

# Medicine, Government, and Capitalism

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Everyone experiences change. The older we are the more change we have experienced. We see change everywhere: in government, politics, business, religion, law, and all aspects of our society. Our profession, medicine in general, and surgery in particular, has changed drastically. Much, if not most, of this professional change has certainly occurred for the better. Surgeons working with anesthesiologists, nurses, technicians, and support staff around the world save more lives, cure more diseases, restore more functions, and correct more deformities than ever before in history. And this is accomplished with greater diagnostic accuracy, greater surgical precision, greater safety, and less pain than ever. Fundamental research, advanced technology, undergraduate medical education, graduate medical education, continuing medical education, hospitals, and clinics financed by government and the private sector make this possible. Those changes permit a sense of satisfaction and accomplishment, a belief that perhaps working together we have improved lives and contributed to society.

But change has also brought problems to healthcare, such as high costs and limited access. Despite advances, the quality of healthcare in the United States is being challenged by our profession, by government, by business, and by the public. We have concern about the effectiveness of medical practice. So, change is producing significant tension for our profession, and that is not surprising because progress and improvement will not occur without conflict. We should briefly review history and our professional responsibilities to prepare more effectively for the future.

When physicians and surgeons ponder medical history they usually recall memories of heroic pioneers, scientific discovery, technologic advances, and conquests of disease. The study of history inspires and provides direction. Economists, social scientists, and scholars of health policy view medical history differently and provide different insights than do doctors. Many young surgeons may not know the history of the medical pro-

fession in the United States particularly from the sociologic, economic, and political perspective, so a brief survey may help.<sup>1,2</sup>

## The 17<sup>th</sup> century

In the early English colonial period medical practitioners were either self-taught or learned through apprenticeships. There were no medical schools, medical societies, hospitals, or medical licensure. England made little, if any, attempt to influence the practice of medicine in its American colonies. Home remedies were the only care available.

Today's healthcare faces the challenges of cost, quality, access, and complex relations with government and the corporate sector. It is ironically prophetic that the first law concerning medicine in the English colonies, enacted in the Virginia Assembly on October 21, 1639, stated: "... consideration being had and taken of the immoderate and excessive rates and prices expected by practitioners of physic and chiurgy and the complaints made to the Assembly of the bad consequences thereof . . .". This law regulated physician fees because the plantation owners complained of overcharges and poor service. This represents the first legislation regulating the practice of medicine in the English colonies.

## The 18<sup>th</sup> century

Medical practice went unregulated until 1736, when the Virginia Assembly passed an act regulating fees and accounts of medical practitioners. In 1760 and 1762 New York and New Jersey, respectively, adopted medical licensure based on examination. Then, in 1773 Connecticut required licensing before fees could be collected for medical services.

Medical societies also developed in the colonies. The first society was the Medical Society of Boston (1736), followed by the New York City Medical Society (1749), the New Jersey Medical Society (1766), and the Medical Society of Philadelphia (1767). Although almshouses served the colonies, the first colonial hospital to serve the sick specifically, the Pennsylvania Hospital, opened in Philadelphia in 1752. The University of Pennsylvania

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opened the first colonial medical school in 1765, followed soon by the Columbia College of Physicians and Surgeons, and, later, Harvard Medical School. After the American Revolution and the turn of the century, medical schools began to proliferate.

Events of the 18<sup>th</sup> century laid the foundation for the growth and development of healthcare and the medical profession in the land that was to become the United States. Medical education developed in the likeness of the medical school in Edinburgh, Scotland, but medical societies and licensure developed more or less independently from the English model.

### **The 19<sup>th</sup> century**

By 1830 most states had enacted medical licensure legislation, but during the Jackson presidency states began to repeal their licensure laws. State licensing lost favor because of the democratic spirit, a rising distrust of authority, and, importantly, medical schools, which proliferated rapidly during this period, issued diplomas accepted as a license to practice medicine. By the time of the Civil War no state had a medical licensure law. After the war the states began to address licensure and medical education. In 1889 the United States Supreme Court upheld medical practice acts as a valid exercise of states powers. This brief review of medical licensure emphasizes that the state and federal governments recognized the medical profession. Medical licensure established a monopoly that empowered medicine and set the stage for its subsequent growth and development. Licensure also established and emphasized government's authority to regulate the medical profession.

