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Evolution of the Hospital The Next 20 Years

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At a health care conference recently, I heard two things: first, that the "bed is dead," and second, that hospitals are not sure whether they are supposed to "heal or deal." While these statements may seem exaggerated, the bed is certainly taking second fiddle to ambulatory care, home care, and a variety of subacute modalities. Certainly the health care providers we work with are dealing as well as healing. I trust that the healing part still occupies most of their time.

We are currently in the midst of two trends that strongly influence our behavior and future planning in the health care field. The first is the intense, relentless economic pressure of managed care. The second is the freedom from the hospital bed that new technologies have given us.

An evolutionary leap is occurring in health care delivery. I believe we are undergoing a change that is a once-in-a-century event; that we have an opportunity to respond to the forces and freedoms offered by the current situation and use them as stepping stones to a community-based model of care. As radical as the current changes seem, they could and should become an incremental step toward a new model of health care delivery, one that provides comprehensive, effective, and cost-efficient care to communities.

In this century, there have been two periods when the acute care (bed-centered) model of health care was not the predominate one promoted for health care delivery. During the early 1900s and again in the 1930s there was a strong for a community-based model of care, in which the hospital is one cog in an integrated health care system, not its central focus. Planning, funding, and measurement of success are judged on community terms. Unfortunately, the movements toward this model were thwarted by the medical establishment. The first time it was the dominance of medical schools combined with the success in World War I of intensive trauma medicine that served to sideline a community-based system. In the 1930s it was the American Medical Association's reaction against "socialized medicine."

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Today's rapidly changing environment ensures that mistakes will be made. Strong providers can recover and move forward; others will hesitate and will be left behind to decline and eventually disappear. There are many issues to be resolved before a clear, predictable pattern for success emerges. Is health local or national? Is it a community service or a business? Will it occur in the doctors office, in the hospital, or elsewhere? How fragmented will it be? How concentrated? Will a few large players provide most of the care? What will happen to the investor-owned segment of the market? How and where will physicians be trained in the new, dominant model? Who will finance new procedures and cures?

Despite the uncertainties, successful providers will see through the smoke and distractions to discern long term trends. Many are already taking decisive action, such as putting together primary care networks and reengineering their hospitals to make them as lean as possible, and merging and consolidating services. These are only the beginning steps in the current phase of health care evolution.

Managed care may not actually be the dominate force for change, although it appears today as if it is. Many of the tools and techniques that have freed us from the overnight hospital stay are less visible and are reported on by the press less frequently than is managed care. They are, however, powerful factors in this new freedom.

Advances in knowledge and technology have led anesthesiologists to talk of eliminating the need for the post-surgical recovery room. Hospital stays for many medical conditions have been radically shortened by new technologies, as well as by the pressures of managed care. The old rules of rigorous sterility for invasive surgical procedures are eroding. Standards of sterility in angio and catheterization rooms are different from those of surgery, but are medically quite acceptable. That little tube, the laparoscope, is being used for a different new procedure every month: gallbladder removal, cholecystectomy, heart and vascular repairs, you name it. Emerging features in the medical landscape are genetics, telemedicine, robotics, the enhancement of imaging during surgery, PAC systems, and many other technologies. All add to the likelihood that ambulatory care will increase in both volume and complexity.

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Context

We are dealing with change, but change leading to what? There is always opportunity in a period of change. The first decade of the 21st century could be the dawn of a new beginning, the evolution of health care into a new and more effective community-based model, focused on healthy community outcomes. Admittedly, this is a big leap from where we are now. Why might this happen? What is leading us there?

Unfortunately, it is not enlightened leadership or great social motivation leading this change. The prime motivator for providers is economic survival and control over their destinies.

Consolidation, reengineering, closures, and downsizing are all driven by providers' need to survive economically and—for a few—to get rich in the process.

What will make the enlightened, healthy community the outcome that will emerge from this jumble of for-profit and not-for-profit organizations, foundations, and physician partnerships—the alphabet soup of organizations we call the health care delivery system? The answer is capitated reimbursement for health care and risk pools shared by hospitals and doctors together.

