A Radical Prescription for Hospitals
Harvard Business Review (May-June 1989): 104-111.

Declining margins, excess capacity, mature product portfolio, bureaucratic overburden, poorly planned and executed diversification moves, rapid CEO turnover -a familiar litany of symptoms of U.S. industries in trouble. But this list describes not the airlines, retailers, basic manufacturing, real estate, or financial services; it describes the $200 billion American hospital industry.

The seriousness of these symptoms has only recently become obvious. In 1985, despite an almost 20% decline in inpatient use nationwide, hospitals enjoyed record operating margins. By 1987, they had almost doubled their 1980 revenues. By the end of last year, however, operating earnings had evaporated. Administrator turnover had reached an annual rate of 25% to 30%, and trustees (along with new management teams) have been left to struggle to keep their institutions on an even keel.

Hospitals face a grim short-term prognosis. After moderating in the 1984 to 1986 period, health costs are soaring again. Health insurance premium increases of 20% to 40% have prompted employers to renew their scrutiny of benefit costs. Congress and the Bush administration, looking for ways to pare the huge budget deficit, seem likely to take the knife to Medicare, hospitals' largest payment source. The unrelenting economic pressure on hospitals may finally produce the long-predicted closure of the 700 to 1, 000 institutions in deepest trouble. But the shakeout of excess capacity will mean better margins for the survivors.

The Medicare cutback would come at a time when the elderly are pressing for expanded benefits. Future expansion, however, may in large part be paid for through a reduction in provider payments. For the federal government, meanwhile, control over physician and ambulatory service costs looms as the likely prime cost-containment issue. just as the government imposed prospective payment limits on inpatient care in the early 1980s, it has begun to put similar restrictions on outpatient care, notably surgery and diagnostic services. These limits may reward freestanding providers with lower overhead and punish hospitals that have remained less efficient than the competition.

While the short-term outlook is not promising, the long-term view is in a sense very favorable, Except for major regional institutions, the acute-care hospital as we know it will probably not survive. The successful hospital of the future will be a far different institution that focuses on early diagnosis and management of chronic illness. The hospital of the future will reach out into homes and residential communities as much as it depends on the sick to cross its threshold for help. This is the radical prescription in store for hospitals.

More Than a Business

Alert administrators and trustees have learned that hospitals have to be run more like businesses. Yet hospitals are vastly more complex than a typical business. Techniques

and strategies that may work in manufacturing and retailing have proved inadequate in the hospital sector.

The common business technique of achieving economies through larger scale, for example, has not yet proven effective in hospitals[1]. Scale economies in health care delivery have been confined mainly to supply and capital costs, but they represent only about 15% of total costs. Personnel represents the biggest cost item, 60% or more of the total. Large multi-hospital systems, nursing home chains, and health maintenance organizations so far have been unable to extract scale economies in the use of their key resource, skilled professionals and technicians. (A notable exception is the Kaiser Foundation Health Plans, which have not only economized in the use of doctors but also have effectively leveraged "physician extenders" like nurse practitioners.)

Those who have predicted that American health care would be dominated by a handful of large, vertically integrated organizations have come to realize that there is little that is meaningful about health care which is national. Health services are a neighborhood business, beginning and ending with a doctor and a patient.

Far from gaining economies, many large health care organizations became bloated by building up corporate staffs and layers of management. Indeed, the greater organizational complexity and slower decision-making alienated workers at the bottom of the pyramid who were dealing with patients- and possibly contributed to the exodus of nurses, technicians, and other patient care workers from the labor market. Today healthcare institutions are plagued with surpluses of white collar workers and shortages of skilled caregivers.

The investor-owned chains, the organizations which were supposed to dominate the hospital scene by exploiting economies of scale and access to equity capital, have had mixed results. In 1987, after several successful years, seven chains either declared bankruptcy or suspended debt service payments. The four largest (Hospital Corporation of America, Humana, National Medical Enterprises, and American Medical International) divested marginal facilities and pruned shaky diversification ventures[2].

The chains that remained profitable did so by adopting aggressive rate increases and by taking positions in psychiatric and rehabilitation services – which will be the targets of future cost scrutiny. While the larger companies' profitability has rebounded somewhat in the wake of the restructuring, smaller chains have limited prospects. Many are selling back part or all of their holdings to their physicians through limited partnerships.