Other events influencing the evolution of medicine occurred during the 19<sup>th</sup> century: the western migration, improved transportation, improved communication, urbanization, expanded and improved medical education, and, importantly, the scientific revolution. Scientific advances with increased understanding of pathology, the germ theory, the development of effective drugs, the introduction of radiology, anesthesia, and surgery progressively increased the effectiveness of medical and surgical practice. Despite these changes doctors, among those with education, generally had low status, low earnings, and little power.

During the mid-19<sup>th</sup> century medical societies began to proliferate. Of these, the American Medical Association (AMA), founded in 1846, influenced the development and evolution of medicine and healthcare more

than any other group. Initially the AMA struggled but strongly supported medical education and higher professional standards. After reorganizing, developing its journal, and affiliating with state medical societies, the AMA became the dominant advocate for medicine and included the majority of doctors in its membership. In its earlier days the AMA supported the federal health agency, maternal and child health, health education, pure food and drug laws, and the Bureau of Vital Statistics. During the latter part of the 19<sup>th</sup> century physicians and their professional organizations supported sanitation, public health laws, regulation of food and drugs, and the collection of vital statistics as well as hospitals, clinics, and dispensaries caring for the poor. But as licensing laws and higher educational standards consolidated the political position of the medical profession, physicians began to enter the middle class, and the profession began to oppose social programs and support the status quo.

Specialty societies began in the mid-19<sup>th</sup> century with the American Ophthalmological Society in 1864, soon followed by the American Otological Society in 1867. Samuel Gross of Philadelphia founded the American Surgical Association in 1880 "to produce a school for mutual instruction and improvement, a court of supreme authority into which the great questions of surgery should be brought for discussion and judgment. A gathering and social intercourse of the individual workers in surgical science. Medical politics was to be forever debarred and was to have no place in the organization." On the eve of the 20<sup>th</sup> century, developments in science, the proliferation of hospitals, the development of specialization, and the national consolidation of medical societies had increased the effectiveness of medicine and earned the respect of the public. These events increased the authority and the power of the medical profession.

### **The 20<sup>th</sup> century**

#### ***The increasing power of medicine***

In the early 20<sup>th</sup> century, with AMA leadership, medicine controlled drug quality, drug dispensing, and drug advertising. By the mid-20<sup>th</sup> century doctors had assumed considerable power over hospitals, allied professions, and related industries including the pharmaceutical industry. Organized medicine supported the private practice of fee-for-service medicine and opposed health insurance, prepaid healthcare, healthcare for miners,

and healthcare for railroad workers. Although the AMA initially expressed support for national health insurance proposed in 1912, it soon reversed that position and took an opposing position. Years later organized medicine supported and endorsed the physician-controlled Blue Cross and Blue Shield plans.

During most of the 20<sup>th</sup> century organized medicine enjoyed a position of political power and public support. The fundamental basis for this position was the respect for the doctor-patient relationship and the belief that the scientifically-based practice of medicine met the needs of the public. The profession believed this, the public believed this, politicians believed this, and corporate leaders believed this. For those reasons, the profession consolidated its authority in healthcare to the extent of sovereignty.

In 1935 Franklin Roosevelt proposed national health insurance in conjunction with Social Security as part of the New Deal. Opposition from organized medicine, particularly the AMA, prevented it. After World War II the federal government again turned attention to healthcare when the Truman administration advocated national health insurance. This effort was defeated with strong opposition by the AMA, contributing to its failure. These comments are included here not to judge the pros and cons of national health insurance but to document the medical profession's power to influence national health policy at that time.

Private health insurance enjoyed a successful start in 1929, when a voluntary hospital in Dallas, TX, the Baylor University Hospital, initiated a health insurance program for hospital care. This program, which became Blue Cross, had the support of the leaders of hospitals and the support of doctors. Hospitals and doctors had strong representation on the board of Blue Cross and established cost-based reimbursement for hospital care. Then, organized along similar lines, Blue Shield provided usual and customary reimbursement to the patient's doctor of choice. Blue Cross/Blue Shield developed as not-for-profit corporations. As Blue Cross/Blue Shield succeeded, other commercial insurance companies began to offer health insurance.

