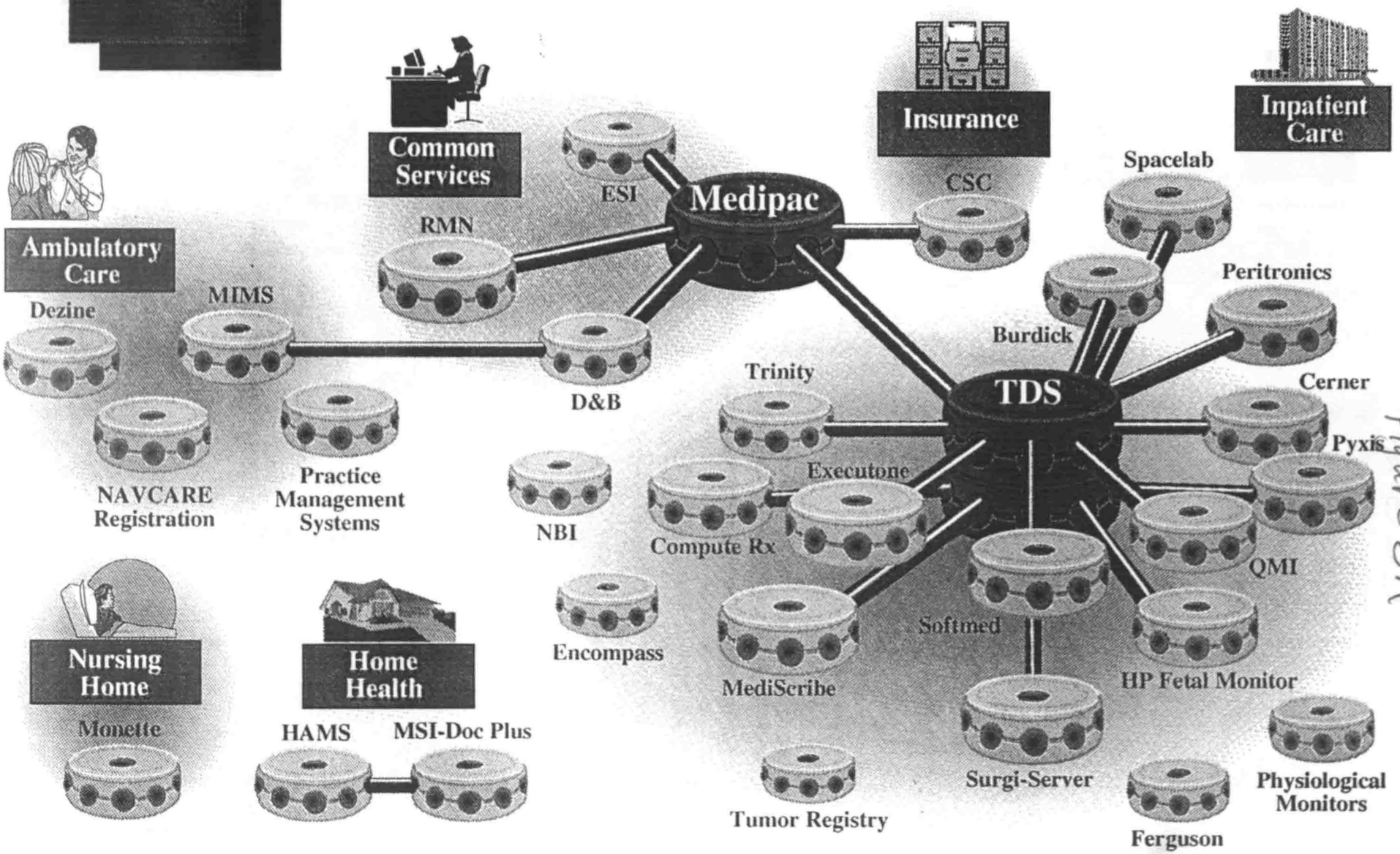


Figure 34

Recommended Systems Environment

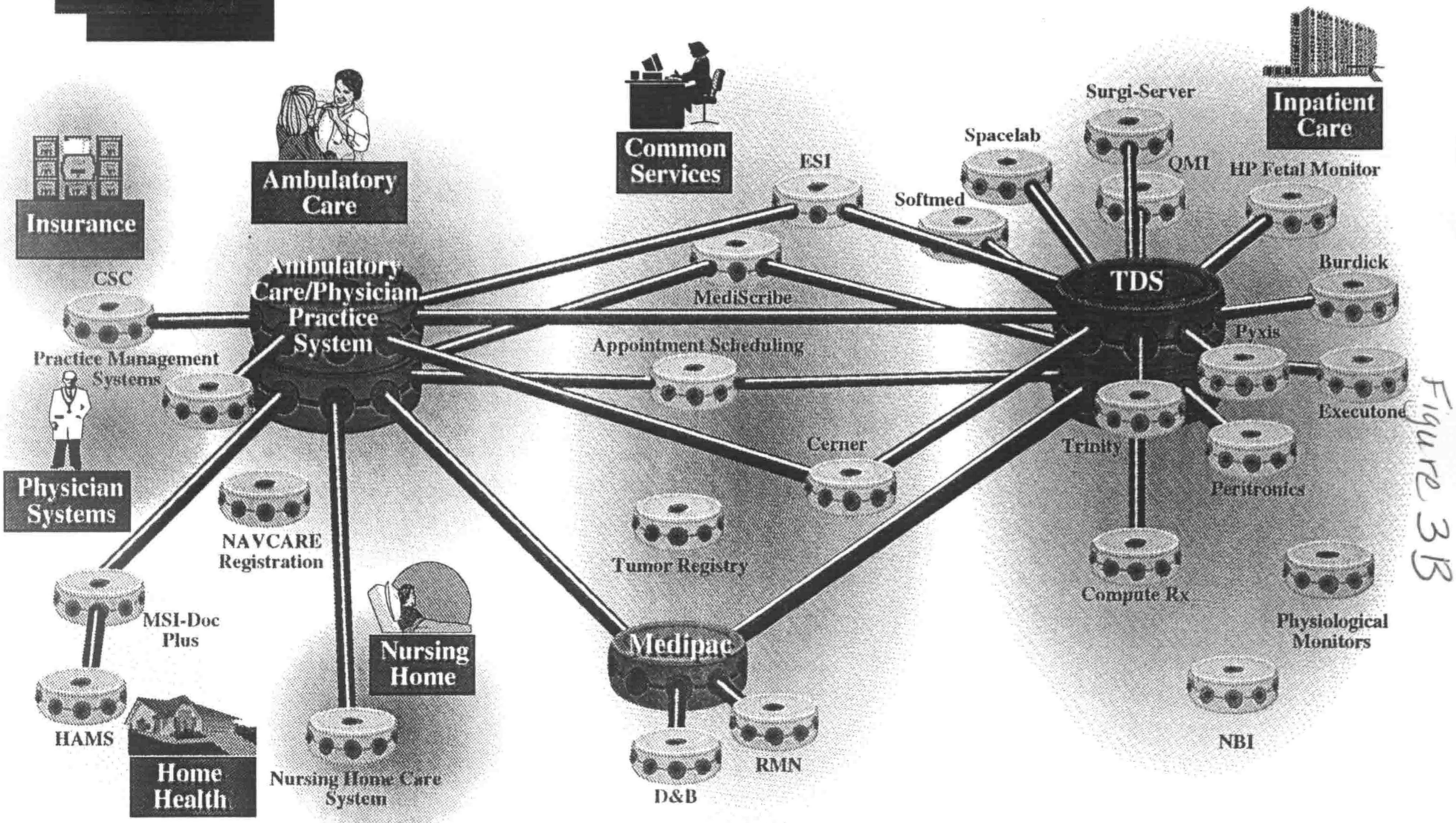


Figure 3B

Literature Cited

Burgher, P. Changement. Lexington, Massachusetts: D.C. Heath and Company (1979).

Coddington, D., Lazarus, D. and Steven, S. "Ingredients for Successful Integration." Modern Healthcare 24 (18 July 1994): 28.

Davis, M. Turnaround: The No-Nonsense Guide to Corporate Renewal. Chicago, Illinois: Contemporary Books, Inc. (1987).

Fields, D. "Institutions for the 21st Century," The Futurist (January-February 1993): 33-35.

Goldston, M. The Turnaround Prescription: Repositioning Troubled Companies. New York: The Free Press (1992).

Hammer, M. and Champy, J. Reengineering the Coorporation: A Manifesto for Business Revolution. New York: Harper Business (1993).

Jick, T. "Implementing Change." Boston: Harvard Business School. (1991).

Judson, A. Changing Behavior in Organizations: Minimizing Resistence to Change. Cambridge: Massachusetts: Basil Blackwell, Inc. (1991).

Nadler, D. "Organizational Frame Bending: Types of Change in the Complex Organization." In Kilmann, R. and Covin, T. Corporate Transformation. San Francisco: Jossey-Bass Publishers. (1988): 66- 83.

Kirkman, B. "Management Without Frontiers: Health System - Convergence Leads to Health Care Management Convergence." Frontiers of Health Services Management 11 (Fall 1994): 1-6.

Kirkpatrick, D. How to Manage Change Effectively. San Francisco: Jossey-Bass Publishers. (1985).

Kouzes, J. and Posner, B. The Leadership Challenge. San Francisco: Jossey-Bass Publishers. (1987).

Kromoz, R., Goodman, D. and Wennberg, J. "The Market Place in Health Care Reform." The New England Journal of Medicine 326 (14 January 1995): 148-152.

Peters, G. "Organizational and Business Issues Affecting Integrated Delivery Systems." Topics in Health Care Financing 20 (Spring 1994): 1-12.

Sachs, M. "Collaboration Versus Competition: Letting the Natural Order Work." Frontiers of Health Services Management 10 (Spring 1994): 40-42.

Ummel, S. "Case Study: From System to Network." Trustee 47 (May 1994): 12-15.

Wachel, W. "Beyond Incremental Change." Healthcare Executive 9 (July/August 1994): 18-21.

Interview Notes 1: Physician Round Table Discussion

February 17, 1995

Discussion with various physicians

Participants: Dr. Gregg Clifford, Consultants in Internal Medicine (9 MDs)
Dr. Jack Drucker, Urologist
Dr. Albert Lee, Rheumatologist
Dr. John Miller, Internal Medicine
Dr. Howard Steer, The Group for Internal Medicine, Inc. (3 MDs)
Dr. George Wong, Family Practice, Bayside Family Practice (3 FT MDs, 2 PTs)

Summary

Issues and Requirements
- Role definition
- Communication among physicians
- ER is a silo, isolated from other care
- Retraining for physicians
- Patient education and expectations
- Marketing and benefits for PCP in "hot seat"
- Empower the physician

Patient/Physician Relationship
- All felt strongly about importance of this link
- Most patients expect to see their own doctors (Wong)
- Members rely on PCP for navigation through care delivery system; on clinical guidelines- alot of info. physicians do not know
- Patient expects physician to ensure that prescriptions won' t interact, etc. physician must be responsible
- Physician/patient interaction is critical (Clifford)
- Be available to patients with problems (Steier)
- Patients want to see their own docs; patient education efforts, health maintenance programs even with referrals; ex. how to come to doctor with bag of medicines
- More efficient communication between specialist and PCP (Miller)

Role of mid-level extenders
- Physicians want to see patients who are having problems
- Some of them will always say we want to see the patient
- Want to see UC walk-ins

- Do not use mid-levels for that
- Use physician extenders in office for routine follow-up, check BP, #s, etc. (Steier)

Scheduling of Patients
- Difficulty with filling in unscheduled with scheduled patients especially on Mondays
- Some locations designate individuals to handle urgent care on given days but this increases chance that patient will not see PCP
- Nurse triage on phone
- Extended hours did not increase volumes, just spread patients out
- Nurse on phone is triage officer (Steier)
- Do wellness plus acute care- 26 scheduled patients and others on one day, some days he sees 47 patients (Wong)

