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Study Trip to Intermountain Health Care, Salt Lake City, Utah
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Study Team:

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Introduction

IHC is a not-for-profit corporation headquartered in Salt Lake City, Utah. IHC was formed in 1974-5 when the Mormon Church decided to divest itself of its 14 hospitals. After buying 10 more hospitals and a number of physician practices, IHC now includes 24 hospitals, 26 health centers or neighborhood clinics, and 150 service sites throughout Utah, southern Idaho, and eastern Nevada. There are 400 employed physicians and 1500 who are directly affiliated. The majority of Utah physicians are empaneled by the IHC health plan. IHC has a 45-50 percent market share of its catchment area of which 25 percent is paid directly to its system; the rest is contracted out to payors. IHC has 50 percent of the hospital beds in Utah. The health plan covers 475,000 lives with only a 6 percent rate of disenrollment after the first year.

IHC's purpose is to improve the health of the population it serves. In 1998, the system spent $31,000,000 in direct charity care (59,000 cases); charitable clinics supported by IHC charity grants provided care for 67,000 additional cases. An active IHC Missions Services Department mobilized volunteers and gave grants to 78 different agencies. Intermountain Community Care Foundation supports clinics for homeless and low-income populations with a clinic serving 3300 children in 7 schools.

IHC had an operating margin of 1.5 percent on revenues of some 1.6 billion dollars. Its policy is to keep premiums low to make quality care as affordable as possible.

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IHC is moving from a traditional hospital-based bureaucratic system with physicians essentially operating in a craft mode of production, to a learning organization which makes good use of information technology and quality tools to develop evidence-based health care. It is moving from specialty silos to clinical programs. To do this requires a combination of knowledge leadership and organizational leadership. At the top of the organization, Bill Nelson, the CEO has a background in finance and Charles Sorenson, MD is the chief medical officer. They have made a strong commitment to evidence-based medicine and have organized seven referral clinical programs:

1. Cardiovascular
2. Women and newborns
3. Neuromuculoskeletal
4. Internal medicine subspecialities
5. Surgical subspecialities
6. Pediatric subspecialities
7. Behavioral health

The development of these programs depends to a major extent on the physician leaders who must help persuade physicians to practice according to protocols (processes or pathways) that reduce variation, lower costs and improve outcomes.

These leaders have been helped in developing protocols and mapping processes by Brent James, MD and David Burton, MD who have provided leadership in applying the tools of quality management and informatics.

Our team interviewed seventeen leaders of the IHC system, (Appendix A) culminating in a two hour feedback session and discussion of the findings with Bill Nelson and Charles Sorenson. People were open and willing to explain their views of the system, including directions for improvement. We used a gap survey as a means of facilitating the dialogue (Appendix B and C). This survey asked how well IHC was meeting its own avowed goals, and it probed for leadership style.

The Study

The people we interviewed, mostly in leadership roles, all believe that IHC is moving in the right direction and that they are on a learning curve. They appreciate Bill Nelson's leadership, his focus on quality and style of listening to physician concerns. On the negative side, some physicians complain that decision-making is excessively driven by financial considerations, without sufficiently integrating the goals and priorities of the clinical programs. They see the hospital dominating the system, and they are unclear about the emerging matrix structure of clinical programs, regional organization, and the hospitals. Also,

they are frustrated that despite IHC's reputation for advanced information systems, many physicians are not plugged in to the advanced system that insures correct prescriptions of antibiotics. Some of the systems they have are old and slow. They lack information systems that would further the goal of evidence based practice.

A good example of effective leadership of a clinical program comes from Don Lappé, MD and Susan Goldberg, RN who run the cardiovascular clinical program. When they began, only 50 percent of discharged cardiac patients received beta blockers. Now it is over 90 percent. Their goal is to move physicians and nurses to proven processes that improve outcomes and cost, and they are making progress.

Lappé has a weekly clinical conference from 8-9 a.m. where data is presented on clinical reasons to use a process or therapy. They set goals that are easy to measure. The goal is the motivator. He finds physicians do respond to goals when they relate to improving patient care (use of beta blockers is an example). He provides timely, relevant and easy to understand feedback. (Lappé and Goldberg find that protocols constructed by Brent James need to be simplified for effectiveness.) Some of the data and methodology has been placed on the IHC intranet, and this appears to be helpful.

Lappé is also taking on the task of cutting costs and limiting vendors to those who provide the best value. This means that some physicians will lose the free meals and vacations offered by vendors. However, the savings in the cost of stents, pacemakers and intra aorta balloons are significant. Once the number of vendors are limited, it becomes possible to negotiate price reductions for quantity.

Lappé spends one-third of his time in clinical practice. He believes this is important to maintain his credibility with physicians and, with the continual changes in practice, his knowledge of the field.

Goldberg who manages the nurses found that in the beginning they were afraid to point out to a physician that he or she had not given beta blockers. But attitudes are changing as physicians learn the value of standardized processes.

IHC has also begun to establish partnerships with corporations, both to maintain employee health and treat illness. A notable example is the partnership with Becton-Dickinson, a large producer of medical products. (see Appendix D)

Another incentive for evidence based medicine comes from the health plan which during the past four years has grown from 170 thousand to 480 thousand members.

While IHC is the preferred system in the state, Sid Paulson, COO of the Health Plan told us that physician relations are bad because their fees are not increasing. They are suspicious of the big IHC system. Physicians believe the administrative types are cooking the books. They don't understand risk and how a health plan works, nor do they understand that IHC is not out to make a profit, but to keep costs down.