### ***The beginning of managed care***

Over the firm opposition of the AMA, prepaid health plans (later called health maintenance organizations) started in the early 1940s. The Kaiser program began in 1942 to provide healthcare for its employees. Kaiser

hired doctors, nurses, and other staff, and built its own hospitals. Because Kaiser owned and operated its hospitals, medical societies could not interfere with appointments to the medical staff. The program succeeded and opened to the public in 1945 after the end of World War II. The Kaiser Permanente plan has enjoyed continued success, particularly on the West Coast. The other early prepaid health plan, the Group Health Cooperative of Puget Sound, also enjoyed success.

### ***Liberal support of medicine***

When World War II ended, the federal government supported medicine with large infusions of money and program support that continue today. The major postwar programs included medical research, mental health programs, the Veterans Administration, and community hospital construction. During the development and continuing support of all of these programs the federal government respected the sovereignty of the medical profession and of local medical institutions. Medical research received unprecedented support from an expanded National Institutes of Health (NIH). In 1930 the Hygienic Laboratory, which had become the US Public Health Service, was reorganized as the National Institutes of Health. In 1938 the NIH moved to a large, privately donated estate in Bethesda, MD. Between 1900 and 1940 private foundations and universities had sponsored most medical research.

Pharmaceutical firms began conducting research with increasing commitment in the mid-1920s. Although a lot of research was done in Bethesda, after the war the NIH expanded the extramural research programs. Between 1941 and 1951 federal medical research expenditures grew from \$3 million/year to \$76 million/year. Between 1950 and 1960 the NIH budget increased from \$81 million/year to \$400 million/year.

This expanding extramural research support had a profound effect on medical schools, requiring increasing faculty, technicians, construction, and equipping of laboratories, and increasing overhead. NIH dollars revitalized medical schools and initiated growth and changes in the culture of medical schools. The ability to obtain and sustain NIH-funded research programs and to succeed at fundamental scientific research became the currency of academic success. Many basic science departments developed into large, well-funded research enterprises, assuming increased power in the school. Full-time clinical faculty members, likewise, turned their attention to

research, and, in many instances, viewed medical student teaching and the practice of medicine as intrusions.

As medical schools placed greater and greater emphasis on basic science research they transformed into health science centers. The large amount of research money available from the government stimulated increasing numbers of young faculty members to choose research careers, and the increased availability of Fellowships fostered exponential growth of specialization.<sup>3</sup> Medical school leaders promoted research because the funding permitted expansion of class sizes and schools. During this period of expansion the number of medical schools increased from 85 to 126, and class sizes doubled in some instances. A part of President Nixon's health plan (The Health Manpower Act of 1971) increased the supply of physicians and changed medical school subsidies by providing capitation grants to increase class sizes.

The federal investment in research paid off. The NIH and its programs became jewels in the crown of biomedical research. The expanding federal (and corporate) research produced rapid growth in new knowledge, understanding of disease, and new therapies. The NIH and American medical schools attracted scholars and scientists from around the world.

Mental health programs gained support from the National Mental Health Act in 1946. Between 1948 and 1962 National Institutes of Mental Health research grants increased from \$0.374 million/year to \$42.6 million/year, and training grants increased from \$1.1 million/year to \$38.6 million/year. The purpose of the training grants was to attract young doctors into careers in psychiatry.

After World War II, the leaders of the Veterans Administration (VA) improved the quantity and quality of the VA hospitals. They constructed new hospitals in urban areas and established relationships between VA hospitals and medical schools. The VA hospitals associated with medical schools were called Deans' Committee hospitals, whose professional staff members had faculty appointments. The VA supported medical research with research laboratories and money for personnel, equipment, and operating costs. Research career development programs provided additional resources supporting medical research. VA residencies were an important source of support for graduate medical education. Initially the VA supported freestanding residencies but later integrated programs in Deans' Committee medical

schools. Deans' Committee hospital clinical facilities permitted expansion of medical school class sizes. The VA was another important route for infusing generous government financial support into the medical schools for education and research.