Customer expectations/education/ incentives
- Note: all physicians used "patient"; no one said member or customer even once
- Need not to wait for PCP if really sick
- Marketing and benefits depts. set up PCP by using term gatekeeper and by saying things like "you can go if your PCP lets you/gives you an authorization..." etc.
- Most only motivate for wellness if they have high risk factors (Clifford)
- Patients need education on what to do when visit doc (Miller)

market differently: PCP is case manager-see each other face to face; give office practice brochure, when to call doctor and what he will do for you, office hours, etc. (Wong)

Effects of MC on practice
- With same number of patients, PCP has more visits today because patients cannot go directly to specialist (Miller)
- Members rely on PCP more for navigation through care delivery system (Clifford)
- Benefits say "you can go if PCP gives you referral" (Steier)

Physician Communication
- Major issue
- MC shifts responsibility, communication is key
- In FFS, you did not know who they were seeing
- In MC, communication is better when PCP is referral
- Director; if patient is choosing specialist that PCP does not know, communication is "abysmal"
- Multiple Rxs...different names, patients confused, especially when hospitalized (Miller)

- Decide how to relate to ER, growing problem in Norfolk, repeated workups by residents, call physicians late at 2am, ER docs see others as interfering; no ongoing dialogue between ER and other physicians (Steier)
- More effective communication between PCP and specialist, patients often see specialist before he has time to dictate letter (Miller)

MC Changes Needed

- MC shifts responsibility, communication is key; need to establish guidelines for access, guidelines for referral; need to clear identify role of specialist and PCP; specialists need to be available by phone, decide whether or not t proceed (Drucker)
- See patients with no hassle referrals (Lee)
- Difficult to specify #s of visits-PCP does not need to keep up with this (Miller)
- Supportive of clinical guidelines (Wong)
- Roles

Individual Physician Comments

- Baker- specialists better at team patient care...more of system approach. Gps more inclined to have closer one-to-one relationship

System Responsibilities to Physician

- Information; defining of roles, ER doing H and P, not triage
- Do complete workups, keep up professional responsibility, training; have patients maintain dr/patient relationship (Clifford)
- System responsibilities- guidelines will be seen in next few years nationally especially in terms of what is reimbursed; closed vs. open system; freedom, continue to see patients; good interaction and communication between PCP and specialists; define role what to refer, when not to (Drucker)

Accountability for all information-access to medical records seamlessly (including ER) supply broad-base, patient base, no restrictions to certain type; training-especially on ambulatory care; CME; basic care of simpler problems; gyn, etc. do away with artificial barriers between FP, pediatricians, etc. report cards-feedback from other docs (Steier)

Physician Round Table Discussion Interview Notes

March 24, 1995

Participants: Dr. Maizel-FP-Executive Council Family Practice (3MDs, 1 DO)
Dr. Mary Graham-FP-SHP
Dr. Ken Mullendorf-OBGYN
Dr. Sumner Bell

Summary: What is functional definition of primary care?

Maizel- comprehensive coordination, continuous

Customer Expectations/Incentives/ Education

- Switch Hitters-trying to redefine; most women prefer; may need some retraining; patients need to be trained when to call (Mullendorf)
- Alternate PC for controlling chronic disease patients and in-patients; patient education so they will go to ER; may need alternative path when they get their to lower hospital costs (Bell)
- Adolescents-being missed for education; healthy lifestyle-what to expect from medical community; senior citizens-tremendous overutilization (Graham)
- Need to be sure you are not inconveniencing people who are playing by the rules
- Non-urgent players are penalized by waiting in lobby (Bell)
- Educate patient, have designated urgent care slots (Maizel)
- Send letter now (Bell)
- They use higher walk-in fee (Maizel)
- Customer expectation-patients with MC think $10 co-pay entitles them to anything (Maizel)
- Care manager instead of gatekeeper; managing customer expectations-benefits/responsibility at entry into system-benefits and enrollments, not by PCP (Maizel)

System Responsibilities

- Hassle-free routine management-there are still procedures which are never defined such as breast lesion; when to access, when to open...; Sentara better than most
- Most cost efficient provider is one who knows patients; need phone access to specialists
- Triage nurses; need more weekend prevention-help for working parents like mammograms, immunizations; need long term relationships with community; work with schools and community groups; what is a cold, what is self care (Graham)

- Computer integration
- Educate patients
- Reach unserved population
- Members must look at center not individual as primary source of care
- Look at demographics to construct panels in different areas

As we move forward what do you want or need?

Need security-patient flow from partner (MCO); do what I have been trained to do; specialty care not primary care; see more difficult cases; less info. gathering and mundane work; offer incentives; physicians should be involved in defining compensation and fee structures that take responsibility

Mid-levels

- Trained at community-oriented primary care at Charleston, SC, need a PA for every 2 MDs
- Do patient education, can show no flags for follow-up phone calls; employer site-mid-level go out to do BPS; diabetes training
- Have generalist mid-level working with specialist and vice versa (Maizel)

MC Changes Needed

- Community outreach-in one community, trained bartenders to do BPS-black community-lots of hypertension; need EMR-pull up everyone with asthma-access to info.; home visit can really pay off for families with high disease level

Physician Communication

Need primary care teams- FP/OBGYN/PEDS; more difficult in large mobile community; breakdown specialist/primary care provider; call it continuous care

Interview Notes 2: Focus Group Facilitation

March 17, 1995

Discussion with Community employees

Accessibility to Primary Care Facilities, Case Management, and Education Programs

- indigent and Medicaid need access to care, transportation, schedules, child care, etc.
- health education programs for indigent and Medicaid
- education include how, why, and where services are available
- understand diagnosis and implications

Preventative and Wellness Services, Continuity of Care, Transportation, and Costs

- health maintenance programs, mammograms, other forms of prevention
- Indigent need continuity of care
- transportation to delivery site for Indigent
- access to services without increasing costs
- more money donated to support working poor

Financial and institutional constraints: environment, lack of understanding, and social prejudice

- Financial barriers for indigent are limited income, food, shelter, medical care
- Indigent do not have money for medicine, sick days, and insurance
- Need better understanding of healthcare needs
- Eliminate social prejudice against welfare and working poor

Interview Notes 3: Best Practice Phone Interview Notes

March 31, 1995

Phone interviews with Healthcare leaders of Seven Best Practice Models

PacifiCare

- serves over 700,000 members
- offers employers healthcare coverage at fixed rate
- experts monitor delivery of care to patients
- utilization review process
- nurse case managers for chronically-ill
- regions of physician teams w/nurses
- Execu-Fit, LifeLink, Secure Horizons (health ed., mental health and chemical dependency program, largest Healthcare plan for Medicaid retirees) pharmacies deliver medicine to homes

Friendly Hills

- emphasis on primary care
- patient never discharged through system
- health education, patient continually involved in own health
- patients don't wait to receive care; several systems including Telephone advice system; Pediatric/Adult care
- 100,000 members of Medicare, fee-for-service, IPA, PPO members
- continuity of care
- Telephone advice system from 7a.m.-7p.m.
- MAP-Multi-Disciplinary Plan-treatment plan for all physicians to follow, physicians diagram specific diagnoses to standardize treatment of care
- merger with Caremark, more capital

Sutter Health

- 14 acute care hospitals in N. Calif. and Hawaii
- 16,000 employees with 3,000 physicians
- hospitals, foundations, MC facilities
- one senior exec, in each region
- regional providers under continuum of care
- foundation at advantage b/c acquires tax-exempt capital

Group Health Puget Sound

- 30 primary care facilities
- 2 hospitals
- inpatient and nursing centers
- 5 specialty centers

- primary care physicians manage referrals to specialists to control costs

Sharp Healthcare

- computerized patient record system including labs, radiology, physician offices
- clinical and service repository that sends information when needed
- ambulatory care information system that serves clinics integrated in overall system
- has a master patient identifier to discard irrelevant files after a while

Florida Medicaid

- 34 million members
- million dollar MC program-country's largest
- significant operational structure including block scheduling and pod system
- block scheduling: 2/3 physicians scheduled, blocked in
- pod system: 6 exam rooms, 3 rooms/physician inc. patient flow and utilization of space

Parkland Hospital

- community-oriented programs
- working poor is focus
- nurse and midwifery program: woman can request midwife during childbirth
- 8 community centers designed to help indigent
- $49 dollar visit compared to $126 dollar visit at outpatient facility
- operated by Univ. of Texas Southwestern Medical School
- Clinics hold wellness programs, primary care health initiatives to reduce costs
- 22 million on primary care delivery
- center costs over 300,000 dollars each year
- 200,000 visits in gynecology, family, and pediatrics
- Outreach Medical Services which transport homeless people
- Sudden Infant Death Syndrome, Project First Step, and Healthy Tomorrows

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44 S BROADWAY
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Commentary

By Dean C. Coddington and Steven S. Lazarus

Ingredients for successful integration

As new healthcare delivery system relationships are being developed on a regional basis, considerable attention is being devoted to the various integration models evolving for hospitals, medical groups and health plans.

The Center for Research in Ambulatory Health Care Administration, the research arm of the Medical Group Management Association, has sponsored a study on the key factors for successful healthcare integration. The data were collected at two levels, with the focus on 10 integrated systems (See map). Each was studied through in-depth interviews and a detailed analysis of descriptive material. In addition, 50 other organizations, either moving toward integration or having achieved that goal, also provided information.

The head of a large multihospital system recently asked: "What are the unique characteristics of integrating healthcare systems? And what are the common threads running through these organizations that set them apart from traditional hospitals and medical groups?" In our judgment there are several key factors or themes:

Physician leadership. One of the most pronounced themes running through integrated systems is the new role of physicians in leadership positions. Doctors often manage the entire business, or are paired with a professionally trained healthcare administrator to run the enterprise. Either way, physicians play a key role in strategic decisions and policymaking.

Two of the important questions to be addressed are: How do you identify potential physician leaders? And, do they need to be primary-care physicians? We have found that every healthcare community, even the most fragmented, has physicians who are capable of stepping forward to serve as leaders or who are willing to learn the role. And, many of those potential leaders are specialists. Key characteristics of a physician leader are the ability to see clearly what it will take for the entire organization—physicians, hospital and health plan—to be successful, and a willingness to set aside personal agendas and financial objectives to help the entire organization move ahead in terms of positioning for the future.

Strong primary-care component. Every integrating system has emphasized the development of primary care through recruiting additional family practice, general internal medicine and pediatric physicians. In some systems, OB/Gyn is considered primary care, and this specialty also is being emphasized.

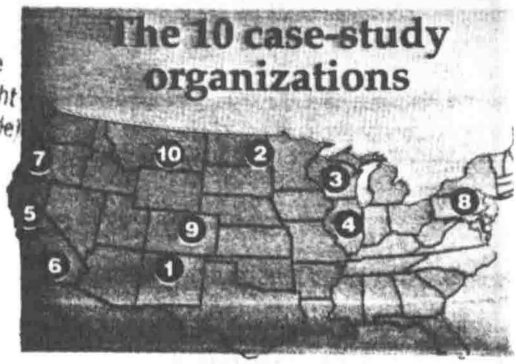
Most integrating systems long have recognized the importance of primary care as a feeder network for specialists. However, in a healthcare future likely to be dominated by managed care and capitation, the emphasis is shifting to primary-care physicians as the managers of patient care for the entire system.

Mr. Coddington, left, is president of BBC Consulting and Research, Denver. Mr. Lazarus is associate executive director of the Center for Research in Ambulatory Health Care Administration, Englewood, Colo.

Most integrated systems also take primary care to their customers by establishing satellite offices. This is for the convenience of patients, especially those living in rural areas.

Although many integrated healthcare systems began their emphasis on primary-care satellites as a source of referrals for specialists, most now have switched to thinking of their primary-care satellites as necessary for providing care to their health plan customers. A satellite strategy also positions systems to offer broad geographic coverage, an important consideration under healthcare reform.

Ability to shift capital. Integrating systems find ways to shift financial resources to where the dollars are needed most. For example, a physician-hospital organization often needs to invest in developing its primary-care network or starting a health plan. Group practices often do not have the capital to expand their networks, recruit and subsidize more physicians or start a health plan. Not-for-profit hospitals find it difficult to invest in medical practices for fear of violating laws prohibiting private inurement or (in some states) the corporate practice of medicine. But integrated systems can more effectively accomplish the needed redeployment of capital.