Paulson said, "We're just beginning to look at productivity, outcomes, quality. We collect a tremendous amount of data in the health plan but we've only begun to work with it with the doctors. We've just started to work with the 5 clinical program leaders, and they don't have utilization data yet.

The health plan presents an opportunity to develop a closer relationship between the physicians and the insurance plan. The insurance plan is just beginning to share utilization data with physicians. If the interactions between the hospitals, the physicians, and the health plan can be increased through the vehicle of the clinical programs, it may be possible to further improve quality and reduce costs.

Issues

It is surprising that at IHC, a pioneer in developing information systems, the largest gap registered in our survey was: "Our information systems support physician decision-making." Some doctors, especially at the clinics, do not have access to the antibiotic system available at LDS hospital. Physicians get lab and radiology results at their terminals, but IHC lacks an order entry system that would allow storing of procedural data. Scott Hurst, MD, chair of anesthesiology at LDS hospital notes that with such a system, they could analyze outcomes of operations in terms of the relation of procedures to degree of nausea and pain, symptoms that correlate with length of stay. He believes that to change physician behavior, you need to have clear and convincing data showing the relationship between procedure and outcomes.

We asked Brent James about why the movement to evidence-based medical practice has not gone more quickly. He noted that we are dealing with relatively new knowledge. Physicians are still arguing about the scientific facts. Also, the tools we have to manage quality of care are new. So is the mindset needed: systems thinking. 50 to 75 percent of errors are not human error, but system problems. People need to understand the elements of total quality management: root cause analysis, statistical process control of variability. Furthermore, it makes sense to focus on the 65 of 610 common medical processes that account for 95 percent of the variance.

James also noted that they are learning how to produce change, not by dealing one-on-one with doctors, but by gaining group consensus to protocols. So far, they have gained system-wide compliance to three of 65 protocols, a good start but a ways to go.

James affirmed our outline of the movement from craft to manufacturing to learning modes of production. He said: "We can show that the craft style actually harms patients. Caring concern can lead to the wrong solution." For example, a surgeon defines quality in terms of a nurse following his orders. But if 20 surgeons give a nurse 20 different processes, she is likely to make a mistake. However, working within standard processes a physician is free to exercise craftsmanship and to be caring.

Another important reason for slow change is disincentives. While protocols may lead to savings of 30-70%, the organization loses money because of reduced fees for service. James said: "You can only make a business case for quality if you can link quality to a payment strategy." This can be done in a capitated health plan with little turnover or a partnership such as the one with B-D which is willing to invest in the long-term health of employees. (As an example, teaching self management of diabetes does not pay off in the first two years, but over 15 years produces a cost saving of $30,927 per patient.)

So far, national surveys show that people choose providers on the basis of cost, convenience and friendly service, not quality. The CABG outcome study in New York State had no effect on patient volumes in hospitals with good or bad results. Patients typically support bad doctors who develop a good relationship with them.

Some of the physicians we interviewed feel stressed and powerless. As Charles Sorenson noted, they feel they have gone from being entrepreneurs to feeling like victims. For example, those at Salt Lake Clinic who had a group practice before being bought by IHC, feel stressed by productivity demands and loss of the control they had when they were in a group practice. There were complaints that although IHC made a profit, they did not benefit from this and still had to cut costs, including useful secretarial services. They pointed out that IHC used its profit to support community projects and build shiny new hospitals rather than benefitting them.

There is another side to these complaints. As a clinic physician noted, some of those complaining doctors do not appreciate the security they have gained as part of IHC. Nor do they take account of their benefits -- health care, pension -- nor the fact that they get credit financially for patients unable to pay. Furthermore, since becoming part of IHC, some physicians work only four days a week. Some go to give lectures and keep fees (before they had to give these to the clinic). They lack incentive to collect fees from patients, since they are, in

any case, paid the same. There is a problem here of dealing with productivity issues, negativity and complaining.

Also, many physicians do not understand that to maintain a not-for-profit status, IHC must give back part of what it earns to the community.

IHC's Culture

Some of those interviewed complained that the culture discourages open debate. One doctor explained, "the ethic is meet your budget and don't offend people." There is a tendency to defer to authority in public and complain in private. In some cases, there is consensus without accountability; no record is made of who agreed to what.

A number of people referred to the influence of the Mormon Church on the IHC culture, both positive and problematic aspects.

On the positive side, there is a tradition of service, high quality and a commitment to build a community. The Church was an early adopter of IT which has been used for genealogical research, and it was natural to bring it to the hospital system.

On the problematic side, people refered to the lack of openness caused by the emphasis on becoming perfect. People feel guilty at not living up to high ideals. There is a tendency to judge someone as either really good or really bad.

Physicians complain about their lack of involvement in decision-making. One said, "I am a true blue Mormon. But you can't come in and tell people what to do like the Church does."

Those who are not Mormons do not experience any prejudice, but some feel excluded. This is more a matter of subtle feelings than discrimination. Three of the clinical program leaders we interviewed are Jewish. Yet, we need to emphasize that the gaps in openness and trust are considerably lower at IHC than at four academic health centers we have studied. Despite complaints, the IHC culture is strengthened by a strong vision, respectful relationships and leadership oriented to continual improvement.

Conclusion

At our feedback session, we discussed our observations and suggested ways to close the gaps and strengthen the IHC culture.

First of all, IHC leadership should clarify the emerging matrix structure of clinical programs and hospitals. In this regard, measurements and incentives should be evaluated in terms of whether they support strategy and structure.

Leadership can benefit from using a 7-S model to think about the ideal future design of IHC. This means aligning the hard Ss (strategy-structure systems) with the soft Ss (skills - style of leadership - shared values - stakeholder values). Once the systemic vision is made clearer, gaps can be prioritized and addressed. This will allow for a more holistic approach to issues of clinical quality vs. cost, hospitals vs. physicians.

