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Final Report to the Robert Wood Johnson Foundation 1999-2000

Summary

The troubling issues surrounding healthcare in the U.S. are becoming well-known: rising costs, access to health services, variability in diagnosis and treatment, avoidable mistakes that cause harm to the patient. Solving these problems is proving extremely difficult, because solutions conflict with incentives and values in the medical profession. Our study leads us to the view that these issues are symptoms of a medical mode of production that is increasingly maladapted to the explosion of knowledge and the changing economy. The danger for the future of medicine is that this craft mode of production will be replaced by a manufacturing mode of production that makes the physician into a kind of factory worker. Is there an alternative mode which addresses variability and cost while maintaining the physician's autonomy? We have studied a very few healthcare organizations that are attempting to develop a new model. The process of change in these organizations is directed by exceptional leaders. In this report, we describe the leadership competencies required and the tools leaders can employ to facilitate change and address resistance. We believe these examples of organization and leadership can be useful to others who are attempting to improve the delivery of healthcare in America.

The Purpose of the Study

The purpose of the study has been to understand the leadership visions and implementation strategies of not-for-profit health care organizations and academic health centers considered among the best in the country by an advisory board of distinguished leaders in the field. Furthermore, we explored the leadership competencies and tools required to transform these organizations to adapt to new economic, technological and social conditions.

A report from the Association of Academic Health Centers, *Mission Management: A New Synthesis* (Rubin, 1988) stated that the organizational cultures of the centers need to change in order to adapt to new pressures of competition, cost, and complexity. A subsequent report, from the Association of American Medical Colleges, *Managing Change* (Paul Griner, et. al., 2000) describes positive changes that have taken place in medical schools and teaching hospitals but cautions that much remains to be done in the areas of cost control and quality improvement.

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Advisory Board: Polly Bednash, PhD, RN, FAAN, Executive Director, American Association of Colleges of Nursing • Roger Bulger, M.D, President, Association of Academic Health Centers • Paul Griner, M.D., former President, American College of Physicians and Vice President and Director, Center for the Assessment and Management of Change in Academic Medicine, Association of American Medical Colleges • Federico Ortiz Quesada, M.D., Director, International Relations, Mexican Ministry of Health; • Stan Pappelbaum, M.D., former CEO, Scripps Health • Richard Riegelman, M.D., M.P.H., Ph.D., Dean, School of Public Health and Health Services, George Washington University • Henry Simmons, M.D., President, National Leadership Coalition on Health Care.

The report also calls for "new paradigms" and leadership to further the missions of medical schools and teaching hospitals in the new millennium.

The report states that "A lack of shared vision and shared values among key medical school and teaching hospital stakeholders continues to inhibit change."

Leadership for Healthcare in the Age of Learning highlights how leaders can respond to these social factors. It focuses on the need to reduce resistance to change through leadership initiatives which help health care organizations move from the craft paradigm to one of learning.

The Model of Change

We began our study with two basic assumptions. The first assumption was that to improve organizations, they must be understood as social systems made up of people with their own values and purposes. To change a social system, it is not sufficient to install new technology and processes. Leaders must understand how to motivate people to achieve the organization's mission.

The second assumption was that in an ideal health care system, physicians should be able to be productive and creative and to develop trusting relationships with their patients. Without this freedom, the most qualified young people will go into professions other than medicine, where they can better realize their potential. Our early research included in-depth interviews with physician-leaders in order to understand their shared values or social character. We wanted to learn what kind of a health system they would consider ideal. They reinforced this assumption and expressed strong concern about the deterioration of the physician's professional freedom and ability to develop relations of trust with patients.

However, while autonomy for physicians can enhance relationships with their patients, colleagues and even their organizations, the physician leaders we interviewed believe that autonomy in medical decision-making when the answers are known (e.g. Class I guidelines) should be discouraged.

We viewed health care from an anthropological perspective, focussing on its changing mode of production. A mode of production refers not only to the use of tools. It describes a productive system of values, beliefs, rules and relationships that may change over time due to new technology, knowledge and innovations in organization. For example, agriculture was a craft mode of production in 1840 when over 70 percent of the US workforce tilled the soil using methods that had not radically changed for centuries. Today, about two percent of the workforce produces enough food to feed a much larger U.S. population and to export the surplus abroad. Agriculture today is highly mechanized. Large farms

The Transformation of Health Care

	Craft ➡	Manufacturing ➡	Knowledge-service
Structure / Roles			
- Organization	• Cottage Industry	• Bureaucracy	• Complex self organizing adaptive system (learning organization)
		• Focussed Factories	
- Role of physician	• Sole proprietor • Small partnerships	• Employee • Entrepreneur	• System stakeholder • Leader
- Relationship: Physician with Patient	• Authority • Submissive - trusting	+ Provider • Customer	+ Partner - teacher + Co-producer - learner
Business Model			
	• Personal relationships • Reputation	• Price • Scale • Service	+ Community Needs + Prevention + Health Improvement
Operating Systems			
- Technology	• Hand tools	+ Electromechanical + Chemical	+ Information + Biogenetic
- Quality and Cost Control	• Peer review	+ Statistical process control + Utilization management + Outcome measures + Clinical pathways	+ Continuous Improvement + Shared responsibility
- Learning	• Individual	+ Organizational	+ Community
Model of Care			
	• Biomedical	• Biomedical	• Biopsychosocial • Epidemiological
Physician Skills			
	• Clinical	+ Managerial	+ Business + Partnering
Style			
- Leadership Model	• Master - apprentice • Mentoring • Ombudsman	+ Manager + Monitoring	+ Visionary + Dialogue + Motivating
Values			
	• Caring • Personal trust • Expertise	• Profitability • Service	+ Teamwork + Innovation

are run by agribusinesses. The mode of production, including work roles and relationships has been transformed. In the process, the independent craft farmers fought the change as long as they could.
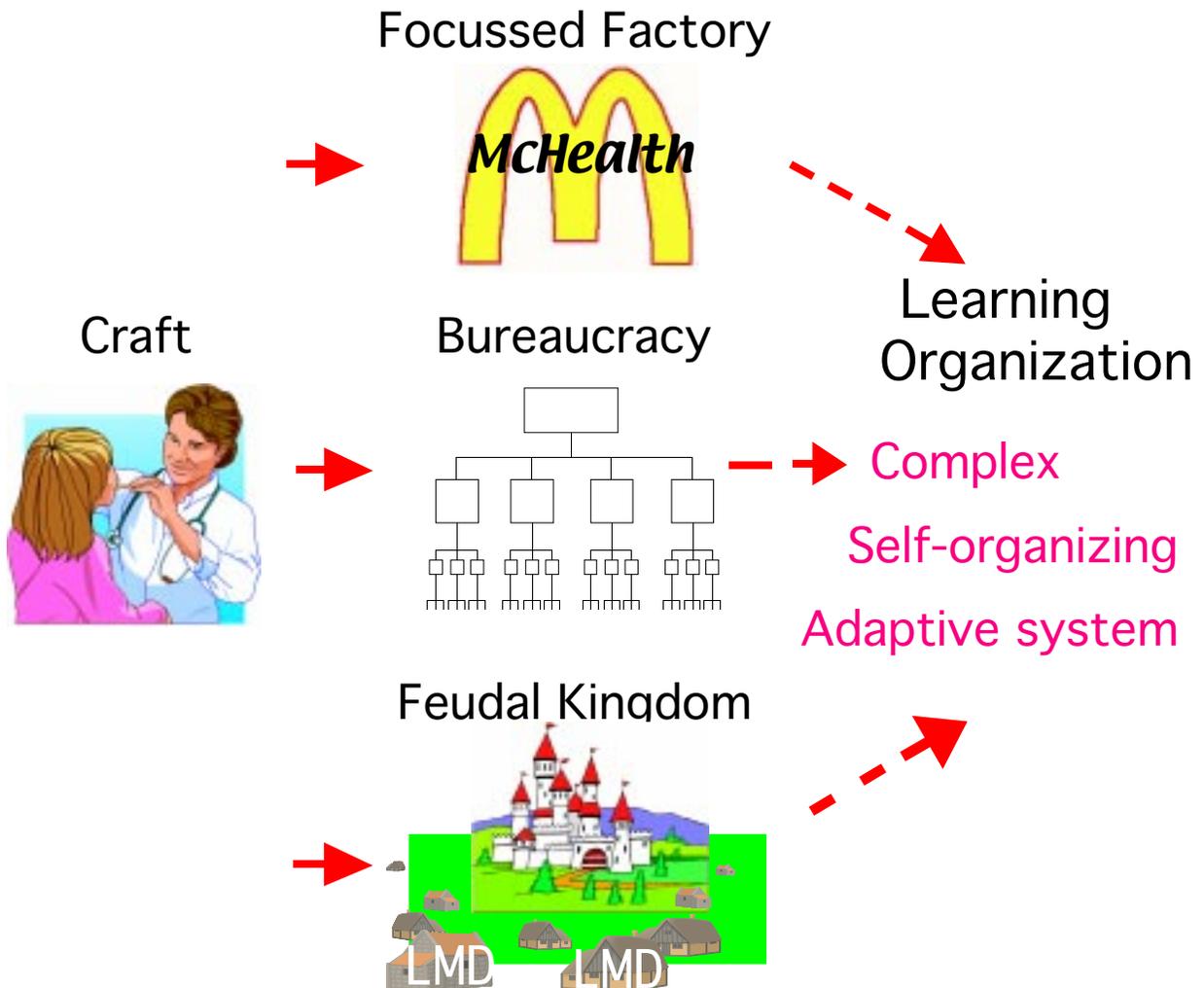
Traditionally, medicine has been a craft, organized like a cottage industry with sole proprietors and small partnerships. A few physicians have been able to combine their practice with academic positions. The craft business model has been based on the physician's reputation and personal relationships with colleagues and patients within a guild-like structure. The ideal leadership model as with other crafts, is master and apprentices or an ombudsman who represents the interests of his peers. The physician-patient relationship has depended on the patient's trust of the doctor's expertise and caring attitude. For centuries, the technology has been hand tools — stethoscope, scalpel, needles, etc. — and a limited number of useful medicines. The model of care has been biomedical with a strong dose of positive transference to cement trust and strengthen a placebo effect that aids natural self-healing.

This model has been disrupted by the rise of organizational medicine, the influence of government, insurance companies and HMOs, the complexity of technology, including IT, the internet, new medicines, and procedures. Furthermore, patients have become more demanding and less trusting.

Following the example of other industries, some healthcare organizations have adopted a manufacturing mode of production. Physicians have become employees in a bureaucracy or in "focussed factories" that specialize in a particular type of treatment. The physician becomes a "provider" or else a manager who is engaged more in monitoring than mentoring and must ensure business profitability. While this approach may fit comfortably into the bureaucratic organization of hospitals, the physician suffers a severe loss of autonomy in the manufacturing model. Contact with patients is measured and according to the physicians, it is limited. A study in *The New England Journal of Medicine* of February 2001, challenges the view that managed care has substantially reduced the duration of office visits. However, a Harris Poll (February 21, 2001 in the *Wall Street Journal*) reports that 61 percent of Americans believe that managed care has decreased the time doctors spend with patients. In addition, when patients do not have an ongoing relationship with a particular doctor but are sent to different physicians, this undermines the positive transference that facilitates healing.

To be sure, there have been useful learnings from manufacturing, particularly quality management which can be used to address variability in practice and supply management. The use of statistical process control and the development of informatics show promise of both improving outcomes by constructing clinical pathways and controlling costs. However, within the framework of a manufacturing mode of production, physicians tend to resist any further limita-

Changing Organization of Medical Practice

Focussed Factory

McHealth

Craft   Bureaucracy   Learning Organization

Complex

Self-organizing

Adaptive system

Feudal Kingdom

LMD   LMD

tion of their freedom to make medical decisions. Unless they are personally involved in decreasing variability, they may see these efforts as "cookbook medicine" which do not take into account unique patient needs.

Is there an alternative mode of production for health care? Is there one that addresses variability, improves outcomes and cost, yet allows physicians to be creative and retains the best of the craft tradition? Advanced organizational thinking emerging from complexity theory and the most effective professional service companies provides elements of an alternative. In manufacturing, productivity depends essentially on the manufacturer's processes and practices. In professional services, it depends on both producer and client, on co-production. The lawyer or accountant's productivity rises when the client keeps good records. This is also the case for healthcare, most clearly with chronic conditions like diabetes, asthma, and congestive heart failure. When patients manage their own conditions, keep their own records and medicate themselves, their health improves and medical costs are lowered. Furthermore, as patients gain

easier access to medical information on the internet, opportunities increase for physician-patient partnering.

For health care organizations to make full use of informatics and quality processes, they must become complex self-organizing adaptive systems or stated more simply, *learning organizations* within a knowledge-service mode of production. This means that professionals will act to further organizational purposes, not in response to command and control systems, but because they have internalized shared values and operative principles. They will not see any contradiction between their autonomy and the organization's goals. For example, physicians will be convinced that by addressing variability, they will be benefitting their patients as well as the organization.

Such a system also needs to use information technology to aid physician decision-making and make the patient's experience free of hassles and responsive to individual needs. Thus, the system requires both advanced organizational design, informatics and committed, informed professionals — nurses, administrators and technicians as well as physicians.

Furthermore, the ideal health system will challenge not only physicians but all health care professionals to work together to improve the health of a community. This requires an expansion of the care model from a purely biomedical craft focus to a biopsychosocial and epidemiological ecosystem focus. It will call for a different kind of medical education such as the type being pioneered by the University of Rochester Medical School.

Such a system requires leadership skills different from either the craft or manufacturing mode.

I first proposed this typology of modes of production in 1998 at the annual meeting of the Association of Academic Health Centers. It was well received and became the leading chapter in *Creating the Future** in 1999, I led a workshop with leaders of academic health centers to determine the gaps between the ideal and current practice, using the gap survey included here. (Appendix 1)

The major gaps between the ideal and current practice indicated by leaders of academic health centers were the following. We learned more about these gaps as we studied health care organizations.

