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## The crisis of excellence

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Let me begin in the traditional way of those who have come previously to this place of honor by expressing my deep gratitude and sense of humility. I have listened to twenty-eight of my predecessors to this podium express these emotions, but never fully appreciated their depth and their breadth until this moment.

Ambrose Bierce<sup>1</sup> in *The Devil's Dictionary* defined a physician as "one upon whom we set our hopes when ill and our dogs when well." The humor of this tongue-in-cheek characterization, written at the end of the last century, has receded into grim reality in recent years, at a time when medical care has achieved a level of excellence never before imagined. My remarks will reflect on this inverse relationship between medical miracles and medical esteem, a gap which seems to widen with each new scientific advance.

Let me illustrate this with a personal vignette. My mother for 35 years was a nationally syndicated newspaper columnist. She was fond of recounting this story of her childhood. Her father graduated from Cincinnati Medical School in the 1880s and went immediately to the Indian Territory, where he learned that a small

community named Boggy Depot badly needed a physician. He began his practice among the Indians of the Choctaw Nation (Fig. 1), plus a few white and black families that had immigrated to the area.

The place where my mother was born had been given outright to the Indians by the Dancing Rabbit Treaty, which stated that "so long as grass grows and water flows, this land shall belong to the Choctaw Tribe." We all know how history kept this promise. The Indian Territory was opened for homesteading in the 1890s, when the white man was permitted to enter and stake claims on the Indian lands. The Indian Territory became the state of Oklahoma in 1907.

Her childhood recollections of growing up with a country-physician father were along the lines of those described by Arthur Hertzler<sup>2</sup> in his book *The Horse and Buggy Doctor*, except that Grandpa was never able to afford a buggy and so made his rounds on horseback. She used to say that among the sweetest memories of her life were occasions when she would accompany him. He visited the sick among the Indians, the blacks, and the whites with scrupulous fairness. At the sound of their arrival, a swarm of children would come rushing out, and she could hear them crying: "Yonder comes the second Jesus." "Here comes Mammy's God."

Mammy's God was an old-fashioned country doctor who also acted as psychologist and minister to his patients. Because he was skeptical of many of the avail-

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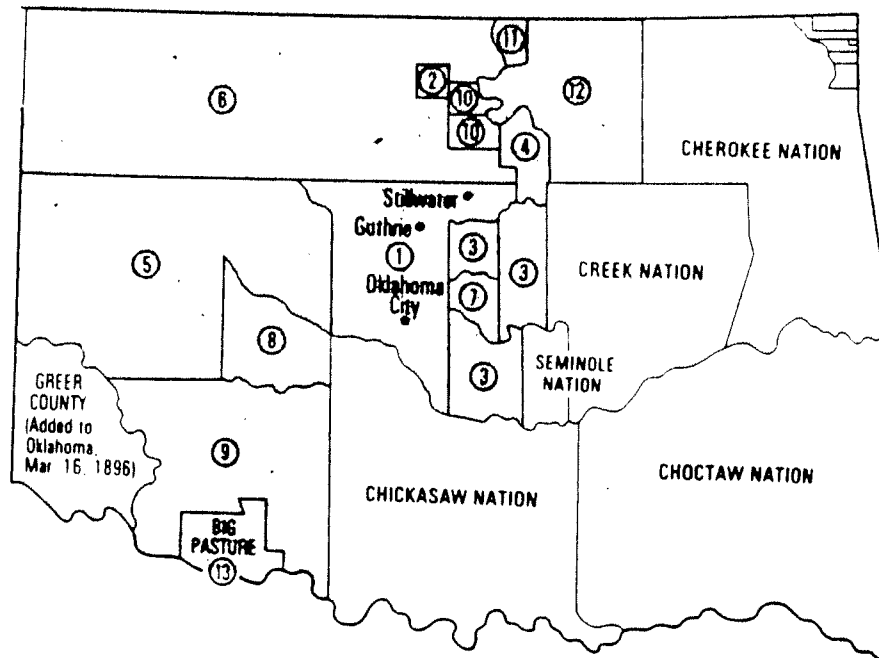


Fig. 1. Drawing of the Indian Territory prior to 1889 showing the nations of the five civilized tribes. (Reproduced with permission from Morris JW, Goins CR, McReynolds EC: Historical Atlas of Oklahoma, ed. 2. Norman, Okla., 1976. University of Oklahoma Press.)

able medicines, very early in her life mother was given the task of molding bread pills, so that every ailing person could receive a remedy from a bottle. Women withstood their arduous existence by taking Mrs. Lydia Pinkham's Vegetable Compound. Since patent medicines were 21% alcohol, a woman could fortify herself with several daily doses and still be considered a teetotaler. Men, on the other hand, drank anything they could get their hands on, for the federal prohibition law was strictly enforced to protect the Indians. The word bootlegger originated here, with travelers smuggling pint bottles into the territory in their cowboy boots.

After a lifetime of service, my grandfather lived with our family after I came along. It was he who instilled in me at a very early age the desire to become a physician—not because of the stories my mother related, or high-toned incantations about the medical calling, but merely because there was always a place for me on his knee when I wanted it, and because he would give me the sugar from the bottom of his coffee cup, against my mother's firm instructions. After a long, full, and happy life, he died of pneumonia, the disease Sir William Osler called the old man's friend.