1. Presbyterian Healthcare Services, Albuquerque, N.M.
2. Fargo Clinic/St. Luke's Hospitals Meritcare Fargo, N.D.
3. Marshfield Clinic/ Saint Joseph's Hospital Marshfield, Wis.
4. Carle Clinic Association/ Carle Foundation Hospital, Urbana, Ill.
5. Sutter Health, Sacramento, Calif.
6. UniHealth America, Los Angeles
7. Oregon Medical Group/Sacred Heart Health System, Eugene
8. Geisinger Medical Center, Danville, Pa.
9. Kaiser Permanente/ Saint Joseph Hospital Denver
10. Montana Associated Physicians/Saint Vincent Hospital, Billings

Graphic by Jerry Park

Satisfying customer needs. Based on the research and our experience, integrating systems are even more customer oriented than traditional hospitals or physician groups. A central tenet is to focus on consumer needs. This may mean providing accessible primary-care outlets, improving cost-effectiveness or enhancing services (such as reducing the time it takes to set up an appointment or adhering more closely to office schedules).

Information system development. The databases and information systems of integrated systems encompass everything from common medical records to financial and demographic information on customers. While most of the efforts to develop common information systems are in the developmental stage, the research shows that many large integrating organizations are committing substantial financial resources (millions of dollars annually) and management energy to these systems.

Physician leaders and managers believe it will be necessary to have real-time information systems covering physician offices, hospitals, health plans and customers in order to manage and control utilization and costs in a system that will be dominated by capitation. Comprehensive patient-care databases will be used to study treatment patterns to identify more efficient or better quality approaches to patient care. ■

This article is based on the book "Integrated Health Care: Reorganizing the Physician, Hospital and Health Plan Relationship," published by the CRAHCA.

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Judith Grandin

Coordinating Efforts to Remove Barriers to Workforce Balance

To achieve the goals of universal access and quality care, this country will have to get through several tiers of barriers. The first tier of barriers exists for all health care professionals. A second tier consists of discipline-specific issues. A third tier represents intradisciplinary barriers that contribute to the difficulty in enacting effective policies. Issues surrounding organizational structures, educational curricula, payment for services, and professional role boundaries must be addressed. Isolated efforts by various disciplines have had minimum success in implementing a coordinated plan that improves the health care system in terms of access and quality care goals. Dialogue among professional group members is necessary to formulate a unified plan for action and to develop an understanding of the issues that have impeded progress in meeting the country's health care needs.

All provider groups must address access barriers to improve the delivery of health care services. It is known that the aggregate health of groups is directly influenced by their socioeconomic status. For vulnerable populations and those living in underserved urban and rural areas, access is likely to remain an issue unless incentives are provided to correct the numbers and maldistribution of health care providers caring for these groups.

Incentives for Change

Uncertainty in the political and public arena as to reshaping the health care industry is not forestalling efforts to find less costly means of providing health care amidst an explosion of knowledge, technology, and information. These alternatives pose risks for both academic health centers and the various provider groups challenged to create an appropriate mix of providers to meet the needs of a reformed health care system most likely dominated by cost controls. The task of creating this workforce will be achieved through collaborative, interdisciplinary relationships that prepare various health care professionals to meet the projected health care needs of the nation. Medical, nursing, and other health professionals must come together in an emerging system of managed competition to focus on outcomes and interdependent systems of care. Traditional, tightly defined professional boundaries perpetuate barriers to a unified approach for delivering health care. These must be replaced by standards of care that are based on expertise and experience and which will guide practice.

The future will be more oriented towards wellness, health promotion, disease prevention, and elimination of risk factors within the environment. Consumers will play a major role in decision making and in self-care activities to maintain high levels of wellness. A dearth of health services research compounds the dilemma in designing the optimum health care delivery system and in addressing primary care problems. This is largely due to funding priorities that favor biomedical research over primary care research, the poor image of primary care, and the lack of primary care researchers available to mentor students.

In the future, quality of care will be epitomized by community-oriented primary care (COPC) delivery systems, which combine the traditional principles of primary care and public health in the planning and delivery of health care services. Some prepaid groups are attempting to provide "comprehensive care" by meeting the health needs of populations and providing health promotion and risk reduction services. The COPC model, however, clearly distinguishes between "primary care" and "COPC" and requires interdisciplinary teamwork among health care providers in concert with the community. This model implies that a primary care practice will take responsibility for all members of the community, regardless of the ability to pay, geographic location, or cultural and ethnic barriers. Efforts must be made to increase the role of community organizations and leaders in planning and training by developing partnership initiatives that will aid in training students in rural, inner city, and other medically underserved areas.

Market forces, whether under the rules of managed competition or a "single payer" system, have and will continue to create incentives to keep people well and promote alternatives to high technology interventions. Approximately 45% to 65% of urban populations likely will receive care under managed care or health maintenance organizations (HMOs) by the year 2000. The shift in delivery of services will reflect the importance of primary care in solving cost and access problems and underscore the need to effectively recruit, train, and retain professionals to provide accountable, quality, community-oriented, culturally competent care. The importance of primary care providers as case managers, and providers within a managed care system should be addressed by federal policies that encourage practitioners to select careers in primary care based upon an equitable system of compensation, workload, and liability.

Overcoming Barriers to Achieving Workforce Balance—Organizational and Professional Issues

The structure of academic health centers must be realigned to strengthen the position of primary care, become accountable to society, and implement initiatives to develop faculty competencies reflective of the consumer's changing needs. The current complex structure of most academic health centers inhibits the process of moving toward a focus on community-oriented primary care. Insufficient numbers of primary care physicians and an overabundance of physician specialists reflect the predominance of an outdated medical model approach to health care, research, and education. An imbalance in power within these settings dominated by specialists and specialist-generated revenue adds to the inertia. This barrier is further illustrated by a system of medical education partially controlled by numerous accrediting boards and societies in which special interests influence policy decisions. Changing the mix of physicians to create a balance between generalists and specialists may be facilitated not only through federal financial incentives that decrease the numbers of specialty residencies and fellowships, but also by regionally restricting residency slots in specialty areas. This would offset the inclination of academic health centers to maintain residencies as a source of inexpensive labor.

The status of nursing within academic health centers also will change to accommodate health care reform. While acute care generalist nursing services will always be needed, a greater percentage of these positions must be filled by nurses prepared at the baccalaureate level, the proposed basic requirement for nursing practice. Nursing education, as well as medical education, should reflect more accurately the needs of a changing health care system and the competencies necessary to meet these needs. To accomplish this, divisions within nursing must be mended to fuse the gap between nursing education and nursing practice. Nursing faculty must strive to form collaborative relationships with community and hospital-based clinical agencies and enhance community experiences for students. Although partnerships between academic nursing and clinical practice are evolving, difficulties continue as clinical staff struggle with increasing caseloads, rising acuity, and limited resources, while educators are pressured by requirements for promotion and tenure. Furthermore, a lack of unity within the profession with regard to roles, titling, and credentialing perpetuates the problem.

Outdated curriculum models must be restructured in medicine and nursing to incorporate public health concepts, and cultural, ethnic, and population-specific knowledge. Clinical skills must be current. Practitioners also must be able to manage large volumes of information and continue life-long learning. Academic health centers must strive to develop interdisciplinary curricula that maximize the strengths of various disciplines.

Implementing the COPC model will be difficult unless the mismatch in the educational content for resident physicians and advanced practice nurses (APNs) is corrected to reflect actual clinical prac-

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tice. Development of competencies in skills, values, and attitudes relevant to the practice of primary care must become a focus of academic health centers. Not only will students be required to develop new competencies, but clinically adept faculty must be augmented, developed, or retooled to prepare for reform.

The demand for hospital-based advanced practice nurses will increase with proposed changes in medical and residency coverage, and the need also will increase in community-based settings. The acute care gap may be filled by hospital nurse practitioners, who will provide services on general units of nonteaching hospitals, and nurse associate residents, who will replace house officers in specialties already in oversupply. Professional and legal barriers must be eliminated to allow full utilization of APNs in the workforce. Legal barriers that restrict scope of practice, such as requiring physician supervision, limiting prescriptive authority, and restricting reimbursement must be eliminated. Professional barriers that restrict APNs from participating in managed care organizations or hospital practice and prevent the purchase of malpractice insurance also must be abolished. Relaxation of the boundaries between medicine and nursing and collegial support will be necessary to achieve these goals.

Under the current structure of many academic health centers, promotion and tenure criteria emphasize scholarly work reflected in grantsmanship, research, and publications. The resurgence of student-centered education will necessitate changes in this focus to reward excellence in teaching, practice, and service. There needs to be a balance that continues the expansion of knowledge through research, as well as focuses on student learning. Achievement of this balance will most likely occur when academicians form collaborative relationships with each other and with practice-based providers. Overcoming the various organizational cultures, milieus, deficits in resources, and the mistrust that has evolved as a result of these factors will create a challenge in the future.

Career counseling and admissions policies at the undergraduate and graduate levels must be designed for future primary care practitioners. Minority students, nontraditional students, and applicants from rural areas might be more likely to choose primary care careers in medicine and nursing. A shift toward student-centered education will be necessary to recruit and retain these health science students. Success in motivating these students to return to communities to provide primary care services will only be achieved, however, if academic health centers place value on primary care, emphasize primary care curricula, and require students at all levels to gain experience in community settings.

Financial Issues

Medicare, and in some states Medicaid, dollars contribute to residency training in hospitals or hospital-affiliated programs, with expenditures of approximately $1.5 billion per year on direct graduate medical education (GME) and additional support in indirect GME funding. GME funding policies under current federal regulations encourage hospitals to maintain lucrative specialty residencies and control practice sites. Teaching hospitals frequently rely on residents for lower cost care and significant proportions of training support monies generated by hospital-based specialists. Community-based practice sites are rarely reimbursed for their training contribution.

Currently, the complex structure of many academic health centers is such that funds generated from hospital-based clinical practice are used to support overhead and faculty salaries. Furthermore, in many health centers and hospitals, the department and clinical chairs frequently hold joint appointments with the hospital and academic center. Rarely are these influential faculty representative of primary care providers, but in most cases they represent specialties that use high technology and produce substantial income for hospitals. Additionally, biomedical research funds are likely to be channeled into this system rather than directed to primary care research. Current benefits offer little incentive for academic health centers to shift toward strengthening primary care since a major portion of hospital income and funded research is generated by academic health center-hospital affiliated specialists.

Enactment of financial incentives to support shifts of educational funding from hospitals to higher education institutions and community agencies that participate in education of health professionals will be required to change workforce balance. Specifically, GME payment policies could be changed to encourage residency selection in primary care by amending the payment schedule in favor of primary care residencies, allocating funds directly to primary care programs, disbursing funds to academic and community organizations that participate in primary care, and supporting nursing-school-managed nursing centers, home health sites, and preceptorships of advanced nursing students.

Third-party payments have favored providers who use hospital-based high technology procedures, and these higher compensation rates encourage career choices in subspecialties. Primary care practitioners and disease prevention and health promotion interventions are under-rewarded. Although modifications in federal payments for physicians under Medicare (resource based relative value scale [RBRVS]) have narrowed the gap in compensation, reform will be required to adopt a fee-for-service scale for third-party payments similar to the Medicare system in which reimbursement is commensurate with RBRVS and a reasonable rates index.

Increasing residency stipends for primary care residents above those for specialty residencies—perhaps by allocating a percentage of a third-party payer premium tax for graduate medical education—might attract additional primary care residents. A system of direct lending and income-based education in which a percentage of income payback, higher levels of loan forgiveness, and service repayments would contribute to financing the education of health care providers would make education affordable for a more diverse practitioner population, especially those who are more likely to select primary care. Mandates for service in the National Health Service Corps, which link national health service to tax-supported education, may offer a viable method to increase the numbers of practitioners who are exposed to community-oriented primary care.