By gaining a shared understanding of IHC's past, present and ideal future, the top leadership group will be able to facilitate an interactive dialogue with the organization to clarify how each person fits within the system. An important part of this dialogue should be to teach physicians not only about the logic of evidence based practice, but also about the logic of business: what produces a positive financial result, what are IHC's responsibility to the community, what determines investment and compensation policies. An interactive dialogue can yield new thinking useful for system-wide planning and develop IHC's leadership competence. It can also help to develop leaders throughout the organization.

List of people interviewed at Michigan Health System

Steve Barlow, MD - I/M
Clinical Leader

Dave Burton, MD

Wayne Cannon, MD
Pediatrician/Primary Care Leader

Steve Clark, MD
Perinatologist/Clinical

Brent James, MD - VP
Medical Research

Kirt Kimball, MD
Orthopedist

Susan Goldberg, RN
Nurse Clinical Leader

Jill Green, Asst. VP
Clinical Support Service

Gerald Lazar, MD
Psychiatry

LaDonne Loveday
Becton/Dickinson Rep.

Don Lappé, MD
Cardiologist/Clinical Leader

Bill Nelson
CEO

Sid Paulson
COO
IHC Health Plans

Charles Sorenson, MD
Chief Medical Officer

Charles Swallow, MD
Urologist/Clinical Leader

Steve Towner, MD
I/M/Diabetes Leader

How **important** are each of the following elements to the success of IHC?
How **well** are you achieving them?

	IMPORTANCE low high					LEVEL TODAY low high				
Strategies										
• We provide excellent service to:										
- Patients	1	2	3	4	5	1	2	3	4	5
- Health plan members	1	2	3	4	5	1	2	3	4	5
- Customers	1	2	3	4	5	1	2	3	4	5
- Physicians	1	2	3	4	5	1	2	3	4	5
• We serve the diverse needs of:										
- Young	1	2	3	4	5	1	2	3	4	5
- Old	1	2	3	4	5	1	2	3	4	5
- Rich	1	2	3	4	5	1	2	3	4	5
- Poor	1	2	3	4	5	1	2	3	4	5
- Urban	1	2	3	4	5	1	2	3	4	5
- Rural	1	2	3	4	5	1	2	3	4	5
• Our services are cost-effective	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 work to improve the health of the community	1	2	3	4	5	1	2	3	4	5
• We provide our services with integrity	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 learn from best practice	1	2	3	4	5	1	2	3	4	5
• We attract exceptional individuals at all levels	1	2	3	4	5	1	2	3	4	5
• We provide opportunities for personal and professional growth	1	2	3	4	5	1	2	3	4	5
• We recognize and reward employees who achieve excellence	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 evaluate individual performance regularly	1	2	3	4	5	1	2	3	4	5
• Our information systems support physician decision-making	1	2	3	4	5	1	2	3	4	5
• Physicians use clinical pathways and guidelines	1	2	3	4	5	1	2	3	4	5
Leadership Approaches										
• Communicating a vision	1	2	3	4	5	1	2	3	4	5
• Practicing 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
• Holding people accountable	1	2	3	4	5	1	2	3	4	5
• Developing relationships of trust	1	2	3	4	5	1	2	3	4	5

IHC (N=13)

High Gaps

- Our information systems support physician decision-making 1.31
- We Provide Excellent Service to Physicians 1.23
- We Provide Excellent Service to Customers 1.17
- Our services are cost-effective 1.15
- We Provide Excellent Service to Health Plan Members 1.08
- We learn from best practice 1.08
- Resolving conflicts 1.08
- Developing relationships of trust 1.08
- We work to improve the health of the community 1.00
- Holding people accountable 1.00

Low Gaps

- We Provide Our Services with Integrity 0.46
- We Provide Opportunities for Personal and Professional Growth 0.46
- Our research and Education Strengthen the Clinical Enterprise 0.50
- Communicating a Vision 0.62
- We Recognize and Reward Employees Who Achieve Excellence 0.81

Becton-Dickinson has eighteen thousand employees and is a medical device company. Five to six years ago they saw trends in healthcare costs rising as an entire company. The executives decided to partner with different healthcare plans in each area of the country where they had a large employee base. In Salt Lake City they looked for someone to partner with and they selected InterMountain Healthcare.

Intermountain Health - Becton Dickinson Partnership

They chose IHC, out of 4-5 choices, because of Brent James' work on quality and the continual monitoring of quality. Furthermore, IHC had the idea of bring all BD's partners from other regions to Salt Lake City to meet for 3-4 days each year to share best practices. This has strengthened trust.

The partnership includes:

- Testing all employees, screening with a high risk appraisal,
- Creating a database. A pareto grouping showed that a small group of employees produced most of the health costs,
- An on-site physical therapist, with appointments during the workday in the clinicin the factory,
- Disease management of several chronic diseases, diabetes, asthma. This is voluntary, but participation is high.They have seen a decrease in hemoglobin indicators in diabetes.

In diabetes, patients have learned to better manage their problems. They have only been doing the diabetes program for two years and they are amazed at the requirement for ongoing education with diabetics. Patients forget what they learned the first year because their hemoglobin is too high. Only when it reaches about 7 can they retain information.

BD is self-insured. They pay the health costs and IHC administers the plan. BD pays a percentage of the insurance cost for administration including an onsite care manager. Sometimes the care manager forgets if she works for IHC or BD. IHC shows BD the aggregate health costs each month which they pay, and they have a negotiation session at the end of the year to reconcile differences so that each side considers the situation fair.