In a capitated, shared risk situation, the incentive for doctors and hospitals alike is to keep their patients healthy. While there are financial incentives to treat less, a strategy of under-treating will fail. In the long run, undertreating costs more and leads to customer dissatisfaction. The financially successful strategy will be to invest in prevention and early detection of illness. The problem with this strategy is that it can be done only in a limited way by a single hospital or group of doctors. Doctors and hospitals together can do much more through support of one another, sharing data, and other joint strategies. An even more effective step can be taken when providers learn to pool their resources and partner with other community agencies, such as churches and volunteer groups, to work to make a community healthy. In a fully capitated, shared risk, managed care environment there are financial incentives to operate in this way.

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Today, community-wide health care focus occurs in only a limited way. While providers compete with one another in serving small, fragmented patient populations, incentive to invest in community health is limited. Once groups of physicians and hospitals accumulate sufficient market share, the incentive will grow. When it does, when employers recognize the inherent cost savings, a movement toward community-based health care will snowball. Evolution to a community health focus possesses sufficient economic logic to overcome the tradition and provincialism that most hospitals are endowed with. Focus on healthy communities during the first half of the 21st century is my forecast and my hope for the next evolutionary step in our health care system.

If community-based health care is the model of the future, or at least a viable scenario, what are the implications for health care architecture? What role should the architect play? For the answers, we must look to the basic ingredients of a community health model. An efficient, capitated, shared risk model, one with a community health orientation, would ultimately incorporate the following approaches and activities:

- Preventive care and emphasis on healthy lifestyles;
- Dissemination of health care information within the community;
- Emphasis on community screening and early intervention;
- Partnering with others to ensure continuity of care and general community health;
- Nationally accepted standards of care that mitigate malpractice-motivated overtreatment;
- Genuine concern for eliminating guns, drugs, and other sources of trauma and violence in communities;
- Outcome tracking and use of protocols for common medical and surgical conditions;
- Minimally invasive surgery, followed by home recovery;
- Increasing use of alternatives to surgery;
- Efficient use of equipment and facilities, avoiding duplication;
- Adequate programs for the mentally ill and for chronic care; and
- Vertically integrated, efficient models of care.

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This sounds good, even enlightened. And we are seeing the beginnings of this model unfolding all around us. It might even include rethinking the manner in which and dignity with which we allow terminally ill patients to die.

Hospitals are organizationally well positioned to be major players in leading a broad spectrum community health program if they are culturally and physically restructured for this task. A truly integrated community-based system of care requires seed funding and a high level of organizational structure; it cannot be achieved with a fragmented system. It requires planning, management and monitoring. In the current health system, only hospitals, large group practices, and staff model HMOs are capable of carrying out the necessary functions.

Achieving a community-based health system requires dramatic changes in the architecture of health care. The role of architects specializing in health care will have to be quite different two decades from now. Over the next few years, I challenge my colleagues to use the *Journal of the Academy of Architecture for Health* to explore what the new models of health care might be and how we as architects must change to lead and advise our clients. It is my hope that the ideas that follow will be the beginning of a dialogue.

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Role of the Hospital in Ambulatory Care

Where do ambulatory care and its facilities fit in this evolving picture of health care? If the thesis that the system is driving toward a fully capitated, shared risk environment is acceptable, then ambulatory care should be considered in the context of the healthy- community model. This model allows a broad spectrum of ambulatory care modalities and a variety of settings in which ambulatory care can occur.

The term ambulatory care itself is misleading. It really represents two quite different types of care. For care that does not require an overnight stay, we should think of two categories: express care—quick in and out—and short-stay care—23 hours or less, with the majority of healing at home. The latter is walk in, wheel out, with very sophisticated treatment and lengthy recovery times in between.

Although care of the very sick is one part of the spectrum of health care, most people in need of care are not urgently sick. In the new model, focus will be on healthy life styles, early detection through community screening and other programs, and early intervention. Much of the care offered could be institutionally based, but it doesn't have to be. The hospital is being redefined. What role should it play in ambulatory care? In healthy communities? Historically, the hospital has been the leader, the catalyst around which the health care system was organized. Will that remain in the future? What will our clients, the hospital administrators, board members, and physicians make of ambulatory care in communities across the country?