In 1946 the Hospital Survey and Construction Act (the Hill-Burton Program) funded construction of community hospitals. The law was intended to improve availability of hospital care for underprivileged people and their communities. Although middle-income communities received more than their fair share of the funds, the Hill-Burton Program allowed the supply of hospital beds in low-income states to increase to the levels of high-income states. The expansion of the numbers of community hospitals provided workplaces for the increasing numbers of new doctors, most of whom were specialists. Patients filled community hospitals and received up-to-date specialty care.

### **Medicare and Medicaid**

Perhaps the most significant event in healthcare in the United States occurred on July 30, 1965, when President Lyndon Johnson signed into law the legislation to establish Medicare and Medicaid. This three-part program established compulsory hospital insurance for citizens aged 65 and older (part A), government-subsidized voluntary insurance to cover physician bills (part B), and Medicaid, which provided funds to help states care for the poor. The Medicare program also funded graduate medical education by providing salaries and fringe benefits for all residents in Accreditation Council for Graduate Medical Education (ACGME)-approved programs. In addition, Medicare supported residencies with funds for teaching costs and program administration.

The government turned the management of Medicare part A over to fiscal intermediaries, who provided reimbursement, consulted, and audited the services. Most of this work went to Blue Cross. For Medicare part B, insurance companies (carriers) managed the programs. Blue Shield was the predominant carrier. Blue Cross and Blue Shield were originally established to favor provider interests and now they controlled Medicare and its costs. It is important to note that Blue Cross paid hospitals on the basis of their costs, a practice that would contribute significantly to the escalating costs of the programs. Also, Blue Shield paid doctors on the basis of fees they set, the usual and customary fee.

### **Rising costs**

Throughout the 1960s the costs of healthcare continued to rise steeply. Cost, availability, and quality became increasingly important issues. Despite the presence of splendid academic medical centers or health science centers, and modern, well-equipped community hospitals, many people believed they could not get medical attention. The medical profession, politicians, and insurers could not slow the rising costs of healthcare. Several inefficiencies operated in the traditional health economy. One issue was that the insured expected all medical services regardless of cost or potential effectiveness of the treatment or the diagnostic test. Economists define this phenomenon as moral hazard.<sup>4</sup>

Next, hospitals reimbursed on a cost-plus basis and doctors getting fee-for-service payments had little incentive to avoid costly tests and treatments. Economists define this as demand inducement.<sup>4</sup> Traditional health insurance established incentives for patients, doctors, and hospitals to drive the costs of healthcare up without increases in quality of care. Traditional health insurance included no restraint on resource use or on any aspect of the cost of care.

Some increase in the cost of healthcare may occur because of increasing complexity of diagnostic tests and treatments. The expanded research enabled expensive technologic advances. Examples of this abound in heart surgery, transplantation, and renal dialysis, to name a few that affected costs in the 1960s. The proliferation of hospitals and the growing numbers of physicians led to a "medical arms race." Hospitals aggressively developed as wide an array of special services as possible. This led to redundancy of expensive equipment and complex services in many communities, causing inefficiency in care and in capital investment. We also must remember that throughout most of the health economy at that time, nothing resisted the increases in payments to doctors and hospitals.

### **Government regulation**

Because of increasing costs and limitations of access, professional leaders, politicians, corporate leaders, and the public began to develop concerns. Regulation of healthcare began in earnest in 1964 when New York led the way by regulating the capital expenditures of hospitals and nursing homes. Note that this regulatory effort began before the Medicare programs (1965). Soon, other states adopted these practices and required institutions to obtain a Certificate of Need (CON) before

large capital investment or new program development. States also began to review and regulate hospital rates.