Things are different now, but are they better? Without question medical care is better. The elderly are not

permitted to die of pneumonia (or almost anything else, for that matter), but the dispensing of bread pills, called placebos in today's parlance, could get you a jail sentence. Instead of relying on the patient's own endorphins, physicians prescribe Valium, last year almost a million dollars' worth every day.<sup>3</sup> Also last year Americans spent 50.8 billion dollars, or \$225 for every man, woman, and child, on alcoholic beverages,<sup>4</sup> none of which even have the beneficial vitamin and mineral additives found in Lydia Pinkham's compound.

Doctors train longer, know more, and have more sophisticated machinery at their disposal than ever before in history, and yet malpractice claims are at an all-time high. Many physicians now practice defensive medicine rather than good medicine, every day worrying that a cigar-smoking process server will show up in the waiting room.

Recently, graduates of Case Western-Reserve Medical School were asked about the causes of stress in their medical practice.<sup>5</sup> Those mentioned most often were the threat of malpractice, the threat of peer review, and even fear of physical violence from disgruntled patients. We lose the equivalent of six medical school classes every year—approximately 700 physicians—to suicide, drug addiction, and alcoholism.<sup>6</sup>

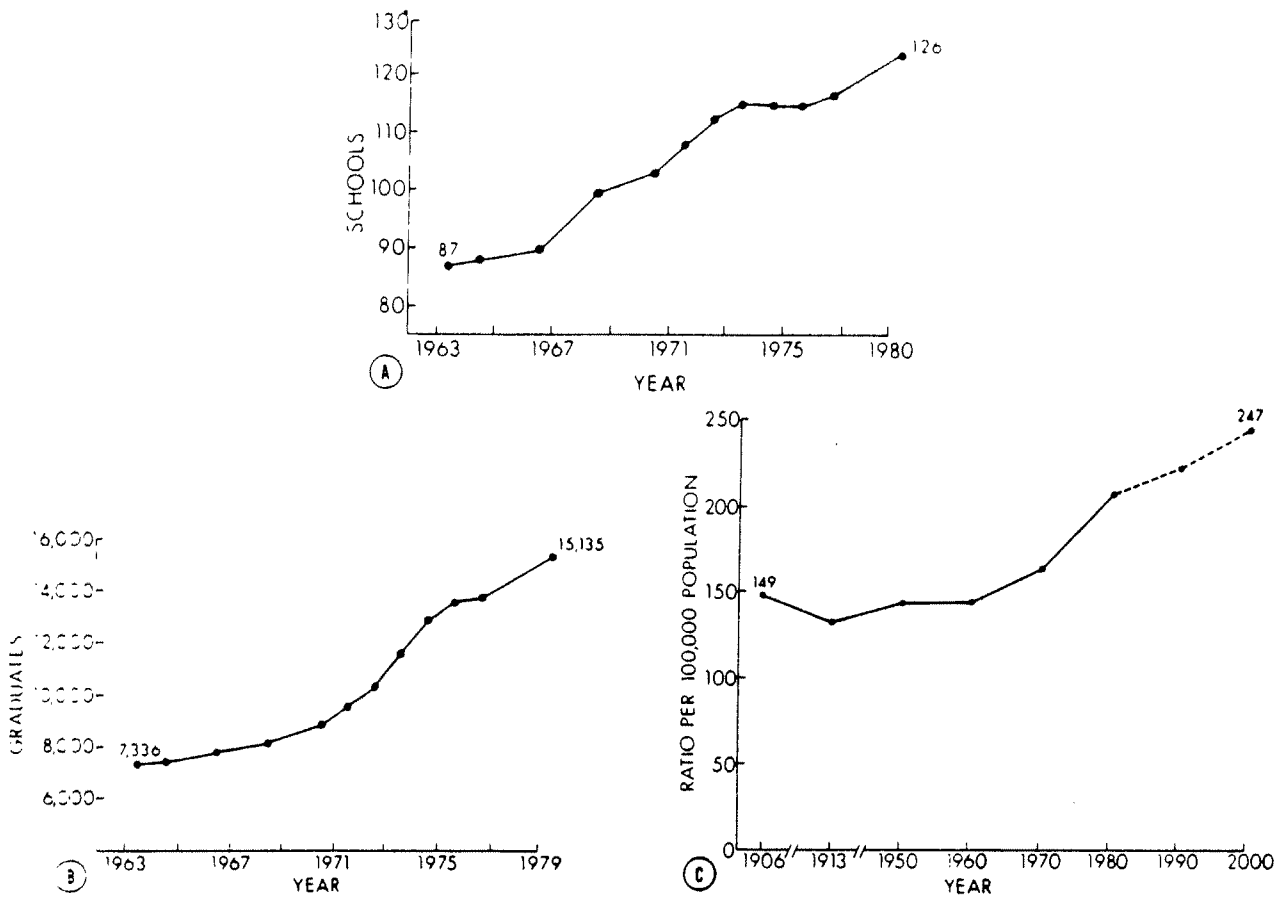


Fig. 2. Graphs showing the increase in the number of LCME-approved schools (A), and United States medical graduates (B) from 1964 to 1979, as well as (C) the past and projected ratios of physicians/100,000 population. (Adapted from Medical Education, Institutions, Characteristics and Programs, A Background Paper, Association of American Medical Colleges, May, 1981.)