- **Patient service** as the highest priority was an ideal universally stated but seldom achieved. As we'll report, we found this gap at all academic health centers with the exception of Mayo Clinic which is organized to put the patient first.

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* edited by Clyde H. Evans & Elaine R. Rubin, Association of Academic Health Centers, 1999.

- Utilization management is shared by all physicians is a gap that reflects the prevailing craft mode of production. There is in general, significant variability in treating the same presenting problem.

- Information systems support physician decision-making is a gap now being addressed by all the health centers we studied. However, the approaches vary. The danger for organizations is that new information systems are not aligned with a learning culture. (A notable positive model has been developed at Vanderbilt University Medical Center.)

- Individual performance is evaluated regularly. This again reflects the craft model. In general, physicians don't like to evaluate colleagues. However, we found some department chairs who have instituted evaluation systems based essentially on clinical and research productivity. An example is the Vanderbilt Department of Medicine (see Appendix 2). Some faculty members object to it, but it appears to result in improved productivity.

- Leaders develop relationships of trust. A number of factors cause the trust gap. As health care leaders pressure their organizations to cut costs and improve performance, distrust increases. However, as we shall discuss, a large part of the problem has to do with a lack of dialogue between leaders and their organizations about the need for change and how best to achieve it. Such a dialogue must increase transparency about the flow of money.

- Leaders communicate a vision. People want to know what the organization is trying to become and how they fit in this vision. Given the uncertainty in health care, people, especially the middle managers and chairs, want the leader not only to set a clear course but to explain the logic underlying it and help them to understand the meaning of change for them. If sacrifice is required, they need to know why this will pay off in the long-run.

What We Did

In 1999, colleagues and I made study trips to the University of Rochester Medical Center, Intermountain Health Care, Penn State Geisinger, Aetna US Health Care Southeastern Region, University of Michigan Medical Center, Shands-University of Florida, and Mayo Clinic, Rochester, Minnesota. In 2000, study trips were made to Scripps Health, Mayo Clinic, Scottsdale, Arizona, Vanderbilt University Medical Center, and Kaiser Permanente in Oakland, California. In November 2000, we facilitated a two-day workshop in Salt Lake City with leadership teams from Mayo Clinic Scottsdale (MCS) and Intermountain Health Care (IHC). The purpose was to bring together an organization representing the best in patient focussed service (MCS) with an organization in the forefront of evidence based medicine (IHC), to facilitate learning from each other. The results which

we will discuss later, were enlightening about both the possibilities and limits of interorganizational learning.

In December, 2000 we met with members of the advisory board and discussed all of our findings from the two-year study. It was suggested that once this report was prepared, it would become the basis for a seminar sponsored by the AAHC. This took place in May 2001. This report incorporates suggestions from the participants, led by Roger Bulger, M.D. president of AHC.

Findings From The Study

The findings will be organized as follows:

♦ The culture of health care organizations and social character of physicians in relation to change.

♦ The role of leadership including different types of leadership required

♦ The tools available to leaders.

♦ Organizational learning.

Culture & Social Character

Based on social character interviews and surveys of senior physicians and graduating doctors, we found a dominant shared social character. Most doctors fit a type we termed *expert-helper*.

The dominant value for the expert is mastery, including the need for achievement. The expert's sense of self-esteem and employment security is achieved by gaining status and professional respect. Experts find pleasure at work in their craftsmanship and recognition by their peers and superiors. They have a strong need for autonomy. At their best, experts stand for high standards of service and scientifically proven knowledge. They value professionalism, a term with roots in the Calvinist concept of professing a calling to serve. However, at their worst, their obsessive qualities make experts inflexible know-it-alls. They are rooted in a system of master and apprentice, where knowledge is based on experience, at a time when knowledge is quickly out of date and competence depends on continual learning. Thus the expert's character can be a major roadblock to change. Experts want control over their functions and they resist the empowerment of others, which they see as loss of control. This has been the complaint we heard repeatedly from nurses and some administrators. Physician experts tend to see their organizations as service functions and do not appreciate the added value of an organization over what they do as indi-

viduals. Physicians, like other experts relate best with mentors, peers, or younger high-potential apprentices who share their values.

Approach to Service

As defined by *Webster's New International Dictionary*, an expert is "an experienced person...one who has a special skill or knowledge in a particular subject, as a science or art...." Expert comes from the Latin expertus, meaning tried, experienced.

The expert's awards and diplomas are typically displayed to attest to experience and testify to achievement. The physician-experts we interviewed see the meaning of their work not only in the excellence of their performance, but also in helping people.

Notably, some of the most innovative physician leaders we interviewed had a somewhat different social character, with a focus on creating a great organization. These leaders were typically productive narcissists, the type described by Sigmund Freud as not impressed by the status quo but "especially suited to act as a support for others, to take on the role of leaders, and to give a fresh stimulus to cultural development or damage the established state of affairs."[*]

While the craft-like experts see health care organizations as little more than a support for their craft work, innovative leaders understand that effective organizations are essential to achieve the goal of better health care in a cost effective manner. This difference in thinking about the organization can cause a profound disconnection between leader and physicians.

The Role of Culture

It is also the case that physicians are selected and trained to be autonomous craftsmen. There is little teaching about interdependence or the importance of organization. Physicians are not trained to look at work from the viewpoint of nurses, pharmacists and technicians. The image of the independent decision-maker which may have made the field attractive to them is reinforced by their education.

The expert physician is comfortable within a craft mode of production. His ideal organization is his own craft shop or possibly a partnership. With some frustration, he can also fit into the semi-feudal academic health center. In this organization, the vice president for the medical center takes the role of feudal lord and the chairs become the barons who determine which of their physician

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[*]See M. Maccoby, "Narcissistic Leaders: the Incredible Pros, the Inevitable Cons," *Harvard Business Review*, January-February 2000.

vassals are most favored. To carry the analogy further, the academic faculty of specialists are often viewed by the local MDs or primary care physicians as superior beings who demand tribute and referrals but show little or no respect to the peasant-like LMDs. Many of the faculty members we interviewed seek to maintain their autonomy through research grants that allow them to set up their own shops. They can justify being part of an academic organization for the prestige it provides them as professors. Because independence, prestige, and promotions depend on research grants and publications, service to patients is not their first priority.
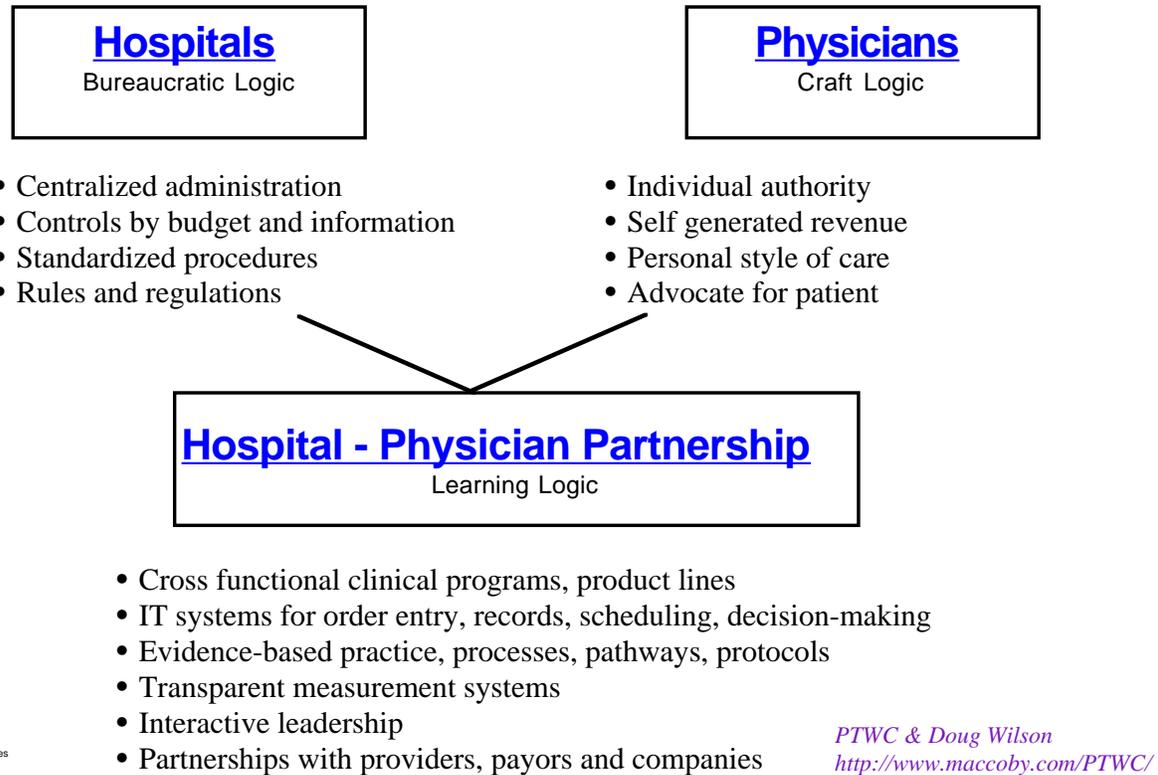
We also found a culture clash between physicians and hospital administrations. In a sense, this is a conflict between a craft logic of individual authority, self generated revenue, personal style of care and being the patient's advocate as opposed to the bureaucratic logic of centralized administration, financial controls, standardized procedures and rules based on principles of fairness. This clash can at least be partly resolved by developing a transparent learning culture.

The typical pattern of leading academic health centers results in a corrosive hierarchy of status. The full time clinicians feel slighted and they also believe that many medical researchers do not spend enough time with patients to maintain their competence. We heard the view that the triple threat ideal of teaching, research and practice could no longer be sustained by individuals. Only by the faculty as a whole. However, there was not total agreement about this, and some physicians appeared to succeed at combining the three functions.

An exception to the prevailing pattern is the group practice culture, most notably as developed by the Mayo Clinic. At Mayo in both Rochester, Minnesota and Scottsdale, Arizona (we did not visit the Mayo Clinic in Jacksonville, Florida), the patient comes first, research and teaching are important but secondary. Research is aimed at clinical utility. Furthermore, specialists cooperate across disciplines in a way seldom seen in other academic health centers where patients with medical problems that cross disciplines also lack the benefit of the coordinating Mayo physicians. Mayo doctors are salaried and all departments are treated as cost centers. Physicians can take as much time with patients as they consider necessary. And administrators at Mayo see their role as serving doctors rather than struggling with them about costs. There is a smaller trust gap at Mayo than in any of the other academic health centers we studied.

The natural question which we asked ourselves is whether the Mayo Clinic and other group practices built on the Mayo model attract physicians with a different, more cooperative social character or, alternatively, whether the different cultures and incentives shape the values of physicians. Mayo favors hiring physicians who have been socialized in the culture as medical students and residents. Since we have not done a longitudinal study of physicians starting

Hospital vs Physician Logics

Hospitals	**Physicians**
Bureaucratic Logic	Craft Logic

- Centralized administration
- Controls by budget and information
- Standardized procedures
- Rules and regulations

- Individual authority
- Self generated revenue
- Personal style of care
- Advocate for patient

Hospital - Physician Partnership
Learning Logic

- Cross functional clinical programs, product lines
- IT systems for order entry, records, scheduling, decision-making
- Evidence-based practice, processes, pathways, protocols
- Transparent measurement systems
- Interactive leadership
- Partnerships with providers, payors and companies

PTWC & Doug Wilson
http://www.maccoby.com/PTWC/

with their choice of a place to work or even a choice of residencies, our answer to the question remains somewhat speculative. However, we were able to interview over 120 physicians and administrators from Penn State Medical Center in Hershey, Pennsylvania and the Geisinger Clinic, which was modeled after Mayo, at a time when the two organizations were trying unsuccessfully to merge. In the clash of cultures, we also observed a difference in the values that were reinforced by the two cultures. We had been asked by the leadership of the Penn State-Geisinger partnership to help develop a common culture based to a large extent on the learning model. In the workshops we held with physicians from the two cultures, there was strong support for this model. On the gap questionnaires, both physicians and administrators indicated the importance of the elements of the model. However, the leadership groups including some chairs of the two organizations saw themselves and their counterparts in different ways that emphasized their own virtues and the others' defects.

The Penn State chairs described themselves as open to new ideas, faculty participants in decision-making who were able to question authority. They saw themselves as entrepreneurial capitalists.

They described the Geisinger physicians as employees of a centralized, bureaucratic collective: rule driven conformists who did not question authority.

The Geisinger chairs saw themselves as placing the highest value on patient service in contrast to the Penn State faculty who put their publications before their patients. They stated that since they received a fixed salary, financial incentives did not distort their clinical practice. They could take as much time as needed with each patient. They contrasted their cooperative interdependence with their characterization of Penn State faculty as individualistic and careerist. They affirmed their respect for LMDs and the primary-tertiary care relationship and accused the Penn State faculty of being arrogant, controlling, and self-serving.

These stereotypes distorted the chairs' views of each other. For example, the Penn State faculty was convinced that their clinical care was better than that of Geisinger. That may have been true for some specialties. However, they were unaware that, for example, the Geisinger CABG results were better than theirs and achieved at a lower cost.