Nurse practitioners (NPs) can deliver high-quality care for as much as 80% of the health services and up to 90% of pediatric care provided by primary care physicians, and the NPs can deliver the care at lower cost. While federal subsidies for graduate medical education average about $5 billion a year, only $300 million are allocated for graduate nursing education. Two-thirds of Medicare nursing education reimbursement and approximately 50% of total nonphysician education reimbursement are allocated to hospital-based diploma nursing programs. Federal support for advanced nursing education should be increased to enable rapid expansion of primary care services. A portion of GME funding should be extended to prepare advanced practice nurses and to provide support for these students similar to stipends provided for medical residents. A proposal to fund advanced nursing education, known as the Graduate Nursing Education Act (GNE) of the Health Security Act, would not replace Title VIII funds (Nurse Education Act—Public Health Service Act) or other programs. It would parallel graduate medical education appropriations aimed at producing primary care practitioners and should be considered a viable option as an aid to relieving interdisciplinary tensions by eliminating competition for GME funds.

Approximately half of the nation's 50,000 NPs work in primary care and underserved settings and the increasing demand for APNs is illustrated by four to seven job opportunities for every new graduate. Equitable payment and expansion of compensated services from Medicare, Medicaid, and private insurers to nurse practitioners and midwives must be universally mandated. The inequitable and contradictory nature of current federal reimbursement policies for APNs must be changed to develop policies that are nondiscriminatory. The short-term increase in cost most likely would be offset by generally lower costs of increased access and improved health status of the nation. Additionally, removal of these and state restrictions on APNs' practice would facilitate development of cost-effective nursing models for health care delivery especially to vulnerable groups such as the elderly, chronically ill, and socioeconomic high-risk groups.

These multiple and complex workforce issues will be resolved only through combined public and private sector efforts to effect policy change and shape health care reform. Proposals for change must be designed to address the scope of barriers, rather than serve as isolated efforts that will have limited success. This symposium was a step in this direction as it brought together leaders from medicine, nursing, and health policy to identify impediments to creating a futuristic health care system and potential solutions to the problems. The symposium met the goal of policy analysis, which is to change the feasibility and receptivity of the climate for different policy advocates. During evaluation of the effectiveness and feasibility of proposals to create the future health care workforce, a give-and-take process emerged to strengthen a commitment by all disciplines to work together to effect change in the health care delivery system of the future.

Implementing Change

Todd Jick

When people think about change, they often picture designing a bold new change strategy—complete with stirring vision—that will lead an organization into a brave new future. And, in fact, this crafting of a visionary strategy is a pivotal part of the process of change. But even more challenging—and harder to get a grasp on—is what follows the strategy and the vision: the implementation process, itself. When it comes to the daily, nitty-gritty, tactical and operational decision-making of change, the implementor is the one who makes or breaks the program's success.

Of course, the implementor doesn't act alone. Change succeeds when an entire organization participates in the effort. An organization can be divided into three broad action roles: *change strategists*, *change implementors*, and *change recipients*, and each of these roles plays a different key part in the change process. Change strategists, simply put, are responsible for the early work: identifying the need for change, creating a vision of the desired outcome, deciding what change is feasible, and choosing who should sponsor and defend it. And change recipients represent the largest group of people that must adopt, and adapt to, the change. These are the institutionalizers, and their behavior determines whether a change will stick.

But change implementors are the ones who "make it happen," managing the day-to-day process of change. The implementors' task is to help shape, enable, orchestrate, and facilitate successful progress. Depending on the extent of the "vision" they are given, they can develop the implementation plan, or shepherd through programs handed down to them. Simultaneously, they must respond to demands from above while attempting to win the cooperation of those below.

What is the experience of implementing change really like? Here is how the chief executive officer of a major U.S. airline describes managing multiple changes during the tempestuous period of the late 1980s:

> It beat any Indiana Jones movie! It started out with a real nice beginning. Then suddenly we got one disaster after another. The boulder just missed us, and we got the snake in the cockpit of the airplane—that's what it's all about! You've got to be down in the mud and the blood and the beer.

This vivid description captures a sense of the drama involved in wrestling with complex, real-time issues day after day in a changing environment. Because today's companies are composed of and affected by so many different individuals and constituencies—each with their own hopes, dreams, and fears—and because these companies operate in a global environment—with all the regulations, competition, and complexity that implies—implementing change may, indeed, require the dexterity, alertness, and agility of an Indiana Jones.

This note was written by Professor Todd Jick as the basis for class discussion.

It sounds exciting, but is it doable? As this brief description implies, implementors face a daunting task. They often feel they have insufficient authority to make change happen entirely on their own, and that they fail to receive the support from above to move forward. At the same time, the more the "recipients" balk at the decisions implementors make, the more frustrating the task becomes. This middle role in the change process is a challenging one, indeed.

Common Pitfalls of Implementation

Real-life stories of corporate change rarely measure up to the tidy experiences related in books. The echo of well intentioned and enthusiastic advice fades as the hard work of change begins. No matter how much effort companies invest in preparation and workshops—not to mention pep rallies, banners, and pins—organizations are invariably insufficiently prepared for the difficulties of implementing change. The responsibility for this situation lies in several areas.

Both the popular press and academic literature tend to consider organizational change as a step-by-step process leading to success. Although recent writings have grown more sophisticated, many treatises on organizational change fail to concede that difficulties lie along the way.

This unrealistic portrayal of the change process can be dangerous. Already organizations are inclined to push faster, spend less, and stop earlier than the process requires. Such inclinations are further strengthened by an illusion of control that, in fact, does not exist. By making change seem like a bounded, defined, and discrete process with guidelines for success, many authors mislead managers, who find that the reality is far more daunting than they expected. They feel deceived; instead of a controllable process, they discover chaos.

This kind of frustration is part of the terrain of change. In fact, while the literature often portrays an organization's quest for change like a brisk march along a well-marked path, those in the middle of change are more likely to describe their journey as a laborious crawl toward an elusive, flickering goal, with many wrong turns and missed opportunities along the way. Only rarely does a company know exactly where it's going, or how it should get there.

Those who make change must also grapple with unexpected forces both inside and outside the organization. No matter how carefully these implementors prepare for change, and no matter how realistic and committed they are, there will always be factors outside of their control which may have a profound impact on the success of the change process. These external, uncontrollable, and powerful forces are not to be underestimated, and they are one reason why some have questioned the manageability of change at all. Shifts in government regulations, union activism, competitive assaults, product delays, mergers and acquisitions, and political and international crises are all a reality of corporate life today, and managers cannot expect to implement their plans free of such interruptions.

Studies examining the most common pitfalls of implementation document just these kinds of frustration. In one study of strategic business units in 93 medium- and large-sized firms, respondents were asked to reflect on the implementation of a recent strategic decision.[1] The survey results showed seven implementation problems that occurred in at least 60% of the responding firms, as follows:

1. Implementation took more time than originally allocated (76%).

2. Major problems surfaced during implementation that had not been identified beforehand (74%).

3. Coordination of implementation activities (for example, by task force, committees, superiors) was not effective enough (66%).

4. Competing activities and crises distracted attention from implementing this strategic decision (64%).

5. Capabilities (skills and abilities) of employees involved with the implementation were not sufficient (63%).

6. Training and instruction given to lower-level employees were not adequate (62%).

7. Uncontrollable factors in the external environment (for example, competitive, economic, governmental) had an adverse impact on implementation (60%).

While these seven points are undoubtedly among the most pervasive problems, the list goes on and on. Other frequent implementation shortcomings include failing to win adequate support for change; failing to define expectations and goals clearly; neglecting to involve all those who will be affected by the change; and dismissing complaints outright instead of taking the time to judge their possible validity.

Tactical Implementation Steps

In order to avoid such pitfalls, students and managers frequently call for a checklist for implementing change—a list of dos and don'ts that will guide them on their way.

Unfortunately, managing change does not adhere to a simple, step-by-step process. There is no ironclad list or easy recipe for implementation success. In fact, the more we have studied change, and the more we brush up against its effects, the more humble we have become about dictating the "best" way to do it. Behavioral scientists, themselves, disagree on a number of fundamental implementation issues. A recent book attempting to pull together the best in practice recognized discord among its contributors on such basic questions as whether there is a logical sequence to the change process; whether change "agents" can lead an organization through a process that cannot be explained ahead of time; even whether change can be planned at all.[2]

But even though there are no easy answers, students and managers can still learn from the experiences of others. Over the last two decades, the growing body of work examining the change process has produced a number of implementation checklists. Although the following list is my own, it embraces many of the major prescriptions contained in the planned change literature—a kind of Ten Commandments for implementing successful organizational change (See **Figure 1**).

As already mentioned, no guidelines provide a recipe for success, and this list is no different. Instead, managers and students should view these commandments as an inventory of ingredients at their disposal. Through a conscientious process of testing, adjusting, and testing again, implementors may find the right combination of ingredients in the right proportion to fit the change needs of their particular organizations.

1. Analyze the Organization and Its Need for Change

Change strategists and implementors should understand an organization's operations, how it functions in its environment, what its strengths and weaknesses are, and how it will be affected by proposed changes in order to craft an effective implementation plan. If this initial analysis is not sound, no amount of implementation knowhow will help the organization achieve its goals.

As part of this process, changemakers should also study the company's history of change. While failures in the past do not doom later change efforts, one observer suggests that companies with historic barriers to change are likely to continue this pattern of resistance.[3] If a company already has a track record of opposing change, more care should be taken to design a gradual nonthreatening and, preferably, participative implementation process including the following tactics:

- Explain change plans fully.
- Skillfully present plans.
- Make information readily available.
- Make sure plans include benefits for end users and for the corporation.
- Spend extra time talking.
- Ask for additional feedback from the work force.
- Start small and simple.
- Arrange for a quick, positive, visible payoff.
- Publicize successes.

At this early stage of the change process, implementors may also want to systematically examine the forces for and against change (See **Exhibit 2**). Change will not occur unless the forces driving it are stronger than those resisting it. By lifting these forces, managers have a way to determine their organizations' readiness for change. If the forces against change appear dominant, implementors should consider what additional forces they can muster—for example, in the form of committed followers, or of better proof of the need for change—before launching a change plan.

2. Create a Shared Vision and Common Direction

One of the first steps in engineering change is to unite an organization behind a central vision. This vision should reflect the philosophy and values of the organization, and should help it to articulate what it hopes to become. A successful vision serves to guide behavior, and to aid an organization in achieving its goals.

While the crafting of the vision is a classic strategists' task, the way that this vision is presented to an organization can also have a strong impact on its implementation. Employees at all levels of the organization will want to know the business rationale behind the vision, the expected organizational benefits, and the personal ramifications—whether positive or negative. In particular, implementors should "translate" the vision so that all employees will understand its implications for their own jobs.

3. Separate From the Past

Disengaging from the past is critical to awakening to a new reality. It is difficult for an

organization to embrace a new vision of the future until it has isolated the structures and routines that no longer work, and vowed to move beyond them.

However, while it is unquestionably important to make a break from the past in order to change, it is also important to hang on to and reinforce those aspects of the organization that bring value to the new "vision." That is, some sort of stability—heritage, tradition, or anchor—is needed to provide continuity amidst change. As the changes at many companies multiply, arguably this past-within-the-future becomes even more essential.

4. Create a Sense of Urgency

Convincing an organization that change is necessary isn't that difficult when a company is teetering on the brink of bankruptcy, or foundering in the marketplace. But when the need for action is not generally understood, a change leader should generate a sense of urgency without appearing to be fabricating an emergency, or "crying wolf." This sense of urgency is essential to rallying an organization behind change.

From an implementation standpoint, this commandment requires a deft touch. While strategists may see very real threats that require deep and rapid action, implementors—usually middle managers—may see something else, in two senses. This group may believe that the need isn't so drastic as strategists think, and that instead of deep change, perhaps more modest alterations will work. Alternatively, implementors may see, from their perspective, that the situation is even worse than the strategists have described. In either case, implementors may get caught adopting a pace of change that is either faster or slower than they believe necessary. The best protection against this is direct and frequent communication between implementors and strategists.

5. Support a Strong Leader Role

An organization should not undertake something as challenging as large-scale change without a leader to guide, drive, and inspire it. This change advocate plays a critical role in creating a company vision, motivating company employees to embrace that vision, and crafting an organizational structure that consistently rewards those who strive toward the realization of the vision.