Why do we have this crisis of excellence? One of the reasons is a confusion of objectives. The physician's goal is eradication of illness; the patient's goal is restoration of health. These two targets are not always the same and, in fact, can be quite different. To a patient, restoration of health means return to his former life-style, be that good or bad. As the concept of medical care as a birthright has become ingrained, taking health for granted has also become ingrained. The surgical cure of a lung abscess by lobectomy, unavailable even two generations ago, is now so unvarying that the patient cannot understand why his chest wall should be sore for a time after operation; this distorts his concept of return to health.

If this is the case, what can be done to rectify the situation? to close the gap? to downgrade the miracles and upgrade the esteem? I would like to examine three contemporary issues—manpower, medical litigation,

and cost containment—with particular focus on how our activities in these areas affect the patient-physician relationship. For no matter how lofty our motives, a crisis of excellence will persist unless our efforts bring the patient and the physician to a mutual understanding of the problems and a mutual endeavor for their solution.

It is difficult to look further ahead than you can see.

Winston Churchill

The first point is physician manpower. The issue of manpower—the number, kind, and distribution of physicians—has been a high-visibility topic for years. The premise is that if, as on some gigantic chess board, doctors could be educated, trained, and allocated in a proportion deemed optimal for health consumers, then both health and patient satisfaction would be improved. Admitting for the moment the correctness of this prem-

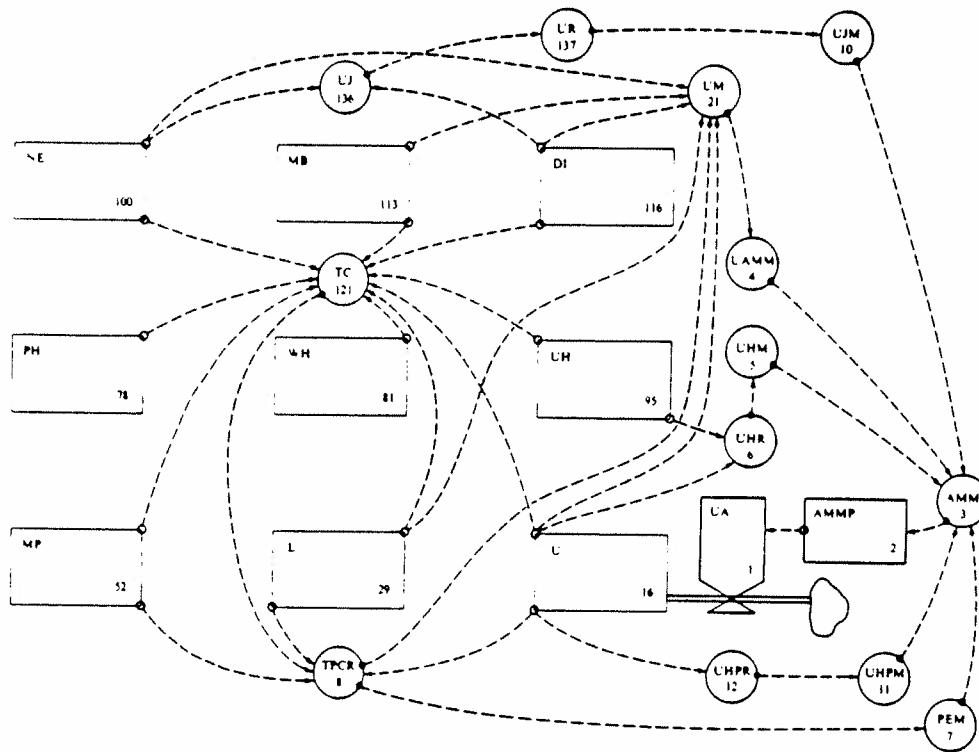
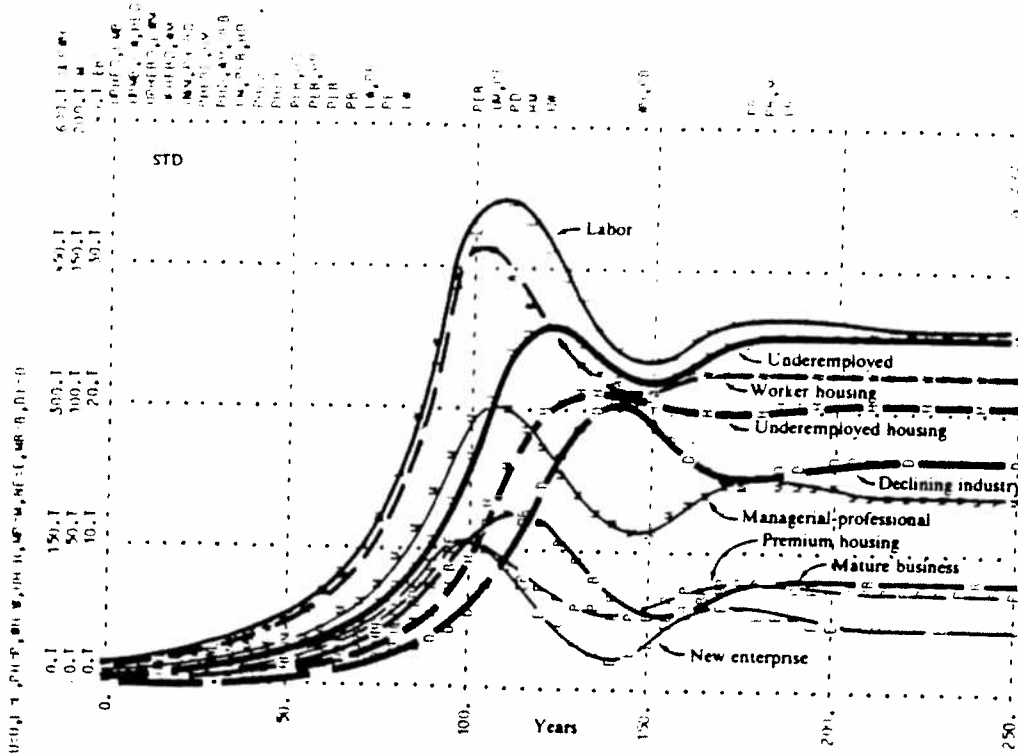