How different were the physicians in these two cultures? If you moved any of them from one culture to another, would their behavior change? In our view some chairs strongly expressed the cultural values of their organizations while others were less polarized. After this meeting, we held a discussion with the Departments of Medicine of both groups. The stereotypes were discussed, and the participants agreed to try and create a common culture, using the model of a learning organization. The younger physicians were most clearly in favor of close cooperation and shared leadership. The older ones agreed to make a sincere attempt. They recognized that this required strong leadership to resolve conflict and affirm the common vision. The attempt to create a common culture was short circuited when top leadership could not work together, and the board of directors voted to dissolve the merger.*

The Role of Leadership

Think of the workplace roles in health care in terms of a three dimensional space. On the X axis are the pure service roles measured according to their market value. At the low end are the custodial staff, security workers and so on. On the Y axis are the pure knowledge workers, including laboratory staff and researchers. Between these axes is the knowledge-service vector, the people who apply knowledge to produce service, ranging from lower-level transactional roles such as scheduling and payments to the professional roles of nurses,
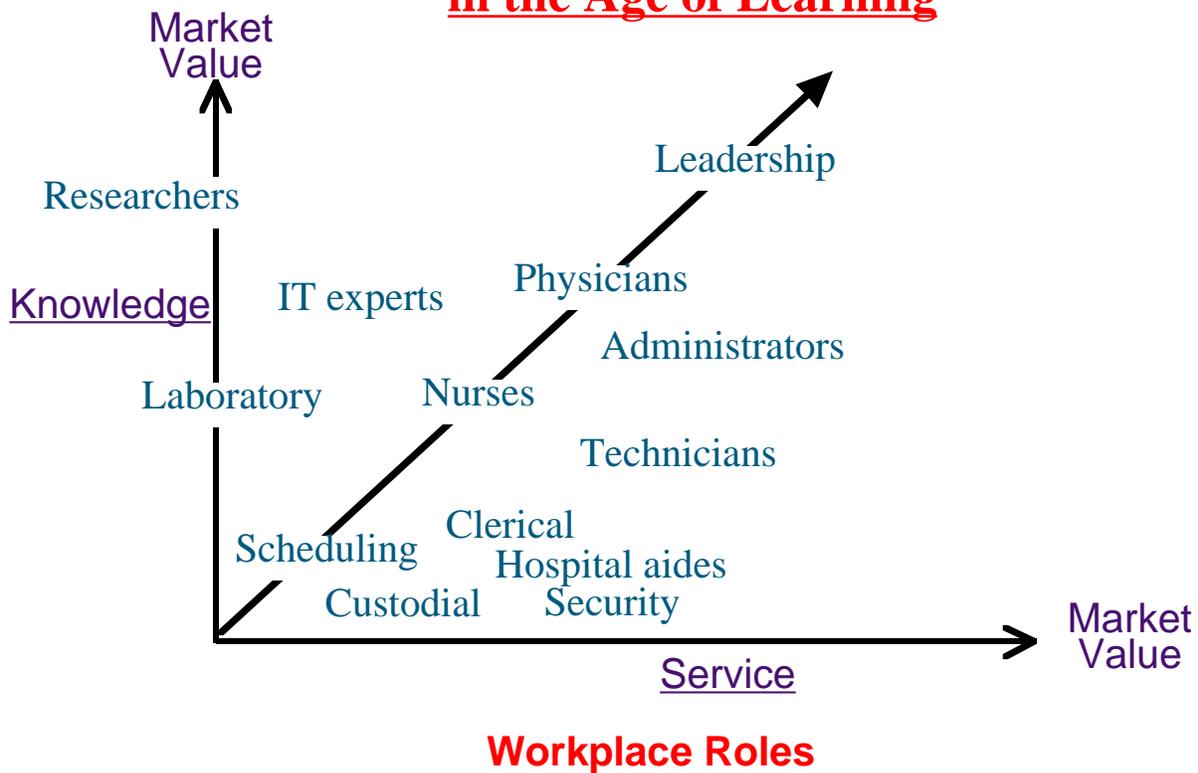
* Since that time, the Penn State Medical Center has rebounded from its critical condition under the leadership of Darrel Kirch, M.D and full support from the university president, Dr. Graham Spanier.

administrators and physicians. From a market perspective, the most valuable of these roles is the leadership that must integrate all the roles and inspire people toward a common purpose.

   In the future, more of the transactional roles and even some of the professional functions will be automated by the knowledge workers. It will become easier for patients to schedule appointments, pay bills, examine test results, and even question diagnoses using the internet. Some of the physician's administrative and even clinical tasks for chronic conditions will be automated. The role of physicians may change as outcomes become more similar and care becomes more regularized by guidelines. Then competition among physicians will be based less on outcomes, more on either interactional qualities (service) or innovation (knowledge). However, the need for leaders will remain.

   We should distinguish between management and leadership. Management is a function, including planning, budgeting, scheduling, measuring, etc. It can be performed by a manager, a professional or a team that shares these functions. But leadership will remain a human relationship between leaders and followers. Particularly, when change is demanded, leadership requires high levels of trust

Health Care Organizations in the Age of Learning

Market Value

Researchers

Knowledge

IT experts

Leadership

Physicians

Administrators

Laboratory

Nurses

Technicians

Clerical

Scheduling

Hospital aides

Custodial

Security

Service

Market Value

Workplace Roles

based on the belief that the leader has the knowledge and understanding necessary to adapt the organization to its environment.

Health care organizations need leaders at all levels of the organization, and change requires a critical mass of leaders. However, there are two kinds of leaders, strategic and operational. Strategic leaders are needed to develop a systemic vision, communicate it, and determine a strategy for implementation. Operational leaders are needed for implementation in all parts of the organization. Let's consider the qualities required in both kinds of leaders and their relationship.

There is general agreement that strategic leaders need to define a vision, develop an implementation strategy, and motivate people to achieve the vision. However, it is not so clear what kind of personality, skills and tools are required for the role. A recent report by The Blue Ridge Academic Health Group emphasizes that leaders need emotional intelligence, story telling ability and mentoring competence.*

This leadership ideal does not fit with our experience of effective strategic leaders, particularly within a social system where key members resist change because it conflicts with both their expert values and independent interests. The strategic leader who aspires to transform a health care organization cannot be an ombudsman who represents followers who find change uncomfortable.

He or she must be able to motivate people to change with both incentives and meaningful goals that emphasize patient well-being as well as physician opportunity. It is up to a strategic leader to develop a holistic vision that combines three types of logic: business, quality and the leadership required to make physicians and other health care professionals into good followers as well as leaders in their own areas.

Logics for Change

• Logic of Business. Strategic leaders need to develop an entrepreneurial vision that is responsive to the realities of their markets. This will depend on competition and the mix of services offered. The Mayo Clinic Scottsdale (MCS) had to change a money losing strategy from an integrated delivery system to the traditional Mayo specialties. Kaiser-Permanente in Northern California has a large prepaid membership and therefore incentives to educate patients and prevent the need for medical visits. These incentives are not present in a system that depends on episodic treatment. To create this kind of incentive for education, a health care organization needs to partner with a payor such as a

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In Pursit of Greater Value: Stronger Leadership in and by Academic Health Centers, University of Virginia Health System, 2000.

large company which can benefit by investing in the health of employees to gain improved productivity and less costly hospital stays for patients with chronic conditions. This kind of partnership is developing between IHC and the Becton-Dickinson corporation and University of Michigan Medical Center and the Ford Motor Company.

The logic of business includes efficiency and cost control as well as effectiveness. It includes partnering relationships with providers, payors, patients, and the business ecosystem in which the organization operates in order to both improve the value propositions of the organization and the health of the community.

Logics for Change

• Logic of Business

• Logic of Quality

• Logic of Leadership
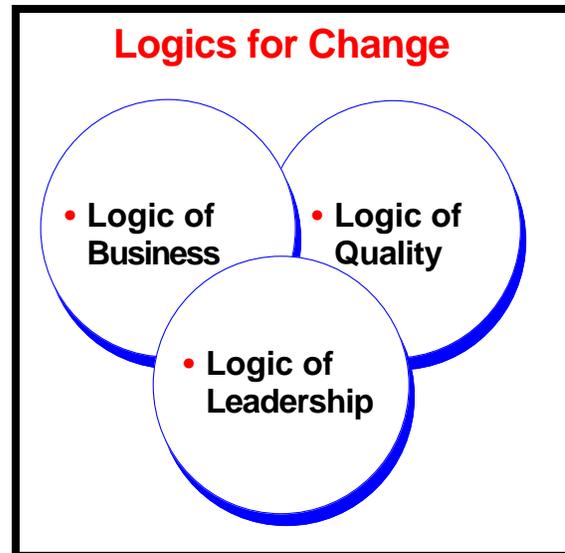
• Logic of Quality. Both effectiveness and efficiency in health care depend on leadership understanding the logic of quality including patient access to care and decreasing variability in diagnosis, treatment and utilization of supplies. Quality includes the aims for improvement emphasized by the Institute of Medicine's Quality of Health Care in America Project. All indicated preventive, acute, and chronic care services should be delivered accurately and correctly and at the right time. Services that are not helpful to the patient should be avoided. Safety hazards and errors that harm patients and employees should be as far as possible eliminated. A quality system places patient service as the highest priority but also develops the processes that drive out unnecessary costs and minimize patient errors. Developing a quality system such as we saw at IHC requires the informatics to track and measure as well as operational leadership to engage physicians in developing pathways that make sense to them. But this is not enough. The culture must be that of a learning organization. It needs to institute ongoing research into what works best, as is being done at Kaiser Permanente in California. As long as the craft mode prevails, quality initiatives will be at best only partially successful. As Brent James, MD of IHC put it, the caring craftsman is increasing the chance of harmful mistakes, because he resists standardizing processes.

However, leaders should recognize that quality approaches can turn into a kind of religious sect. In one large industry, a global survey found over 40 different quality approaches, and the leaders of each one believed they had discovered the true faith. Furthermore, quality experts may establish overly complex guidelines and pathways. At IHC, a leadership team of physician, nurse and administrator simplified the pathways and gained full support from the cardiovascular department.

• Logic of Leadership. Strategic leaders need to communicate a meaningful and inspiring vision and engage physicians and other professionals in a dialogue about its meaning and implementation. This should be a vision of a learning organization with a clear purpose of quality care and the continual development, implementation and transmission of useful knowledge. We find that for many of the best physicians, it is essential for leaders to explain how changes will benefit patients and the health of the community. These doctors are critical of leaders whose motives appear mainly economic. However, when finances are not transparent, there will be no trust. Leadership of professionals should be neither dictatorial on the one hand nor consensual on the other. The leader needs to be like a doctor who diagnoses the organizational problem, prescribes a course of treatment, and motivates the patient to follow it, even if it requires changing life style.

In some academic health centers, as in many companies, a mission and value statement resulted from an off-site brainstorming process. The outcome of these meetings typically emphasized values like service to patients, respect, and integrity. But these values can become ideals that are used to support the craft value of autonomy. When teamwork is added as a value, this is seldom if ever reflected in the reward system. Values are important if they determine the behavior that supports an organization's mission. However, they need to be aligned with the system goals and reinforced by measurements and incentives.

To motivate the organization, the leader must conceive of it as a social system. Unlike a mechanical system in which the parts are designed to serve the system's purposes or an organic system in which the parts are genetically determined to serve the system's purposes, the parts of a social system, people, have purposes of their own. Leaders must align these purposes with those of the health care organization.

This also includes gaining support from all the key stakeholders. Boards of directors must be fully educated or they can undermine even the best of visions, as was the case at Scripps Health. University presidents often are not aware of how little board members know about medicine and the issues of health care. Too often, board members adopt the point of view of their personal physician who may be at odds with the leadership. Strong unions of nurses and technical workers either hurt or contribute to change. David Lawrence, MD of Kaiser Permanente has developed a partnership with unions that promises to support the transformation to a learning organization. He has also emphasized the education of his board.

Leadership Tools

A strategic leader has four kinds of tools that can be used to facilitate change. These are:

• **Budgeting.** Departments should be asked to develop mission based budgets that are sound from a business point of view and also include efforts to control variability of ordering supplies and to develop cost-effective clinical processes. Investments in IT should be justified according to business logic.

• **Incentives** for managers based on meeting key economic and utilization targets. This requires building useful measurement systems.

• **Structuring** authority, responsibility and accountability. Making sure key roles are filled by people with the necessary skills and shared values.

• **Education** Leaders typically communicate plans and results, but one-way communication is not enough to educate physicians so that they accept and internalize operating principles.

One of the best examples of a strategic vision for an academic health center that moves toward a learning organization is at Vanderbilt University (see Appendix 2). Harry Jacobson, M.D., the strategic leader, is using all four tools, but some of the chairs resist accepting the logic of quality. They expressed different objections to us, such as "cookbook medicine" and "too economically focussed". It is our experience that physicians such as these will not be persuaded by lectures or other forms of one-way communication. They must be engaged in a dialogue which brings out their reasoning. In this process, leaders will either modify plans to incorporate legitimate concerns or explain why not. Dialogue brings out the nature of resistance. If it is an expression of the craft tradition, this calls for different leadership action than if there is merely a lack of understanding. If the resistance is not rational and positive incentives are inadequate, resistors should be isolated or replaced. The dialogue, properly led, will make it clear to everyone why this must be done. Authoritative leadership will be seen as fully rational and necessary, and the more timid supporters will feel it is less risky to support leadership.

We propose a methodology for such a dialogue (Appendix 3), using a gap survey based on the elements of a learning organization. Physician leaders at IHC have effectively used this method to address the gaps that emerged from our study. By using the gap survey and presenting the data in terms of the distribution of responses rather than as means, everyone can see differences in views and these can be explored to come to a common understanding. This method helps to avoid the situation that often occurs at open meetings, when one angry individual dominates discussion and those who disagree remain silent.
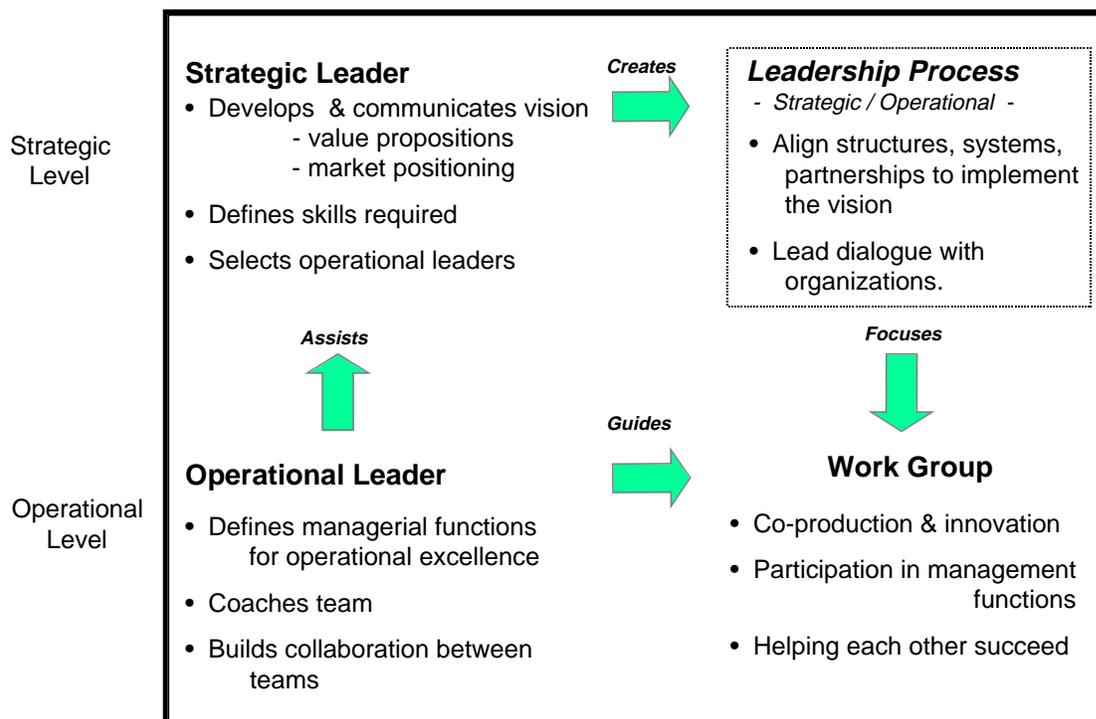
We found that physicians tend to avoid open conflict with each other. Processes like the gap survey dialogue transform conflict into exercises to understand and resolve problems or to aid leaders in educating professionals with strong views.