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I believe hospitals will play a continually expanding role in ambulatory care for the foreseeable future. They have the organizational, managerial, and financial capacity to assume and maintain the necessary leadership. In addition, more sophisticated forms of ambulatory care are logical candidates for continued hospital management. However, administrators who view ambulatory care as a graft onto a hospital bed-based system are missing the point. With proper planning, in a short period of time the hospital can evolve into a sophisticated ambulatory center with a few beds attached.

Health care today is fragmented. A patient goes to one place for an exam, another for lab tests, perhaps a third for imaging. With some time delay, the patient is able to see a specialist who orders more tests, which are sent to a lab 500 miles away. As managed care becomes the norm, it is likely that care will consolidate around a balance of efficiency and convenience for both the patient and the system itself.

With increasing frequency, doctors are forming groups. The more enlightened are forming multispecialty groups. Stark legislation, Medicare reform, and other legislative initiatives have restricted physician referrals in situations that involve a conflict of interest. A multiplicity of regulations require more specialized training and certification for technicians and equipment. In conjunction with the phase-in of new technology, it is likely that the fragmentation of highly technical procedures will gradually diminish. In many cases, doctors will not find it cost effective to keep up with the technology race on their own.

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Coping and Prospering

If the evolving role of the hospital is as a major player in ambulatory care, what are the preconditions necessary for hospitals' success? How must they change to be efficient and still provide the quality that consumers look for? What does ambulatory care demand? I offer a number of answers:

- **Accessibility:** Convenience is the mantra of today's high-pressure, overcommitted culture. Regardless of the severity of a procedure, a facility that is easy to find and can be reached in one hour or less is very important. A safe neighborhood and a good, visible security system are also important. Parking needs to be ample, easy to find, safe, and convenient to the front door.
- **Wayfinding:** A clear and simple path to one's destination should always be available. One point to visit, not multiple locations.
- **Hassle-free systems:** no duplicate registration, a medical credit card, express care, rapid in-and-out.
- **Information:** Consumers should be given access to what they need to know about the procedures to be performed and all additional relevant information desired.
- **Medical information that seamlessly links key components of the "virtual" health system together.**
- **A memorable experience.** Patients should find using a facility to be a pleasant, even delightful. A hospital should be a place to which people want to return.
- **Accommodation for companions:** Those accompanying the patient—spouse, children, friends—should be treated well, as their stay could be long and stressful.
- **Visitation:** Provisions should be made for those close to the patient to spend as much time with the patient as possible.
- **Rapid test results.**
- **Low cost:** All of the above needs to be provided more efficiently and at lower or equivalent cost per procedure than it can be through a doctor's office.

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Our role as health care architects is the evolvement of new models for health care environments. I suggest that the 10 points above will become the standard against which clients will measure architects' proposals for new or renovated health care facilities. The provider who is skillful enough to maintain quality and still keep cost competitive will be the survivor. We must find ways to help our clients do this.

In health care in this country, a low bid on a managed care contract will not cut it. Consumers' perceptions about quality and their enjoyment of their experience will be reflected in their choice the next time the plan renewal date rolls around. If a hospital is marketing its health care plan or services on the strength of quality and good value, their buildings must convey an image of quality and caring for patients and those who accompany them, and for its employees as well.

For those who are responsible for the leadership of hospitals, their institutions have undoubtedly been at the center of the health care system in their communities in the past. But perhaps not any longer. Hospitals can maintain leadership only if they are prepared to become the catalysts for formation of partnerships for community health, and central players in a vertically integrated system of care. Only then can they continue to invest in buildings and new technology with any assurance of a stable future.

Likewise, architects must become more knowledgeable about what it means for a provider to operate a system of health care. We no longer have the luxury of dealing with an individual building out of the context of the system of which it is a part. Decisions on program content, location, campus and building organization, operational systems, and cost must all be rethought. Hospitals can remain as major players if they are willing to redefine themselves as components of an easy-to-use, high-quality, cost-competitive system of care. 🙌

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