# CHAPTER SIX

# Escape from the Corporation 1900–1930

IN 1900, before physicians had successfully consolidated their authority, medicine was still a beleaguered profession. Or so many of its practitioners saw themselves—beleaguered by unscientific sectarians and quacks who preyed on the credulous sick; by druggists who plagiarized their prescriptions and gave free medical advice to customers; by too many of their own profession, turned out in profusion by medical schools; by hospitals that stole patients from them and denied them admitting privileges; and by public dispensaries and health departments that offered medical services to many people who doctors believed could afford to pay.

Over the next three decades, as these afflictions subsided, physicians became uneasy about various other organizations that potentially threatened their autonomy. Private practitioners wanted to keep their relations with patients unmediated by any corporation. They worried about companies that employed doctors to furnish medical care to their workers. Widespread adoption of this form of "contract practice," physicians feared, might engulf many of them in medical programs of poor



quality, respected neither by labor nor management. In some areas, employers paid profit-making firms to provide medical services to their workers, and the firms in turn contracted with doctors to give treatment at low rates. These commercial intermediaries were especially distasteful to the medical profession. Some fraternal societies and employee associations paid contract doctors to provide cut-rate medical services to their members. And general practitioners were concerned, too, about the threat of competition from growing numbers of specialists and the rise of private clinics that were often controlled by a few powerful surgeons or internists.

Reformers, however, viewed these organized health services, particularly the private multispecialty clinics, as harbingers of a new order in medical care. The virtues of "cooperative teamwork" and "group medicine," they believed, would soon become apparent to all. Individualism in medical care had had its day, and now the development of technology and specialization would require the same coordinated organization in medicine that was emerging throughout the society.

These expectations were hardly unreasonable, but they proved to be wrong. As occasionally happens, the inevitable did not take place, at least not on schedule: The solo practitioner did not rapidly become extinct. Instead of expanding, organized health services were relegated to the sidelines of the medical system. And therein lies a puzzle: Why did such plausible judgments about the advantages of organization and the demands of technology and specialization prove incorrect?

The aborted development of organized alternatives to the solo practice of medicine and the individual, fee-for-service purchase of medical services also poses some larger questions about the relationship of medical care to the state and the capitalist economy. Government and the modern corporation offer two alternatives for coordinated organization; conceivably, either might have become the basis for an integrated system. In the previous chapter, I described how public health came to exclude therapeutic services. But why did doctors escape from the corporation? How do we explain the distinctive economic organization of American medicine as it emerged in the twentieth century?

## PROFESSIONAL RESISTANCE TO CORPORATE CONTROL

### *Company Doctors and Medical Companies*

The dislike of physicians for "socialized medicine" is well known, but their distaste for corporate capitalism in medical practice was equally strong. They had no more desire to be dominated by private corporations than by agencies of government, and consequently resisted the two forms in which business corporations threatened to move into medical services—the provision of treatment for their own employees through "company doctors" and the marketing of services to the public.

Medical services for workers were quite limited in the nineteenth century. The first to appoint company doctors were railroad and mining companies; one railroad began to employ physicians in 1860, but such arrangements became more common after the Civil War. In the 1880s, as accident rates rose in industry, steel makers and other manufacturers adopted the practice too. In this early period, the role of the company doctor was confined mainly to the surgical repair of victims of industrial accidents. Industrial medicine primarily involved the treatment of occupational injuries, not occupational diseases.[1]

The evolution of industrial medicine then followed a path that reflected developments in both medicine and industrial relations. In the early 1900s, while the surgical treatment of accidents remained paramount, industrial doctors began to conduct periodic as well as preemployment health examinations and became more concerned with the health supervision of workers. With the adoption of state workmen's compensation laws around 1910, industrial medicine also became increasingly involved in preventive medical engineering of the workplace. The rise of industrial hygiene and medical engineering were part of the same current that produced the theories of scientific management of Frederick Taylor. Both stressed the use of professional expertise in the analysis and design of the production process. Still later, in the 1930s and 1940s, as management became more preoccupied with problems of human relations and personnel motivation, industrial doctors devoted increasing attention to alcoholism and mental illness.