Strategic and Operational Leadership

Change requires both strategic and operational leadership. The strategic leader develops the vision, including value propositions and unique market positioning. He or she determines the skills required to realize the vision and selects operational leaders in administration and departments. Together, they align structures, systems, incentives and partnerships to implement the vision. And they lead the dialogue with all parts of the organization. Operational leaders determine how the management functions will be carried out in order to achieve operational excellence. They will be coaches who mentor, challenge people, and evaluate their work. The operational leader may also build collaboration between teams.

The work group has the role of co-production and innovation. Ideally, members participate in management functions and as good team members, they help each other to succeed.

Shared Leadership - Actions

Strategic Level	**Strategic Leader**
	 • Develops & communicates vision
	      - value propositions
	      - market positioning
	
	 • Defines skills required
	
	 • Selects operational leaders
		Creates →	***Leadership Process***
			 - Strategic / Operational -
			
			 • Align structures, systems, partnerships to implement the vision
			
			 • Lead dialogue with organizations.

	Assists ↑		*Focuses* ↓
Operational Level	**Operational Leader** • Defines managerial functions for operational excellence • Coaches team • Builds collaboration between teams	*Guides* →	**Work Group** • Co-production & innovation • Participation in management functions • Helping each other succeed

When there is a good partnership between strategic and operational lead-ers, an organization develops a shared vision and interactive implementation. This relationship breaks down when a strategic leader gets lost in abstractions and grandiose visioning or when the op-erational leaders bog down in obsessive details. Of course, there are also chief executives who fail to fill the strategic role and leave their organizations unsure about the direction.

It would be ideal if both strategic and operational leaders demonstrated emo-tional intelligence and showed empathy and caring concern for employees. While this type of intelligence can be essential for operational leaders who need to facili-tate teamwork, it is often lacking in effec-tive strategic leaders who have what we are terming *strategic intelligence*. This includes foresight, systems thinking, vi-sioning, motivating and partnering. (Ap-pendix 4)

Lost in Abstractions
- Grandiosity -

STRATEGIC LEADERS

Shared Vision
and
Interactive Implementation

OPERATIONAL LEADERS

Lost in Details & Lists
- Obsessiveness -
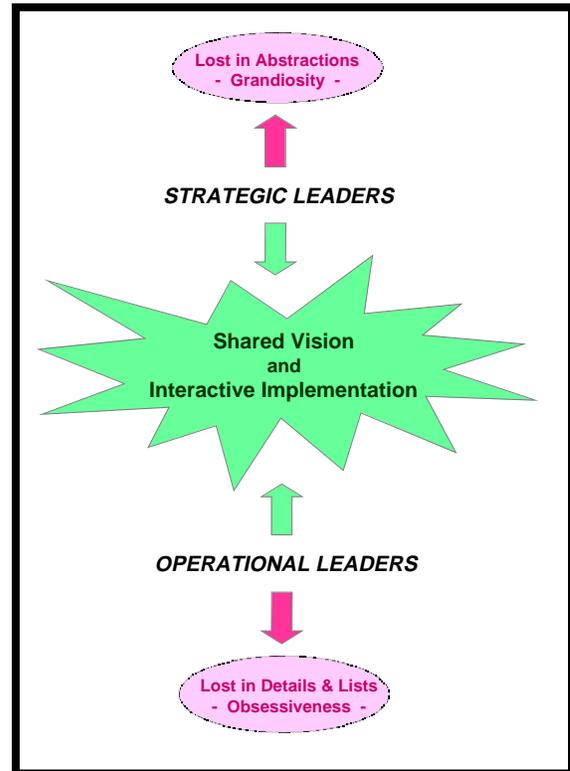
In some organizations we studied, especially Mayo Clinic Rochester, IHC, Vanderbilt, and the University of Rochester, nurses play key roles as operational leaders. In general, an indication of a learning organization is teamwork between physicians, administrators and nurses. Where nurses are empowered the results can be seen in improved treatment. Nurses more than physicians learn to see health care as a system and their values emphasize teamwork more than au-tonomy. At LDS hospital, a part of IHC, nurses prevailed on surgeons to stan-dardize their procedures, because variability led them to make mistakes. Also, nurses are encouraged to remind doctors to prescribe beta blockers for cardiac patients.

The ideal relationships between strategic and operational leaders has re-sulted in the shared vision and interactive implementation essential for a learn-ing organization. This ideal relationship becomes unglued when either leader strays from it. We met strategic leaders who became lost in their grandiose abstractions of research greatness at the expense of the clinical enterprise. And we met operational leaders who became lost in obsessive details at the expense of flexibility and focus on the health center's vision.

Learning From Other Organizations

Can health care organizations learn from each other? Or is each organizational culture too unique to adopt practices, however effective, from another? In the words of Roger Bulger, MD speaking of academic health centers "when you've seen one, you've seen one." Does this mean that healthcare organizations must develop their own solutions to common problems like variability.

The answer, we believe, is that organizations can learn from each other as long as they don't try to copy each other. Effective organizations are social systems with a particular purpose or purposes. Learning must fit into this system. It cannot be grafted onto it.

We saw this clearly in a workshop on physician leadership we organized for leaders of IHC and MCS. These organizations appeared to have complementary competencies. IHC is a leader in evidence based medicine (EBM). Mayo was interested in learning how IHC leadership went about this. Some of the IHC physicians had asked us how they could create more of a Mayo group practice, a patient focussed cross-disciplinary culture. We thought that by bringing leaders of the two organizations together, they might learn from each other. The CEOs of both organizations agreed this could be very useful. And the chief medical officer of IHC hosted the meeting in Salt Lake City, November 30 - December 1, 2000.

The minutes of the meeting are included in Appendix 5. What emerged from this encounter between two of the best healthcare organizations in the world is that while both are moving to the learning mode, they are doing so in different ways. They can learn from each other, but neither can graft elements of the other into its own culture.

IHC and MCS are different social systems. First of all, while both have the purpose of excellent patient care, other purposes are different. IHC is a large integrated delivery system with a health plan. To maintain its huge market share and not-for-profit status, it must demonstrate a commitment to "the best clinical practice" at "the lowest appropriate cost." MCS is part of a unique academic health center in which research and teaching support Dr. W. J. Mayo's principle that "the best interest of the patient is the only interest to be considered."

Compared to IHC, MCS is a medical boutique for episodic treatment. (Mayo Clinic, Rochester is part of an integrated health care system with geographically-dispersed clinics and a health plan.)

Another way of looking at this is that the Mayo Clinic derives its tax-exempt 501c3 status based on returning to society the benefits of its education and research. IHC's 501c3 status is based on willingness to serve patients without regard to their ability to pay. IHC's hospital charges are 15 percent lower than the national average. On an acuity-adjusted basis, the charges at the University of Utah hospital are about 40 percent higher than charges at LDS hospital, both in Salt Lake City. While the MCS hospital does provide charity care when it involves a unique service not available elsewhere in their area, their charges are among the highest in the Phoenix area.

The consequences of this difference in mission is that at IHC, there is a conflict between the health plans and physicians whose compensation, unlike that of Mayo, is incentivized according to productivity measures.

There are other cultural differences. At IHC, while the conflict between physicians and administrators is related to the mission, there is also a historical factor. IHC leadership came from the bureaucratic hospital system while Mayo leadership has always belonged to physicians, starting with the Mayo brothers who modified the craft mode to develop a form of cooperative individualism. At Mayo, administrators serve physicians. At IHC, the roles are more equal. However, there is tension about who is in charge.

Nonmedical leaders at IHC have championed EBM and cost-effective clinical excellence. Mayo has a great tradition of peer review and remarkable openness of physicians to mutual criticism, as long as it is the interest of the patient. However, there has been resistance to EBM. Mayo physicians point out that they often deal with complex health problems that require cooperation across disciplines and do not fit standardized pathways. Although some Mayo chairs have begun to address variability, to do more would require conviction that EBM is both scientifically sound and fully benefits patients.

Both IHC and Mayo left the workshop with a clearer understanding of how they needed to move toward their own ideals. As Michael O'Sullivan, MD, chair of the MCS board of governors commented, "the value was in seeing how leadership in both of our organizations achieve the alignment of the total workforce toward meeting those aspirations. It seems to me that although the goals may be different, that should not prevent us from learning from one another the essentials of leadership, the need to continue to cultivate leadership that is so important to achieving our respective missions." IHC is continuing the dialogue between leaders and physicians, to increase understanding of their mission and to respond to legitimate concerns. MCS is planning to develop a leadership dialogue and to design a version of EBM that fits its culture and values. In doing so, it can learn from the Vanderbilt model as well as IHC and develop its own learning program.

Conclusions

• There is a strong affirmation from leaders of some of the nation's best health care organizations of the need to move to the learning mode of production. There are elements of the learning mode emerging in some of these organizations.

• There is resistance to change, particularly from physicians whose social character and training support the craft mode of production. Unless the education of physicians focuses on developing the values and competencies for a learning organization, resistance will continue to impede positive change.

• Change requires a partnership between strategic and operational leaders with complementary qualities. Strategic leaders must integrate the logics of business, quality, and interactive leadership. They need to use the tools of budgeting, incentives, structuring, education, and leadership dialogue. Operational leaders must implement the vision interactively, develop teams, and maintain the processes and systems. Leaders are needed throughout healthcare organizations, and without a critical mass even the most competent and charismatic leader will not succeed.

• Health care organizations are cultures or social systems which have missions or purposes and are composed of people who must be motivated to achieve these purposes. These cultures are different according to their social, political and business environments and traditions as well as their missions. They select and socialize different values in their key members. Social systems can learn and develop only when leaders align innovations with other elements of the system. Otherwise, new ideas and approaches will be distorted or totally rejected. The good news is that some of the leaders of not-for-profit health care organizations are becoming aware of what is required to transform their cultures and they are providing models that others can learn from, but not copy.

• Policy makers need to understand that solving the problems of healthcare delivery is not just a matter of adopting new techniques, but rather of transforming a craft mode of production in a way that incorporates the best craft values in more productive, interactive learning organizations. This means that leaders should be selected not because they are distinguished experts, but because they have strategic intelligence and understand the logics of business, quality and leadership. They must also have the informed support of their boards which recognize that positive change will provoke resistance.

Gap survey used at the Association of Academic Health Centers annual meeting in March 1999.

These are elements of a Health System for the Age of Learning. Consider each one.
How **important** is each one for the success of your system?
At what **level today** are you achieving each of them?

	IMPORTANCE	LEVEL TODAY
	low high	low high

Strategies

	IMPORTANCE	LEVEL TODAY
Service is our highest priority.	1 2 3 4 5	1 2 3 4 5
• Our culture, attitudes, and behavior support service.	1 2 3 4 5	1 2 3 4 5
• Our goal is to exceed expectations for service and cost by good management.	1 2 3 4 5	1 2 3 4 5
• We provide compassionate care that is appropriate and effective.	1 2 3 4 5	1 2 3 4 5
• We work to improve the health of individuals and communities.	1 2 3 4 5	1 2 3 4 5
• Population health needs and the market shape and size our clinical programs.	1 2 3 4 5	1 2 3 4 5
We function as a physician-led system that integrates all the elements of health services.	1 2 3 4 5	1 2 3 4 5
• Physicians are leaders as well as care-givers.	1 2 3 4 5	1 2 3 4 5
• Physicians share leadership functions with other professionals.	1 2 3 4 5	1 2 3 4 5
• We collaborate with other organizations in order to better serve individuals and communities.	1 2 3 4 5	1 2 3 4 5
We are a learning organization.	1 2 3 4 5	1 2 3 4 5
• Our research and education strengthens the clinical enterprise.	1 2 3 4 5	1 2 3 4 5
• We continually work to better understand the health needs of individuals and communities.	1 2 3 4 5	1 2 3 4 5
• All of us are involved in continuously improving the cost and quality of our services.	1 2 3 4 5	1 2 3 4 5
• We learn from and with other organizations.	1 2 3 4 5	1 2 3 4 5
We value people as partners for success.	1 2 3 4 5	1 2 3 4 5
• We invest in people's development.	1 2 3 4 5	1 2 3 4 5
• We give people appropriate responsibilities that make full use of their capabilities.	1 2 3 4 5	1 2 3 4 5
• We provide meaningful rewards.	1 2 3 4 5	1 2 3 4 5
• We recognize accomplishment.	1 2 3 4 5	1 2 3 4 5
• We develop relationships of trust.	1 2 3 4 5	1 2 3 4 5

Systems That Support Strategies

	IMPORTANCE	LEVEL TODAY
• Utilization management	1 2 3 4 5	1 2 3 4 5
• Information systems that support physician decision-making	1 2 3 4 5	1 2 3 4 5
• Call center	1 2 3 4 5	1 2 3 4 5
• Clinical pathways and guidelines	1 2 3 4 5	1 2 3 4 5
• Continuous improvement	1 2 3 4 5	1 2 3 4 5
• Periodic evaluation of individual performance	1 2 3 4 5	1 2 3 4 5

Gap survey continued

These are elements of a Health System for the Age of Learning. Consider each one.
How **important** is each one for the success of your system?
At what **level today** are you achieving each of them?