It should be noted, however, that this leadership role may not be held by one person alone. As the environments in which companies are changing become increasingly complex, and as the implementation of change becomes more demanding, many organizations are now turning to change leader teams. Such teams can have the advantage of combining multiple skills, for example, pairing a charismatic visionary with someone skilled at designing a strong and effective implementation plan.

6. Line up Political Sponsorship

Leadership, alone, cannot bring about large-scale change. In order to succeed, a change effort must have broad-based support throughout an organization. This support should include not only the managers, or change implementors, but also the recipients, whose acceptance of any change is necessary for its success.

One way for strategists and implementors to begin winning support for change is to actively seek the backing of the informal leaders of the organization—beginning with those who are most receptive. In addition, they should demonstrate strong personal support for the change

effort, and make it clear that the program is a high priority by allocating ample resources to do the job.

In winning sponsorship, it is not necessary to get unanimous support: Participation can be representative, not universal. Of more importance is determining precisely whose sponsorship is critical to the change program's success. To help do this, one behavioral scientist suggests that implementors develop a "commitment plan" encompassing the following elements:[4]

- Identify target individuals or groups whose commitment is needed.
- Define the critical mass needed to ensure the effectiveness of the change.
- Develop a plan for getting the commitment of the critical mass.
- Create a monitoring system to assess the progress.

As part of this overall strategy, implementors may want to plot a commitment chart to help secure the minimum level of support necessary for a change program to proceed (See **Figure 3**).

7. Craft an Implementation Plan

While a vision may guide and inspire during the change process, an organization also needs more nuts-and-bolts advice on what to do, and when and how to do it. This change plan maps out the effort, specifying everything from where the first meetings should be held, to the date by which the company hopes to achieve its change goals.

In most cases, this implementation plan is best kept simple: An overly ambitious or too detailed plan can be more demoralizing than it is helpful. This is also the time to consider how many changes an organization can tackle at once. Because the risk of employee burnout is so real during major transformations, the change should be broken into staggered steps in order not to overburden workers with multiple demands.

At the same time, the plan should include specific goals and should detail clear responsibilities for each of the various roles—strategists, implementors, and recipients. Input from all levels of the organization will help to achieve this "role-oriented" focus. A plan devised solely by strategists is far less likely to reflect the realities of what the organization can accomplish than one which involves all three action roles from the start.

As with most other aspects of the change process, the implementation plan should also be kept flexible; a kind of "living" document that is open to revision. Too much and too rigid planning can lead to paralysis, indecision, and collapse. Organizations that are locked in a rigid change "schedule" of planned goals and events may find themselves following a path that no longer meets their evolving needs, much less those of the world around them.

8. Develop Enabling Structures

Altering the status quo and creating new mechanisms for implementing change can be a critical precursor to any organizational transformation. These mechanisms may be part of the existing corporate structure, or may be established as a free-standing organization. Enabling structures designed to facilitate and spotlight change range from the practical—such as setting up pilot tests, off-site workshops, training programs, and new reward systems—to the symbolic—such as rearranging the organization's physical space.

The more complex and large-scale the change, the more important it becomes that these

enabling interventions be well thought out and consistent with each other. A series of choices among tactical options is thereby needed. This includes whether to use a pilot test or to go pan-organization; whether to be as participative throughout the process as the goals might warrant; whether to change certain systems sequentially or simultaneously; whether to reject the old or accentuate the new; whether to use a "programmatic approach" or to have each unit develop its own interpretation; and whether to drive change bottom-up or top-down.

9. Communicate, Involve People, and Be Honest

When possible, change leaders should communicate openly, and seek out the involvement and trust of people throughout their organizations. Full involvement, communication, and disclosure are not called for in every change situation, but these approaches can be potent tools for overcoming resistance, and giving employees a personal stake in the outcome of a transformation.

Effective communication is critical from the very start. Even the way in which the change program is first introduced to the workforce can set the stage for either cooperation or rejection. The following list describes some criteria designed to increase an organization's understanding and commitment to change, reduce confusion and resistance, and prepare employees for both the positive and negative effects of change.[5]

In general, a constructive change announcement:

- is brief and concise;
- describes where the organization is now, where it needs to go, and how it will get to the desired state;
- identifies who will implement and who will be affected by the change;
- addresses timing and pacing issues regarding implementation;
- explains the change's success criteria, the intended evaluation procedures, and the related rewards;
- identifies key things that will not be changing;
- predicts some of the negative aspects that targets should anticipate;
- conveys the sponsor's commitment to the change;
- explains how people will be kept informed throughout the change process; and
- is presented in such a manner that it capitalizes on the diversity of the communication styles of the audience.

Too often, "communication" translates into a unilateral directive. But real communication requires a dialogue among the different change roles. By listening and responding to concerns, resistance, and feedback from all levels, implementors gain a broader understanding of what the change means to different parts of the organization and how it will affect them.

10. Reinforce and Institutionalize the Change

Throughout the pursuit of change, managers and leaders should make it a top priority to prove their commitment to the transformation process, reward risk-taking, and incorporate new behaviors into the day-to-day operations of the organization. By reinforcing the new culture, they affirm its importance and hasten its acceptance.

This final commandment is made even more demanding by the fact that what many organizations are seeking today is not a single, discrete change, but a continuous process of change. Given this reality, to speak of "institutionalizing" the change may be partially missing the point. Instead, what many companies really want is to institutionalize the *journey* rather than the change. In other words, instead of achieving one specific change, organizations hope to create cultures and environments that recognize and thrive on the continuing necessity of change.

Both a Science and an Art

As already mentioned, these commandments are not the only tactics that the planned change literature has advocated. But they do provide a useful blueprint for organizations embarking on change, as well as a way to evaluate a change effort in progress. By going through this list, students and managers can begin to put together their own strategies for implementing change.

But no list is enough. Implementation is also a process of asking questions like these: Are we addressing the real needs of the company, or taking the easy way out? How shared is the vision? How do we preserve anchors to the past while moving to the future? Does everyone need to feel the same sense of urgency? Can change recipients, particularly those far down in the hierarchy, have an impact? How do we handle those who oppose the change? When should progress be visible? How do we integrate special projects to mainstream operations? When is it wise/best to share bad news? And now that we've gotten this far, is this the direction we still want to go?

Questions like these help to keep an organization focused and flexible, and to remind managers that implementing change is an ongoing process of discovery.

In addition, it is, perhaps, most important for students and managers to remember that implementation is a mix of art and science. *How* a manager implements change can be almost as important as *what* the change is. In fact, implementation has less to do with obeying "commandments" and more to do with responding to the various "voices" within the organization, to the requirements of a particular situation, and to the reality that change may never be a discrete phenomenon or a closed book.

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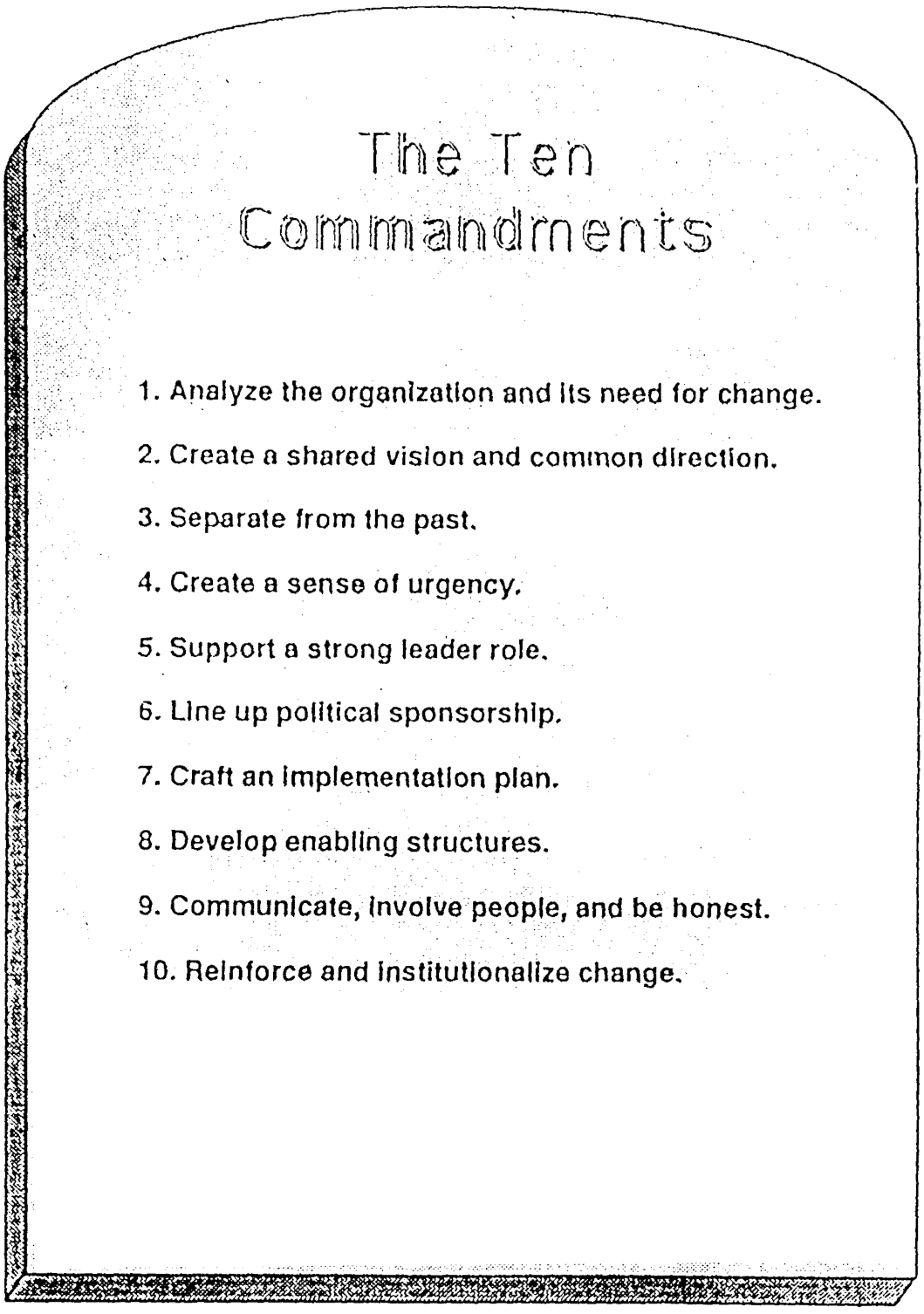
1. Alexander, Larry, "Successfully Implementing Strategic Decisions," *Long Range Planning*, Vol. 18, no. 3, 1985, pp. 91-97.
2. Mohrmann, Allan, S. Mohrmann, G. Ledford, T. Cummings, and E. Lawler (eds.), *Large-Scale Organizational Change*. San Francisco: Jossey-Bass, 1989.
3. Dalziel, Murray M., Stephen C. Schoonover, *Changing Ways: A Practical Tool for Implementing Change Within Organizations*. New York: American Management Association, 1988.
4. Beckhard, Richard, Reuben T. Harris, *Organizational Transitions*. Second Edition. Reading, MA: Addison-Wesley, 1987.
5. O.D. Resources, Inc., *Change Announcement Planning Guide*. Atlanta, 1985.

Figure 1 The Ten Commandments



ITIRC CONTROL NUMBER: 4204955

Management without frontiers: Health system convergence leads to health care management convergence Kirkman Liff, Bradford L Frontiers of Health Services Management 95-71514 V11 N1 Fall 1994 P3-48

SUMMARY

Health care managers and policymakers throughout the industrialized world are faced with a variety of new challenges at the same time that traditional constraints on action are becoming ever more restrictive. These pressures have stimulated a variety of health care reforms involving four different strategies for change: cost containment efforts, quality and administrative efficiency improvements, cost shifting efforts, and the adoption of market related concepts from the private sector. These changes are leading to convergence among health systems, as seen by the reforms underway in the Netherlands, Germany, and the English component of the United Kingdom's National Health Service. This in turn will create convergence in the problems and issues faced by health care managers. Issues such as hospital contracting, managed mental health care, primary care gatekeeping, and four others are explored to illustrate how American managers can learn from the experiences of colleagues in other industrialized nations. A final section identifies common themes for health care executives in this period of global convergence.