Fig. 3. *Top.* Computer-generated model showing the 250 year life cycle of an urban community. *Bottom.* Block diagram of system required to produce the computer printout shown at *top*. Each component directly or indirectly influences every other component. (Reprinted from *Urban Dynamics* by JW Forrester, by permission of The MIT Press, Cambridge, Massachusetts, 1969.)

ise, about which parenthetically I have grave doubts, let us see how this issue has been approached. I will cite two examples.

*First example:* In 1959 a physician shortage was predicted because for the preceding 20 years the physician-population ratio had remained static at 144/100,000. Congress, in response, enacted a number of provisions designed to increase the production of physicians, the major incentive being the capitation grant.

Fired by the federal furnace, from 1964 to 1979 the number of medical schools increased from 87 to 126 (Fig. 2, A). The number of medical school graduates more than doubled (Fig. 2, B). From 144/100,000 in 1959, the physician-population ratio rose to 163 in 1970, 200 in 1980, and is predicted to be 247/100,000 by the end of the century (Fig. 2, C).<sup>7</sup> This rise triggered federal alarm in the opposite direction. Capitation grants were abolished by President Reagan last year, leaving medical schools in their present plight, where facilities and faculty are geared to the manpower production quotas of the 1970s, but now without the necessary funds.

*Second example:* In 1976 President Carter chartered the Graduate Medical Education National Advisory Committee, or GMENAC.<sup>8</sup> A major thrust of this endeavor was the Manpower Panel. Physicians from each specialty were asked to estimate manpower needs for 1990 by means of a modified Delphi process. The Delphi process assumes that with experience comes intuitive knowledge; thus from a panel of so-called experts one may derive first approximation answers to unanswerable questions.<sup>9</sup>

On the basis of a 1977 census of 2,300 certificate holders, our specialty panel estimated that 3,000 thoracic surgeons will be needed for 1990. This estimate was then subjected to statistical analysis and modification by the GMENAC committee, so that, despite the panel's efforts to increase the number, the final GMENAC report states that in 1990 only 2,050 thoracic surgeons will be required, 30% fewer than the 3,000 surgeons active at the present time.\*

After 5 years, thousands of man hours, and a federal expenditure of roughly 4 million dollars, GMENAC is dormant. However, the temptation of all those data, good or bad, is already proving irresistible. Michigan, for example, is in the process of incorporating a Coun-

\*As of March 1, 1982, there are 3,670 certificate holders in the United States. This figure excludes those known to be deceased, but not the unknown deceased or retired physicians. Interestingly, there are only 129 certificate holders outside the United States. (Data courtesy of Louise Sper, American Board of Thoracic Surgery.)

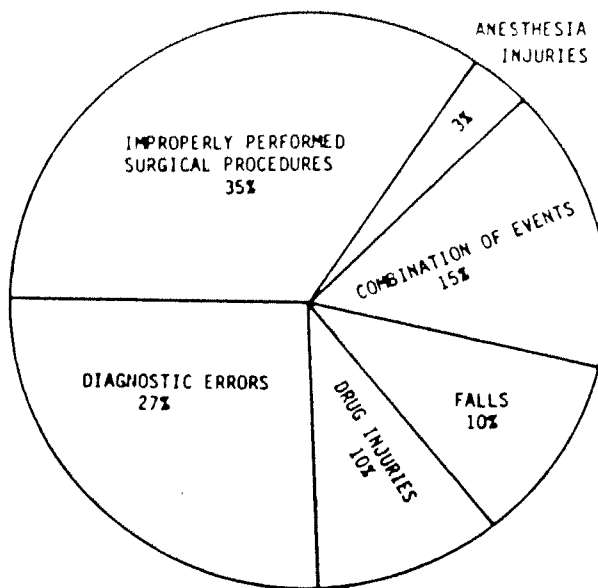


Fig. 4. NAIC study, 1975 to 1978. Principal causes of claims. Surgical procedures and diagnostic studies comprise over half.

cil for Graduate Medical Education, which intends to set manpower quotas in each specialty by restricting the number of trainees reimbursed through third-party payers.\*

The two examples just cited stress the danger inherent in the external manipulation of complex systems. This point is demonstrated admirably by Professor Jay Forrester<sup>10</sup> of the Massachusetts Institute of Technology, an expert on the dynamics of urban communities. Fig. 3 (top) shows a computer printout of a 250 year life cycle of an urban area. Fig. 3 (bottom) is the flow system required to produce the printout. Professor Forrester has shown that manipulating one component of the system almost always has an adverse effect on other remote components, so that the net result is to make matters worse rather than better.

In other words, intervening is a way of causing trouble.

This is not to say that data gathering is not important. Most assuredly it is. My argument is with the thesis that collection of data must inevitably trigger an adjustment. Why not permit the dynamic forces of a free society to do this?