Employers had a practical interest in using medical services for recruiting and selecting workers, maintaining their capacity and motivation to work, keeping down liability and insurance costs, and gaining good will from their employees and the public. But they did not want to pay for medical services or the hidden costs of disease that their workers or the community would otherwise bear. The response of employers to these competing interests changed significantly between 1890 and 1920 as medicine became more effective, political protest and reform demanded a response to high rates of industrial injury, and employers themselves came to share the popular belief in the usefulness of medical knowledge. As of the 1890s, medical facilities at a plant might typically consist of a few kits in the hands of foremen. By the 1920s, organized medical departments with full-time physicians were common in the larger companies.[2] Even then, however, employers spent relatively little on medical care, and the little they spent went mainly for health examinations and plant engineering. But there was a "deviant" group of industries and firms that became extensively involved in financing and sometimes managing medical services. Before considering why most companies avoided responsibility for medical care, it will be useful to examine these exceptions.



The railroads were the leading industry to develop extensive employee medical programs. By the turn of the century, there were more than one million railroad workers; in the year ending June 30, 1900, the Interstate Commerce Commission reported that one out of every 28 employees was injured and one out of every 399 was killed on the job. To treat the huge toll in injuries—some to passengers and pedestrians as well as workers—there were more than six thousand railway surgeons.[3] Railway surgery was a specialty with its own journals and national associations. In their early days, railroad lines retained private practitioners along their routes to treat accident cases. However, as they moved into the unsettled areas of the West, they found it necessary to set up organized services under full-time chief surgeons. In the 1880s, the railroads established claims departments and relief associations to pay for medical expenses and provide some minimal support to disabled workers. The employment of surgeons and the establishment of relief funds were motivated not only by the special hazards of railroad work, but also by the interest of companies in protecting themselves from lawsuits. The function of the railway surgeon was to make a record of the injury as well as to treat it, and the surgeon often represented the company as an expert witness in damage suits. In several states, courts ruled that a worker's agreement not to sue a company for an injury was unenforceable, except when the worker accepted relief from a fund. Eight funds terminated all benefits if an employee attempted to sue.[4]

For the mining and lumber industries, as well as for the railroads, special geographical conditions were the principal reason for extensive company involvement in medical care. In the isolated areas where mining and lumbering companies conducted operations, physicians were generally unavailable. To induce doctors to move to these poor and

sparsely settled regions, the companies had to guarantee them a salary, usually out of mandatory deductions from workers' wages.[5] As one might expect, company medical programs were much less common in urban areas.

Employee medical programs were also started in some companies as part of a more general movement in American business known as "welfare capitalism." To build up their workers' loyalty and "Americanism," employers provided a broad range of welfare services, including schools, housing, and social and religious programs, and even token representation in decision-making. The advocates of corporate paternalism wanted not only to instill the proper attitudes in workers, but also to spin an elaborate web of affiliations binding them to their companies. Unions might thereby be prevented from gaining a foothold.[6] Medical care functioned as an element in this strategy of control.

These various considerations—legal liability, geographical isolation, paternalism—influenced the extent and distribution of industrial contract practice. By the first decades of the twentieth century, company medical services could be found in the mining and lumbering camps of the Pacific states, the mining industry of the Rocky Mountains, and the coal fields of the Midwest and Appalachia as well as the mill towns of the Carolinas and Georgia and the nation's railroad industry. In 1930 these programs covered an estimated 540,000 workers in mining and lumbering and approximately 530,000 railway employees, plus a large though undetermined number of dependents.[7]

Before 1900 the industrial surgeon's home or office often served as an infirmary. But around the turn of the century, many of the railroads and other companies built their own hospitals and clinics. Generally only the larger firms owned and operated their own facilities; most arranged for treatment through independent physicians and hospitals for a flat rate per worker per month. The form of organization also seems to have depended on the degree of isolation from preexisting medical resources (the less developed the area, the greater the company's need to set up its own system) and legal considerations (under workmen's compensation laws in some states, firms could minimize medical costs and compensation awards by hiring physicians directly instead of paying for them through a state fund). But whether providing services in its own facilities or through independent physicians, the company usually controlled the choice of the doctor.