The word "frontier" has two distinct meanings. Americans use "frontier" to refer to the outer edge of human settlement: the area of innovation, entrepreneurship, and change. The title of this journal reflects this usage of "frontier," applied to health care management as American health care executives search for new concepts on the frontier. Europeans use "frontier" to refer to the border between two nations: the barrier to the exchange of goods and ideas. To a European health care manager, a frontier has traditionally meant a demarcation beyond which few ideas for improved management can be found. But health care managers and policymakers throughout the industrialized world face a variety of new challenges at the same time that traditional constraints on action are becoming ever more restrictive. I contend that just as some of the new challenges are global in their impact, many of the potential solutions are relevant in more than one country and are being implemented worldwide. This process of simultaneous reform is leading to a convergence in the macro level structures of health systems in industrialized nations. Such a convergence at the system level leads to convergence at the institutional level: the problems faced by managers and their strategies to cope with change are becoming increasingly similar. This in turn opens new avenues for management practice, research, and education. And so in this article I will draw on both meanings of "frontiers." I will demonstrate that as managers respond with frontier innovation to the numerous health system reform efforts, managers can learn to share ideas and innovations across frontiers.

This article has six parts. The first section briefly reviews some of the major trends in demographics, epidemiology, and economics that are increasing the pressure for substantive health care reform across the industrialized world. The second reviews the most common reform strategies available to industrialized countries. The third section examines the reform efforts underway in the health care systems of the Netherlands, Germany, and the United Kingdom and presents an argument for system level convergence. (The Appendix provides a brief overview of the systems in those three countries.) The fourth section discusses areas in which this convergence across systems is leading to convergence in management issues, with six specific issues explored. The fifth section projects this convergence into new opportunities and strategies for comparative health care management research. The last part tries to draw some global lessons for managers during this period of convergence.

In addition to the referenced literature, this article is based on formal interviews with more than 200 health care managers in England, Germany, and the Netherlands and a far greater number of informal conversations with managers at some of the 18 management education seminars that I have given in England, the Netherlands, and Germany since 1987.(2) In the process of teaching those executives about managed care and competition in health care in America, I was able to learn about their systems (see Acknowledgments). In retrospect, I was as much the student as they were.

TRENDS IN THE INDUSTRIALIZED COUNTRIES

The financing and delivery of health care can be arranged in almost as many ways as there are industrialized countries (Organization for Economic Cooperation and Development 1992; Saltman and Von Otter 1992; Casparie, Hermans, and Paelinck 1990; Hermans, Casparie, and Paelinck 1992; van Kemenade 1993; van Atteveld, Broeders, and Lapre 1987). Table 1 is an attempt to classify health care systems in two dimensions.[table 1 omitted] The first dimension represents the degree of government involvement, ranging from government operated health services through government administered health insurance systems with a mix of private and public providers of care, through systems that are a mix of government and private insurance, to privately administered (with government oversight) health insurance systems -again with a mix of private and public providers of care. The second dimension represents the level of government (national, regional, or mixed) that is involved in the health care system. Despite their differences, however, all health care systems in the industrialized countries share common problems.

One challenge common to the industrial countries is a growing population of elderly, in terms of both absolute and relative numbers. This "graying" of the industrialized world is partly due to the rapid decline in birth rates in the past three decades, but it also reflects the success of the health care sectors in preventing death in adults (Mackenbach 1991; Pfaff and Nagel 1986). Increased emphasis on occupational safety and healthier lifestyles have reduced mortality rates among adults, so that not only are more adults living to retirement but retirees are also living longer. This means significantly increased demand for long term care services, especially for the noninstitutional provision of care through home and

community based services (Butler 1992). Table 2 shows that Germany and the United Kingdom have already had to deal with this problem for much longer than has either Canada or the United States.[table 2 omitted]

A second major challenge to all health systems is the spread of the human immunodeficiency virus (HIV), which can lead to full blown acquired immunodeficiency syndrome (AIDS). People with AIDS need extensive care; prevention and outreach programs require substantial refocus of public health programs; and research on drugs to treat the disease and on a vaccine to prevent it all require extensive resources. The complex emotional and political issues associated with AIDS make this a difficult issue for all health systems.

A third challenge is the rising incidence of substance abuse and violence in urban centers, requiring increased support for detoxification and rehabilitation services and hospital trauma centers (Smith 1991). A fourth challenge is the rising cost of medical technology. Generally, in Europe, such costs are kept under control by government restraints on hospital capital spending. These restraints take the form of fixed budgets in the United Kingdom and other countries with a government operated health service. Other systems use regulatory mechanisms, such as the requirement that private hospitals must have approval before purchasing technology (Rigter and Bos 1990; Kokkedee 1992).

One other complex challenge that many industrialized countries face is how to sustain equal access to health care for all members of society. In some countries, such as the Netherlands and Germany, "equal access" has been interpreted as allowing a single system of health care delivery to be financed by a number of different methods. In others, such as the United Kingdom and Canada, equal access is regarded as including all members of society in a single system of financing and delivery. (It hardly needs to be stated that, in the United States, social policy has never supported equal access to care.) Even in the most egalitarian systems, however, some forms of private insurance and care delivery have developed, ranging from supplemental insurance to cover deductibles to private physicians and private hospitals, and to specialized private insurance. The availability of supplemental services often increases demand for expansion of publicly administered health systems to reduce such inequality (Wagstaff, van Dooorslaer, and Paci 1989, 1991a, 1991b; Le Grand 1991).

STRATEGIES FOR REFORM

The challenges facing health care systems in the industrialized countries have developed at a time when the rate of growth of health care spending is greater than the rate of economic growth in almost every country. This means that each country is devoting an ever-increasing percentage of its gross domestic product to health care (see Table 3); and the health-financing mechanisms--be they private insurance, public insurance, or government programs--must find ways to improve the quality and administrative efficiency of the system, collect additional revenues, reduce payment levels to providers, shift costs onto patients, or reduce utilization.[table 3 omitted] In response to these economic pressures, countries are experimenting with a variety of health care reform strate-

Among the major findings of the Deloitte & Touche/Hospitals & Health Networks survey:

71%...of survey respondents belong to or are developing integrated delivery systems.

81%...say their hospitals will not operate as stand alone institutions within five years.

67%...say it's absolutely necessary for acute care hospitals to have some form of PHO.

53%...are redesigning or reengineering their organizations.

48%...are implementing outcomes measurement and management programs.

Are your integration efforts all talk and little action?

Integration is the health care system's mantra of the 1990s: it's now gospel that the fragmented delivery system of the past must make way for the system of the future, one that provides a full continuum of care. Yet despite the wave of affirmation, new evidence suggests that most health care integration efforts are all talk and little or no action.

On the one hand, of the 1,143 hospital and 41 health system executives responding to a joint survey by Deloitte & Touche and Hospitals & Health Networks magazine, 24 percent indicate they already belong to an integrated delivery system (IDS), and 71 percent either belong to or are developing one.

But a closer examination of the data reveals that what many hospital executives consider to be an IDS is little more than hospital/physician integration: 88 percent of the 823 surveyed hospital executives who belong to or are developing an IDS say that other hospitals are part of their current integration initiative, and 70 percent say that physician group practices are part of IDS development (see figure below).

Many of the entities that should be part of a full-continuum IDS are currently absent from most integration efforts: Only 28 percent of respondents involved in IDS development are integrating ambulatory surgery, while 36 percent say that transitional care/rehabilitation units or other specialty facilities are included in their IDS development.

And though survey findings confirm that hospital executives have "bought into" the concept of developing integrated systems, they need to move beyond their present horizontal-integration mentality and include other entities, says Ray Cisneros, national health care director for Deloitte & Touche's Boston office.

Of respondents who are developing an IDS, 68 percent are pursuing a unified strategic plan among partners; 62 percent are developing an integrated health information network among IDS partners; but only 39 percent are moving to a unified management and administrative process.

Those findings tell Cisneros that while many hospitals are networking with other health care organizations to offer integrated health services to insurers, many of their executives don't feel the need to remake their own corporate organizational structures.

One organization that has striven to assemble the various health care components and integrate them to provide a seamless delivery of care is Detroit-based Henry Ford Health System. The system's success with integration can be traced to decisions made years ago to integrate the hospital and medical staff into one organization and to create an ambulatory network, says Henry Ford Chairman and CEO Gail Warden.

Health care systems may have an advantage over free-standing hospitals in the array of services they can offer, but Warden says that achieving truly "seamless" care as a system is difficult.

"It's easy to say that, as part of your patient care management strategy, you will use home health care more effectively than you have in the past, but that takes a lot of reeducation of both providers and patients," Warden says.

What entities are involved in your integration initiative (all that apply)?

88%--Other hospital(s)

70%--Physician group practice(s)

62%--Home health agencies

55%--Managed care organizations(s)

46%--Skilled nursing facilities

36%--Transitional/rehab units(s) or other specialty facilities

34%--Hospice(s)

28%--Ambulatory surgery center(s)

20%--Other long-term care facilities

As part of your integration initiative, which of the following are you pursuing (all that apply)?

68%--Unified strategic plan among IDS partners

62%--Developing an integrated health information network among IDS partners

53%--Consolidating/integrating clinical services

39%--Moving to a unified management and administrative process among IDS partners

42%--Consolidating/integrating non-clinical services (i.e., laundry, housekeeping, etc.)

35%--Developing common physician privileges across the network

As part of your integration initiative, which of the following clinical integration strategies are you pursuing (all that apply)?

59%--Consolidating/integrating management of outpatient care, home health care, transitional care, skilled nursing care and/or laboratory services into a continuum of care across the network

45%--Consolidating some service lines in the IDS

25%--Adding service lines

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DRUG INFORMATION ASSOCIATION

The following will be held: "Good Clinical Practice — Obligations of Sponsor, Monitor and Clinical Investigator" (Washington, D.C., Jan. 25–27); "Practical OCP Compliance Auditing Training Course" (Bruges, Belgium, Feb. 1–5); "Self-Medication Medicines: The Impact of Emerging International Regulations on the Future of the Self-Medication Sector" (Brussels, Belgium, Feb. 15 and 16); "Quality of Life Assessment" (Nice, France, Feb. 22–24); "Technicalities — The Way Forward: Discussions on the Harmonization of International Guidelines" (Nice, France, Feb. 24–26); "OCP for the Novice: An Educational Forum on Implementation and Practical Application" (Bern, Switzerland, April 19–21); and "FDA Pre-Approval Inspections" (London, April 28–30).

Contact in U.S.: DIA, P.O. Box 3115, Maple Glen, PA 19002-8115; or call (215) 628-2200. Contact in Europe: DIA European Office, Postfach, 4012 Basel, Switzerland; or call (41) 61 44-80-14.

PALM SPRINGS DERMATOPATHOLOGY

The symposium will be held in Palm Springs, Calif., Feb. 13–21.

Continue Education Program, 200 E. 66th St., Suite 24H, New York, NY 10016; or call (212) 263-7284.

ARMED FORCES INSTITUTE OF PATHOLOGY

The "26th Annual Neuropathology Review Course" will be offered in Bethesda, Md., Feb. 27 and 28.

Contact American Registry of Pathology, AFIP, Washington, DC 20306-6000; or call (301) 427-5231.

CORRECTIONS

Case Records of the Massachusetts General Hospital (Case 36-1992) (September 10, 1992;327:798-9). On page 799, in Table 1, the serum uric acid concentration should have been 12.6 mg/100 ml (750 μmol/liter), not 12.6 μg/100 ml (0.7 μmol/liter) as printed.

Warfarin in the Prevention of Stroke Associated with Nonrheumatic Atrial Fibrillation (November 12, 1992;327:1406-12). On page 1409, in Figure 1, the solid line should have referred to the patients in the warfarin group and the broken line to those in the placebo group. We regret the error.

SPECIAL REPORT

THE MARKETPLACE IN HEALTH CARE REFORM

The Demographic Limitations of Managed Competition

Abstract *Background.* The theory of managed competition holds that the quality and economy of health care delivery will improve if independent provider groups compete for consumers. In sparsely populated areas where relatively few providers are required, however, it is not feasible to divide the provider community into competing groups. We examined the demographic features of health markets in the United States to see what proportion of the population lives in areas that might successfully support managed competition.