In thoracic surgery, I believe we are going about the business in a proper fashion. With the report of the joint Manpower Committee chaired by Dick Cleveland to be presented at this meeting, we now have three data

\*Personal communication, 1982.

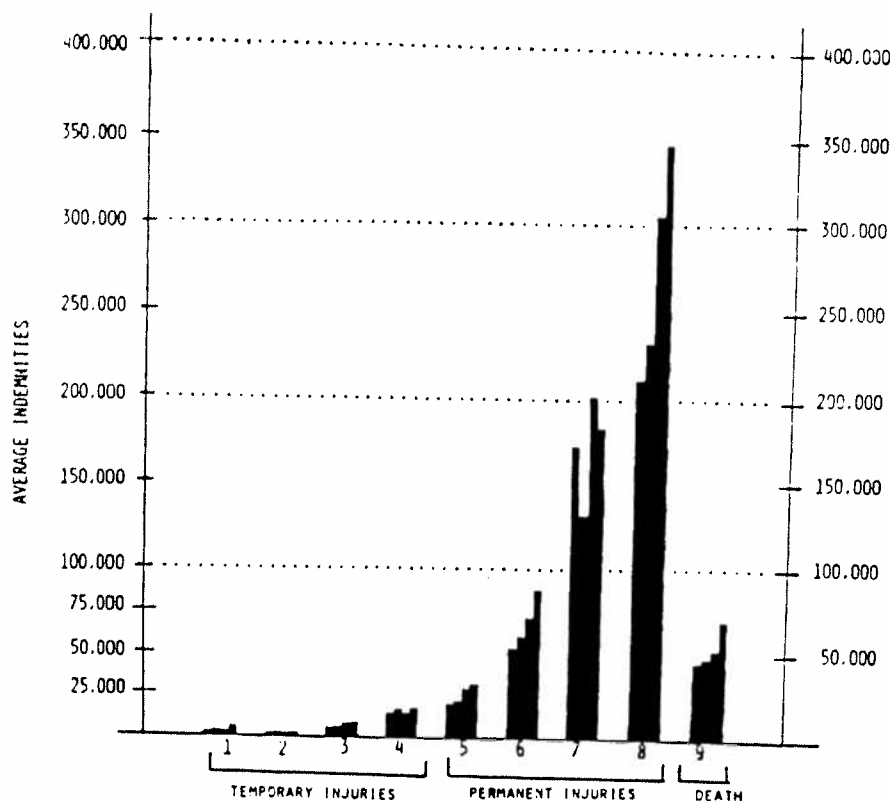


Fig. 5. NAIC study, 1975 to 1978. Dollar amount of indemnity plotted against severity of injury and year of study. The average indemnity for grave injuries increased 63% in 4 years.

sets.<sup>11-13</sup> We should permit these figures to modify our actions only indirectly. The human brain is still the most sophisticated computer extant, and it is remarkable how quickly adjustments will occur if the information is simply made available. It is my suggestion that the two national organizations conduct a manpower survey every 5 years using the same format. We will then have data points for a graph that will some day be meaningful, perhaps even predictive. In this way we fulfill our responsibility to the manpower pool, to specialty distribution, and most important of all, to our patients.

Also I am not inclined to monitor, as we did in the Brewer report, the thoracic activity of non-boarded certified surgeons. That report, you recall, found that 30% of general thoracic operations were performed by this group. Rather than pursue these statistics further, which can only heighten our anxiety level and antacid consumption, I believe a proper education of the public as to what board certification means and why the services of a certified specialist should be sought would be much more rewarding. One of medicine's great paradoxes is how hard we strive to achieve this certificate

and how little we inform the public individually and collectively of the safety implied in this document. My prime objective as President of the American Board of Medical Specialties is an educational campaign for this very purpose.

Anyone who has had a bull by the tail knows five or six things more than someone who hasn't.

*Mark Twain*

The next issue is malpractice. The word malpractice, like maldistribution, implies to me a guilty-until-proven-innocent connotation. I would agree with those who believe it should be replaced with the term "medical litigation." We err badly if we think medical litigation is on the wane. One recent suit in Florida was awarded for 10 million dollars. Proposed premium increases for the coming year in the state of New York average 110%.<sup>14</sup> It is no wonder the entire character of medical practice is assuming a posture of what is safe for the doctor rather than what is best for the patient.

The roots of the problem are the tort system itself and the lack of data on which proper decisions for change can be made. I will not speak further on the tort system