	IMPORTANCE		LEVEL TODAY	
	low high		low high	

Style of Relationship Among and By Leaders

	IMPORTANCE	LEVEL TODAY
• Interactive dialogue	1 2 3 4 5	1 2 3 4 5
• Openness	1 2 3 4 5	1 2 3 4 5
• Systems Thinking	1 2 3 4 5	1 2 3 4 5
• Coaching / teaching	1 2 3 4 5	1 2 3 4 5
• Accountability	1 2 3 4 5	1 2 3 4 5
• Teaching	1 2 3 4 5	1 2 3 4 5

Skills

	IMPORTANCE	LEVEL TODAY
• Leadership	1 2 3 4 5	1 2 3 4 5
• Financial	1 2 3 4 5	1 2 3 4 5
• Medical	1 2 3 4 5	1 2 3 4 5
• Teaching	1 2 3 4 5	1 2 3 4 5
• Research	1 2 3 4 5	1 2 3 4 5
• Human Resources	1 2 3 4 5	1 2 3 4 5
• Marketing	1 2 3 4 5	1 2 3 4 5
• Information Technology	1 2 3 4 5	1 2 3 4 5

Structure

	IMPORTANCE	LEVEL TODAY
• Systems of Excellence / product lines	1 2 3 4 5	1 2 3 4 5
• MD - administrator partnership	1 2 3 4 5	1 2 3 4 5
• Health Plans	1 2 3 4 5	1 2 3 4 5
• Support Services (e.g., HR, IT, Marketing, Finance)	1 2 3 4 5	1 2 3 4 5

Shared Values

	IMPORTANCE	LEVEL TODAY
• Service to patients	1 2 3 4 5	1 2 3 4 5
• Service to students	1 2 3 4 5	1 2 3 4 5
• Service to colleagues	1 2 3 4 5	1 2 3 4 5
• Service to the university	1 2 3 4 5	1 2 3 4 5
• Service to the community	1 2 3 4 5	1 2 3 4 5
• Ethics	1 2 3 4 5	1 2 3 4 5
• Fiscal responsibility	1 2 3 4 5	1 2 3 4 5
• Innovation	1 2 3 4 5	1 2 3 4 5

Results of gap survey used at the Association of Academic Health Centers annual meeting in March 1999.

Academic Health Centers (AHC) Survey Results March, 1999	IMPORTANCE					LEVEL TODAY					GAP	Mean Importance
	1	2	3	4	5	1	2	3	4	5		
Strategies												
Service is our highest priority.												
• Our culture, attitudes, and behavior support service.	0	0	1	5	12	0	5	9	2	2	1.56	4.61
• Our goal is to exceed expectations for service and cost by good management.	0	0	1	9	9	0	7	7	5	0	1.53	4.42
• We provide compassionate care that is appropriate and effective.	0	0	2	7	10	1	6	7	5	0	1.58	4.42
• We work to improve the health of individuals and communities.	0	0	0	1	17	0	1	6	10	1	1.33	4.94
• Population health needs and the market shape and size our clinical programs.	0	0	1	5	12	0	5	5	6	2	1.33	4.61
We function as a physician-led system that integrates all the elements of health services.	0	0	3	9	6	1	5	7	3	1	1.28	4.17
• Physicians are leaders as well as care-givers.	0	0	3	8	7	1	3	8	4	2	1.06	4.22
• Physicians share leadership functions with other professionals.	0	0	2	8	8	0	5	8	3	2	1.22	4.33
• We collaborate with other organizations in order to better serve individuals and communities.	0	0	2	8	8	0	6	5	4	3	1.11	4.33
We are a learning organization.	0	0	1	6	11	1	3	9	4	1	1.50	4.56
• Our research and education strengthens the clinical enterprise.	0	0	0	2	14	1	3	6	4	2	1.69	4.88
• We continually work to better understand the health needs of individuals and communities.	0	0	2	5	11	0	4	7	5	2	1.22	4.50
• All of us are involved in continuously improving the cost and quality of our services.	0	0	2	7	9	0	6	7	5	0	1.44	4.39
• We learn from and with other organizations.	0	0	0	6	13	2	8	5	4	0	2.11	4.68
We value people as partners for success.	0	0	3	7	9	1	4	10	2	2	1.32	4.32
• We invest in people's development.	0	0	1	7	10	0	3	10	3	2	1.28	4.50
• We give people appropriate responsibilities that make full use of their capabilities.	0	0	0	6	13	0	7	6	4	2	1.63	4.68
• We provide meaningful rewards.	0	0	0	4	15	0	3	12	2	2	1.63	4.79
• We recognize accomplishment.	0	0	2	5	12	2	6	6	5	0	1.79	4.53
• We develop relationships of trust.	0	0	1	6	12	0	7	6	6	0	1.63	4.58
• Utilization management	0	0	0	6	13	2	5	8	3	1	1.89	4.68
Systems That Support Strategies	0	1	0	11	6	2	3	9	4	0	1.39	4.22
• Information systems that support physician decision-making	0	0	1	3	13	1	8	7	2	0	2.15	4.71
• Call center	0	0	4	6	6	3	2	6	4	1	1.25	4.13
• Clinical pathways and guidelines	0	0	3	7	8	3	6	6	3	0	1.78	4.28
• Continuous improvement	0	0	2	6	10	1	6	6	5	0	1.61	4.44
• Periodic evaluation of individual performance	0	0	1	7	10	1	4	7	4	2	1.39	4.50

Results of gap survey continued

Academic Health Centers (AHC) Survey Results
March, 1999

	IMPORTANCE					LEVEL TODAY					GAP	Mean Importance
	1	2	3	4	5	1	2	3	4	5		
Style of Relationship Among and By Leaders												
• Interactive dialogue	0	0	0	5	14	0	2	8	7	2	1.26	4.74
• Openness	0	0	0	5	14	1	5	2	9	2	1.42	4.74
• Systems Thinking	0	1	1	3	14	1	8	6	3	1	1.84	4.58
• Coaching / teaching	0	1	1	3	14	0	6	6	7	0	1.53	4.58
• Accountability	0	0	1	5	13	0	3	6	10	0	1.26	4.63
• Teaching	0	0	0	5	13	0	3	6	8	1	1.33	4.72
Skills												
• Leadership	0	0	0	2	16	0	1	9	7	0	1.54	4.89
• Financial	0	0	1	2	15	0	4	4	6	4	1.22	4.78
• Medical	0	0	0	2	16	0	1	1	9	7	0.67	4.89
• Teaching	0	0	0	3	15	0	1	5	9	3	1.06	4.83
• Research	0	0	2	3	13	0	5	5	6	2	1.33	4.61
• Human Resources	0	0	1	2	15	0	4	11	3	0	1.83	4.78
• Marketing	0	0	2	3	13	1	8	5	3	1	1.89	4.61
• Information Technology	0	0	0	3	15	2	3	11	1	1	2.06	4.83
Structure												
• Systems of Excellence / product lines	0	1	1	8	8	1	7	7	2	1	1.56	4.28
• MD - administrator partnership	0	0	1	5	12	0	4	11	2	1	1.61	4.61
• Health Plans	1	0	2	8	7	3	2	10	3	0	1.39	4.11
• Support Services (e.g., HR, IT, Marketing, Finance)	0	0	1	4	13	1	4	8	5	0	1.72	4.67
Shared Values												
• Service to patients	0	0	0	0	18	0	3	6	8	1	1.61	5.00
• Service to students	0	0	0	3	15	0	2	5	8	3	1.17	4.83
• Service to colleagues	0	0	0	4	13	0	4	10	2	1	1.76	4.76
• Service to the university	0	0	0	7	11	0	3	6	5	4	1.06	4.61
• Service to the community	0	0	1	4	13	0	6	7	3	2	1.61	4.67
• Ethics	0	0	0	1	17	0	1	1	13	3	0.94	4.94
• Fiscal responsibility	0	0	0	2	16	0	2	4	7	5	1.06	4.89
• Innovation	0	0	0	0	18	0	3	6	9	0	1.67	5.00

MICHAEL MACCOBY, Ph. D.
DIRECTOR

Study Trip to Vanderbilt University Medical Center
October 24-26, 2000

Study Team:

Michael Maccoby, Ph. D., Director
Richard Margolies, Ph. D.
Stan Pappelbaum, M.D.

Introduction

Led by Harry Jacobson, M.D., Vanderbilt University Medical Center is intent on creating what could become a realistic model for academic health centers in the age of learning. Jacobson combines an entrepreneurial business approach (including creating new businesses) with a strong commitment to address variability of practice and to develop evidence-based medicine. The goal is to make health care both effective (better outcomes) and efficient (utilization management). Furthermore, VUMC has strengthened its research mission. Long-term research foci are neurosciences, structural and developmental biology, and genetics.

Jacobson is supported by a strong leadership team including William Stead, M.D., Director of the Informatics Center, who has led the development of an innovative IT system that includes order entry (WIZorder), indications when medicines are wrongly prescribed, and an on-line medical record, developed to allow data mining for outcome studies and utilization management. VUMC is building the IT system itself rather than contracting to software firms. They are integrating legacy systems and combining clinical, financial, and administrative data. Paul V. Miles, MD, Chief Quality Officer and Robert Dittus, MD Director of Internal Medicine are leading the education process toward evidence-based medicine and shared processes. VUMC is creating an Institute for Health Care Improvement integrating the schools of medicine, business, law, engineering, and nursing. The foci will be education, policy, health systems research, and operations.

However, VUMC has a ways to go to realize the vision. The major gaps reported have to do with service to patients, accountability and evaluation of performance. However, interviews with and surveys of the clinical chairs show considerable variability in their acceptance of the vision.

Researchers: Richard Margolies, Ph.D. Doug Wilson, Ph.D. Barbara Lenkerd, Ph.D.

Vanderbilt Medical Center

The newly organized Vanderbilt University issued MD degrees to 61 doctors in 1875. Early in the 20th century, Vanderbilt University School of Medicine received large grants from the Rockefeller family, and from Andrew Carnegie and his foundation which had funded the Flexner study and report in 1910. These funds enabled VUSM to carry out Flexner's recommendations and today VUSM is a major academic health center which includes the School of Medicine, School of Nursing, and graduate programs in pharmacology, biochemistry, molecular physiology, and biophysics. There is a MD / Ph.D. program for students aspiring to a career in academic medicine and medical research. The School of Nursing and the Owen Graduate School of Management offer a MSN / MBA degree to prepare nurses for high level management roles in health systems. There is also an MD/MBA program.

The Vanderbilt Medical Center is part of the university campus a mile and a half from downtown Nashville and includes a free-standing Psychiatric Hospital, a Rehabilitation Hospital, and ground has been recently broken for a third medical research building (which will have a combined academic, clinical, and engineering focus) and a free-standing $165 million Children's Hospital. The Vanderbilt Clinic houses more than 85 specialty practice areas, clinical laboratories, a center for comprehensive cancer treatment, and a day surgery center. There is a Veterans Administration Medical Center on campus as well.

Within the large Medical Library, housed in an award-winning modern building, is an active and innovative Informatics Center which is a federally designated Integrated Advanced Information Management System (IAIMS) test site. The medical library staff guide the development of VUMC's web pages and the Informatics Center partners with researchers in the Division of Biomedical Informatics, which has 16 people, and the Information Management Department to innovate the delivery and use of health information to Vanderbilt and the larger regional community.

Dr. Stead reports they are using the data to transform clinical practice in two major ways. 1. Collaborative Care Pathways. All of the care teams study the sources of variability and develop plans for improvement. This has led to 40-50% cost reductions, increased positive outcomes, and reduced morbidity and mortality in certain areas. 2. WizOrder. This system has led to the elimination of "some absurd patterns of ordering". The ordering system now covers all orders, not only spot orders as in many medical centers.

VUMC is one of six Veterans Administration created Quality Scholars Program sites. In many of these sites the quality initiative is nursing-driven, VUMC is involving the doctors specifically because of their scholarship paradigm, and has convinced many that quality and IT are legitimate topics for scholarship.

VUMC is also creating a Center for Quality Research. Up to date quality processes will be built into the new Children's Hospital.

VUMC is active in technology transfer from its medical research, informatics and clinical practice as evidenced by the spin-off of nine biomedical companies in recent years. Proctor and Gamble has donated to VUMC $43 million of intellectual property in the form of almost 100 patents covering novel cyclooxygenase II antagonists.

The School of Medicine receives 5,000 applications each year, and admits 104. Its student satisfaction ratings have been the highest in the country for a number of years. The Graduate School is one of only ten in the country with an Interdisciplinary Graduate Program; 18 percent of graduate students are from underrepresented minorities.

VUMC has recently (1998) developed an alliance with Meharry Medical College. The goal is to improve health care in Nashville, particularly to the underserved and disadvantaged. The alliance also includes joint courses, appointments for Meharry faculty at Vanderbilt and vice-versa, and joint student leadership.

VUMC has an active School of Nursing and nursing is integrated into the functioning of the medical center. Marilyn Dubree, R.N., the Chief Nursing Officer and Director of Patient Care Services, directs the operation of the patient care centers which report to her like a COO. Since May, she has hired 275 nurses through aggressive recruitment including job fairs and increasing nurse salaries. Dean Colleen Conway-Welch says the School of Nursing recruits among retiring military officers and convinces many that advanced practice nursing is a challenging and worthwhile second career. Advanced practice nursing requires a MA, training in evidence-based clinical practice, and how to understand data and the IT system. The School of Nursing graduates 200 advanced practice nurses a year, 12% are male (vs. 6-7% nationally), and 12% are minorities (vs. 6-7% nationally).