As a result, the system of payroll deductions for company doctors was frequently unpopular among workers, many of whom would have preferred to go to a practitioner of their own choosing. In cases of industrial injury, where medical evaluations determined compensation awards,



they naturally distrusted doctors paid by the company. Unions continually pressed for the substitution of cash benefits for company medicine. The American Federation of Labor opposed as "paternalistic" all forms of compulsory medical care through employers.[8]

Though medical societies recognized the necessity of contract practice in remote areas, they regarded it elsewhere as a form of exploitation because it enabled companies to get doctors to bid against each other and drive down the price of their labor. In 1908 the physician who had been company doctor at Sears, Roebuck resigned because the Chicago Medical Society had excluded him from membership on the grounds that his services to employees' families at reduced rates constituted an unethical invasion of private practice. His successor at Sears insisted that the company drop services and suggested that its medical program instead concentrate on periodic examinations and health supervision. Doctors who worked for companies were generally regarded with suspicion by the profession. "For a surgeon or physician to accept a position with a manufacturing company was to earn the contempt of his colleagues," wrote Alice Hamilton, a physician and toxicologist who played a prominent role in exposing dangerous working conditions in the early decades of the century.[9]

The opposition of the medical profession to contract practice contributed to the reluctance of employers to expand medical services. Outside of the mining, lumber, railway, and textile industries, workers generally received limited medical care. A study of ninety plants in New England in 1921 found that in the "great majority," medical service was confined to treatment to keep the employee on the job. "If too ill to continue at his job he was sent home and advised to call his physician."[10] In 1926 a national survey of 407 plants, nearly all with more than 300 employees, reported that three fourths provided free medical services of some kind. Ten years earlier, a similar survey of 375 plants had found that 110 had no more than first-aid equipment; but by 1926 only 34 provided such limited services, while two thirds had facilities staffed by doctors. Still, in most industrial medical programs, the main functions were to treat work injuries, examine job applicants, supervise company sanitary conditions, and encourage hygienic practices. Workers who were seriously ill were generally referred to private practitioners or to a hospital.[11] Industrial medicine of this type proved to be acceptable to the medical profession, though there continued to be tensions between the AMA and industrial physicians.[12]

The limited development of company medicine is inseparable from the broader pattern of limited corporate involvement in the welfare of American workers. Corporate paternalism probably reached its

height during the 1920s, but during the Depression it went into a steep decline. When businesses cut back, employee welfare programs were among the first things to go. With Social Security, the New Deal shifted the primary locus of responsibility for social welfare to the federal government. Also, the enactment of legal protections for collective bargaining and the accommodation of unions in heavy industry meant the abandonment of company-controlled services as a strategy of work incentives and discipline.[13]

The next step in providing medical care to workers would come in the 1940s through collective bargaining and group health insurance. Unlike company medicine, health insurance would enable workers to go to physicians and hospitals of their own choice and freed the medical profession from the threat of direct control by the large corporations. Like the constricted boundaries of public health, limited corporate involvement in health care protected professional sovereignty. Industrial medicine, like school health services and health centers, kept out of the domain of private medical practice.

The other form of business involvement in medical care, the sale of services to the public, was known as the "corporate practice" of medicine, and it developed on an even more limited scale. A series of legal decisions shortly after the turn of the century effectively precluded the emergence of profit-making medical care corporations in most jurisdictions. Between 1905 and 1917, courts in several states ruled that corporations could not engage in the commercial practice of medicine, even if they employed licensed physicians, on the grounds that a corporation could not be licensed to practice and that commercialism in medicine violated "sound public policy." These decisions were not models of rigorous legal reasoning. They were not applied to the employment of company doctors nor to for-profit hospitals, where the logic of the argument should have carried them.[14] Yet no one made much of a fuss. Respectable opinion did not favor "commercialism" in medicine.

The few exceptions to this pattern suggest that even if the courts had allowed profit-oriented firms, the growing economic power of the medical profession would have limited their development. In the states of Washington and Oregon, peculiarities in the workmen's compensation laws encouraged employers in the timber and mining industries to contract out medical services for their workers to for-profit "hospital associations." These companies—only some of which actually owned hospitals—provided medical and hospital care for a fixed sum per worker. Though started by doctors, they later fell under lay control. At first, the associations used their own physicians, but in time they subcontracted



work to doctors in private practice, whom they paid on a fee-for-service basis. They also expanded from their original base in lumbering, mining, and railways to include other subscribers. In 1917 Oregon passed a Hospital Association Act that permitted corporations to provide medical and other related services without a medical license.[15]

These hospital associations, unlike later commercial health insurers, dealt directly with physicians and exercised some control over them. They required second opinions before authorizing major surgery and reviewed the length of hospital stays. They restricted medical fees, refusing to pay prices they deemed excessive. In short, they acted as a countervailing power in the medical market and limited the doctors' professional autonomy. The medical profession, used to dealing with relatively powerless individual consumers, was unhappy about these controls, but doctors continued to do business with the hospital associations because they guaranteed payment for low-income patients.

