



THE DOCTORS

by Charles L. Bosk

There is a certain cachet in the term "American doctor," much as there is in "Swiss banker," "French chef," or "Soviet dissident." Hardly a month goes by without a team of U.S. physicians flying off to perform delicate surgery on some ailing international celebrity. The Nobel Prize in medicine has long been dominated by Americans. A large share of the science news chronicles the achievements of our physicians. There is nothing wrong with such eminence. But the headlines leave out a lot—if only because most doctors don't make headlines.

In 1977, the number of active physicians in the United States, excluding those employed by the federal government, approached 400,000. If one adds the doctors at Veterans Administration hospitals and government agencies like the National Institutes of Health, as well as the graduates of U.S. medical schools during the past three years, the current total is roughly one-half million. It is almost impossible to make valid generalizations about this group.

Most are men, but a growing proportion (now 8 percent) are women.* One in six was born outside the United States. The majority (231,000) deliver patient care in some form of office practice, but about 25 percent work full-time in hospitals as interns, residents, or hospital-based specialists (anesthesiologists, for example). Some 30,000 physicians do not even consider patient care their principal activity but opt instead for research, teaching, or other medical-related duties. Doctors are full-time administrators at, for example, the Robert Wood Johnson Foundation, the *New England Journal of Medicine*, and the Association of American Medical Colleges.

The closer one looks, the more one is impressed by the diversity within the profession. Some physicians confine their

*The barriers to women in medical practice have fallen more quickly than barriers based on race, ethnicity, or age. The dramatic rise in the number of women medical students (from 5.4 percent of first-year students in 1940 to 27.8 percent in 1980) obscures continuing male-female differences. Most women M.D.s still end up doing "women's work." For example, among first-year women medical students in 1977, 26 percent hoped to enter family practice, 10.6 percent favored pediatrics; only 1 percent had considered teaching or research. Bias is one factor. Many young women M.D.s also hope to combine a family and a career, and so choose less demanding specialties with more regular hours.

practices to specialties like hematology-oncology and deal primarily with the gravely ill; others are in general practice and cater to basically healthy people. The half million U.S. physicians are all in different stages of their careers. For some young surgeons, virtually every experience—the routine repair of a hernia, say—is a “first.” For older practitioners, even the unexpected death of a patient is part of a pattern that has occurred countless times before.

In the end, all that can be said with certainty about doctors as a group is that the rest of American society generally holds them in high esteem, pays them well, and, often unwittingly, subjects them to enormous stresses and demands.

Affluence, Autonomy, Idealism

The fact that physicians occupy a privileged and, despite the occasional complaints in journals like *Medical Economics*, well-remunerated place in America is hardly news. An individual doctor's net income varies widely according to age, location, and specialty (ranging from a low of \$35,023 a year for general practitioners in New England to a high of \$89,571 for radiologists in the Midwest), but *average* annual net income for physicians is high, reportedly about \$60,000 in 1976.

The investment in medical school—up to \$12,000 a year for a minimum of four years—begins to pay large dividends immediately upon the completion of training at age 28 to 32 and continues to do so until age 60. Medicine stands consistently near the top (after TV news and higher education, according to a 1979 Harris poll) in popular ratings of institutional prestige. It is the one career (or so it seems to youths) where individual autonomy and idealism fit easily with personal advancement and affluence.

The competition for medical-school admission confirms the profession's drawing power. In 1977–78, some 40,569 students applied for 15,977 positions in 119 American medical schools, a ratio of 2.5 to 1. This represents a slight drop in actual numbers over the previous year—but a slight rise in relative terms given the decline in the number of graduating university seniors. The average number of applications to different schools filed by each

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National Archives.

Union surgeons at work during the battle of Gettysburg, 1863. Ignorance rarely stayed a physician's hand. "The more intricate the wound," wrote Louisa May Alcott of one Army surgeon, "the better he liked it." By the end of the 19th century, however, the growth of medical knowledge brought greater sophistication, and the beginning of specialized practice.

applicant in 1977–78 reached a record high of 9.16.*

If the role of the physician has its rewards, it also has its special burdens. The moral and legal responsibility a doctor assumes for a patient's well-being can weigh heavily on his psyche. Surgeon-essayist Richard Selzer has written of the doctor who, "after a lifetime of grand gestures and mighty deeds, comes upon the knowledge that he has done no more than meddle in the lives of his fellows and that he has done at least as much harm as good."