The medical center dominates Vanderbilt University. Of $1.5 billion total revenue $1.1 billion comes through the medical center. Of 13 thousand university employees, 10 thousand are at the medical center. VUMC leadership has been financially successful. It avoided the mistake of buying practices. Its 661-bed hospital has been profitable, with an 80 percent occupancy rate. The hospital negotiates aggressively with payors. The financial IT system shows the cost structure for each DRG, allowing them to attack the top 15 cost areas and the supply chain. Hospital revenue growth was 9 percent last year. Uncompensated care is only 5 percent, which is low compared nationally. VUMC investments are doing well. Income this year before depreciation and taxes will be between $24 and 30 million. Net revenue growth was 16 percent last year.

Managed care has only been in the Nashville region for about six years, and there is little capitation in that market, which is mostly fee for service. The Vanderbilt Medical Group, an operating but not a legal entity, was created several years ago as hospital admissions started dropping. VMG's revenue has grown recently at 8-9 percent annually. The practice is profitable and provides a 5 percent Dean's tax for education, 5 percent to the Vice Chancellor and 10 percent for infrastructure. Physicians incomes compare well with national averages.

Creating the VMG has been more difficult than expected. Some doctors wanted a separate legal entity that would negotiate with the hospital. Independent arrangements can still be pushed through by aggressive doctors. For example, a surgeon got a separate company set up, and while the VMG runs it, there is currently no role for the department which supplies the resources to the company. There are also larger administrative systems that have to be worked out, for example, the billing system mixes departmental and VMG revenue. However a billing team has been established to study national best practices.

VUMC is focusing on issues of access and the patients' experience. They have a Secret Shopper program and customer satisfaction metrics that have highlighted problems in getting appointments, signage, and the need for a single phone number to make front-end entry easier for patients. Such efforts have shown results. On a recent Nashville consumer survey VUMC moved from 3rd to 1st.

Researchers receive rebates of indirect costs based on success in generating research funds. Furthermore, Jacobson has a $1.5 million pot, called the Discovery Grant Program, that he uses to fund promising and high risk innovative research. The first million yielded $8.5 million in NIH grants. Vanderbilt is currently twenty third in NIH grants, as research revenues increased last year by 26 percent. However we were told by one skeptical doctor in the research infrastructure that since NIH has been doubling its funding of research most research centers are receiving increases and VUMC today, like several years ago, is still 23rd. The goal is both to reach the top ten and to grow spin off companies from the knowledge generated. With Jacobson's focus on what he calls the "wasted stream of intellectual capital," of ideas produced by the faculty but not used, the number of patents has increased three fold.

The Study

We interviewed twenty-four leaders over a period of three days. We also received 35 gap surveys, including surveys from 14 clinical chairs, eleven of whom were not interviewed.

The survey results (Appendix C) show that the main gaps for both VUMC executives and clinical chairs include patient service, holding people account-able, and performance evaluation. However, while the executives indicate high importance and gaps in the use of clinical pathways, utilization management by physicians, and learning from best practice, the chairs consider these elements less important. Both groups note a gap in developing trust.

At the top, Jacobson and his team are trying to move VUMC to the age of learning. They have had notable successes in addressing variability. The use of pathways has cut length of stay for prostate surgery and other conditions. But the clinical departments are still essentially feudal fiefdoms, and some chairs still seem to be in a craft mode of production. Furthermore, the Vanderbilt Medical Group (VMG) is essentially a virtual organization. It has a CFO for billing and rather powerless Chief Medical and Chief Operating Officers. Up until now, the Dean has had no direct relationship to the group practice, but there are plans to change this with the incoming new Dean.

The resistance to the vision by faculty is both economic and ideological. Some physicians, such as orthopedic surgeons, want to maintain an "eat what you kill" approach to income maximization. Others argue that Jacobson's em-phasis on attacking variability will result in "cook book medicine." We also heard complaints that Jacobson explained his strategy too much in terms of the eco-nomic benefits, without sufficiently emphasizing what is best for patients.

While nurses play a significant role at the VUMC, there is, said one nurse, still evidence of an "MDolatry". Consequently, there is a program for doctors who evidence "trended behavior" of disrespecting the role of nurses as full partners in health care. These doctors are diplomatically steered into educa-tional modules, and if necessary into counseling. Nonetheless, nurses not only are important in clinical care, they do much teaching. In addition, there is a collaborative group of doctors and nurses who study and direct how to facilitate advanced practice nursing into the medical center, which Dean Conway-Welch states may be the only academic health center in the country to do this. In the clinical area, another nurse was frustrated by the cutback in meeting time for nurses because of stringent financial controls.

The Leadership of Change

Harry Jacobson, MD has been Vice Chancellor for Health Affairs since late 1997. He has been a professor and chair of Nephrology since 1985 when he came from Southeastern Dallas. He was proceeded as Vice Chancellor by Ike Robinson, MD who is credited with putting VUMC on the road to the first tier with an emphasis on both quality and growth.

Jacobson combines a medical and research background with strong entre-preneurial competence. He founded a company, Renal Care, that went public. He believes the medical center can gain income from new businesses and so far, there are about nine in the works, including, notably, Web EBM [Evidence-Based Medicine] which is partnered with Duke, Emory, Washington University (St. Louis) and the University of Oregon Health Sciences Center.

Jacobson's leadership style was described to us in terms of his strengths and weaknesses.

According to those we interviewed, Jacobson's strengths include his vision, business understanding, openness, and infectious optimism. One executive said, "He is expansionistic, outward looking and optimistic. And he responds to good ideas." He is credited as being an excellent recruiter. However, some of the leaders criticize him for sometimes being too optimistic, promising too much, and acting too quickly. A departmental chair said, "He's very impulsive, sure of himself. He thinks out loud." An executive said, "Harry is unable to resist solving problems, so people go directly to him. His actions sometimes undermine his vision." One person said Jacobson was "too nice, he doesn't demand enough accountability." Another said he was "too intimidating" meaning "people are reluctant to challenge him." Another said, "he doesn't encourage negative feed-back." Another said, "he creates cognitive followers, not emotional followers."

We see Jacobson as an exceptionally competent leader who is trying to bring VUMC to the forefront of academic health care organizations. Of course, every leader has particular strengths and weaknesses. But Jacobson's leader-ship challenge is not one of changing his personality but rather one of dealing with chairs who resist change.

One department chair said: "Harry presents an exceedingly strong vision. Whether it can be achieved is another question. He is often ahead of the crowd and impatient when they don't keep up."

While Jacobson has strong supporters among the chairs, some are not convinced by Jacobson's vision. And as one executive told us, "The source of power here is the chairs. They need to agree."

The chairs' resistance can be seen in relation to the quality initiatives and service improvement. Chairs are not convinced about evidence-based medicine. One chair rejected pathways as ignoring the fact that "some physicians do the same thing differently" and "some teams are good while others are not." Chairs resented Jacobson's emphasis on efficiency and cost savings. Said one, "Harry believes that the entrepreneurial spirit will lead to the best care. I'm not sure about that."

As for service, one executive of the practice asked, "Do the chairs really want to be a group practice or a collection of fiefdoms?" Chairs have signed onto the slogan of "Our patients come first!" but according to an executive, "they don't walk the talk." He went on to say that patient access is not sufficient. There are high rates of physician cancellation. Patients get little help in scheduling tests and visits to specialists.

There is no departmental ownership of the VMG. Most departments treat it as a medical service organization rather than a multi-specialty group.

Tools for Change

A leader such as Harry Jacobson has four kinds of tools he can use to facilitate change. These are:

- Incentives based on measurements

- Structure - who reports to whom

- Education - using information to increase understanding and to convince people that change is necessary

- Recruiting the right people and replacing the wrong ones.

Jacobson is using all these tools.

Data-driven Systems

One of Jacobson's first initiatives as Vice Chancellor was to get an accounting firm to restructure Financial Services into a Financial Department. He put CFOs into the hospital and the medical school since they only had billing clerks before, and COOs into the clinic and hospitals. Each of the three hospitals now has a CEO. Jacobson points out that many hospital CEOs came up through nursing, but often these administrators do not have the right skill set especially as it relates to financial issues. Jacobson's CEOs get along with doctors and understand the numbers.

Next Jacobson hired a financial analyst and made sure that finances were tracked closely and communicated. Every third week each month there is a "Numbers Day" in which Jacobson and his team go over all the financial data from the previous month. While his intent to build data-driven systems is clear, he admits, "We're in transition. We've done a funds flow analysis in order to gainshare with the departments. We have divided into patient-care centers (business units) and each does an annual plan. The main hospital is the cash cow, we move $35 million a year into the clinic to support the cost of practice.

All departments are at break even or profitable now. The Chairs are required to operate their departments in the black. Its a requirement. How? We use productivity data systems, and rightsizing. If we can't be first or second in our market we rightsize it for its educational purpose."

Jacobson is also championing systems to reduce variability in two specific ways: variability of physician practice and issues of utilization management.

Utilization management is addressed by numerous means. One is using WizOrder to control variability of ordering with regular graphs per test, for example for LCBG, Chest X-Ray, or EKG, showing reductions over time, with these indicators discussed regularly in departments and larger meetings. The process of involving doctors in utilization management has three phases: first the department or clinical leaders make verbal requests, "control costs"; after several months of ordering data gathering, there is a focused review of ongoing daily orders and discussions with the doctors; finally several months later standing orders are eliminated and doctors are allowed to order one day only. Through this process over a period of a year, LBCG's went from approximately 115,000 / month to 41,000 / month. Another means of addressing variability in utilization management is to have doctor and nurse teams look at how to achieve better, standardized, more cost efficient care pathways.

Incentives

Jacobson has instituted an incentive system for the top thirty VUMC leaders, which will also be employed this year for the chairs and center directors. The top tier managers can gain 30 percent over base pay; the second tier 25 percent; the third tier 20 percent and the fourth tier 15 percent. These increases are based on four or five measures they can influence. For each goal there are three ascending measures: threshold, target, and reach. For example, one goal for the CFO is to increase contract rates over 1999: threshold is 8%, target is 9%, reach is 10%; a senior executive has a goal of completing a redesign of access: threshold is by June 30, target is by April 1, reach is by February 1. On the educational and clinical side, examples are the Dean has the goal of increasing underrepresented faculty: threshold is 2-4 new faculty, target is 5-8, reach is nine or more; a physician leader is to complete a perioperative redesign: threshold by April 1, target by March 1, reach by February 1. On the research side: the head of research is to increase the number of interdisciplinary grants: threshold is 2-3, target is 4-6, reach is more than 6.

The chair of Medicine, Eric Neilson, MD has instituted an incentive system for his department of 125. Individuals are required to decide that they will spend 80 percent of their time in either clinical or research work and 20 percent in the other activity. He believes this focusses activity and allows measurement

in terms of RVUs, grants and publications. At the present time, 28 faculty members have 85 percent of NIH grants.

However, we were told that all the other chairs reject Neilson's approach and that it has alienated some members of the Department of Medicine. However, the Department, which chronically operated in the red, now operates in the black. One chair argued that morale was eroded by Neilson and that chairs should determine salary on the basis of "the whole person." Measurements should be used as guidelines, but no more than that. Of course, while this approach might prove more humane than pure measurements, it also increases the feudal power of the chairs.

One chair cautioned that monetary incentives alone would not change convictions. He and others noted that Jacobson has appealed to peoples' minds but not their hearts.

Structure

Jacobson believes that having the Chief Medical Officer of the VMG report to the new dean, Steve Gabbe, MD, formerly chair of ObGyn at the University of Washington may make a significant difference in moving the faculty. Since no one has effectively evaluated Chairs, he will have this be part of the new Dean's role. Jacobson says "The Dean is the CEO of the faculty. I'd like my position to be the full-time Chairman of the Board. I need to put together a management team to stay on target with the plan, let them run with it, and develop relations with the community. My role is strategy and the strategic plan, conflict resolution (which can not be done by the President of the University who does not know the medical center), outreach, raising money, and politics (going to Washington)."

However, this assumes that chairs do not make end runs to go directly to Jacobson. It also requires that the new dean has the ability to educate and persuade.

Education

Jacobson counts on information and measurements to educate, but in our experience physicians need a lot of dialogue that deals with their concerns. One chair stated that physicians need education to use evidence. They need to learn how to think in new ways.

Without dialogue with physicians, leadership will be unable to deal with the resistance to evidence-based medicine. Dialogue shows the nature of this resistance. If it is an expression of the craft tradition, this calls for different leader-

ship action than if there is merely a lack of understanding. Also, the resistance may express legitimate issues that need to be addressed and may modify the approach to change. For example, at Intermountain Health Care (IHC), dialogue led to simplifying processes.

Dialogue is the only sure way to educate clinical chairs who are not convinced by the campaign against variability of practice. To be sure, it takes time. But it is well worth the investment.

Recruitment

One clinical chair who fully supports Jacobson's vision believes that in the past chairs have not been chosen for leadership capability. While this has not been such a problem in the craft world of master - apprenticeship relationships, it becomes a major problem in the age of learning. Chairs need to combine clinical and research understanding with business and communication competencies. This chair does not believe that traditional chairs can change. He is convinced that chairs are needed who fit the new profile.

One executive told us "many doctors feel powerless in today's health system and grasp for whatever gives them a sense of power to protect themselves." Jacobson believes that the education of the next generation of doctors in evidence-based medicine is what will fully transform medicine. He is beginning the foundations for that culture today. How vigorously should Jacobson pull his organization into the future? One physician executive said he needs to go slowly: "If Harry forced people they would become disaffected and leave." Another of the key leaders of change said, "I have to trust Harry on how fast the ocean liner has to turn. And I believe I can trust Harry to do what's right. He's always been right."