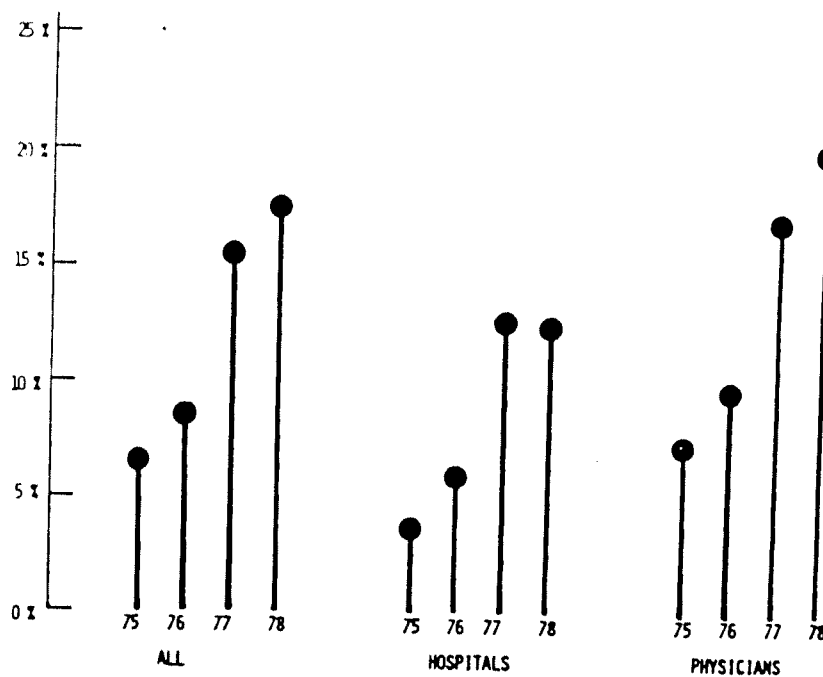


Fig 6. NAIC study, 1975 to 1978. Percent of cases reaching court by study year. Physician claims showed an almost fourfold increase.

except to say that legislative reform is sorely needed, not only for the perceived medical wrongdoing, but in all aspects of our life, where any grievance whatsoever is answered with a lawsuit. A somber statistic which makes this reform a steep uphill battle is that we now have one lawyer for every 365 citizens.<sup>15</sup>

On data gathering we are happily beginning to make some inroads. Figs. 4, 5, and 6 and Tables I, II, and III show material from a study conducted by the National Association of Insurance Commissioners (NAIC), which was supported financially by member organizations in the Council of Medical Specialty Societies.<sup>16</sup> The report is based on over 72,000 litigation claims closed between 1975 and 1978.\* One third of the claims arose from surgical procedures, 27% from diagnostic errors (Fig. 4). In Fig. 5 indemnity dollar amount is plotted against severity of injury, graded one through nine, representing temporary injuries, permanent injuries, and death. Each vertical bar is 1 study year. The spectacular rise in cost per claim with the degree of injury and with each succeeding year is apparent. The average indemnity for grave injuries increased 63% over the 4 years of the study. This is emphasized by the number of awards over a million dollars. There were only five in

Table I. NAIC study, 1975-1978: Most costly procedure categories

Anesthesia procedures	\$96,822
Operations on nervous system	72,336
Obstetrical procedures	72,279
Cardiovascular operations	60,652
Operations on respiratory system	54,755
Special hospital procedures	53,215

Legend: NAIC, National Association of Insurance Commissioners.

1975, 23 in 1978, the latter representing three of every 1,000 paid claims. The most costly procedures are shown in Table I. Anesthesia leads the list, although only 3% of the total claims were a result of anesthesia injuries. The courts litigated an increasing proportion of claims during the study—20% for physicians in 1978 (Fig. 6). Hospital court cases decreased slightly. Almost half of the out-of-court settlements were reached after trial was underway.

Tables II and III focus on our specialty. Of the total claims, there were 146 incidents involving general thoracic surgery, or 0.2%, which is a remarkably good record. The procedure resulting in the greatest number by far was transaxillary first rib resection—31 claims or 21%. The average indemnity and the total dollar amount are shown below. Table III shows the injuries

\*I am indebted to M. Patricia Sowka, Acting Director of Management Services, National Association of Insurance Commissioners, for making these data available.

**Table II.** NAIC study, 1975-1978: Thoracic surgery—Transaxillary first rib resection

Total claims closed	71,782
Incidents involving thoracic surgery	146
Percent of total claims	0.2%
First rib resection	31
Percent of those involving thoracic surgery	21%
Average indemnity per claim	\$45,542
Total indemnity	\$1,411,806

**Table III.** NAIC study, 1975-1978: Transaxillary first rib resection—Injuries on which claims were based

Injuries	No. of claims
Nerve injuries	9
Musculoskeletal injuries	4
Musculoskeletal deformity of chest	4
Fracture of clavicle	2
Artery injury	2
Spontaneous pneumothorax and emphysema	2
Injury to lung with pneumothorax	2
Pain of limb and chest	2
Injury to other intrathoracic organs	1
Muscle weakness	1
Pleural effusion	1
Anesthetic injury with cardiac arrest and brain damage	1

on which claims were based. Nerve and musculoskeletal injuries were the most frequent.

How will data such as these help? In many ways. The American Hospital Association has decreased the number of court cases, as Fig. 6 shows, by means of risk management programs in the hospitals. The American Bar Association is developing the concept of "designated compensable events," that is, injuries that would automatically be compensated without the need for expensive tort action. The Council of Medical Specialty Societies will make available to each specialty the NAIC data on its most frequent claims, in our case, first rib resection, so that through physician awareness and education the number of claims can be reduced.

When a gray-haired Zulu was asked to what he attributed his serenity, he replied, "I learnt early on to cooperate with the inevitable."

The third issue is cost containment. There is no question that the escalating cost of medical care is the number one health issue in the minds of the American public. National health expenditures were 256 billion dollars during the year ending March, 1981, an annual

**Table IV.** Factors in health cost escalation

1. Americans demand the best
2. Third-party reimbursement
3. Hospital-oriented society
4. Technologies—complex and simple
5. Technology versus the physician

increase of almost 15%. The gross national product (GNP) allocated for health care in 1 year increased from 9.0% to 9.4%.<sup>17</sup> The magnitude of this rise is more impressive when you realize that each tenth of a percentage point equals 2.7 billion dollars. Statistics such as these, with no turndown in sight, have led to the prediction of an overall decline in health service based on limitation of funds, with rationing of care an inevitable consequence.