IHC has not yet educated all their doctors to encourage BD employees to be more active in maintaining their own health. BD has tried distributing three different self-care books, and they believe some other BD partners do this better than IHC, eg, Kaiser in California. The self-care books are standard books that are customized for BD and IHC. They also have a link to drkoop.com.

What about costs? The IHC partnership has reduced the trend but not the total dollars. BD believes the improvement is because of their health manage-

ment with IHC. However, to fully measure cost improvement they would need to account for improved productivity and savings in disability costs.

What about confidential information? IHC has the only access to patients' information, BD only gets the aggregate data.

Early in the program with IHC, BD had a data analyst who broke their population into five categories according to level of illness-wellness. This highlighted the case management group which needed intensive management. However, they no longer do a five group data breakout.

Now they regularly use the nationally-available (on the net) SF12, which is talked about in M. Milleson's Demanding Medical Excellence. This is a self-report instrument BD uses to indicate health outcome shifts. Last year it showed a significant positive shift.

IHC has a Health Needs Assessment, which they developed. It is computerized and indicates who needs case management.

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Study Trip to University of Michigan Health System, Ann Arbor, Michigan
November 1-3 1999

Study Team:

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Barbara Lenkerd, Ph.D.
Richard Margolies, Ph. D.

Introduction

The University of Michigan Health System is one of the oldest and largest comprehensive treatment, research, and teaching systems in the country. The School of Medicine opened its doors in 1850, and in 1869 it opened a hospital, the first hospital in the United States owned and operated by a medical school. It was among the first medical schools to graduate women (1871) and African Americans (1872). Today the medical school body is 45% women, and ranks fifth in the nation in the number of minority physicians it graduates each year.

The health system now comprises 3 hospitals, 30 health centers, and 120 outpatient clinics throughout the state, and a relatively new health plan, M-Care. U.S. News and World Report recently ranked the University of Michigan hospitals ninth in the country among America's Best Hospitals and ninth best among 125 medical schools.

M-Care has 180,000 members and contracts with 4,000 employer groups. M-Care has more that 4,000 doctors and 51 hospitals in its 16 county commercial provider network. M-Care offers HMO, Point of Service and Medicaid and Medicare plans. It is a benchmark in 6 of 12 national HEDIS measurements, placing it in the top 10 percent of health plans.

The UM Medical School has 1,600 faculty members, comprising over 40% of the faculty of the whole university. All faculty who generate clinical income are in a group practice. This means that a faculty member entirely involved in research is not a member. The group practice has 1025 members, about 60% of the total faculty. The group practice has its own board, medical director, and

executive director. The group practice wants to take on a larger role in running the primary care and specialty clinics and is negotiating this with the Health System. The Health System accounts for nearly 50% of the budget of the university. The UM Health System has 826 interns and residents, and the medical school graduates about 170 doctors each year.

The University of Michigan Health System is a major center of research with 24 interdisciplinary research centers and institutes combining research and clinical care in an academic setting. The UM Medical School ranks ninth among all medical schools in NIH research funding awards, 5th among public universities. The UM Medical System is a leader in medical innovation, and in the translation of medical research into advances in clinical care. It pursues a strategy of commercialization of new knowledge, as evidenced by the fact that in 1998 royalty revenue was $2.5 million from 69 inventions, and numerous companies have been launched based on their research.

This tradition of research and innovation goes back many years. The UM Medical School research led to many groundbreaking advances including the gastroscope, extracorporeal membrane oxygenation, and the nation's first training in thoracic surgery, the first successful removal of a lung, and the first department of dermatology. In 1913 UM researchers developed the EKG machine. In 1955 Dr. Jonas Salk created a safe and effective polio vaccine at UM Medical School.

The UM Medical School created the nation's first human genetics program (1940), and recently UM President Lee Bollinger announced a commitment to build a $200 million Life Sciences Institute ($150 million for the building and $50 million for 30 positions). He sees biogenetics as the next major revolution in the sciences. Because of this commitment he recruited Dr. Gilbert Omenn, a researcher in this area and former Dean of the University of Washington's School of Public Health, as the new Executive Vice President for Medical Affairs. The Life Sciences Institute will significantly expand the scope of research in this area of science, although UMHS already has the Center for Organogenesis and the Center for Gene Therapy.

According to Omenn, the Life Sciences Institute is Bollinger's initiative to energize the whole university. It may also partner with engineering, the Santa Fe Institute and pharmaceutical companies. The Governor is interested in a life sciences corridor including Wayne State University and Michigan State that might attract companies.

$150 million of the funding for the institute came from the hospital's reserves of $900 million. Although the clinical faculty accept the need for the university to invest in the future, some feel they should have had a say in the

decision to use these funds, especially since they suffer from insufficient space and equipment to meet their needs.

UMHS is active in public education and outreach to the community which involves a large percentage of medical students, faculty and staff. These programs include student-led child health programs; free clinics for the homeless, low-income children and migrant farm workers; the Michigan Interactive Health Kiosk Project to promote lifestyle behavior change; the Washtenaw Integrated Medicaid Project linking mental health and regular health services for Medicaid populations; school-based services; health ministries (training church members as wellness leaders); a health center for low-income teens and children; work with Ypsilanti schools and churches to prepare students for health careers; work with a local TV station in creating a 'Healthy Lifestyles' series; adult education programs on healthy diets and learning to interpret grocery-store labels. UMHS joined with a local competitor, St. Joseph Mercy Health System, and the Washtenaw County Department of Public Health to create an action program on infant health; childhood immunization; abuse, neglect and violence; and access to care.