*There is reason to suspect that, despite enrollment increases among blacks (who now make up 6.5 percent of first-year medical students) and Hispanics (1.7 percent), medical-school student bodies are growing *more* rather than *less* homogeneous in terms of social class. A 1979 *Journal of Medical Education* profile of the medical-student population reported that between 1974 and 1977, "students from lower-middle income families (\$10,000 to \$16,000) declined from 21 to 15 percent and those in the \$17,000 to \$20,000 bracket dropped by 2 percentage points. By contrast, students in the middle-middle income bracket range (\$21,000 to \$25,000) increased steadily from 10 to 14 percent and those in the upper-income brackets from 48 to 50 percent."

A reliable estimate of the toll that doctors' work exacts is difficult to obtain, though there is much public discussion these days of "physician impairment." The American Medical Association estimates that 10 percent of all U.S. doctors have a problem with alcohol during their careers; 1 to 2 percent have a drug problem. There are more than 100 physician suicides a year. The incidence of marital instability among physicians is reportedly high. Indeed, the unhappy doctor's wife has long been a stock figure in novels (*Madame Bovary*), plays (*Enemy of the People*), and soap operas (*General Hospital*).

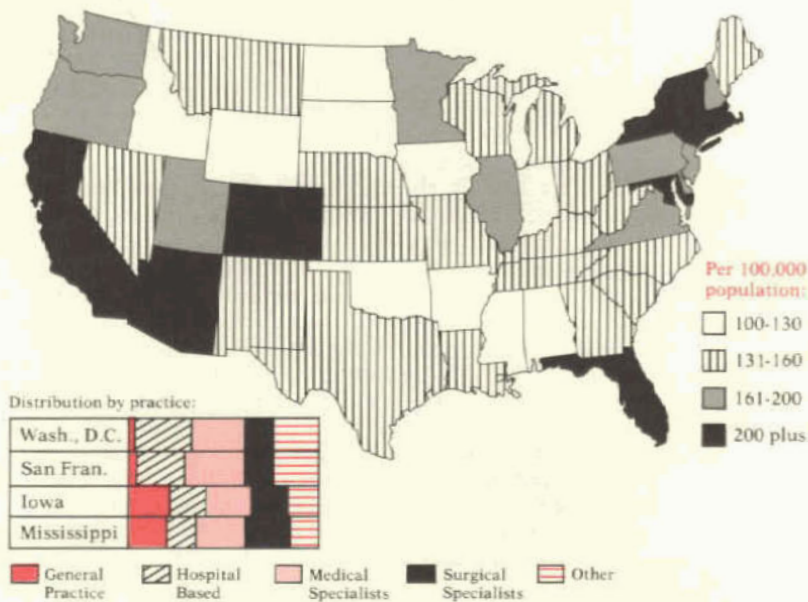
More than most people, physicians have themselves to thank or blame for their blessings or their woes. To a greater extent even than the law, medicine is a self-regulating, self-policing guild. The organized political activities of the Chicago-based, 210,000-member American Medical Association have long helped to shape attitudes in Congress and the White House toward issues ranging from national health insurance and subsidized hospital construction to affirmative action and aid for medical schools. Individually and collectively, doctors shape the local environment in which they work, even define what that "work" consists of.

Rites of Passage

The corporate influence of American physicians is not, of course, limitless. Since the end of World War II, there has been an explosion in government expenditures in the health sector of the economy—from \$50 million in 1950 to \$50 billion in 1979. As a result, physicians have found their pre-eminence challenged by organized interest groups representing hospital administrators, pharmaceutical firms, nurses, insurance companies, consumer groups, and others. Insurance companies, for example, have a vital interest in reducing health-care costs, an interest not necessarily shared by doctors paid on a fee-for-service basis.

Even so, the organized medical profession has a wide range of powers. Through its involvement in administration, it runs many hospitals and determines which doctors have access to them. Through its specialty boards, it determines who is licensed to practice (by setting the passing score on the National Boards) and defines "acceptable" standards of medical care. Through local medical societies, it has the last word on the remedial steps necessary when shortcomings are discovered (from suggesting refresher courses to, in extremis, revoking a doctor's license). Perhaps most important, it controls who is allowed to enter medical school (by dictating admissions requirements)

DISTRIBUTION OF PHYSICIANS BY STATE, 1977



Source: American Medical Association, *Physician Distribution and Medical Licensure in the U.S., 1977*.