Let us examine some of the causes for the burgeoning health bill.

Table IV shows some of the factors said to contribute to cost escalation. The list is by no means complete, or in any rated order, but in my opinion the first item mentioned is a major factor. John Herrell<sup>18</sup> of the Mayo Clinic asserts that the economics of medical care is dominated by one absolute truth: There is no free lunch. As long as the national philosophy promotes restoration and maintenance of health as a birthright, and as long as the sick individual and his loved ones demand, by resorting to court action if necessary, nothing less than first-class care, medical costs will continue to rise. Containment procedures can modify this upward spiral very little and only temporarily. For instance, physician's salaries are always a front target in medical costs. If the net income of all physicians were cut in half, the total cost of health care would be reduced by approximately 5% on a one-time basis only.<sup>18</sup>

The GNP for health has more than doubled since 1950, from 4.5% to 9.4% (Fig. 7). However, the infant mortality per 1,000 live births in 1950 was 29.2 and in 1980, 13.8. The life expectancy in 1950 was 68.2 years and in 1980, 73.6 years.<sup>19</sup> Almost 25 years have been added to the life expectancy since the beginning of this century.<sup>20</sup> An appropriate question to ask ourselves as a nation is at what percentage of the GNP do we wish to curtail expenditures in saving human life, which in our culture is the most precious of all commodities? That is a tough decision, because a cap on expenditures means inevitably a cap on excellence of service, universality of service, or both. There is no free lunch.

With regard to the second and third points in Table IV, expert opinion tells us that modifications of present policies and practices are unlikely to occur or, if they



do, unlikely to result in significant cost reduction.<sup>21</sup> Physicians need constantly to remind themselves that third-party payment is still payment by the patient, and each of us is required to apply a test of conscience for every bill we submit. As I have already pointed out, however, the global impact on the health care dollar will not be great.

Regarding the third point in Table IV, none of the legislative attempts at regulating hospital stay are likely to create much relief, except perhaps to provide funds to pay the salaries of the individuals hired to monitor patient stay.

The premise that complex technology has inflated health costs also needs critical examination. The computed tomographic scanner, for instance, has been a prime target. In fact, if the annual operating costs of our four most widely heralded technologies (computed tomographic scanning, fetal monitoring, renal dialysis, and coronary bypass) were all reduced by one half—certainly a dramatic curtailment—the net savings would amount to less than 1% of the total health care bill.<sup>22</sup>

More appropriate for cost containment is the control of simple technologies, mainly laboratory tests, which are inexpensive as a unit but cost billions in the aggregate. For example, the number of laboratory tests used in treating an uncomplicated case of appendicitis rose from five in 1951 to thirty in 1971.<sup>22</sup> Why? Because the universal availability of tests creates demand for their use and encourages repetition.

Physicians must develop a cost consciousness for the technology they utilize. I see us making no significant inroads, however, until a generation of medical students and house staff has been trained in cost effectiveness. This is a nationwide project that should have been started in our medical schools and residency training programs *yesterday*.

Also contributing (number 5, Table IV), but in a far more pernicious way, is the fact that physicians are permitting technology to replace wisdom and judgment, two commodities bought dearly by years of training and experience.

Recently, a patient who had had a coronary bypass returned to the office with pleurisy, fever, blood spitting, and a triangular-shaped density on the roentgenogram. When his internist was consulted, he said, "We will have to get a lung scan, but you and I both know it will be read as equivocal and we will treat him as a pulmonary embolus anyway." This is an example of the technology guiding the doctor instead of the doctor guiding the technology. Such practice may be considered good medicine and, medicolegally, good defen-

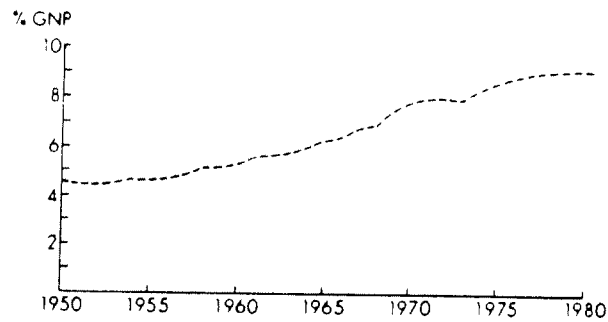


Fig. 7. Graph showing the percent of the gross national product (GNP) allocated for health from 1950 to 1980. In three decades the figure increased from 4.5% to 9.4%. (Reproduced with permission from Herrell JA: Health care expenditures—the approaching crisis. *Mayo Clin Proc* 55:705, 1980, published by the Mayo Foundation.)

sive medicine, but economically it is certainly not optimal. Optimal medicine is practiced when a physician has accumulated *just enough* data to make a rational decision for the patient. When doctors encounter a difficult clinical problem, they do not seek the advice of a computer, but rather another physician with the required expertise. This idea was put succinctly by our son, a third-year surgical resident, when he said, "Technology has advanced, but experience is better." If, instead of technology, wisdom and judgment control patient care, I believe medical costs can be reduced drastically.

Personal health must remain a personal responsibility; it cannot be imposed or bestowed.