The "health care crisis" surfaced in January of 1970 when *Business Week* and *Fortune* magazines published articles on rising costs, with severe criticism of the waste, maldistribution, inaccessibility, and poor quality afflicting American healthcare. Now, in addition to government, the corporate sector began to focus on this matter. Employers provided insurance for their workers, and the insurance companies passed the costs of care on by increasing premiums. Insurance premium costs had increased to the extent of eroding corporate profits. So, healthcare had gotten the attention of government, the public, and the corporate leaders.

In 1971 President Nixon imposed wage and price controls. This measure limited increases in doctor fees and hospital charges. Also in the early 1970s, Congress passed legislation establishing Professional Standards Review Organizations (PSROs). PSROs consisted of committees of physicians who investigated the appropriateness of institutional services. The National Health Planning and Resource Development Act set up 200 Health Systems Agencies (HSAs). These agencies established plans, evaluated new project proposals, required certificates of need, and reported to the US government on the proposed use of federal funds. Also, in 1974, Congress passed a new health planning law, which abolished 13 grant programs, including the Hill-Burton Program, the Regional Medical Program, and Comprehensive Health Planning. The AMA and the Association of American Medical Colleges (AAMC) sued the government to halt the regulation but only slowed its progress. Despite these efforts of the government in regulation of healthcare, costs continued to escalate. The extensive effort to control healthcare costs by government regulation ultimately failed.

In 1971 President Nixon endorsed HMOs as an innovative attempt to reduce costs and improve healthcare delivery. During that time businesses began to support the concept of HMOs, and California and New York included HMOs in their state health policies. Congress stimulated the expansion of HMOs by reducing some restrictive requirements in 1976 and by increasing federal aid to HMOs in 1978.

### **Prospective payment systems**

Because the cost-based hospital reimbursement system used by the part A Medicare program drove up costs, the

Health Care Financing Administration (HCFA) focused on hospital reimbursement as a strategy to save money. In 1983 HCFA organized hospital services according to diagnosis, establishing Diagnosis Related Groups (DRGs). Hospitals were then paid a predetermined amount established in the DRG schedule. If the hospital provided the care for less than the DRG payment, it made a profit in that instance, but if the care for that patient cost more than the DRG payment, the hospital lost money. The DRG system reduced hospital costs and reduced patient days in the hospital. Hospital managers diligently worked to reduce the costs of care and eliminated unessential expenditures. The implementation of the DRG system was important not only because it saved the system money, but also because it was the first effective cost control measure directly managed by the US government.

Subsequently, after extensive academic study, HCFA introduced a similar program to control the cost of professional fees. After studying physicians' work and evaluating the factors influencing the difficulty of the work, social scientists developed the Resource Based Relative Value System (RVU) to determine physician's fees under Medicare part B. The RVU system assumed a global budget for Medicare professional fees and compensated physicians for their productivity as measured by the RVUs earned. This system reduced payments to doctors who performed procedures and increased payments to family doctors and to doctors who used cognitive skills. The RVU system controlled the physician fee costs and redistributed resources to decrease the costs of procedures and to increase the availability of primary care. The RVU system also intensified the fragmentation and dissension already existing in the medical profession. Specialty groups protected their interests by lobbying, marketing, and using tactics to garner market share.

Then the commercial health insurance companies soon began to withhold payment for services and to discount professional fees. The application of these prospective payment systems signaled the end of the concept of uncontrolled fee-for-service from the government, and also ended the profession's illusion of sovereignty observed by the corporate sector and especially the health insurance industry.

### **Managed care**

In short order, Blue Shield and the commercial insurance companies began discounting payment for profes-

sional services. Also, during this time HMOs dramatically expanded enrollments, particularly in the Midwest, Southwest, and Northeast US. The insurance industry began cutting "medical losses" by requiring preapproval for hospitalization, preapproval for procedures, second opinions for certain procedures, and by denying payment for services provided to subscribers. Medicare emerged as the most reliable of payers.

The expansion of the corporate for-profit hospital industry continued to expand, particularly in Texas and Florida. Three corporations dominated the corporate hospital industry but voluntary hospitals and hospital systems played a major role in the economy.