Diversification is another business move that has not been successful for hospitals. They have maintained control over two vital growth markets – ambulatory surgery and high tech home health care (like parenteral nutrition and infusion therapy). Often the

---

[1] Stephen Shortell documents this fact in "the Evolution of Hospital Systems: Unfulfilled Promises and Self-Fulfilling Prophecies," Medical Care Review, Fall 1988, p. 177.

[2] See Regina E. Herzlinger, "The Failed Revolution in Health Care – The Role of Management," HBR March-April 1989, p.95.

hospitals entered these fields via joint ventures with doctors or suppliers. But excursions into more remote fields frequently ended in financial disaster. The major investor owned hospital management companies, for example, plunged into sponsorship of captive health insurance plans. Today, after those companies have written off hundreds of millions of dollars in losses, only Humana remains committed to the business.

In the nonprofit hospital sector, zany acquisitions in unrelated businesses sapped resources and diverted management's attention. In one major case, poorly run diversification led to insolvency and subsequent merger into a larger organization. This was Scioto Memorial Hospital in Portsmouth, Ohio, whose diversification activities included a bottling company, a dude ranch in Montana, and a life-care center in a distant community whose collapse ultimately brought down the facility.

Another business strategy is to bypass the "middleman" and deal directly with the consumer. Hospitals' effort to "retail" health services by circumventing the physician yielded little and posed a competitive threat to them.

Although many patients were attracted to the fixed-price packaging of some services, like emergency care and obstetrics, hospitals that relied on a retail strategy were among the worst casualties of the decade. Instead of trying to correct deficiencies in facilities, equipment, and medical staff, they relied on marketing to fill beds. Some of the smaller management chains, such as Republic Health Corporation, tried to gloss over their deficiencies with slick merchandising strategies like media campaigns and brand name identification.

This experience reinforced a truth: doctors remain at the center of care delivery. Their share of the health care dollar rose in the 1980s in proportion to the hospitals decline. Organizations like the HMOs that set out to "tame" their physicians suffered bloody defeat in initial skirmishes. It is probably not coincidental that health care organizations dominated by doctors -regional multi-specialty group practices, university teaching hospitals, and high-tech regional hospitals -were the big winners in the market share struggle of the 1980s. These institutions relied on long-established referral and consultative networks with medical colleagues to arrange patient flow from as far away as a few hundred miles.

The big winners in the HMO shakeout were those like Kaiser Permanente that are run by powerful physician groups. The large, multi-specialty doctor group is an extremely potent competitive force in most major markets and seems likely to retain or increase that power even with the impending physician payment reforms.

Out of these experiences a valuable business lesson emerged: health care organizations cannot be managed by simply manipulating the revenue structure. Many of the strategies the institutions pursued to market their "products" did not work. These included advertising campaigns, new-business development aimed at corporate or retail markets, cutting prices to stimulate volume, marketing excess capacity through captive insurance plans, and deals with doctors (acquisition of practices, paid directorships - often thinly

disguised bribes -to woo them from competing hospitals, and favors like below-market rents and health club memberships). The strategies produced neither measurable market share nor incremental earnings gains.

During the 1980s, hospitals suffered from a classic case of "marketing myopia;' throwing dollars after a maturing acute-care market while ignoring a crucial shift in the demand for care. Demand for inpatient services plummeted in this decade because techno logical changes and new practice patterns made, much custodial care unnecessary.

Most hospitals, however, continued to measure their performance by their inpatient census and directed their marketing efforts to filling empty beds. Selling empty beds at a discount to health insurance plans, forgiving the Medicare deductible for stays by elderly inpatients, and advertising amenities of inpatient care (even lobster dinners and candlelight suppers!) were attempts not to meet new needs but to leverage existing capacity.

By concentrating on the revenue side of operations and on traditional - and costly - institutional care, administrators and their boards ignored the possibility of fundamental changes in hospitals' product and philosophy.

Hospitals are creatures of the Industrial Revolution. They were intended to be warehouses for unfortunates dying of tuberculosis, smallpox, pneumonia, and other infectious diseases. Owing to the advent of public health measures and the invention of antibiotics, by the late 1940s most infectious diseases had come under control. Over the next 30 years, hospitals adapted to a different mission: treating the symptoms of heart disease, cancer, and other chronic illnesses. Today, however, advances in the diagnosis and treatment of chronic diseases are undercutting that mission.