List of people interviewed at Vanderbilt University Medical Center

Harry R. Jacobson, M.D.
Vice Chancellor for Health Affairs

Joel G. Lee
Executive Director, Medical Center Communications

J. Richard Wagers, Jr.
Senior Vice President and Chief Financial Officer

Norman B. Urmy
Executive Vice President, Clinical Affairs

Paul V. Miles, M.D.
Executive Director & Chief Quality Officer

Eric G. Neilson, M.D.
Chair, Department of Medicine

G. Roger Chalkley, D. Phil.
Senior Associate Dean Biomedical Research, Education & Training

Deborah C. German, M.D.
Senior Associate Dean of Medical Education

Robert P. Feldman
Associate Vice Chancellor, Medical Center Development

Mark L. Penkhus
Executive Director & Chief Executive Officer, Vanderbilt University Hospital

Robert S. Dittus, M.D.
Director, Division of General Internal Medicine

Phyllis Ekdall
Chief Financial Officer, Vanderbilt Medical Group

Mark A. Magnuson, M.D.
Professor, Molecular Physiology, Biophysics and Medicine

Lee E. Limbird, Ph.D.
Associate Vice Chancellor, Research, Health Affairs

Marilyn A. Dubree, R.N.
Director, Patient Care Services & Chief Nursing Officer

John E. Chapman, M.D.
Dean, School of Medicine

David R. Posch
Chief Operating Officer, Vanderbilt Medical Group

John S. Sergent, M.D.
Professor of Medicine and Chief Medical Officer

Craig Carmichel
Director of Finance, Academic & Research Enterprises

William W. Stead, M.D.
Associate Vice Chancellor, Health Affairs Director, Informatics Center

Colleen Conway-Welch
Dean, Nursing School

Martin Sandler, MD
Chair of Radiology

Arnold Strauss, MD
Chair of Pediatrics

Stephen Entmen, MD
Chair of Obstetrics and Gyneology

Gap survey used at Vanderbilt University Medical Center.

These are elements of a modern health system. Consider each one.
How **important** is each one for the success of your system?
At what **level today** are you achieving each of them?

	IMPORTANCE		LEVEL TODAY	
	low high		low high	

Strategies

	IMPORTANCE	LEVEL TODAY
• Patient service is our highest priority.	1 2 3 4 5	1 2 3 4 5
• Population needs and the market shape our clinical programs.	1 2 3 4 5	1 2 3 4 5
• Physicians share leadership functions with other professionals.	1 2 3 4 5	1 2 3 4 5
• Our research and education strengthen the clinical enterprise.	1 2 3 4 5	1 2 3 4 5
• We continuously improve the cost and quality of our services.	1 2 3 4 5	1 2 3 4 5
• We learn from best practices.	1 2 3 4 5	1 2 3 4 5

Systems That Support Strategies

	IMPORTANCE	LEVEL TODAY
• Utilization management is shared by all physicians.	1 2 3 4 5	1 2 3 4 5
• Information systems support physician decision-making.	1 2 3 4 5	1 2 3 4 5
• Physicans use clinical pathways and guidelines.	1 2 3 4 5	1 2 3 4 5
• Individual performance is evaluated regularly.	1 2 3 4 5	1 2 3 4 5

Leadership Approach

	IMPORTANCE	LEVEL TODAY
• Communicates a vision	1 2 3 4 5	1 2 3 4 5
• Practices openness	1 2 3 4 5	1 2 3 4 5
• Coaching	1 2 3 4 5	1 2 3 4 5
• Empowering	1 2 3 4 5	1 2 3 4 5
• Resolving conflicts	1 2 3 4 5	1 2 3 4 5
• Developing relationships of trust	1 2 3 4 5	1 2 3 4 5
• Inspiring	1 2 3 4 5	1 2 3 4 5
• Holding people accountable	1 2 3 4 5	1 2 3 4 5

Structure

	IMPORTANCE	LEVEL TODAY
• Systems of Excellence / product lines	1 2 3 4 5	1 2 3 4 5
• Group practice	1 2 3 4 5	1 2 3 4 5
• Health Plans	1 2 3 4 5	1 2 3 4 5

Shared Values

	IMPORTANCE	LEVEL TODAY
• Service	1 2 3 4 5	1 2 3 4 5
• Profitability	1 2 3 4 5	1 2 3 4 5
• Ethics	1 2 3 4 5	1 2 3 4 5
• Innovation	1 2 3 4 5	1 2 3 4 5

Vanderbilt University Medical Center Survey Results

Mean Importance & Gaps

	Leaders N=21		Clinical Chairs N=14	
	Importance	**Gap**	**Importance**	**Gap**
We Learn From Best Practices.	4.76	1.62	4.29	1.29
Utilization Management is Shared by All Physicians.	4.44	1.50	4.00	1.29
Physicans Use Clinical Pathways and Guidelines.	4.50	1.44	3.93	0.64
Service as a Shared Value	4.85	1.40	4.79	1.57
Holding People Accountable	4.86	1.57	4.57	1.50
Individual Performance is Evaluated Regularly.	4.70	1.80	4.14	1.36

Guide for Using Gap Survey for a dialogue with an organization

1. Have people fill out the survey.

2. Analyze the results and use a bar chart for each value (see example). Do not use means. The point is to describe the distribution of the responses.

3. Meet with a group of 10-20 people and present their results value by value.

Senior Staff Meeting

Leadership Competency:
Communication

August 16, 2000
Ritz Carlton, Pentagon City

The Maccoby Group, PC
http://www.maccoby.com/
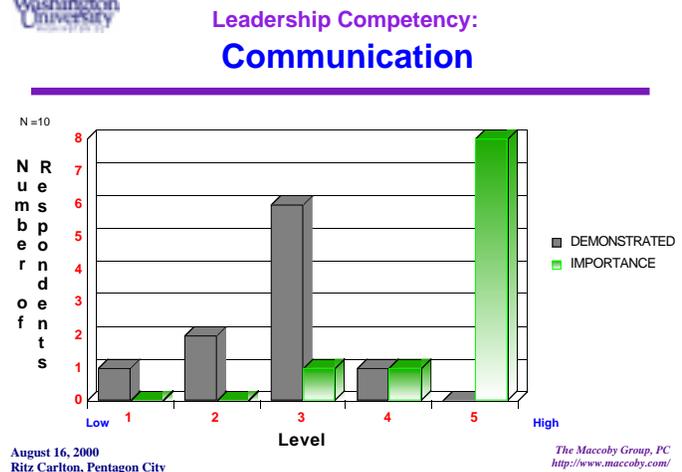
4. With each value result, start out by examining the scoring of **importance**. Ask those who scored a 4 or 5 for importance to explain *why* this value is important. Then ask those who score 3 or lower why they don't consider the value so important. Finally, the leader should conclude by stating why we believe it is essential for creating a User Friendly Organization.

5. Next consider how well this value is **demonstrated in this office**. Ask those who scored this low (1 or 2) why they did so. Then ask anyone who scored it a 4 or 5 why they did so. Allow discussion and clarification of differences (e.g. we are different in group A vs. group B). Finally, ask the group to suggest actions needed to close the gaps. Separate those that can be done by the group, itself from those that need action by other groups. Use this discussion as an opportunity to describe the organization as a social system. Be sure to come out of the meeting with **to do's** that can be done in **this** office. Keep a record of **who?**, **what?**, **when?**

Repeat for each value. Be prepared to share results with the Lou Katz Leadership team.

Remember: you are both facilitator and leader. You need to bring out everyone's views. But you also need to **teach**, and decide which actions make sense and explain **why**.

THE HUMAN SIDE

Michael Maccoby

SUCCESSFUL LEADERS EMPLOY STRATEGIC INTELLIGENCE

The more the success of organizations depends on people working together and sharing a common purpose, the more would-be leaders have focussed on the human side. One result has been a confusing flood of books and articles offering formulas for effective leadership.

Among the most popular is the idea that effective leaders have something called emotional intelligence. This includes qualities or competencies such as empathy and sensitivity to people's feelings. If they want to criticize someone, managers with emotional intelligence do it privately. They are self-aware and able to control their impatience or anger so they don't short circuit conversation. While it is obvious that managers with these qualities can improve teamwork, some of the most successful technology leaders score very low on emotional intelligence.

Steve Jobs publicly dresses down subordinates. Bill Gates often puts an end to conversations saying "That's the stupidest thing I've ever heard." A number of the successful leaders I've worked with have been insensitive to and unaware of the feelings they provoke with their outbursts. Undoubtedly the people they work with would be happier if these leaders developed their emotional intelligence. But the reason they've done so well without it is that what they do have in abundance is a different kind of intelligence which has not been described by psychologists. I call it strategic intelligence.

Based on my experience with successful leaders, I've observed five interrelated elements or competencies that make up strategic intelligence. These are foresight, systems thinking, visioning, motivating and partnering. Some leaders score well on different elements; a few notable leaders like Gates, Andy Grove and Jack Welch seem to score highly on all of them.

Foresight

The first competency is *foresight*, the ability to think in terms of forces that are not obvious and can't be measured but are shaping the future. In business, it means sensing a coming wave so you can ride it. While a bunch of Bell Labs managers decided thirty years ago that telecom customers were perfectly happy with analog, a few entrepreneurs had the foresight that digital would be the dominating technology. Lucent got into trouble not for lack of emotional intelligence, but because the people at the top didn't foresee the demand for optical - networking gear for superfast OC 192 systems to carry long-distance voice and data traffic.

Many managers use scenarios as a process that substitutes for strategic intelligence. But scenarios can only describe alternative future events. They are only as useful as the foresight of those who use them.

Systems Thinking

The second competency, *systems thinking*, requires the ability to synthesize or integrate elements rather than breaking them into parts for the purpose of analysis. Synthesizers are able to understand how elements interact, how they fit together to make a whole or system. Larry Ellison, CEO of Oracle, comments that there are huge costs for companies that buy different softwar components for their various functions (e.g. sales, marketing, accounting) and then need consulting companies to glue them all together. His highly successful strategy has been to develop software systems. Each part may not be the best in the world, but they fit together. This is what I'm trying to do in describing strategic intelligence. Rather than making a list of traits with no apparent relation to each other, my goal is to

show how these competencies fit together and equip an individual to lead people in new directions.

Russell Ackoff tells us that a system is a whole that is defined by its function(s) in one or more larger systems, and which contains two or more essential parts with different functions, and which satisfy three conditions:

• Each essential part can effect the behavior or properties of the whole.

• The way each essential part effects the whole depends on the behavior or properties of at least one other part.

• All possible subgroups of the essential parts have the same properties as the parts that compose the subgroups.

Thus, a system is a whole whose properties and behavior derive from the way the parts interact, not how they act when taken separately. So when a system is taken apart in the process of analysis, it and its parts lose their essential properties. When analyzers try to solve problems in one part of a system they miss the strategic understanding of the whole system.

Ackoff differentiates three types of systems: mechanical, organic and social. A mechanical system like a car can be designed so that the parts and their interactions serve the system's purpose: transportation. In an organic system like the human body, the parts are genetically designed to interact and serve the purposes of the system. However, the human parts of a social system have purposes of their own. Therefore, leadership must be able to motivate them to serve the purpose of the system. We return to this competency below.

Visioning

Visioning means using foresight and systems thinking to design an ideal. Visioning is not only a matter of riding a wave to the future, but also directing its course. Some technical people are good at envisioning mechanical systems but not social systems. The latter are more complex. They are much harder to control, because you can't design-in the behavior of individuals. Some visionary CEOs have foundered because they failed to understand how people would behave within the system they have created. This seems to be the case of Jürgen Schrempp, the embattled CEO of DaimlerChrysler. Despite disappointing financial results, he maintains that his vision is fine; he blames his subordinates for not implementing it.

Five interrelated competencies make up strategic intelligence.

In contrast, a CEO with developed visioning ability, like Jack Welch of GE, focuses not only on the business vision but also how a complex social system can be directed to a common purpose, such as being number one or two within a market. System thinkers simplify, clarify and communicate well, because they focus on the essentials.

Complexity theory suggests that complex self-organizing systems functioning at the edge of chaos are adaptive and successful only when all members internalize the same operating principles. When a decision is demanded, people don't need to be told what to do—they act according to the principles. These might call for bringing people together from all relevant disciplines to solve a product problem, or, as is the case with GE, making sure that every process produces Six Sigma quality products.

Motivating

Motivating is the ability to get people to embrace common purpose, to implement a vision. This involves a kind of listening, to learn what moves people. But this listening is not necessarily done with empathy. In fact, empathy can conflict with making tough decisions that hurt individuals but benefit the organization.

Leaders who motivate are able to communicate in a way that inspires people. There is often an aesthetic element to their visions. They not only communicate information, but also a sense of meaning that inspires people to follow, even to sacrifice in terms of hard work, long hours and deferred rewards.

Think of Steve Jobs offering young programmers the chance to be part of a team creating something that is "insanely great." Or Bill Gates leading a mission to change the world and build a business engine while holding out stock options which promise financial

independence. These leaders have the same kind of strategic intelligence as the Cathedral builders of the middle ages or military conquerors like Alexander the Great.

Partnering

The fifth competency, *partnering*, is the ability to make strategic alliances. While someone with emotional intelligence tends to be competent in developing friendships, one with strategic intelligence develops allies. Richard Hatch, the eventual winner of Survivor, the TV show, scored poorly on knowledge about the other participants, but he succeeded in creating alliances by observing what the other contestants wanted and offering incentives to fit their interests.

Leaders with high levels of strategic intelligence may also recognize that they need to partner with managers who have the emotional intelligence they lack. Partnering with other companies can also strengthen strategy. Andy Grove of Intel, a leader with a super-abundance of strategic intelligence, was able to dominate the microprocessor market by partnering with Microsoft and PC producers like Compaq and Dell. Inside Intel, he has partnered with Craig Barrett who is now CEO.

What You Can Do

Can strategic intelligence by learned or developed? To a certain degree, qualities of foresight, systems thinking, visioning, motivating and partnering seem inborn just like musical ability and spatial relations. However, with all these kinds of intelligence, if you are born with the potential, you can develop it further. A great architect is likely gifted with spatial relations and visioning capabilities, but these qualities must be developed by using them and giving them a context, for example learning about materials and structural engineering. So must a would-be strategic leader of technology learn about products, processes, business models and social systems.

> ## People with emotional intelligence form frienships; people with strategic intelligence develop allies.

Strategic intelligence is, of course, part of the personality system and is affected by other aspects of intelligence and personality. For example, a person with foresight but without emotional intelligence is vulnerable to paranoia because he lacks a sense of other people's intentions and may imagine the worst.