In 1932 the largest county medical society in Oregon established its own plan to compete with the commercial hospital associations, but when this initial effort proved unsuccessful it began to censure and expel doctors connected with the profit-making firms. In 1936 the Council of the Oregon State Medical Society, following AMA policy, ruled that it was unprofessional for a doctor to be employed by a hospital association that made "a direct profit from the fees." Nonetheless, these measures were unsuccessful in drawing away physicians who depended upon the associations for guarantee of payment, so in the 1940s the medical society changed its strategy. In place of its county plans, it set up a statewide program, Oregon Physicians Service, that offered prepaid services without regulating medical decision making. Thereafter, doctors refused to deal directly with the commercial hospital associations, forcing patients to pay medical bills and apply to the companies for reimbursement. Consequently, the hospital associations could control their costs only by withholding compensation from patients, thereby antagonizing subscribers and losing business to Oregon Physicians Service. In addition, by withholding medical records, the doctors were able to prevent the hospital associations from effectively restricting unnecessary procedures. And when the associations asked the courts to rule that the physicians' actions constituted restraint of trade, the courts supported the doctors. Confronted by a declining share of the market, the hospital associations abandoned their cost-control procedures and began to act like insurers rather than providers of medical service. Although they survived, they were not able to maintain their original function in the face of a professional boycott.

Other factors besides professional opposition probably also would have impeded profit-making medical care companies even if the courts

had allowed them. Once blocked from regulating medical decisions, they would not easily have found other ways to cut costs and achieve any price advantage over solo practitioners. As long as physicians have access to community hospitals, there appear to be only limited economies of scale in medical care, in contrast to other industries where large-scale enterprises have replaced independent craftsmen. In addition, medical licensing laws would have prevented profit-oriented firms from reorganizing the production process and substituting lower-paid paramedical workers for physicians. At the same time, corporate organization sacrifices some of the economic advantages of self-employment. The self-employed often impose on themselves hours and working conditions that would be considered oppressive if imposed by anyone else. The individual entrepreneur, as John Kenneth Galbraith remarks, is "almost wholly free, as the organization is not, to exploit his labor force since his labor force consists of himself."[16] Physicians, like other small businessmen, have been prone to this "self-exploitation," and it seems improbable that, as professional workers, they could have been exploited as successfully by corporations as they were by themselves.

### *Consumers' Clubs*

The medieval guilds, like modern corporations, provided social benefits as well as regulating production. Though the guilds died out, fraternal orders, mutual benefit societies, employee associations, and unions took up many of their beneficiary functions. In nineteenth-century America, fraternal orders and benefit societies became extensively involved in providing life insurance and aiding the sick and disabled; by the early 1900s, some eight million Americans belonged to fraternal orders, which, consequently, affected an estimated 25 to 30 percent of American families.[17] Some of these societies bordered quite closely on life insurance companies; others were significant as settings where men developed friendships outside of both the family and the workplace. The membership of many fraternal orders cut across social classes; workers and their bosses sometimes belonged to the same order and at times the same local lodge.[18]

Doctors came into contact with lodges for two reasons. They often conducted examinations required for the life insurance that the fraternal societies offered; and they began, particularly in the 1890s and after, to accept contracts to care for the lodge membership. The societies paid physicians at what the doctors regarded to be unconscionably low rates, typically between $1 and $2 per member per year. Members could



sometimes get medical coverage for dependents for an additional dollar or two. From a lodge with three or four hundred members, a physician could wring out a meager livelihood. The more successful doctors were generally unwilling to take such work. But between the 1890s and First World War, many physicians often still needed lodge contracts, and some practitioners were so anxious to build up a clientele that they themselves organized private "clubs" to attract patients at bargain rates.[19]

Lodge practice was especially common in immigrant communities. A 1914 survey in New York City found "literally thousands of petty health insurance funds," mostly branches of larger fraternal organizations. While most other insurance plans typically paid only cash benefits in cases of sickness, these fraternal organizations furnished both income and medical care.[20] The Lower East Side of New York City was teeming with small benefit societies providing prepaid medical care for Jews who came from the same town or region in Eastern Europe. According to a 1909 survey by a Rhode Island doctor, George S. Mathews, one third of the Jews in Providence had contract doctors, and in some industrial areas, the proportion was as high as 50 percent. "In the rural districts and in the small towns the lodge doctor is almost unknown. Some sections of every city in the state are free from it. In other sections it is almost as rampant as it is in the East Side of New York City."[21] In Buffalo, New York, a local medical committee estimated in 1911 that lodge practice covered 150,000 people. Fraternal orders were also reported to be providing medical care in Pennsylvania, Michigan, Illinois, and California.[22] According to a Pennsylvania doctor, in seeking out new members, the orders "ever keep to the forefront the fact that they furnish free medical services."[23]