Methods. The ratios of physicians to enrollees in large staff-model health maintenance organizations were determined as an indicator of the staffing needs of an efficient health plan. These ratios were used to estimate the populations necessary to support health organizations with various ranges of specialty services. Metropolitan areas with populations large enough to support managed competition were identified.

Results. We estimated that a health care services market with a population of 1.2 million could support three fully independent plans. A population of 360,000 could support three plans that independently provided most acute care hospital services, but the plans would need to share hospital facilities and contract for tertiary services. A population of 180,000 could support three plans that provided primary care and many basic specialty services but that shared inpatient cardiology and urology services. Health markets with populations greater than 180,000 would include 71 percent of the U.S. population; those with populations greater than 360,000, 63 percent; and those with populations greater than 1.2 million, 42 percent.

Conclusions. Reform of the U.S. health care system through expansion of managed competition is feasible in medium-sized or large metropolitan areas. Smaller metropolitan areas and rural areas would require alternative forms of organization and regulation of health care providers to improve quality and economy. (N Engl J Med 1993; 328:148-52.)

MANAGED competition has received widespread support from members of Congress, President-elect Bill Clinton, large insurance companies, and editorialists writing in influential publications.[1-4] A central tenet of the managed-competition theory is that providers are divided into competing economic units. As discussed by Enthoven and Kronick,[5,6] the most effective competition occurs when all the doctors in a community are grouped into several prepaid practices with each doctor fully committed to one organization. Health care services, however, are largely purchased locally, and there are sparsely populated areas of the United States where providers have a natural monopoly. In a geographically isolated area with a population base large enough to support only one hospital and one group of physicians, it is difficult to envision how competition would work. If the hospital decides to increase its scope of services or its prices substantially, threatening to build a competing hospital is a poor option, and transporting patients to another city may be unacceptable. Similarly, if most physicians are members of a single multispecialty group practice, purchasers have little recourse if the physicians use more, rather than fewer, resources.

We estimated the minimal population size for a health services market area that could support managed competition and the proportion of the population of each state and of the nation as a whole that is in such areas.

Methods

An estimate of the minimal population required to support managed competition is based on four assumptions: the extent to which competing health care organizations need to be independent; the minimal number of health care organizations needed to support healthy competition; the ratios of physicians to enrollees and of hospital beds to enrollees in efficiently managed health plans; and the geographic boundaries of health services markets. This section

presents the assumptions and methods we used to make our estimates.

To What Extent Must Competing Organizations Be Independent?

The "classic" health maintenance organization (HMO) — the large, staff-model prepaid group practice epitomized by Kaiser-Permanente or Group Health Cooperative of Puget Sound — is the prototype of the efficient competitor. Unlike many other forms of managed care, classic HMOs are capable of health planning: they regulate the supply of hospital beds, physicians, and other providers in relation to the size of the population they serve. Physicians employed by classic HMOs, because they are salaried, are not subject to the tendencies toward supplier-induced demand inherent in fee-for-service medicine; they are able to allocate their workloads efficiently among various tasks, such as evaluating and counseling patients, performing operations or diagnostic tests, and performing the duties required for continuous improvement in the quality of care. This flexibility makes it possible for classic HMOs to adapt easily to the changes in demand that occur when patients are informed about medical options and make decisions according to their preferences.[7]

The efficiency of the classic HMO model contrasts sharply with that of the independent practice association (IPA) model, particularly when individual physicians are affiliated with many health plans. Enthoven describes the inefficiencies of an IPA market in which each physician belongs to 10 plans:

> Each doctor would have to deal with the utilization controls and fee schedules of ten health plans, none of which would command his loyalty. If one health plan persuaded a doctor to adopt a more efficient health practice, the benefit would be likely to be spread immediately over all ten plans, reducing the incentive of any plan to make the effort to pursue innovation at the provider level. None of the health plans would be matching numbers of doctors to the needs of the population.[8]

Between the contrasting extremes of the mature classic HMO and the multiple-IPA model is a large, ambiguous middle ground. Each of a set of health plans might have its own primary care physicians and contract with the same specialists. Or, in addition to primary care, a plan might provide some specialty services (such as cardiology, urology, and gastroenterology), using its own physicians during regular business hours, but it might contract with overlapping sets of providers for after-hours specialty care and for inpatient services. When considering competition among health plans that are less comprehensive than classic HMOs, a key factor is the configuration of inpatient hospital services in a community. If health plans are not large enough to own their own hospitals and hire the full complement of specialists but, instead, contract separately with overlapping sets of hospitals, then no organization will be responsible and accountable for population-based health planning for hospital services.

In areas in which the population is too small to allow competing health plans to exert effective control over specialists' services and hospital resources, some alternative or adjunct to managed competition will be required in order to achieve effective health planning. Conceivably, this might be accomplished by cooperative planning efforts by the major health plans operating in a community. Alternatively, some form of government regulation of hospital capacity and budgets may be necessary.

How Many Competitors Are Needed?

Ideally, a large number of qualified health care plans would be available in each geographic area. No single plan would be able to have much influence on the demand for care, thus making collusion among plans difficult. However, the minimal number of plans needed to avoid a market with strong oligopolistic tendencies is not clear. One competitor is obviously not enough. If there are only two competitors, the temptation of implicit collusion will be hard to resist. Why should the competitors work hard to restrain the growth of costs or profits when both competitors will be better off if they engage in cozy behavior? There is no theoretical basis on which to infer the minimal number of firms that can successfully sustain competition, but the fewer there are, the greater the tendency toward oligopoly. Somewhat arbitrarily, we assumed that at least three health plans are needed in order to create a situation in which providers and plans will continually strive to improve quality and economy.

What Is the Critical Population Size Needed to Sustain an Efficient Firm?

The size of the population required for a managed-care firm to organize efficient primary care and specialty units varies according to specialty and according to assumptions about the minimal number of physicians needed to sustain the service. We grouped physician specialties into four categories. The first, primary care, included general internal medicine, pediatrics, and family medicine. For these specialties we assumed that at least five physicians are needed to provide full night coverage and to sustain the collegial relations required for high-quality care in the group-practice environment.

The second category included hospital-based specialties that involve frequent night and weekend consultation for emergencies or postoperative care and that are required in a full-service acute care community hospital — specifically, emergency medicine, obstetrics and gynecology, general surgery, orthopedics, anesthesiology, radiology, psychiatry, cardiology, and urology. For these specialties, we assumed that three full-time physicians are needed to staff a minimal service in order to meet coverage obligations and provide high-quality care. We used these specialties to estimate the lower limit of the zones where competition based on the classic HMO model might succeed if there were some sharing of hospital facilities, with staffs independent.

The third category included neurosurgery and cardiothoracic surgery, the additional three-physician specialty services required for a tertiary hospital. This sets the minimum for a classic HMO that is fully independent for all clinical specialties. The fourth category consisted of other specialties involving secondary and tertiary care that is usually not of an emergency nature — ophthalmology, otolaryngology, dermatology, pathology, hematology and oncology, neurology, gastroenterology, allergy and immunology, pulmonary medicine, nephrology, rheumatology, endocrinology, infectious diseases, and plastic and reconstructive surgery. On the basis of our estimate that 24-hour coverage is not essential for these specialties, we assumed that the services of only one specialist are required to achieve independence.

To estimate the population required for independence and efficiency, we examined the staffing patterns of the Group Health Cooperative of Puget Sound and four other large, nonprofit staff-model HMOs. For each classic HMO, data were provided by the organization's medical staff office. For most specialties the number of enrollees per specialist was averaged across plans to derive an estimate for the HMOs as a whole. To estimate the need for primary care practitioners we used the Group Health Cooperative's staffing ratio for family practitioners (1 to 2000). For emergency medicine, psychiatry, pathology, and thoracic surgery, we used data from other sources.[8,9] (Supplemental material on our procedures is available elsewhere.[6])

The age structure of the enrollees was obtained for the age groups ≤14, 15 through 44, 45 through 64, and ≥65 years. The proportion of enrollees in each age group approximated the national age distribution except for the population 65 years of age or older. The elderly make up 12.5 percent of the national population, whereas the percentages for the five HMOs were 11.7, 9.4, 8.0, 11.4, and 8.2 percent.

HMOs typically use fewer than 2 beds per 1000 enrollees. The estimate of 2 beds per 1000 is compatible with the assumptions that the population under 65 years of age uses 350 hospital days per year

*See NAPS document no. 04996 for two pages of supplementary material. Order from NAPS c/o Microfiche Publications, P.O. Box 3513, Grand Central Station, New York, NY 10163-3513. Remit in advance (in U.S. funds only) $7.75 for photocopies or $4 for microfiche. Outside the U.S. and Canada add postage of $4.50 ($1.50 for microfiche postage). There is a $15 invoicing charge on all orders filled before payment.

with a population of 1.2 million or more, sufficient to support three classic HMOs, each owning a referral hospital; in 10 (Arizona, California, the District of Columbia, Illinois, Maryland, Minnesota, Missouri, New Jersey, New York, and Texas) the majority of the people live in such areas. However, large land areas in the United States are outside the competitive zone for HMOs, and no state is entirely within it. Most states will require mixed strategies. Some part of their populations live in areas where managed competition could be effective in promoting HMOs, but many live in more sparsely settled areas where other strategies are needed. In 19 states the majority of the population lives in areas of less than 180,000 population, where hospital services must be extensively shared. In 42 states, 20 percent or more of the population lives in such areas.

The health markets in northern New England illustrate the complexities of structuring competition in states with no large metropolitan areas. Maine, New Hampshire, and Vermont together contain 83 acute care general hospitals and 2.5 million people; 64 of the hospitals are the sole hospitals in their local areas. The vast majority of primary care services in these areas are delivered by local physicians who use the local hospital for their patients. None of these areas have a big enough population to support three independent cardiology services. Only two market areas — Portland, Maine, and Manchester, New Hampshire (containing 13 percent of the population) — are sufficiently large to support three independent general-surgery, emergency, and orthopedic services. Twenty-seven percent of the population of northern New England lives in hospital market areas that cannot support three independent primary care competitors, assuming that each plan would need to have at least five physicians.

Table 2. Percentage of State (or District) Populations in Different-Sized Health Market Areas.*

State or District	Population, 1990	Population of Market Area >180,000	Population of Market Area >360,000	Population of Market Area >1.2 Million
		percentage of state population		
Alabama	4,041,000	49	34	0
Alaska	550,000	41	0	0
Arizona	3,665,000	76	76	58
Arkansas	2,351,000	24	24	0
California	29,760,000	96	91	77
Colorado	3,294,000	74	61	49
Connecticut	3,287,000	79	69	0
Delaware	666,000	66	66	0
District of Columbia	607,000	100	100	100
Florida	12,938,000	88	72	41
Georgia	6,478,000	61	50	44
Hawaii	1,108,000	75	75	0
Idaho	1,007,000	20	0	0
Illinois	11,431,000	78	66	58
Indiana	5,544,000	53	44	23
Iowa	2,777,000	23	17	0
Kansas	2,478,000	44	44	24
Kentucky	3,685,000	42	29	0
Louisiana	4,220,000	59	42	29
Maine	1,228,000	22	0	0
Maryland	4,781,000	89	89	67
Massachusetts	6,016,000	79	68	48
Michigan	9,295,000	74	68	47
Minnesota	4,375,000	64	55	55
Mississippi	2,573,000	26	18	0
Missouri	5,117,000	60	55	55
Montana	799,000	0	0	0
Nebraska	1,578,000	47	34	0
Nevada	1,202,000	83	63	0
New Hampshire	1,109,000	29	10	0
New Jersey	7,730,000	98	90	55
New Mexico	1,515,000	32	32	0
New York	17,990,000	89	81	62
North Carolina	6,628,000	45	41	0
North Dakota	639,000	0	0	0
Ohio	10,847,000	74	69	46
Oklahoma	3,146,000	53	53	0
Oregon	2,842,000	85	66	66
Pennsylvania	11,882,000	81	72	49
Rhode Island	1,008,000	89	65	0
South Carolina	3,487,000	53	53	0
South Dakota	696,000	0	0	0
Tennessee	4,877,000	64	64	0
Texas	16,987,000	73	62	50
Utah	1,723,000	75	62	0
Vermont	563,000	0	0	0
Virginia	6,187,000	66	63	47
Washington	4,867,000	73	60	41
West Virginia	1,793,000	34	0	0
Wisconsin	4,892,000	49	38	38
Wyoming	454,000	0	0	0
Total	248,709,000	71	63	42

*In health markets that cross state boundaries, people have been allocated to their state of residence.