Recent Financial Situation

The UM Health System went through a financial crisis in 1996 which resulted in a downsizing of 1100 people, mainly in nursing and billing. We were told that this was a blow to the paternalistic culture where people expected lifetime employment. The UMHS is now in the black with a slim margin of $20 million on revenues of $1.6 billion. ($7 million after Y2K improvements). This is due in large part to the fee for service environment that has resulted from demands of the United Auto Workers to maintain members' choice of physicians. Another factor is the low ER and charity care compared to many other academic health centers because the UMHS catchment area does not include large urban poverty areas. UMHS also benefits from lack of serious competition in its area for tertiary care. They see their main competition in the midwest from the Cleveland Clinic and Mayo. Furthermore, the ambulatory practice has grown, increasing revenues and feeding patients to Ann Arbor. Eight percent of professional fees go to the dean's tax.

The Study

Our team interviewed 21 leaders of UMHS (Appendix A) culminating in a one hour feedback session and discussion of the findings with Gil Omenn and six of the people interviewed. Twenty people filled in gap surveys (Appendix B & C) which were used to facilitate interviews and for discussion at the feedback session. Those we interviewed were open, but more concerned with confidentiality than in other systems we have studied. In particular, there was criticism

that the top leadership group was not a team, including Omenn; Larry Warren, Executive director of Hospitals and Health Centers; and Allen Lichter, MD, Dean of the Medical School. There was also concern that people could not be open about their criticisms of top leadership for fear of reprisals.

The overall impression from the interviews is pride in Michigan's tradition of excellence, but uncertainty about how to integrate the disparate functions of this large organization. The question is whether there should and can be an integrated social system in which all parts serve the common purposes of improving health care, developing health care professionals and creating knowledge that contributes to these goals.

Michigan's medical education has been relatively traditional. However, the deans recognize the need to get students involved in clinical learning during the first two years and to educate them about clinical research. Joe Fantone, M.D., assistant dean for education sees the need to expand teaching to the outpatient ambulatory environment as well as the hospital. He also notes the importance of med students' learning communication skills and the ability to work in multicultural environments. What about teaching students about business? Fantone responds by asking when would be the teachable moment. He judges that perhaps ten percent of students are attuned to issues of management and the future of practice. The rest only begin to become aware at the end of the third or fourth year.

Southern Michigan is a unionized environment, and the nurses at UMHS are members of a union. Together with hospital management, they have developed a mutual gains process and shared clinical decision-making. Beverly Jones, Chief of Nursing Affairs believes the relationship has been productive. She notes that some doctors don't like the fact that seniority influences work assignments; they want to choose the nurses they work with. Some doctors want the best nurses irrespective of seniority. As in other health care organizations, many physicians see nurses as an expense, not as fully valued members of an effective team.

As in most other academic health centers, leaders at UMHS recognize that IS can be extremely valuable for improving practice and relationships among physicians. But there is confusion about how to proceed. Care-Web, a secure intra Web - based results reporting system is up and running. But as one person put it: "It is proving useful, but it is a baby step forward in IT. The next steps: work flow, order entry, and central scheduling are a huge leap." There is still a tube system, with paper orders sent between offices and buildings. They will be working with IBM to develop system-wide IS. However, Omenn points out that it took IBM and Kaiser eight years to develop a system.

Positives

Michigan has everything needed for a top ranked academic health center. Its commitment to research in life sciences positions it to help develop and make use of advances in knowledge for the 21st century. There is leadership for evidence-based medicine, especially from John E. Billi, MD, Associate Dean for Clinical Affairs. Billi is spearheading a promising partnership with the Ford Motor Company (Partnership Health) which gives Michigan the support and financial incentives to focus on maintaining health and quality as well as treating illness. (See Appendix D)

Ford took the initiative to create the partnership, and the health care is being managed by a faculty-based medical management center. Administrative services are provided by M-Care. In addition to its value as a moderate-sized health plan, M-Care which is a vehicle for the University to learn how to develop managed care. M-Care needs more IT infrastructure, utilization management and evidence based clinical guidelines that could be models for the system.

Issues

The largest gaps in the survey results had to do with patient service, leadership, lack of trust especially between the Medical School (including clinical practice) and hospital, and the availability of information systems to support physician decision-making and further the development of evidence- based medicine.

The problems underlying these symptoms are complex. There is a strong tendency to blame leadership for a lack of vision. But the problems will not be solved by inspiring slogans. To satisfy the people we interviewed, the leadership would have to grapple with difficult issues that are common to many, if not most, academic health systems. Let's look into the issue of patient service.

Academic health centers have the problem of balancing the three missions of teaching, research and service. Clinical faculty complain about lack of space and consideration for their needs. As in all medical organizations, cost pressures have led to feelings of victimization. Although the stated values of the University hospitals and health centers is "patients and families first," some clinical leaders feel that faculty members sacrifice service for research. As in other academic health centers, tenure results from publications. Research gives AHCs national and international recognition. Although Michigan comes out in the top ten of surveys of academic health centers, Omenn points out that this position is precarious. "Others want to knock you off."

However, clinical leaders point out that faculty in medicine may spend one week per month with patients, and this is not enough to maintain expertise. According to one chair, "faculty from internal medicine are part time doctors. Faculty is not promoted or recognized for giving care." This chair and others also believe that competition in the world of research requires full time and more. This chair says: "Maybe we need to do away with tenure. I don't believe a person can be an outstanding investigator and good clinician. You must be a clinician at least half time. Can you be competitive as a researcher only half time?" Certainly, there are those who believe it is still possible to be a triple threat. The problem we hear is that when physicians put research first, there are instances of breaking appointments, and not being available that undermine clinical excellence. The implication is that it is not possible today for individuals to be triple threats, that this is only true at the level of the institution as a whole. Omenn who was once a triple threat believes this is an outdated model. He points out that there are 300 physicians in the clinical track who must also teach. But this is not a tenure track.