Our contemporary concept of disease has been shaped by the acute infection -a crisis brought about by an external agent that throws our bodies into violent disequilibrium. Chronic illness, however, is universal, progressive, and inherent in the aging process. As we age, our organs gradually lose their ability to cope with stress and external threats, so we become more susceptible to such diseases as cancer, diabetes, and Alzheimer's. Today, despite the threat of viral illnesses like AIDS and hepatitis, 80% of all deaths and 90% of all illness are related to chronic illness.

A person growing old can have heart disease, diabetes, or Parkinson's for many years before it poses a threat to life. Our contemporary care system, hospitals and health insurance alike, tends to ignore the disease until it reaches that life-threatening stage. Then legions of technicians and screaming ambulances (even helicopters!) rush in to fight it. Addressing the symptoms of chronic illness after long neglect (with transplantation of damaged organs) and coping with trauma and failure have emerged as the hospital's principal missions.

While chronic illnesses are, by definition, incurable, they can be deflected from life e-threatening manifestations by timely and accurate diagnosis, advanced drugs and

technologies, and lifestyle changes, More elegant diagnostic technologies, from magnetic resonance imaging and ultrasound to genetic probes, are enabling doctors to detect the onset of chronic illness early enough to pursue effective therapy. Managing the course of chronic illness and restoring the already compromised patient to improved functioning is the emerging mission of the health care system.

A shift in the hospital's focus away from tardy treatment of chronic illness and toward diagnosis and management requires bringing services to the patient as much as bringing the patient to the hospital. In 20 years, health care will be concentrated in the home and in the residential community, not on the hospital campus.

Demand for acute care seems likely to shrink as a consequence of these changes. Inpatient services will be increasingly reserved for a smaller number of patients suffering from trauma and multi-organ failure. Inpatient care will be just too expensive for any other use. On the other hand, chronic care will require day treatment facilities, user-friendly ambulatory services, and an ability to reach into the home through caregivers and electronic monitoring. Even with an aging population, the need for inpatient care will lessen enormously as doctors detect and control chronic illnesses earlier in their progression.

Technology and shifting practice patterns are transforming the contemporary hospital into the critical-care hub of a dispersed network of medical and social services spread across the community and knit together by computer networks and health insurance contracts. In the years ahead, ambulatory services like diagnostic imaging, laboratory testing, and emergency and unscheduled treatment will constitute the hospital's principal product. Indeed, in many smaller facilities they already do.

Because of technological advances, these services can be delivered anywhere in the institution's service area, not necessarily on campus. Focusing the organization's resources on acute care carries with it the opportunity cost of failing to invest in the services and information systems needed to create this dispersed network.

The Next Five Years

To reach that stage intact, today's hospital must weather the next wave of economic pressures. It must survive in an environment of narrowing cash flows, deteriorating credit, and critical scarcity of technical staff. A successful strategy will require:

Renewed and deepened collaboration with physicians.
Solutions to the productivity problem.
Refocusing ambulatory and chronic-care services.
Managing for medical value.

I'll take up these elements in turn.

Collaboration with Doctors. Hospitals have rediscovered, to their dismay, that doctors are central to their well-being. The government's freeze on Medicare payments to hospitals has squeezed their cash flows. And the abrupt rise in physician use of the hospital for Medicare patients has tightened the squeeze. Every measure of intensity of use by Medicare recipients -- length of stay, laboratory and imaging procedures, intensive care, and operating room time -- has risen inmost hospitals. From 1985 to 1987, radiology and laboratory use for elderly patients rose by more than 8%, but Medicare did not make up the extra costs[3]. This burden threatens spreading red ink for treating the elderly, who make up the hospital's most important constituency.

And when administrators seek doctors' cooperation in controlling this use, they are often told, "But my patients are too sick." Translated, this protest means either "go away" or "prove to me my treatment pattern is inappropriate given my patients' needs!" That's a justifiable challenge, and most hospitals regrettably lack information systems that can relate resources employed to the severity of the patient's illness.

After the introduction of diagnosis-related groups (DRGs) in 1983 by a cost-conscious federal government, hospitals were pleasantly surprised by their physicians' willingness to examine and alter treatment patterns to cope with the threat of fixed Medicare payments. Several years of profitability, however, dissipated the sense of urgency that had attended the appearance of the stricter Medicare rules. And hospital managements and physicians drifted apart on other important issues.

But now, against a backdrop of frozen Medicare payments, massive underwriting losses for insurers, and renewed growth of managed-care plans, hospitals and doctors must reinvigorate their collaboration and control how the hospital's resources are to be used in treating patients. Medical staffs must use hospital services more sparingly or administrators will lack the flexibility to make meaningful cost reductions. The most critical (and controllable) services are radiology and laboratory services and intensive care units, where excessive charges may exceed the stringent Medicare limits.