By the end of the 20<sup>th</sup> century the medical profession had lost power. Elliot Krause stated the matter succinctly in his book, *The Death of the Guilds*: "No profession in our sample has flown quite as high in guild power and control as American medicine, and few have fallen as fast. The particular forces that accounted for the rise of the profession in 1930–65 have all contributed to the decrease of professional autonomy and group guild power since that period. The history of the rise and fall of medicine's guild power falls naturally into four eras: the 1930s under Roosevelt, World War II, the immediate postwar period to 1965, and the Medicare/Medicaid fight and the decline in power from 1970 to 1990." Krause goes on to state: "Rather, the profession's ability to control the association, the workplace, and the relation to the state itself were attacked by the federal state, by the changes in the mode of producing healthcare, by court decisions, and by divisions within the ranks of doctors themselves."<sup>5</sup>

### **The 21<sup>st</sup> century**

Managed care, economists believe, has slowed the rate of spending growth of the healthcare system. Healthcare costs, predicted to exceed 20% of the Gross Domestic Product (GDP) by 2000, have remained below 14% of the GDP for several years. David Dranove estimated that managed care eliminated \$300 billion from national healthcare expenditures in 1993 without any measurable effect on the quality of healthcare.<sup>4</sup> Managed care and market forces are reshaping the trillion-dollar healthcare industry. Managed Care Organizations (MCOs) cover more than a hundred million lives and hospital systems control patient services. Federal and corporate research funds continue to support advances in science and technology.

Premiums for health insurance, including HMOs, have increased about 6% to 8% annually, raising hopes for control of healthcare costs. The *Wall Street Journal*, on July 30, 2001, reported predictions of 6% to 43% increases in HMO premiums.<sup>6</sup> It goes on to quote a business CEO, Peter Lee, who predicted: "Employers are facing another year of double-digit inflation in healthcare, but even more troubling is that they're looking at prospects of the trend continuing for the foreseeable future." If Mr. Lee's prediction is correct, we can expect increased tension among doctors, hospitals, the health insurance industry, and the corporate world. Together the medical profession, government, capitalism, and the public will determine healthcare in the United States. The recent and rapid changes in the distribution of resources and changes in the balance of power produced adversarial relations and diminished trust among healthcare stakeholders. Certainly cost remains the point of focus, particularly for government, the corporate sector, the public, and the medical profession, but the quality of healthcare demands additional attention. Attention to quality will predictably reduce costs.

### **A health system for the 21<sup>st</sup> century**

The leaders of the medical profession have increasing concern about the recognized shortcomings of healthcare in the United States, but also have vision for a health system and a carefully studied plan for realizing that vision. The Institute of Medicine (IOM), chartered in 1970 by the National Academy of Sciences, deals with the problems of delivering adequate health services to all sectors of society and to all citizens. The Institute studies policy issues related to health and medicine operating under the procedures that govern National Research Council studies. The IOM includes between 400 and 500 members, all of whom are accomplished scholars representing all disciplines of clinical medicine. Our government has authorized this body of scholars to study problems of the nation's health in depth, and to report to government administration and Congress with data and recommendations for managing the nation's health.

The IOM Committee on Quality of Health Care in America conducted a comprehensive, detailed analysis of the nation's healthcare and made important recommendations to government in their published report, *Crossing the Quality Chasm: a New Health System for the 21<sup>st</sup> Century*. Health professionals, politicians, corporate

leaders, and interested citizens should study this comprehensive and visionary work because it offers approaches and probable solutions to the challenges we all face.<sup>7</sup> The IOM also has addressed safety in healthcare.<sup>8</sup>

For the past 30 years corporate leaders, politicians, economists, and leaders in medicine have focused on the issue of cost with increasing vigor. The problems of cost remain and must be solved, and reducing cost by measuring and improving quality represents an approach that the medical profession should espouse with enthusiasm.