The widely publicized "maldistribution" of U.S. physicians (above) is really two distinct problems: (a) a shortage of doctors in rural areas (139 counties have no active physicians treating patients); and (b), a preponderance of specialists in urban areas, where doctors are abundant, at the expense of primary-care physicians. On average, specialists (below) earn considerably more than doctors in general practice.

DOCTORS by specialty	as percent of all doctors			Projected net income	Minutes of patients' waiting time	Fee for initial office visit
	1931	1949	1978			
General Practice	80.3%	52.2%	13.1%	\$52,400*	25.7*	\$16.55*
Internal Medicine	2.6	5.7	14.7	64,300	20.6	32.53
Surgery	2.8	4.9	7.7	75,800	22.9	26.52
Pediatrics	1.0	2.1	5.9	50,400	21.9	19.03
Obstetrics/Gyn.	0.9	2.5	5.6	70,600	23.7	29.85
Psychiatry	0.9	2.3	7.7	49,000	5.9	54.63
Anesthesiology	.01	.06	3.3	67,000	13.0	N.A.

*1978 average
Source: U.S. Public Health Service; American Medical Association, *Physician Distribution and Medical Licensure, 1977*, and *Profiles of Medical Practice, 1979*.

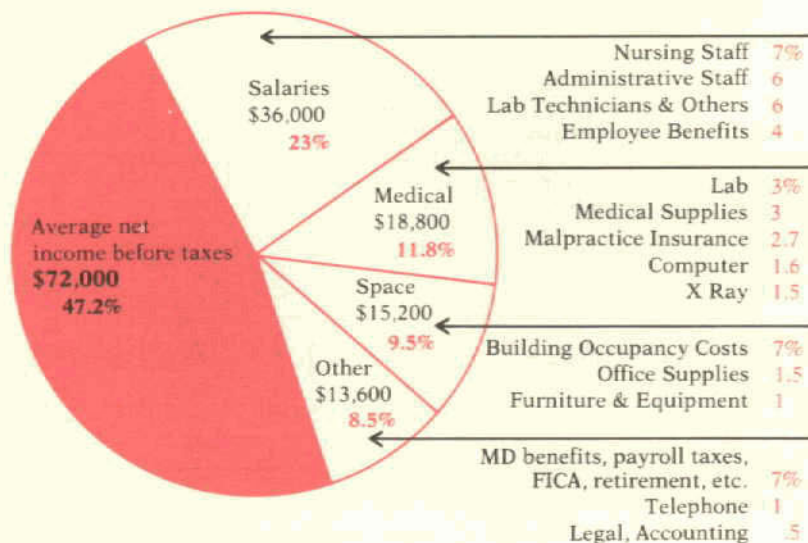
MOVING TOWARD GROUPS

According to Princeton economist Uwe Reinhardt, the majority of American doctors may well be in group practice by 1990. Varieties of group practice abound—partnership or corporation, multispecialty or single specialty—but all share one characteristic: the cooperative practice of medicine by *three or more* physicians.

U.S. doctors typically practiced “solo”—European-style—until the late 19th century. During the 1870s, the Homestake Mining Company set up a medical group for its workers in South Dakota; in 1883, Northern Pacific Railroad followed suit. The prototype for *large* American group practices is the Mayo Clinic (founded in 1887 in Rochester, Minn.), which trained thousands of doctors in the Midwest. By 1930, more than 2,000 American doctors worked in 150 group organizations. Today almost 70,000 physicians in nearly 9,000 groups handle some 600 million “patient visits” a year.

For the doctor, the advantages of group practice are clear. Greater administrative efficiency means group practitioners can work fewer, more regular hours. They earn a higher average net income than those working alone (\$72,000 versus \$49,400). Patients also benefit. While group practice does not save patients money, superior record-keeping and peer review make for better medical care. “Per unit of quality,” contends Reinhardt, “the product is cheaper.”

Expenses and net income of average M.D. in group practice, 1978.



Source: Annual Cost Survey of Medical Group Management Association, 1979.

and what students must study while there.