Furthermore, the expansion of ambulatory care systems and decentralized service networks cannot proceed unless doctors become involved. In many communities, such as Dallas and Los Angeles, doctors have ignored the hospitals and established their own ambulatory and chronic-care services.; including "surgicenters" and freestanding reference laboratories.

But now, with the impending federal restrictions on payments to physician-owned enterprises-and the likely deterioration of doctors' credit in the face of fee reductions and overcrowding in the field -physicians will need hospitals to create ambulatory services as much as hospitals need them.

Productivity Improvement. Health care management. and physicians can anticipate several years of tightening; restrictions on payments as the health economy reacts to

---

[3] Prospective Payment Assessment Commission, "Medicare Prospective Payment and the American Health Care System," Report to the Congress (Washington, D.C., U.S. Government Printing Office, June 1988).

surging cost pressures. Deeper discounts to private health plans and the continuing failure of Medicare to keep pace with escalating costs, have already created cash flow problems for the hospital industry.

A lack of meaningful cost information has hampered the industry's response to this pressure. But at least as important has been a lackadaisical attitude toward labor productivity. Because they are so labor intensive, cost-conscious hospitals (indeed, all he services) have to look first for more effective way to use employees.

In the early 1980s, many hospitals anticipated economic pressures and modestly reduced their work forces. When prosperity ensued unexpectedly, however, many hospitals loosened the reins on staffs. As a consequence, full-time employment per occupied bed rose more than 20% from 1980 through 1987[4]. About one-third of this increase was in registered nurses. In the name of improved continuity and continuity of care, administrators let nurse's aides and licensed practical nurses go and replaced them with more costly baccalaureate nurses.

A high fraction of the remaining growth in employment came in staff functions like marketing, finance, and information systems. These were highly trained and therefore expensive additions. The ratio of white-collar to line workers-meeting goers to care givers -grew to worrisome proportions.

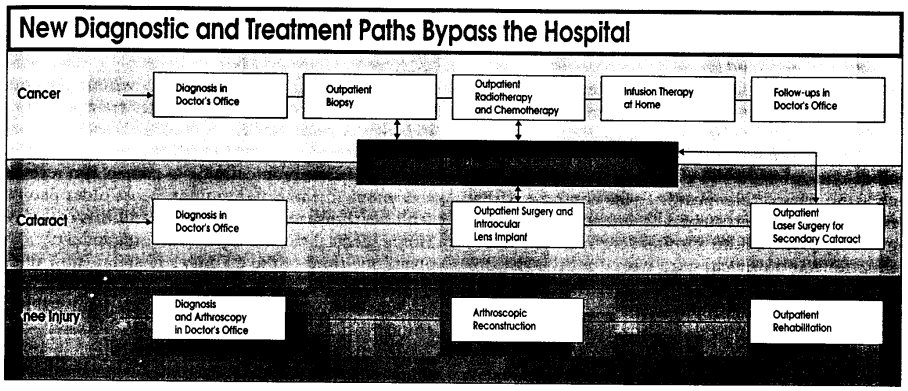
In the next few years, hospitals will be simplifying their structures and eliminating layers of administrative cellulite built up in the prosperous 1980s. Indeed, the recent earnings rebounds of the investor owned hospital chains reflect in part their success in cutting overhead and staffing costs. But it took as many as three years of sustained effort. Current practice notwithstanding, not every specialty in institution will have its own department. More professional and technical employees will be cross trained as hospitals try to reverse the rigid specialization that has plagued them in recent years.

Even in this computer age, hospitals are still driven by manual information systems clogged paper. Maintenance of the paper medical records consumes one-third of scarce nursing time on the patient floor. Like many facilities, Harris Methodist Hospitals in Fort Worth are installing bedside terminals to relieve the demands of paperwork on nurses and furnish the necessary clinical information without resorting to a chart.

Hospitals also are moving to real-time electronic transmission and settlement of medical claims, which eliminates the need for an army of clerical workers generating and settling paper bills. Hospital productivity adequate to cope with late twentieth century pressures cannot be gained with operating systems from Dickens's London.

---

[4] American Hospital Association hospital panel survey. Figure is adapted to reflect stepped-up outpatient activity.