Incidentally, some of those we interviewed note that increasingly the UMHS will depend on patient care for the revenues to support teaching and research. They do not think that the researchers understand this. If they did, they would be more supportive of the clinical enterprise.

A second issue has to do with the organization of AHCs into departments that function like feudal fiefdoms. Different departments have different ways of doing things, different compensation systems, different information systems. It becomes difficult to work across boundaries (although there are exceptions at Michigan such as the Cancer Institute.) Some of the clinical leaders we met would like to move towards the Mayo model of group practice and create consistency across departments.

A third issue has to do with the physicians' distrust of the hospital. Physicians see the hospital as a "black box." They see profit taken by the hospital at their expense. They accuse the hospital of "cooking the numbers."

Lloyd Jacobs, MD, COO of the Hospital and Health Center attempts to bring the Medical School and Hospital closer together, but physicians see him as having gone over to the dark side, the hospital. Jacobs believes there is a basic difference in how physicians and hospital view their missions, and that this leads, inevitably, to conflict. He sees the physician as the advocate for the patient, willing at times to go to great lengths for the good of the patient. In contrast, the hospital sees itself as representing fairness and public justice.

We would look at the differences from a socioeconomic point of view. Physicians traditionally operate from a craft logic in which they have the authority to do what is necessary for patients. The hospital, in contrast, operates in terms

of a bureaucratic industrial logic of centralized command, with budgeting and financial control systems. Improvements come from standardized processes. The only way to move beyond conflict is for hospital and physicians together to develop a learning logic including developing processes and clinical pathways based on outcomes, integrated delivery systems of excellence with decentralized mission-based budgets, and leadership that involves all health professionals in continuous improvement.

Conclusion

Michigan's problems should be seen as opportunities not obstacles.

At our feedback session, Dr. Maccoby suggested that the partnerships with Ford and GM offered the opportunity and incentive to move toward a learning system. These customers are used to demanding quality products from vendors, products that meet specifications. They want a partner who offers an integrated delivery system, that is able to serve the patient across boundaries. It could be useful to bring representatives from Ford and GM to speak to physician and hospital leaders.

To develop the kind of leadership being asked for, Dr. Omenn and his team should first of all describe how the roles of patient care, research and education strengthen and sustain the UMHS. It appears that everyone does not have the same understanding of this. Everyone needs to understand the business logic that supports the mission. Next, there is need to describe a vision of a learning system. This should include a description of an evolving matrix organization of group practice, departments and thus relations to the ambulatory care clinics and health plan and hospitals. What are the roles of each? What are the budgeting and control systems that are needed to allow excellence and innovation?

The development of a complex self organizing adaptive system takes time and requires an interactive dialogue that engages the key stakeholders in furthering the vision and its design. This requires soft leadership skills to bring out different views and integrate them as much as possible in the evolving system. Other professional knowledge-service organizations such as the World Bank are dealing with some of these same issues. (see M. Maccoby, "Building Cross Functional Capability," *Research Technology Management*, May-June 1999) UMHS needs to become less insular and to learn from them.

List of people interviewed at Michigan Health System

Keith Aaronson, M.D.
Assistant Professor of Internal Medicine

John E. Billi, M.D.
Associate Dean, Clinical Affairs
(lead of project w/Ford Motor Co.)
Associate Professor, Internal Medicine

Jocelyn Dewitt, Ph.D.
Chief Information Officer

N. Reed Dunnick, M.D.
Chair, Department of Radiology

Frederic Eckhauser, M.D.
Professor of Surgery

Joseph Fantone, M.D.
Associate Dean for Medical Education
Professor of Pathology

Anne Ferris, B.A.
Executive Administrator, Faculty Group Practice and Ambulatory Care Services

Zelda Geyer-Sylvia, M.P.H.
Executive Director, M-Care

Lloyd A. Jacobs, M.D.
Senior Associate Dean for Clinical Affairs
Chief Operations Officer, UM Hospitals and Health Centers
Professor of Surgery

Beverly Jones, B.S., M.B.A.
Chief Nursing Affairs

Allen S. Lichter, M.D.
Dean, Medical School
Professor of Radiation Oncology

Gilbert Omenn, M.D., Ph.D.
Executive Vice President for Medical Affairs
Chief Executive Officer, UMHS

Jean E. Robillard, M.D.
Chair, Department of Pediatrics & Communicable Diseases

Aileen Sedman, M.D.
Associate Chief of Staff, Clinical Affairs
Professor of Pediatric Nephrology

Kenneth Silk, M.D.
Associate Chair, Department of Psychiatry
Chair, Faculty Group Practice Board

David J. Smith, M.D.
Regional Medical Director for Ambulatory Care Services
Section Head, Plastic Surgery Section

David A. Spahlinger, M.D.
Executive Medical Director, Faculty Group Practice
Clinical Associate Professor, Internal Medicine

Doug Strong M.B.A.
Associate Vice President, Health System Finance and Strategy

Larry Warren, B.B.A.,M.A.
Executive Director, Hospitals and Health Centers

James O. Woolliscroft, M.D.
Executive Associate Dean
Associate Dean, Graduate Medical Education
Professor, Internal Medicine

Philip Zazove, M.D.
Clinical Associate Professor, Family Medicine
Regional Medical Director, Ambulatory Care

Gap survey used at Michigan Health System.