This IOM report enumerates four underlying reasons leading to inadequate quality of care: (1) Growing complexity of science and technology. Each year the NIH spends \$15.6 billion, the pharmaceutical industry spends \$24 billion, and the medical device industry spends \$8.9 billion on research and development. This massive research enterprise generates new knowledge and new technologies far faster than the healthcare system can assimilate them. Even in a narrow medical discipline no individual can stay abreast of this onslaught of information. (2) Increase in chronic conditions. People are living longer, progressively increasing the age of our population. This results in increasing prevalence of chronic diseases. The elderly frequently have more than one chronic disease or comorbid condition. The treatment of chronic disease requires the majority of healthcare resources. (3) Poorly organized delivery system. Healthcare is generally fragmented, poorly organized, and uncoordinated. Communication between the system's components often fails. (4) Constraints on exploiting the revolution in information technology. Healthcare lags far behind other disciplines using state-of-the-art computer systems effectively.

To address these problems the report states an agenda that begins: "That all healthcare constituencies, including policymakers, purchasers, regulators, health professionals, healthcare trustees and management, and consumers commit to a national statement of purpose for the healthcare system as a whole and to a shared agenda of six aims for improvement that can raise the quality of care to unprecedented levels."<sup>8</sup> Personal observation, common sense, and scientific research tell us that teamwork and collaboration are far more productive and valuable in the long run than adversarial confrontation. The talent and the resources of the stakeholders listed above could accomplish the goals of this proposal, espe-

cially if they work together and develop healthy collaborative relationships.

The report states that healthcare should be safe, effective, patient-centered, timely, efficient, and equitable. Thirteen specific recommendations delineate the actions required to achieve the aims. The recommendations generally address responsiveness to patients and involvement of patients in their care, evidence-based and monitored practice, safety, the development of information infrastructure, payment methods, and clinical education.

How can surgeons contribute to the development of a health system for the 21<sup>st</sup> century? Fortunately surgeons in general and the American College of Surgeons in particular work actively in many of the important areas. Surgeons should focus on their strengths of preoperative, operative, and postoperative care. The College should support this IOM proposal in general, but at least four areas deserve special attention.

1. The American College of Surgeons should remain responsive to all stakeholders in the health system beginning with our colleagues in the fragmented medical profession. All surgeons and nonsurgeons working together can add value to the emerging system. Nursing care is one of the most important issues on the agenda and we should work to understand those problems better in order to increase opportunities and working conditions for these colleagues. The College has developed an excellent organization for relating to government. The leaders have served as advisors to Congress and the Administration. The Washington office stays abreast of legislation and advises the Executive Director about important issues as they arise. The newly formed Health Advocacy and Policy Committee carefully monitors the legislative and regulatory issues. The College's Web site provides excellent information about Congress and the Administration and provides easy email access for communicating with legislators. We should use these tools to facilitate the evolution of the health system. Our communications with the corporate sector remain rudimentary. The health insurance industry will greatly influence the health system and should have communication from physicians and surgeons about how to work together to enhance the quality of care. Also, we need to share information about quality and cost with the purchasers of healthcare.
2. The American College of Surgeons should continue efforts at information mastery. Since its beginning in 1913 the College has effectively disseminated information to surgeons. The College was organized for that purpose, offering *Journal of the American College of Surgeons*, the Clinical Congress, and the Spring Meeting. The College has developed new information technology to disseminate information to the Fellows more effectively. We must expand these resources to forage for information, evaluate it rigorously, and disseminate it promptly.
3. The American College of Surgeons must support evidence-based practice. In addition to assimilating new patient-oriented knowledge from around the world, the College actively supports the role of the scientific method in clinical practice. For that reason the College has established an Office of Evidence-Based Surgery. The American College of Surgeons Oncology Group, supported and funded by the National Cancer Institute, is becoming a model clinical research program. This program has the expertise and infrastructure to design and conduct prospective randomized trials and to analyze the data. Fellows of the College can design and sponsor trials. All Fellows can participate in the programs by entering their patients into the trials. Information about ACOSOG is available on the ACS Web site. In addition, the clinical trials office of the ACS conducts clinical trials on the treatment of diseases other than cancer.
4. The American College of Surgeons must facilitate quality control. This is a very important topic because surgeons have a unique and effective means of reducing operative morbidity and mortality and generally improving the quality of patient care using the concepts of continuous quality improvement established in business many years ago. Hannan and associates<sup>9</sup> applied quality improvement methods to patients undergoing coronary bypass surgery in New York State and reduced risk-adjusted mortality from 4.17% to 2.45% (41%).<sup>9</sup> O'Connor and colleagues<sup>10</sup> applied quality improvement to patients undergoing coronary artery bypass graft surgery in Maine, New Hampshire, and Vermont and reduced hospital mortality 24%. Khuri and coworkers,<sup>11</sup> working in the Veterans Affairs System, reduced the 30-day mortality and morbidity rates for major surgery 9% and 30%, respectively. These studies demonstrate that continuous quality improvement methods can reduce surgical mortality and morbidity (improve quality and decrease cost). These observations are important from the standpoint of human life and disability, cost notwithstanding. In addition, reduction of morbidity and mortality should reduce malpractice litigation. The American College of Surgeons should work with government, the corporate sector, and the profession to implement the application of continuous quality improvement throughout the newly designed healthcare system.