Refocusing of *Services.* In this decade, hospitals have wisely staked out positions in two big healthcare growth markets, ambulatory surgery and home care for the chronically ill. Most administrators, however, have viewed success in these areas as a means to an end -producing more inpatient volume in one case and fewer inpatient-related losses in the other -rather than an end in itself. Emphasis on these services in their own right, and organization of them to weather the impending cost-containment pressures, is an urgent task.

Ambulatory services are the fastest growing part of the hospital; already, ambulatory visits outnumber inpatient admissions in some smaller facilities by as much as 10 to 1. And yet at most hospitals, outpatient diagnostic and surgical services remain stepchildren. In some larger institutions, they are scattered like anemones in a coral reef. In a teaching hospital, a cancer patient on a treatment visit may be obliged to walk more than a mile through a maze of corridors to reach the admission, laboratory, and radiology stations and an examination room. Ambulatory services are located where it is convenient for the inpatient-focused bureaucracy, not for the outpatients or the people dealing with them.

By mid-1989, some 80% of Medicare outpatient services -surgery and diagnostic radiology-will be subject to payment limits similar to those imposed on inpatient care. The ceilings will reward the freestanding and independent providers, because of their lower overhead, at the expense of the hospital. Hospitals that cannot make their outpatient units more cost-effective will find themselves losing money in their fastest growing sector. Constraints set by private insurers are sure to follow.

The expansion of outpatient services is only the most obvious element in the evolution of the hospital plant. Increasingly, treatment paths for complex illness are bypassing the hospital. Whole surgical disciplines have disappeared from inpatient suites, and often from the hospital altogether. These include ophthalmology and plastic surgery as well as major segments of gynecologic surgery, general surgery, and orthopedics. The accompanying chart illustrates three typical situations.

New, noninvasive or minimally invasive diagnostic tools, like Doppler ultrasound and flexible, fiber-optic scopes, are changing the way physicians practice internal medicine. Gastroenterology and cardiology are migrating into outpatient and non-hospital settings.

As the diagram shows, cancer treatment, including sophisticated radiotherapy and chemotherapy, is now mostly outpatient and detachable from the hospital campus.

Hospitals are taking a number of steps to cope with the changing situation. They are relocating ambulatory services out of the inpatient areas, in some cases still on campus but in buildings devoted to this use. Often these structures also contain doctors' offices, so they serve the dual purpose of raising the number of M.D.s practicing on campus and upgrading ambulatory diagnostic and surgical care. St. Vincent Medical Center in Portland, Oregon and Baptist Medical Center in Oklahoma City have erected elegant buildings following this plan.

Some hospitals are moving ambulatory services to areas remote from the plant and establishing so-called integrated campuses. These combine outpatient diagnostic and surgical services with doctors' office space, while the hospital continues to provide inpatient and critical care backup. Like the oncampus facilities, some of the integrated campuses are owned jointly with physician groups. One of the most ambitious campuses is Western Reserve Health System's in Youngstown, Ohio, where 22 acres contain doctors' offices, ambulatory diagnostic services, community health education facilities, and a nursing center specializing in Alzheimer's disease. A possible addition is a freestanding birthing center.

The ambulatory facilities are designed to make more effective use of patients' and doctors' time while offering much of the sophisticated technology formerly reserved for inpatients. The facilities are staffed in a lean fashion consistent with the emerging cost constraints.

A refocusing of chronic care also requires hospitals to alter their managerial philosophy. Hospital managements have viewed chronic-care services as a way to dump patients once their acute care is over. Now management must view them as part of a continuum of services. Not surprisingly, hospitals' interest in this type of care got a stimulus from cost limits set by Medicare. Under the DRG restrictions, hospitals often found themselves seeking novel ways to handle patients once the costs of care had reached the Medicare ceilings.

One way is to cooperate with doctors to develop systems for diagnosing or screening patients for chronic illness. Once the diagnosis is made, the effort turns to treatment, often involving initiative by the patient and the patient's family. Another route is cooperation with community agencies to establish day treatment programs in rehabilitation and nutritional and drug therapy. Memorial Sloan-Kettering Cancer Center in New York City has a day facility for treatment of people who need long-term chemotherapy and other complicated services that do not require overnight stays.

Many services need not be situated on the hospital campus but in neighborhoods where patients can reach them easily. When public transportation is lacking, some hospitals have set up transport networks.

Many of the chronically ill, of course, can receive treatment in their own homes. Most older people with heart disease and diabetes are in this category. Home medical treatment is a booming industry and about one-third of the country's hospitals now offer it. For example, a hospital-based nurse visits a bedridden elderly woman to administer a premixed bag of medication.