The intensity and duration of medical education marks it as one of the most distinctive forms of adult "socialization" in our society, comparable only to what occurs at West Point, say, or in the seminary. Dissecting a cadaver, attending an autopsy, delivering a baby, witnessing a death—all are part of a unique set of tests, ordeals, and rituals designed to transform an ordinary person into a doctor. Throughout this *rite de passage* from pre-med to M.D. to intern to resident to (in some cases) specialist, an individual is exposed for the first time to the question marks hanging over the doctor's world: How are pain and suffering to be interpreted? How are difficult treatment decisions made? What are the limits—intellectually, physically, emotionally—to the physician's job? Surprisingly, despite the stresses of medical school, the drop-out rate is low. In 1979, less than one-half of one percent of the nation's 63,000 medical students called it quits.

Playing God

How are students *taught* to be physicians? First, they receive rather explicit and formal instruction in the vast, hopelessly fragmentary, science of the human body. Day and night, medical students, interns, and residents can be found looking at x rays, viewing microscopic slides, and locating, Xeroxing, collecting, and trying to remember specialized journal articles in an attempt to understand what is happening to their patients. Passing examinations, making diagnoses, citing the relevant literature, designing research projects—these are the indicators to faculty and student alike that lessons are being learned. And the lessons don't stop with graduation. The American Medical Association has actively pressed for continuing medical education, and periodic "recertification" is required in some specialties. In 1978, half of all doctors spent \$1,350 *or more* on refresher courses accredited by the Association of American Medical Colleges.*

A person who has not been through medical school may find it hard to understand how totally medical training pervades

*The expense of continuing medical education first appeared in *Medical Economics'* Continuing Survey of Practice Costs in 1978; it is becoming, as the journal's editors note, "a big-ticket item." Yet the data are somewhat misleading because refresher courses are often part of a "package deal" that may include a Caribbean vacation or Black Sea cruise. In a recent advertisement appearing in the *New England Journal of Medicine*, the Palo Alto Medical Clinic offered continuing medical education lectures on topics ranging from cardiology to gastrointestinal surgery. The lectures were to be given on board the ocean liner *Sagafjord* during a two-week cruise; various itineraries were available. "These seminars," the advertisement stated, "have been designed to comply with the 1976 tax reform act."

students' lives, infects their dreams, conditions their perceptions. In an anguished but often witty 1979 essay in *Change* magazine, first-year medical student Abigail Zuger wrote:

After an hour looking through a microscope, I find that even ordinary objects begin to take on a strange new identity: The pattern of my dining room tablecloth, for instance, looks so much like atrophied leg muscle cells that I am tempted to get a new one, whereas the tiles on the floor of the ladies' room at school are arranged just like the cells in a tubercular lung, and I must resist the urge to crawl under the sinks in search of the primary lesion.

If the part of medical education that communicates the facts of science is explicit, the portion that instructs young physicians in how to apply this knowledge with compassion and sensitivity is hidden, buried in the crowded routines of hospital life, or trivialized in a few sessions on "caring," "the doctor-patient relationship," "death." Yet, beyond the science of medicine, physicians need to learn its craft: how to treat seriously ill patients and their families with respect and dignity; how to take seriously the judgment, knowledge, and skills of nurses, social workers, and psychologists; how to manage one's own feelings of rage, despair, or helplessness in the face of unjust suffering; how to monitor responsibly the work of one's colleagues—and submit to such monitoring oneself.

Students learn *these* skills on the job, if at all. The relative dearth of explicit instruction in such ethically murky areas as when to revive a patient and when to leave well enough alone is striking. The principal character in physician-author Robin Cook's 1972 novel *The Year of the Intern* laments that "medical school never taught me how to play God." It is not clear that medical-school faculty would know exactly how to proceed with this task, even if they were disposed to accept the notion (which, for the most part, they are not) that it is a responsibility medical schools could—or should—address.

The problem here is not simply that medical schools may be turning out gruff physicians with little concern for ethical questions. The fact is, what happens in medical school affects the whole U.S. "health delivery" system. A case can be made, for example, that the nature of medical education is partly responsible for the maldistribution of M.D.s in the United States.