## Epilogue

What has happened and is happening to the practice of medicine is what has happened to the family farm, the corner market, the neighborhood hardware store, and your favorite little bookshop. What used to be the practice of medicine is now the trillion-dollar-a-year health-care industry. The IOM predicted that by 2007 health-care in the United States will cost more than \$2 trillion and require 20% of the gross domestic product. Predictably, tension will continue among healthcare providers, the government, and the corporate world. Although the medical profession has lost power and stature it remains a vital resource enhancing the quality (and quantity) of life. As the healthcare system for the 21<sup>st</sup> century evolves, medicine's role will change, and certainly the way doctors practice the profession will change.

But certain things will remain unchanged. To function effectively in the healthcare system in the healthcare industry we will need guidelines to sustain a focus on the welfare of sick people. To navigate in a trillion-dollar industry we need a compass: medical ethics.<sup>12</sup> The future medical information system will undoubtedly provide abundant clinical data and the latest in scientific knowledge whenever and wherever we need it. Whether information technology will keep us straight with nonmalfeasance, beneficence, justice, and respect for autonomy remains to be seen.

The simmering of medicine, government, and the corporate sector in the broth of the trillion-dollar economy at some point will involve discussions of self-interest versus the interests of others or altruism. Albert Jonson provided a simple but useful definition of these antonyms: "Self-interest is the principle that one should act so as to promote for oneself the values of preservation, growth, and happiness; even good done for others must rebound to one's own good. Altruism is the principle that one should act so as to promote the preservation, growth, and happiness of other persons even to the detriment of one's own interest."<sup>13</sup>

Altruism and self-interest coexist in all moral lives. They have a reciprocal relationship that varies from time to time and from circumstance to circumstance. All healthy people have self-interest as a matter of getting along and survival. Many people have the capacity to take the interests of others to heart. A person practicing medicine must exhibit altruism to fulfill medicine's mission. Patients expect to have their interests supported. When we engage in dialogue with payers, government workers, cor-

porate representatives, and managers about patient-related matters, we must support the interests of patients. We must protect the interests of patients in the operating room, the consultation room, the treatment room, the hospital room, the clinic, and the emergency room.

Paul Starr provided a useful definition of professions: A profession is an occupation that regulates itself through systematic required training, and collegial discipline; has a base in technical specialized knowledge; and has a service rather than a profit orientation enshrined in its code of ethics.<sup>1</sup> I will add a defining characteristic that should apply to medicine. Medicine is an occupation that strives to sustain trust. In the heart of every patient there must dwell the question: Can I trust this doctor?

We have discussed change. Some things change: scientific knowledge, the economy, politics, payment schemes, public opinion, and relations with government. Some things do not change: the medical profession's mission of service. The medical profession has served the interests of societies and patients since hundreds of years before Christ. The medical profession has been shaped by the best of Western civilization. We are the medical profession and we must never forget. We must never forget that we are here to serve. Our mission is to preserve health and prevent disease, to cure disease, to relieve pain and suffering, to restore function, to correct deformity, to discover new knowledge, to improve the quality of living, and to improve the quality of dying. We accomplish this mission by incorporating the scientific method into our professional lives and by steadfastly protecting the interests of the sick.

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