Narcissistic leaders with strategic intelligence have large visions, but success tends to feed their grandiosity and like Napoleon invading Russia, they are likely to go too far. In contrast the obsessive's conservatism and strong conscience may limit the expression of strategic intelligence. Obsessives are more comfortable as analyzers and list makers than as visionaries.

Some emotional intelligence, particularly self knowledge and self control makes any leader stronger, but the most developed emotional intelligence serves physicians, psychologists, social workers and facilitators more than it does leaders in technology companies. Of course, even the best strategic thinkers can fail. Unforseen forces can negate foresight. Competitors can wipe out advantage. Although the ideal leader to follow might be a strategist with a heart that listens, I prefer a leader who scores high on all five elements of strategic intelligence to one who is guided mainly by empathy. However, I'd want to be sure that such a leader is setting goals that I believe in and that I can fit my purposes to those of the leader.

MICHAEL MACCOBY, Ph. D.
DIRECTOR

A Robert Wood Johnson Study
Workshop on Physician Leadership
November 30 - December 1, 2000

Participants

Intermountain Health Care
Mayo Clinic Scottsdale
Project on Technology, Work and Character

Summary

- Michael Maccoby, Ph.D. began by describing the study. The theoretical framework he proposed, outlining the shift in medical modes of production from craft to manufacturing to learning, was generally accepted by participants.

- Michael O'Sullivan, M.D. described the Mayo model based on Dr. William J. Mayo's principle: "the best interest of the patient is the only interest to be considered." Mayo believes that strong service requires academic and research capability. Physicians are the strategists, leaders and administrators serve them. Mayo believes that academic environment is essential for optimal patient care. Earnings from the medical practice beyond reasonable and just compensation for the staff are dedicated to medical education and research.

The Mayo culture is based on peer review and appeals to physician pride in excellence.

Both Mayo and IHC have a certain problem with peer review because their cultures favor "niceness" and avoiding conflict. However, at Mayo, everyone sees what others do and medical records are open for all to see. M & M is tracked every month and "outlyers don't stick around long."

An IHC participant commented that the Mayo system seemed "too idealistic, too good to be true." IHC cardiologists tried to have a common fund, but some physicians believed they were working harder and preferred to "eat what you kill."

Mayo emphasizes collegiality and selects physicians who like the system and take pride in it. IHC wondered how the Mayo system could be transferred. Perhaps Mayo absorbed all the physicians in the country with this attitude. One IHC

participant thought that about 10 percent of their physicians could fit in the Mayo culture. The question here is whether the cultures of medicine change young physicians who might have that attitude when they enter the field.

The difference appears to be one of developing physicians who put the patient first and the organization second, before their individual interests. Mayo has developed the art of motivating without money.

Mayo asked IHC about the 400 physicians on salary. How were they managed? The salary is based in part on productivity. IHC has recruited individuals without attention to the culture then tries to fit people.

Unlike IHC with 22 hospitals, Mayo is not a larger regional community based practice, but a clinic, and episodic care center and basically, a community of physicians. Compared to IHC, it is a boutique.

Mayo is wary of an "all-knowing CEO." The physician CEO's role is to get everyone aligned to a value based vision. All choices and decisions flow from that.

Until recently, Mayo has not had formal leadership development programs but used the widespread committee structure to discover natural leaders, expecting that "the cream would rise to the top." They are beginning to establish some formal leadership education and a "tool kit" for leaders.

Mayo recognized that physician leaders today need to be competent and accountable economically. "There was too much laxity." Furthermore, size and complexity requires more strategic planning and business understanding.

Dr. Maccoby mentioned the shift in leadership models for professional organizations from the ombudsman who represents other professionals to the strategic leader who must take them to a new place.

- Charles Sorenson, M.D. described the IHC system with the mission: "Excellence in the provision of health care services to the communities in the Intermountain region." IHC also has the goal of being a national resource for evidence based medicine (EBM).

IHC started as a set of 15 hospitals and became a health system. Physicians felt the health plan started in 1983 caused an adversarial relationship. A physician division was set up in 1994, but did not have a physician culture. In 1990-97, clinical programs were developed with integrated physician-nurse-administrator leadership. The best product line is cardiology, headed by Don Lappé, MD.

Dr. Sorenson has also begun to use gap surveys as a tool for dialogues with physicians with the goal of developing a physician culture.

IHC has 80 people salaried in its academic enterprise. Their purpose is to serve the mission of improving health in regional communities.

IHC is developing and remodeling its IS. This investment of $300 million will improve the patient relationship by using the Internet and move to an up to-date order entry system.

Variability and cost data are communicated to physicians. The goal is to manage clinical processes to improve outcomes (including long term outcomes) at the lowest appropriate cost. Physicians, hospitals and health plans have to work together. If quality improves, cost should decline. (However, long term outcome measures are essential. The shortest LOS does not necessarily lead to either the best outcome or lowest cost.) Patient satisfaction is considered an independent measure which must be managed.

- Dr. Lappé described the IHC approach to EBM and the role of leadership in its implementation. Physicians, nurses and administrators work as a team. He emphasized that the goal of developing trust requires:

- Evidence based goals (all)

- Meaningful reports (MDs)

- Simplified practice guidelines (MDs)

- Integrated management structure (Administration)

- Indications / guidelines (Health Plans)

- Financial incentives, sharing gains (all)

Dr. Lappé described how the team developed cardiovascular standards. He showed that in the first year they lowered time for administration of the thrombolytic from 42 to 25 minutes.

He described the role of Brent James, MD. Dr. James consults to Dr. Lappé. He also teaches a two week course, part of a mini MBA within IHC. There is a difference between the fundamental principles Dr. James teaches and implementation which requires a different skill set. An important implementation tool is picking goals carefully. "We can rally the team and focus feedback around 8 goals. They were clear, understandable, and manageable." Dr. James has been

working at IHC for 15 years. A core staff group has been collecting data, "but we have to focus them or we'd gather too much data."

Dr. Lappé and his staff set goals, vision and standards based on evidence. They let the regions work within this framework and adapt it to their practice. Data must be made into useable information in relation to a clear hypothesis.

Physicians are allowed to develop their own worksheets, to question the levels, point out exceptions, refine the standards. They develop a simple one-page tool. Nurses collect data and are encouraged to give alerts to physicians.

"The goal is to create an environment of self-motivation. You give them the tools and let them plan their own adaptive approach. You create trust."

Linda Leckman, MD described the IHC partnership with Becton Dickenson which focusses on health. The goals are to manage medical expenses with annual increases between 1-5 percent and to create better health for workers.

The program is voluntary, confidential and supported at the worksite. Data drives the selection and design of the services. Self care books are distributed. And workers get points for healthy behaviors and are financially rewarded. When workers enter the program, their health is appraised. They have surveyed workers satisfaction. Mental healthy numbers went up. Other health indicators went up, but not as much. There was a noticeable reduction in medical costs. IHC is taking the program to Autoliv.

- Working groups were formed, combining IHC and Mayo participants, to address the questions:

1) What does IHC want to learn from Mayo?

2) What does Mayo want to learn from IHC?

IHC from Mayo:

IHC raised the issue of MD-Administrator relations. How can IHC develop a culture of collaboration and trust vs. turfism? One difference between IHC and Mayo is that IHC started as a hospital system dominated by administrators while Mayo was started by physicians.

Does IHC need physician leadership to gain full support of physicians? At IHC, administrators don't want to be junior partners. They have been leaders in developing and realizing the IHC vision. Their ideal is an equal partnership that serves patients and communities.

IHC leaders have a deep distrust of matrix management. They want a single point of accountability. This stems from MBA thinking and the bureaucratic hospital culture. Mayo uses its committee structure to solve problems. IHC has only begun to build teamwork around EBM and the many committees designing a new hospital.

Mayo from IHC:

Mayo raised the issue of how to develop EBM and truly become a learning organization. What kind of infrastructural support is required? What kind of leadership? Should there be a quality institute? Mayo wants to learn from IHC, but there is a difference. Mayo is an academic health center and EBM must be developed in a way that has academic credibility. There has to be an "academic flavor" about it. Furthermore, EBM must result in cost control.

Dr. O'Sullivan framed the question as how to make all of Mayo a learning organization, not just establishing an EBM stovepipe. This involves an attitude of continually asking: "Why do we do this? How can we do it better? What should we do that we are not doing today?"

Issues

The following issues emerged from the discussions.

• How does one system learn from another?

Mayo and IHC are vastly different. However, they are both social systems which must align strategy and culture. Culture includes not only structure, measurement systems, processes and formal aspects of governance. It also includes values and patterns of behavior. Mayo cannot graft on IHC's approach to EBM. It must develop EBM that fits Mayo's culture and values. Physicians must be convinced that above all, it benefits the patient. It must also have academic credibility.

IHC cannot copy Mayo's group practice model and it does not accept the Mayo solution to good physician - administrator relationships. It must find its own solution through interactive dialogue that builds understanding and trust. Interactive dialogue is a way of educating people about the system and the importance of the interactions of parts serving the mission. It also reveals differences in thinking and encourages innovation in the implementation of strategy.

Dr. Maccoby noted that both Mayo and IHC are strong cultures in that they create meaning for their members. Strong cultures can either be tribes that

demand conformity and see outsiders as less human, or they can be communities which support individuation and creativity. A key to developing community is to support continual learning. This is what the Mayo brothers did and what Dr. O'Sullivan proposes. Mayo guards against tribalism by rotating chairs and guarding against autocratic leaders. However, much of its production is still in the craft mode. IHC emphasizes its mission to the region. Internally, there is a culture of informality and a healthy sense of humor. Both cultures have deservedly gained a national reputation for excellence.

  • What is the best model of leadership for health care in the age of learning? Its challenge is to move from the bureaucratic-industrial model to become a learning organization.

  Dr. Maccoby asked whether these organizations have a "soul." Both answered in the affirmative. People feel that being part of the organization allows them to achieve something more meaningful than they could do by themselves. At Mayo, this feeling permeates the whole organization. At IHC, it is mostly at the top. A problem for many physicians at other institutions is the loss of this sense of meaning, with money becoming the main motivation.

  To some extent, this also depends on the organizational culture. However at the top of all health care organizations, leaders must be able to master the logics of business, evidence based medicine, and interactive leadership.

  Leadership for the age of learning must address issues of revenue, cost, variability and gaining commitment from professionals.

  Different types of leaders will be required for different roles, some more focussed on operational excellence rather than strategy.

  It can help to reorient our leadership thinking in terms of heterarchy rather than hierarchy. In hierarchy, there is a line of command in a bureaucratic structure. In heterarchy, team leadership shifts according to the person with the appropriate knowledge. Heterarchy requires interactive skills as well as subject matter knowledge. IHC has a heterarchical model of physician-nurse-administrator leadership in cardiology. Mayo's model of heterarchy seems to include physicians but not other roles. (Is this always the case? Is it different in the hospital?)

  • What is the role of leadership in developing EBM?

  As we have noted, this may differ according to social systems. However, even within IHC, each group works out its own processes. EBM can be viewed as a technology or tool, and physicians must be able to use that tool to improve care. They should not be expected to adapt to a technology forced on them.

The craft mode of production has led to costly variability of practice and utilization of resources. It is responsible for unnecessary confusion and errors. However, the manufacturing model is based on a system in which the producer can fully control productivity and quality. In medicine, as in most types of professional service production, productivity depends on co production, not only among suppliers and professionals, but also with patients. There is no question that physicians need to understand that their mode of production needs modification. However, they cannot be directed to change, but must be fully engaged in creating health care for the age of learning.

Summary from Group Discussions on Developing EBM at Mayo

Differences between Mayo and IHC

• Model: science, controlled studies, academic model of Mayo vs the quality process, engineering model of IHC

• Populations: Mayo: episodes of high-end critical care procedures, largely surgical vs IHC: full-spectrum, life-cycle care – different data from different populations

• Source of review: Mayo: peer review vs IHC: data systems

Suggests about What Mayo and IHC may do to partner:

• Network referrals of particular cases for Mayo to take IHC cases that Mayo is clearly expert at, and Mayo to IHC also.

• Consult to each other on standards, protocols.

• Have Brent James come and teach at Mayo.

• Establish electronic linkages.

• Next visit, at Mayo, and after that to IHC: look at each others' services.

To achieve the above:

• More dialogue to work jointly on these issues

• Get our referring doctors comfortable with this

• Educational exchanges

• Pathways: Mayo study team of MDs, administrators, IS. Look also at financial and infrastructure support aspects. Find quality champions; develop a quality institute.

• Choose initial cases as shared learning examples

• For Mayo:

- start with a few focused areas

- like Vanderbilt develop education and systemic approach within academic model so that EBM is seen as a legitimate research topic

- have Brent James come and meet key Mayo people or have Mayo people come to IHC for his course

Attendees:

Mayo Scottsdale:
    Russell I. Heigh, M.D. Division of Gastroenterology; Vice Chair, Board of Governors
    Victor Trastek, M.D. Division of Thoracic Surgery
    Richard Zimmerman, M.D. Division of Neurosurgery; Mayo Clinic Hospital (MCH) Medical Director)
    Mr. James Anderson, Chair, Department of Administration; Member, Board of Governors
    Mr. Tom Bour, MCH Administrator
    Ms. Ann Fecteau, Operations Administrator; Clinical Automation
    Michael B. O'Sullivan, M.D. Chair, Board of Governors; Mayo Clinic Scottsdale
    Mark Lyons, M.D. Chairman, Clinical Practice Committee

Intermountain Health Care
    Mr. Bill Nelson, President & CEO
    Charles Sorenson, M.D. Senior VP, Chief Medical Officer
    Mr. Everett Goodwin, Senior VP/CFO
    Linda Leckman, MD, COO Physician Division
    Greg Schwitzer, MD, VP Clinical Support Services
    Don Lappé, M.D. Cardiologist, Medical Director CV Clinical Programs
    Mr. Gary Pehrson, Regional Vice President, Urban Central Region

Research Group:
    Michael Maccoby, Ph.D.
    Richard Margolies, Ph.D.
    Stan Pappelbaum, MD