There are two separate distributional problems. First, rural areas are medically "underserved" relative to urban areas, even as the U.S. population is shifting away from big cities. Second,

in urban areas where the total supply of physicians is abundant, specialization greatly reduces the pool of physicians available to deliver primary care. Recent congressional legislation requires that federally aided schools increase efforts to produce primary-care physicians.* But whatever long-range consequences such legislation has, the career choices of physicians over the last 15 years indicate that doctors by and large prefer high-paying specialty practice in such glamorous fields as cardiac surgery to the daily drudgery of sore throats, back pains, and upset stomachs.

Physicians specialize because it allows them to reduce uncertainty by circumscribing the area of their expertise to, say, a particular organ system (the heart) or set of procedures (orthopedics); to confine their efforts to what they as individuals find intellectually satisfying; and to draw a boundary of involvement with and responsibility for their patients. In short, specialists never have to let go of an outlook encountered and acquired in medical school.

Looking Inward

The very structure of medical training leads to an exaltation of specialty-based hospital practice as "real" doctor's work and the denigration of primary care as "scut" or menial work. As one Stanford University medical school professor frankly told *Science* magazine last January: "In the early 1970s, the admissions committee went overboard in the admission of students who knew from the day they came that they wanted to be general medical practitioners. Stanford is not the place to train that kind of individual."

Further, the often desultory way in which human issues are treated in medical school implies that the social aspects of medicine are neither important nor a collective concern. Much ambiguity exists because the *unwritten* code of medical conduct is also *unspoken*. As a result, the medical profession's responsibili-

*In response to a widely publicized "shortage" of 50,000 doctors, Congress in 1963 passed the Health Professions Educational Assistance Act to promote the training of physicians via construction grants to medical schools and scholarships to needy students. Further legislation in 1965 and 1971 boosted the level of federal support and explicitly linked continued government aid to enrollment increases. By all accounts, these federal programs succeeded in the avowed aim of expanding the medical-school pipeline. Concerned about maldistribution, Congress in 1976 created the National Health Service Corps, which awards medical-school scholarships to prospective M.D.s in return for a period of service after graduation in doctor-short areas. At the same time, Congress required that, in order to qualify for federal assistance, medical schools set aside 35 percent of their first-year residencies for primary care. Since most prospective specialists do a residency in internal medicine anyway (which counts as "primary care"), the program has had little impact.

THE AILING HOSPITAL

Overregulated, overbuilt, and undermanaged, the American hospital is an institution in need of succor.

Of the \$244 billion that Americans will spend on health this year, some \$100 billion will go to America's 7,000 hospitals. Owing to a combination of poor planning and bad management, more than 200,000 of the nation's 1 million hospital beds now lie empty. Many hospitals are still run by doctors with no business training. Until the 1960s, observes Tulane professor Hugh W. Long, graduate schools of hospital administration gave short shrift to the "nitty-gritty": accounting, finance, marketing.

Urban hospitals are in the worst condition. Because of the middle-class flight to the suburbs, most of the patients in urban hospitals are now poor people who rely on federally funded, state-run Medicaid programs to foot their bills. (Nationwide, government now pays for 54 percent of all hospital costs.) Yet, Medicaid reimbursements usually cover only about 90 percent of actual expenses. Suburban hospitals, many of them for-profit and privately owned, can compensate for Medicaid losses by inflating by as much as 30 percent their bills to affluent patients carrying *private* insurance (which covers actual *charges*, not a bureaucrat's idea of "cost"). Inner-city hospitals have no such buffer.

Squeezed between mounting expenses and plummeting revenues, the urban hospital can stay afloat only by cutting back on quality—which in turn further discourages private patients. Political debates rage over whether places like New York's inefficient Metropolitan Hospital should be kept open primarily for the employment they provide.

Outside inner cities, consortia of not-for-profit hospitals have cut costs and increased their purchasing power by pooling capital and centralizing essential services: laundry, computers, x rays, lab work. Some enterprising groups like the Harvard University teaching hospitals have even set up their own malpractice insurance companies.