Chronic care forms a bridge between traditional medical services and social services, which health insurers (including the federal government) historically have refused to reimburse. So hospitals that venture into this area are taking on some risk. But as the Medicare program shifts to an emphasis on chronic care, which it is likely to do in the next five years, and as insurance mechanisms like social HMOs emerge to span the gap between acute and chronic care, the risk will diminish.

The promise of more cost-effective health care delivery rests on community-based ambulatory and chronic-care services. Hospitals that approach development of these innovations as ends in themselves, instead of vehicles for boosting occupancy rates, will be ready to meet the competition, adjust to squeezes in care payment systems, and respond to the needs of their communities.

Manage for Value. As cost constraints get tighter and tighter, managing in a world of scarce resources without damaging the quality of patient care becomes a more pressing issue. Discussion of quality is long overdue in an industry that too often assumes that quality is "the way we used to do things" in the days before the industry was forced to become accountable for costs. The real issue buried in the emerging quality debate is not quality per se, but value. The issue is whether a certain medical procedure benefits the patient, given its cost. Or could it be eliminated, and the expenditure saved, without compromising the medical outcome?

The lack of economic accountability in medicine is easy to explain, if not excuse. There has been no objective standard for measuring the value of treatment. Nor has there been a way for those who pay for care to compare the value of services furnished by one provider with those of another.

By the mid-1990s, employers and the government will have systems that measure the efficacy of various treatment patterns and will also be able to compare the value of providers' services. The avid public consumption of even limited (and often misleading) quality indicators like mortality rates for surgical procedures suggests that a ready market exists for such information.

Some quality indicators, such as the prevalence of anesthesia deaths or nosocomial (hospital-borne) infections, are manageable and therefore present opportunities for improving patient care. The most important quality measures, however, are connected to clinical outcomes and track the welfare of patients after they leave the hospital. The quality signs include reduced readmission rates, years of symptom-free living, improved productivity on the job, and job attendance. Analysts are also developing methodologies

to relate the severity of a patient's illness to the appropriateness of the care he or she is receiving.

Accurate quality measurement is critical to reducing the cost of hospital treatment without compromising the patient's health. It can help hospitals and doctors develop clinical protocols to manage a patient's illness according to its seriousness and eliminate wasteful clinical practices. What may come out of these efforts is a *negative* correlation between quality and cost -that is, elegant and conservative treatment -and sparing use of expensive technologies when they can be avoided, thus producing greater benefit to the patient at less cost.

A growing body of evidence links frequency of surgical performance to better outcomes[5]. A recent study by the inspector general of the Department of Health and Human Services established that concentration of Medicare coronary bypass-graft surgery in the highest volume medical centers would save the program almost $200 million while improving mortality rates. Hospitals have found that doctors who seldom come upon a given medical condition tend to use more resources to treat the patient and often produce a poorer outcome.

Hospitals and their medical staffs have a choice. They can develop their own means of measuring and controlling quality or they can stand by and watch as the government and private payers impose standards on them. They can set and enforce their own standards of appropriate care or they can let the courts define their standards via malpractice litigation. Hospitals that decide to manage the value of a medical encounter will have a huge advantage in an increasingly sophisticated and discerning medical marketplace.

However well hospitals meld their objectives and operations with those of their doctors, however efficiently they use their work forces, and however conscious they become of delivering high-quality service, the fact remains that the facility as it has existed for generations is a dinosaur. It is too costly, too unwieldy in its single setting, and too inflexible.

In the future, acute care will be concentrated in a small number of high-tech regional centers treating traumatic and chronically ill patients. Community hospitals will continue to provide -some acute care, like obstetrical services and surgery for victims of illness. Still, most of this care will be ambulatory and often located off campus.

Increasingly, the chronically ill will be treated in the home or in settings remote from the traditional hospital facility As technological advances continue to strike at disease, most illness will be associated with the infirmities of aging. The community hospital will decentralize its services and weave them into the fabric of the neighborhood and the community. The main role of most community hospitals will be diagnosis and treatment of the chronically ill.

---

[5] See Robert B. Hughes, Sandra S. Hunt, and Harold S. Luft, “Effects of the Surgeon Volume and Hospital Volume on Quality of Care in Hospitals,” *Medical Care*, June 1987, p.489.

As the American population ages, we will be reallocating resources from acute to chronic care. Those hospitals that recognize this shift in societal priorities can plan to adapt their programs and facilities to meet these new needs.