Discussion

We recognize several limitations to our study that cause uncertainty about our estimates. We estimated the minimal population required to support three efficient organizations in a steady state; population estimates may be unrealistic, however, since the motivation of competition includes growth and in small markets this cannot occur without driving a competitor out of business. Our assumption that three competitors are sufficient to avoid collusion cannot be supported by empirical evidence, since managed competition is an experiment that has yet to run its course. Three may not be enough. Each of these factors would tend to cause us to underestimate the market size required to promote efficient competition. We have also not considered other potential limits to reform, such as barriers to enrollment of providers and bureaucratic inefficiencies in the case of public-sector health planning. On the other hand, since the enrollees of HMOs tend to be younger than the general population, smaller health markets could support managed competition with a higher proportion of elderly persons. The conclusion, however, is the same: demographic factors will limit the full implementation of managed competition as the vehicle for reforming the U.S. health care economy.

We hope our study will help to move the policy debate beyond polarization, either for or against competition and regulation. The complexities and the highly localized nature of the health care economies in the various states indicate the need for care on the part of state governments in setting the rules for structured competition, or the need for alternative models of reform (based on planning and the promotion of cooper-

per 1000 enrollees and the population 65 or older uses 2490 days per 1000; that 13 percent of the enrollees are 65 or older; and that hospital occupancy is 85 percent.

What Are the Location and Size of Health Care Markets?

We assumed that metropolitan areas, as defined by the Office of Management and Budget,[9] are the relevant market areas for health services in nonrural parts of the United States. Metropolitan areas are defined as a "place" with a population of at least 50,000 or an "urbanized area," as defined by the U.S. Bureau of the Census, with a population of 50,000 and a metropolitan area with a total population of at least 100,000. Surrounding counties are included if they have a minimal commuting rate to the central county. This definition of metropolitan areas results in high-density geographic units with economic and travel ties that are consistent with a regional economic market.[11,12] The size and location of health services markets for people living outside metropolitan areas are usually determined on the basis of small-area analysis. Although we were not able to perform such an analysis for the entire nation, previous studies in northern New England have resulted in the division of this territory into 72 distinct hospital market areas.[13] We used these areas to illustrate the constraints of demographic forces on managed care in nonmetropolitan areas.

Results

Population Requirements for Managed-Care Organizations

The minimal population necessary to support a classic HMO offering referral hospital services and using its own staff physicians is approximately 450,000 enrollees. A health plan with 300,000 enrollees would be able to offer virtually all ambulatory and hospital services with its own panel of providers and own a 600-bed hospital, but it would need to contract for some coverage of cardiothoracic surgery and neurosurgery. A plan with 120,000 enrollees could provide the full complement of acute care hospital services associated with a community hospital, using its own staff physicians, although the cardiology and urology services would be close to the minimal three-person service. This plan would need approximately 240 hospital beds; it would be able to exert substantial control over one or two hospitals, but it would have to share some inpatient facilities with other plans. A plan with 60,000 enrollees could support 71 full-time-equivalent physicians (Table 1) and a 3-physician service in most of the specialties required for general hospital services, but it would need to share cardiology and urology services and engage in substantial sharing of inpatient facilities with other plans. A plan with 10,000 members could support an independent primary care service but would be required to share both physicians and inpatient hospital services in all specialties.

Population Required for Managed Competition

Assuming that three health plans are the minimum required for competition, then at least 360,000 persons are needed to support three HMOs that can plan for and deliver most general hospital services, although sharing of acute care hospital facilities would be necessary. A smaller community of 180,000 could support three health plans capable of providing a large portion of physicians' services in hospitals, using physicians who are employed as staff by the health plan, but they would require shared inpatient services. A community of 30,000 might support three independent primary care networks, but all hospital services would need to be shared if the residents were to receive inpatient care locally. At the other extreme, a much larger community of at least 1.2 million persons would be required to support three HMOs capable of providing almost all services with their own resources.

Table 1. Estimated Number of Full-Time-Equivalent Physicians and Hospital Beds Needed, According to the Size of the Health Plan.

Specialty or Type of Service	No. of Enrollees				
	10,000	60,000	120,000	360,000	480,000
	number				
Physicians					
Primary care (family medicine)*	10.0	36.0	60.0	180.0	225.0
General hospital services					
Obstetrics–gynecology	2.2	6.5	13.0	33.6	48.9
General surgery	1.1	3.2	6.5	15.2	23.7
Orthopedics	0.9	3.0	5.9	14.9	22.5
Emergency medicine	0.9	2.9	5.9	14.7	22.1
Anesthesia	1.0	3.6	6.8	15.0	22.5
Radiology	1.2	5.6	7.3	18.2	27.3
Psychiatry	0.8	2.7	4.6	11.4	17.1
Cardiology	0.6	1.7	3.4	8.3	12.8
Urology	0.5	1.5	3.1	7.7	11.5
Subtotal	9.2	27.7	55.5	138.8	206.2
Tertiary hospital services					
Thoracic surgery	0.2	0.5	1.0	2.5	3.8
Neurosurgery	0.1	0.4	0.8	2.0	3.0
Subtotal	0.3	0.9	1.8	4.5	6.8
Other specialties†	4.1	12.2	24.3	60.8	91.2
Total	23.6	76.8	141.6	354.1	531.2
Hospital beds	40	120	240	600	900

*Staffing will vary depending on the mix of family practitioners, internists, and pediatricians.

†The other specialties are ophthalmology, otolaryngology, dermatology, pediatrics, hematology and oncology, neurology, gastroenterology, allergy and immunology, pulmonary medicine, nephrology, rheumatology, endocrinology, infectious diseases, and plastic and reconstructive surgery.

Proportion of the U.S. Population Living in Competitive Zones

Twenty-nine percent of the U.S. population lives in markets with populations below 180,000 and thus in areas where substantial sharing of hospital services would be required for use to be efficient (Table 2). Eight percent live in markets with populations between 180,000 and 360,000, where managed competition has some potential to organize acute hospital care at least semi-independently, but where plans would need to be supplemented with substantial public-sector involvement in health planning. Twenty-one percent are in markets with populations between 360,000 and 1.2 million, where the demographic requirements for HMO-based managed competition are largely met but where some public-sector efforts are likely to be required in the planning of tertiary hospital services. Forty-two percent reside in markets with populations of more than 1.2 million.

The location of these markets in the United States is shown in Figure 1. Twenty-three states and the District of Columbia have at least one metropolitan area

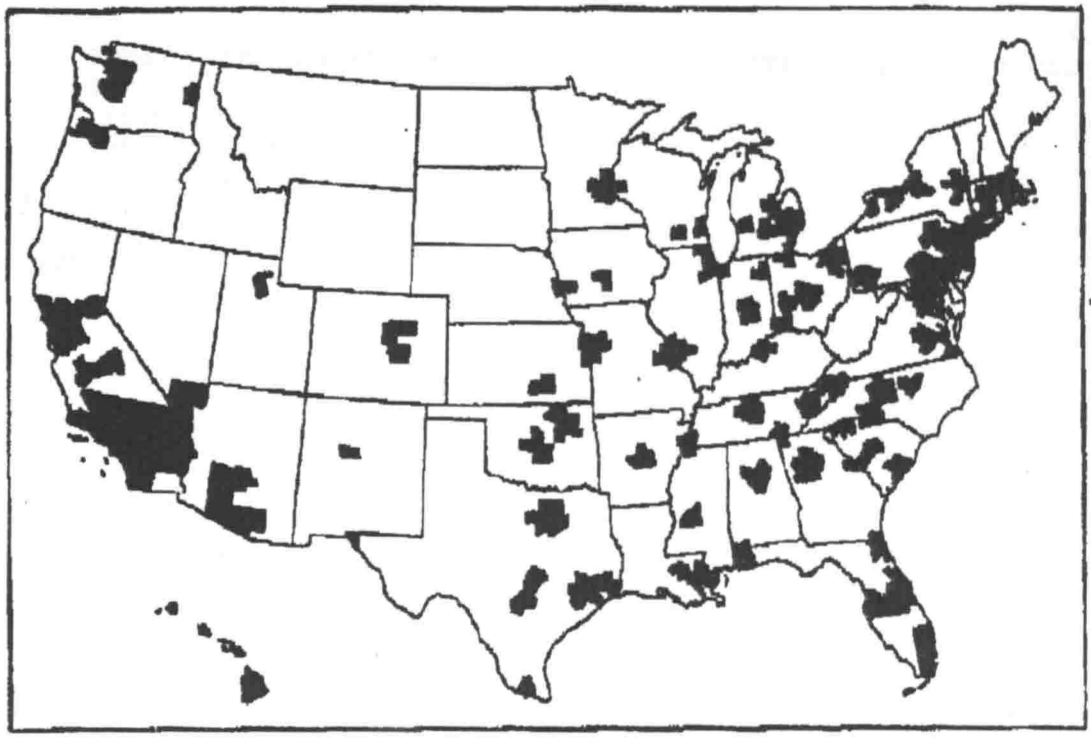

Figure 1. Health Markets with Populations >380,000 in the United States.
Metropolitan areas (health markets) with populations >380,000 are shown in black.

ation as the basis for achieving the efficiencies that the population-based perspective of the classic HMO brings to the health care economy). Monitoring by the states should be based on a sophisticated understanding of their health care systems, including detailed information about the location and level of use of resources in local and regional markets. Each state will need to recognize the limitations as well as the advantages of managed competition, particularly the need for support within an overall regulatory framework that can deal effectively with all the territory within its jurisdiction.

We recommend that the states be given wide latitude to undertake experiments in setting the rules for managing health care reform within their territory. We expect a provocative series of experiments that promote a variety of approaches to the complex problem of building population-based systems of care. Some will result in as yet unanticipated hybrid solutions that reflect demographic factors, the history of the state's health care industry, and regional traditions and preferences.

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REFERENCES

1. The gate to reform health care. New York Times. August 2, 1992:16.
2. Peterseyer E. Let's really cure the health system. Fortune. March 23, 1992:46-50.
3. Garland SB. A prescription for reform. Business Week. October 7, 1991: 58-60.
4. Talking points on health care. Little Rock, Ark.: Clinton/Gore Campaign Committee, 1992.
5. Enthoven AC, Kronick R. Universal health insurance through incentives reform. JAMA 1991;265:2532-6.
6. Enthoven AC. Theory and practice of managed competition in health care financing. Amsterdam: Elsevier North-Holland, 1988.
7. Kosper JP, Molloy AG Jr, Weinberg JE. Developing shared decision-making programs to improve the quality of health care. QRB Qual Rev Bull 1992;18:183-90.
8. Mullooney R, McGee J. Physician needs: an alternative projection from a study of large, prepaid group practices. JAMA 1989;261:1930-4.
9. Hicks LL, Chen JK. Too many physicians in the wrong places and specialties! Population and physician from a market perspective. J Health Care Marketing 1989;9(4):18-26.
10. Codes, titles, and components of metropolitan areas (MSAs, CMSAs, and PMSAs). Washington, D.C.: Bureau of the Census, 1990. (Department of Commerce report 2-32.)
11. 1990 Census of population and housing: summary population and housing characteristics — New Hampshire. Washington, D.C.: Government Printing Office, 1991. (Bureau of Census report CPH-1-31:A-8.)
12. Half the nation's population lives in large metropolitan areas. Press release of the Department of Commerce, Washington, D.C., February 21, 1991.
13. Freeman JL. The evaluation and refinement of New England Hospital Service Area definitions. Hanover, N.H.: Dartmouth Medical School, 1991.

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