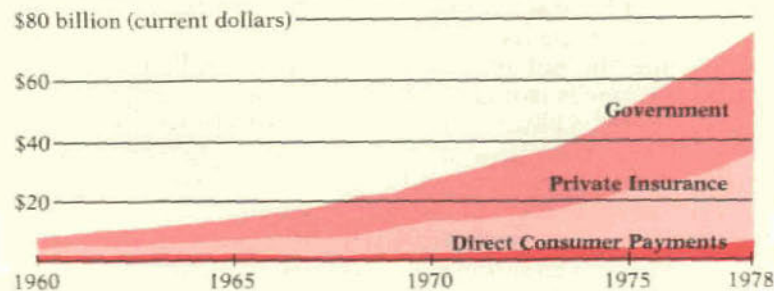
Despite such innovative tinkering, hospitals as we know them are

ties to the larger society are often left undefined. Should doctors see to it that the underserved receive care? Even where duties are defined, as in the profession's responsibility to monitor the performance of its members, the means are often unspecified. The few formal mechanisms that *do* exist, such as chart review (a comparative survey of each hospital doctor's track record), are usually the result of governmental or consumer pressure.

probably on the way out. Likely to take over are "health maintenance organizations" (HMOs), providing comprehensive care for a fixed, prepaid fee that now averages about \$1,500 a year. (The cost is borne by employer and employee.) Acting as both insurer and provider, HMOs cannot afford the inefficiencies of the usual "fee-for-service" health-care system. By contracting for hospital services (or buying hospitals outright), HMOs have reintroduced cost-consciousness and competition. The Department of Health, Education, and Welfare is encouraging the growth of HMOs through loans and grants, and hopes to boost HMO enrollment from the current 8.2 million to 20 million by 1989.

In affluent areas, hospitals may wind up as parts of larger "human renewal centers" set up by medical corporations to sell a wide range of health services instead of just in-patient care. One such center already under construction is nonprofit Fairview Community Hospitals' "Ridges" development, located on a 120-acre campus outside Minneapolis. By 1988, Ridges will comprise doctors' offices, a nursing home, a 150-bed hospital, a mental health center, a community clinic, government offices, housing for the elderly, restaurants, a post office, a health-products shopping mall, and a Lutheran church.

WHO PAID AMERICA'S HOSPITAL COSTS, 1960-78



Source: Health Care Financing Administration.

Left to its own devices, the medical profession would probably leave evaluation to the consciences of individual doctors.

The authority of the medical profession, however, has not gone unchallenged in recent years. The continuing rise in both the number of medical malpractice suits and the size of awards is one key index. An estimated 20,000 malpractice claims are brought against doctors each year; the average award grew from

\$6,000 to \$23,000 between 1970 and 1974. Increasingly, consumer and even ethnic groups have been willing to confront the guild of physicians—and they get results. Consider the changes in the techniques of childbirth prompted by the women's movement; the development of prenatal Tay-Sachs screening to aid prospective Jewish parents; the research into sickle cell anemia demanded by the black community.

To its credit, the medical profession has lately subjected itself to a great deal of soul-searching and self-doubt. Articles like Yale pediatrician Raymond Duff's anguished discussion of the ethical dilemmas involved in treating—or not treating—critically ill newborns; organizations like Students for Humanistic Medicine; continuing symposia like UCLA's Forum on Law and Ethics in Medicine—all of these evidence new concern generated within the profession about the direction of medicine.

The impetus to reflection has stemmed largely from the fact that medical knowledge has grown faster than the profession's ability to assimilate it, or to deal with its far-reaching ramifications. Treatment technologies like amniocentesis, organ transplantation, and psychosurgery raise very large questions about their proper use. For once, doctors are not debating these issues in isolation but have sought the counsel of lawyers, theologians, social scientists, patients.

Predicting the outcome of these diverse challenges—from within but primarily from outside the medical profession—is far from easy. It seems clear that as more responsibility for paying doctor's bills is centralized in the hands of the federal government, the work of physicians will be increasingly subject to public, or at least bureaucratic, scrutiny. Whether this results in still more burdensome paperwork with little public benefit or in fact leads to improved services at lower cost is impossible to say. What is certain is that like others—newspaper editors, school principals, prison wardens, corporation executives—physicians are finding it increasingly difficult to do as they please.

Less certain is where Americans will draw the line on doctors' independence. There is an irrational side to a patient's needs. We want our physicians to be frank, fatherly, wise—not just anonymous providers of a heavily regulated service, like truck drivers. Challenges to medical authority, I suspect, will only go so far—a distance limited by our desire to have doctors act in heroic and priestly ways when we fall ill, as we all do.