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 low high	LEVEL TODAY low high
Strategies		
• 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		
• 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		
• 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		
• 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		
• 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

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University of Michigan Health System N = 20	IMPORTANCE 1	2	3	4	5	LEVEL TODAY 1	2	3	4	5	GAP	Mean Importance
Information Systems Support Physician Decision-Making.	0	0	0	4	16	2	8	8	2	0	2.30	4.80
Empowering	0	0	1	6	13	2	8	9	1	0	2.15	4.60
Inspiring	0	0	1	9	10	1	9	8	2	0	1.90	4.45
Utilization Management is Shared by All Physicians.	0	1	3	8	7	3	8	6	2	0	1.74	4.11
Developing Relationships of Trust	0	0	1	4	14	0	7	7	4	1	1.74	4.68
Communicates a Vision	0	0	1	3	16	2	5	4	8	1	1.70	4.75
Patient Service Is Our Highest Priority.	0	0	1	3	16	0	3	12	5	0	1.65	4.75
Coaching	0	0	4	10	6	1	10	8	0	1	1.60	4.10
Holding People Accountable	0	0	1	8	11	2	6	6	3	3	1.55	4.50
Individual Performance is Evaluated Regularly.	0	0	0	13	6	1	7	7	2	2	1.47	4.32
Service	0	0	0	7	13	0	2	12	6	0	1.45	4.65
Physicans Use Clinical Pathways and Guidelines.	0	0	3	8	9	0	7	9	4	0	1.45	4.30
We Learn From Best Practices.	0	1	2	6	11	0	7	9	3	1	1.45	4.35
Practices Openness	0	0	2	6	12	0	4	10	4	1	1.39	4.50
We Continuously Improve the Cost and Quality of Our Services.	0	0	0	6	14	0	2	9	8	1	1.30	4.70
Group Practice	0	0	1	6	13	0	1	12	6	1	1.25	4.60
Physicians Share Leadership Functions With Other Professionals.	0	0	2	6	12	0	3	9	7	1	1.20	4.50
Population Needs and The Market Shape Our Clinical Programs.	0	0	2	13	5	0	7	6	7	0	1.15	4.15
Innovation	0	0	1	5	14	0	1	8	11	0	1.15	4.65
Resolving Conflicts	0	0	5	7	8	0	4	11	5	0	1.10	4.15
Systems of Excellence / Product Lines	0	0	2	9	7	0	2	10	6	1	0.96	4.28
Our Research and Education Strengthen the Clinical Programs Enterprise.	0	0	1	3	16	0	2	3	11	4	0.90	4.75
Ethics	0	0	0	5	15	0	0	5	11	4	0.80	4.75
Profitability	0	0	0	16	4	0	0	6	11	3	0.35	4.20
Health Plans	0	1	7	8	4	0	1	9	9	1	0.25	3.75

U of Mich (N=20)

High Gaps

- Information Systems Support Physician Decision-Making. 2.30
- Empowering 2.15
- Inspiring 1.90
- Shared Utilization Management 1.74
- Developing Relationships of Trust 1.74
- Communicates a Vision 1.70
- Patient Service Is Our Highest Priority. 1.65
- The Value of Service 1.64
- Holding People Accountable 1.64
- Coaching 1.60
- Individual Performance is Evaluated Regularly. 1.47

Low Gaps

- Health Plans 0.25
- Profitability 0.35
- Ethics 0.80
- Our Research and Education Strengthen the Clinical Enterprise 0.90
- Systems of Excellence / Product lines 0.96

Questions and Answers for Physicians

What is Partnership Health?

Partnership Health is a new health plan, created by Ford Motor Company and the University of Michigan Health System for the following purposes:

- To emphasize quality care and favorable patient outcomes
- To increase choice for consumers
- To promote prevention and patient-centered care
- To preserve, encourage and support the physician/patient relationship
- To provide exemplary customer service (members and providers)
- To maintain 'affordability' for the employer and member

What distinguishes Partnership Health from other plans?

1. The Coordinating Physician. In order for the member to receive the highest level of benefits, the member is encouraged to choose a Coordinating Physician, who is the physician he/she relies on most often for care. Unlike many plans, the Coordinating Physician can be of any specialty *and* the member can "nominate a physician who is not currently part of Partnership Health.

A letter of commitment will be sent to the "nominated" physician, asking him/her to agree to certain principles of care delivery, such as using evidence-based clinical practice guidelines and working with other professionals as part of a health care team, centered around the patient. There will also be basic credentialing requirements for physicians. If the physician agrees to the commitments and meets the requirements, he/she becomes a Coordinating Physician in Partnership Health.

2. The Individual Health Care Plan ("IHCP"). The IHCP replaces the need for referrals or authorizations. The Coordinating Physician and the member jointly develop an IHCP that describes the member's anticipated care over a specific period of time. For physicians and services listed on the IHCP, the highest level of benefits will apply and no additional 'referral' is needed. The member can move more freely to obtain necessary care. Partnership Health is optimistic that this feature will improve member and physician satisfaction and result in more timely necessary care.

3. Partnership Health Benefits. Benefits were designed to encourage wellness and prevention, in addition to necessary treatment of illnesses. The member may receive the highest level of benefits if he/she either seeks care/services through a participating physician/provider or the care/services are listed on the IHCP. If neither of these situations is true, the member can still have coverage, but in most cases at a reduced benefit level (similar to a point of service plan).

4. The Health Navigator. Partnership Health offers a personal Health Navigator, usually a nurse with care management experience, who is available to answer questions, locate information, and help members get the most out of their health plan. The Health Navigator will support the role of the Coordinating Physician and facilitate the member's access to care and services.

5. Enhanced customer service. Partnership Health has created a designated Customer Service team, which will offer extended hours and provide access for members and physicians to get answered in an accurate and timely manner.