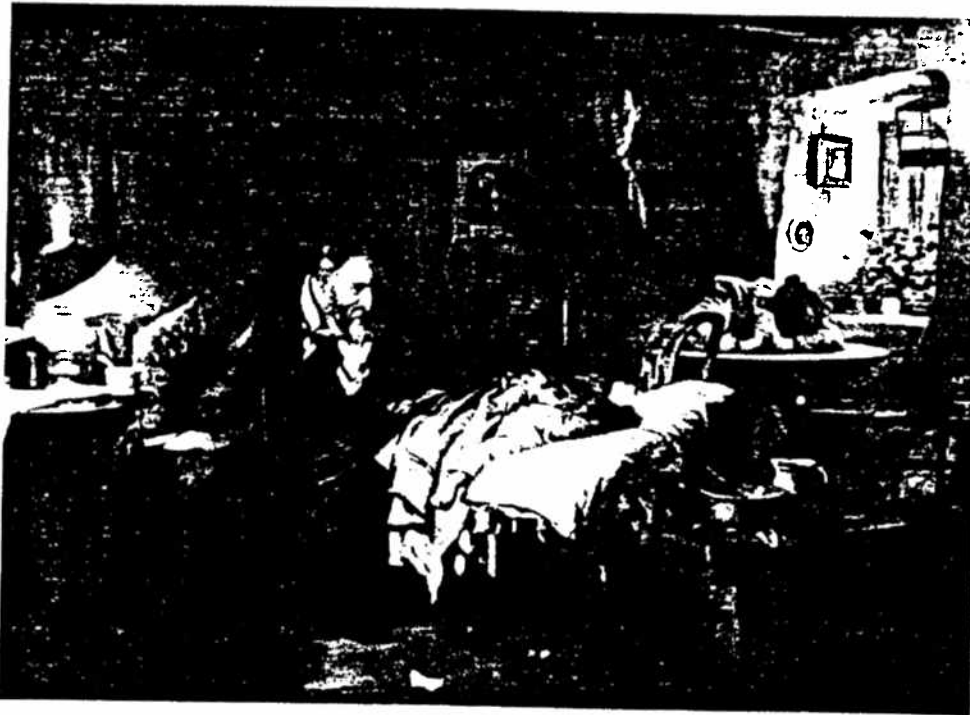
John Millis

And so the time has arrived for me to summarize. I would like to leave you with these thoughts.

Physicians and the consumer public are going to have to assume a partnership role, instead of an adversarial one, in the social, economic, and medical battle for health. Otherwise, we are on a collision course that will make everyone the loser. This partnership, as in all fruitful unions, requires understanding, an exchange of ideas based on solid fact, and above all empathy exercised by both sides.

To alleviate the crisis of excellence, I believe we must alter public perception in the following five ways:

1. *Manpower*. Marketplace adjustments are best for both health provider and consumer. It is a cruel charade to promulgate the idea that medical care for all Americans will be improved by some scheme of external manipulation which reapportions the numbers, specialty mix, and geographic location of physicians.



**Fig. 8.** *The Doctor* by Sir Samuel Luke Fildes, 1891. (Reproduced with permission of the Tate Gallery, London, England.)

2. *Physician selection.* It is the patient's responsibility to seek the most qualified person for his or her medical needs. If even half the care and attention the average American family exercises in selecting a home or an automobile were applied to the selection of a physician, I am convinced medical litigation would decrease markedly. The physician is responsible for making his own credentials, particularly board certification, known to the public.

3. *Medical litigation.* Medical care as a birthright in America is not the same as a guaranteed certificate of health, to be challenged in a court of law when result does not inevitably equal patient expectation. For all our sophisticated machinery, patients must continue to understand that medical care is, and will be forever, a contract of risk.

4. *Cost containment.* The only real opportunity we have to decrease medical costs is to curb the tidal wave of technology. Each dollar spent, each procedure done, should pass the dual test of cost effectiveness and sound medical judgment. This may require of the patient a reaffirmation of faith in his physician.

5. Lastly, whether we like it or not, the classic image of the physician (Fig. 8) is gone forever. Patients cling to the impression that today's doctor is not a hand-holder and therefore is not concerned. In fact, it is because he *is* concerned. We must never lose sight of

the importance of the vis-a-vis and hands-on quality of medical care, but the public must be made to know that chances for recovery are best if the doctor focuses his attention on the sophisticated medical strata that are beyond the patient's interest. We physicians envision ourselves as functioning in the space age, while our patients still view us as Sir Samuel Luke Fildes did in 1891. This is a pivotal discrepancy and, in my opinion, a principal cause of today's patient-physician gap.

Conceding our inability to go back to the Indian Territory, and even if every physician spent an extra hour each day simply being with and talking to his patients, certainly an ideal goal, only a partial solution would be achieved. What we need on the medical scene is an American equivalent of the Chinese barefoot doctor, a person who works with the physician, not to lighten the physician's burden, but to relate to the patient in ways that will fill the gap created by today's megaloscience. If effective, it makes little difference whether this person is a paramedic, nurse, social worker, or some other category. The really important thing is that the *system* be put in place.

Finally, I do urge that, at every opportunity, we let the "grandpa" in all of us shine through for our patients. My grandfather was not an outstanding doctor, even by the standards of his day, but he was a human being who really cared about other human beings.

Which is, after all, since the time of Hippocrates, what being a physician is all about.

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