6. Access to services through University of Michigan Health System. Partnership Health members and their physicians have access tot he services of the University of Michigan Health System, including resources available through the Health Education and Research Center (HERC). There are specific disease management programs available through the University of Michigan, for those conditions such as diabetes, congestive heart failure, coronary artery disease, mental health/chemical dependency, and asthma.

7. Shared responsibilities. Partnership Health believes that the most effective health plans blend the values and needs of all the 'partners'--members, physicians, and employer. In addition, each partner has certain responsibilities.

To that end, everyone involved in Partnership Health will commit to certain responsibilities. Physicians must adopt a team approach to member-centered care, submit data for analysis, use clinical guidelines in the diagnosis and treatment of patients, and meet certain service standards.

Members are encouraged to select a Coordinating Physician, complete a health-risk appraisal (their "Personal Wellness Plan"), have an initial visit with the Coordinating Physician to establish the IHCP, consent to the release of historical medical information, participate on the health care team along with their doctors and nurses, and give feedback to Ford and Partnership Health about their experience with the plan.

Ford Motor Company makes a commitment to offer a quality health plan for employees and retirees and work as a partner in the design, evaluation, and evolution of the plan.

What does it mean to be a Coordinating Physician?

In general, Coordinating Physicians will be asked to do the following:

- Work with each member to develop an Individual Health Care Plan (IHCP), including those members who are healthy.
- Coordinate the necessary care for members.
- Collaborate with other health care professionals in a team approach to member-centered care.
- Agree to utilize evidence-based, clinical guidelines in the treatment of the member.
- Agree to certain administrative requirements, all meant to enhance member satisfaction and promote access to timely and appropriate care.
- Cooperate with Partnership Health in submitting necessary data in order to evaluate the Partnership Health program and outcomes of care.
- Give Partnership health feedback regarding how the plan is working for you and your patient(s).

What will I have to do to become a Coordinating Physician?

Partnership Health will send physicians a simple application and a physician commitment letter. The physician will be asked to submit basic documents, such as a copy of his/her State of Michigan medical license. If the physician currently participates in a managed care network that is accredited by the National Committee on Quality Assurance (NCQA), Partnership Health will accept proof of this participation in lieu of asking the physician to complete a full

credentialing process at this time. This will assist us in responding to Partnership Health members regarding the participation status of the nominated physicians.

How will Coordinating Physicians be compensated under the Partnership Health program?

Partnership Health will pay Coordinating Physicians on a fee-for-service basis, using an RBR VS-based fee schedule, which will be specified in your agreement with Partnership Health. In addition, Coordinating Physicians will be compensated for additional, value-added services they provide, such as development of the Individual Health Care Plan and the Ongoing coordination of care.

Which of my patients are eligible for Partnership Health?

Partnership Health is being offered to Ford Motor Company salaried employees and retirees who reside in Washtenaw, Livingston, Wayne and some portions of Oakland counties. During the first year, membership was limited to 2,000 enrollees (approximately 4,000-6,000 members). It is anticipated that Partnership Health will continue to increase membership and expand its geographic service area throughout southeast Michigan and eventually to Ford locations across the country.

Eligible Ford Motor Company employees are going through open enrollment during the following time periods:

Salaried Actives: March 22 through April 2, 1999

Salaried Retirees: April 12 through April 23, 1999

Who are the physicians currently in Partnership Health?

Partnership Health currently consists of approximately 1,200 physicians in the University of Michigan Health System, Integrated Health Associates and Community Physicians. Partnership Health will also develop agreements with physicians who have been nominated as Coordinating Physicians. Partnership health can only accept a limited number of new physicians each year.

Will I have to send my patient to the University of Michigan for specialty care or hospitalization?

No. The Coordinating Physician and the member decide where other services will be obtained and indicate these on the member's IHCP. Once part of the IHCP, the member can go to these physicians or hospitals and still receive the highest benefit level. If services are not on the IHCP, the member will still have coverage, but at a reduced benefit level.

However, Partnership Health offers access to the University of Michigan Health System physicians, hospitals, and services, not only for referral to specialty care, but for consultation and support. A number of disease management programs are available for the treatment of conditions such as asthma, diabetes, congestive heart failure, advanced coronary artery disease, and mental health/chemical dependency. In addition, the Health Education and Research Center (HERC) has educational materials which can support the education the member receives in the Coordinating

Physician's office. Evidence-based, clinical guidelines are available and encouraged for use in the enhanced management of certain medical conditions.

What if I don't want to be a Coordinating Physician?

Partnership Health understands that not every physician will want to be a Coordinating Physician. This role implied certain responsibilities that physicians may not want to commit to at this time. If your patient enrolls in Partnership health and you *are not* a Coordinating Physician, your patient can see you for care and still have coverage—but at a reduced benefit level (similar to a point of service plan).

When must I decide if I want to participate?

Due to the Ford Motor Company enrollment period, Partnership Health has made a commitment to notify the potential member regarding the status of his/her nominated physician by April 16, 1999, in order to give the employee enough time to make a final decision on his/her health plan. Therefore we would like to obtain your commitment (if you are interested) as quickly as possible.

What will you tell my patient if I decide not to participate?

There may be good reasons why a physician does not wish to participate in Partnership Health at this time. We respect the relationship that physicians have with their patients and will present the "nominated" physician's decision to participate or not in a positive manner. Partnership Health will not provide any information to the member other than that the physician has agreed to participate or not. Similarly, Partnership Health has committed to enrollees not to disclose the identity of the member who has nominated him/her to the physician, unless they give us permission to do so.