In Providence, Mathews found three types of contract practice: private clubs organized by doctors; lodge and fraternal organizations; and work and shop organizations. In one factory, there were two clubs organized by the workers—one with 700, the other with 400 members. The larger club paid a doctor $2.25 per member per year. Every day the doctor called at the factory to take down names from a slate on which workers had indicated they wanted to see him; this doctor had fifteen to thirty-five office calls a day, plus two or three house calls.[24]

Doctors who favored contract practice, Mathews reported, argued that "there is nothing unethical in it . . . the remuneration is nearly as good as that received in regular practice among the lower classes . . . this same poor man uninsured would contract a medical bill never paid, or else become a free hospital patient . . .the hospital and dispensary are much greater abuses than the lodge doctor . . ." On the other hand,

most doctors opposed lodge practice as unethical and unfair to the profession. They cited incidents such as the following:

> [T]wo members in good standing in the State Medical Society openly in lodge meeting underbid one the other [*sic*]. One volunteered his services at $2 a head. The other dropped his price to $1.75. The first bidder then acceded to this price with medicines furnished. This occasioned a drop in bidder No. 2 in his price to include medicine and minor surgery. To the vast credit of the lodge neither bid was accepted but a non-bidder was given the job at $2.[25]

The AMA could see "no economic excuse or justification" for lodge practice, objecting to the unlimited service for limited pay and the "ruinous competition" it "invariably" introduced.[26] Many county medical societies refused membership to any doctor who contracted with a lodge. From Norristown, Pennsylvania, a doctor reported that the county medical society had called upon the seven doctors performing contract work for two fraternal orders to give it up; though three acceded, the other four refused and were expelled from the society.[27]

Despite professional opposition, young doctors just out of training were often obliged to take such work as a way of breaking into practice. Samuel Silverberg, a retired New York doctor who worked for a Jewish benefit society in the early 1900s, recalled that although the society paid him only $2 a year for a single member and $3 or $4 for a family, "I took the job because in that way I was sure of being able to pay the rent for my office. On my own I took in very little. . . .

"The society member would recommend the doctor to his friends, and in that way you could build up a practice. But it was hard, lots of running up and down tenement stairs. When I moved my office to the Grand Concourse, I gave up the society."[28]

"To abolish this mode of contract practice," a doctor told the Physicians' Protective League of New York in 1913, "is at present impossible. First because it is too well established, and secondly because we have as yet nothing better to offer to the young man who is in need of earning a sufficient amount to cover his expenses."[29] But over the next decades the declining supply of physicians reduced the availability of cheap professional labor and remedied the problem of lodge practice as it did that of the free dispensary. Doctors could not be found to work on the old terms, and the fraternal groups did not have the resources for more expensive, fee-for-service plans.

A few voluntary associations built relatively enduring medical programs and facilities. In San Francisco, as early as 1852, La Société Française de Bienfaisance Mutuelle constructed a hospital for its members, as did a German Benevolent Society in the city three years later. A century later they were still operating. But these instances—and there were others across the country—were more the exception than the rule. Neither fraternal nor employee groups became centrally involved in providing medical care in the United States. Nationally, there were 179 fraternal associations with 7.7 million "benefit" members in 1914, but only about 1 percent of the $97 million they paid out in benefits that year went for medical care. A survey of employee mutual aid associations in 1916 showed that only 17 percent regularly employed a physician. Another survey in 1930 by the National Bureau of Economic Research concluded that the number of people who obtained medical care through mutual aid associations and trade union funds was negligible.[30]



The medical care provided by the benefit societies had only a mixed reputation. Dr. Silverberg recalled, "Some doctors were devoted, many not. Some patients took advantage of the system and it wasn't always very pleasant. Most society members treated their doctor with respect, but some said, 'A society doctor? What can he know?' For more serious illnesses, they'd go to another doctor."[31] In national fraternal organizations that provided medical benefits, the branches with wealthier members tended not to employ lodge doctors. They had their own private physicians. In Norristown, about half the lodge members were reported to pay for their own private doctor, "preferring to have physicians of their own choice, as they think they get better service."[32] Originally, industrial and lodge practice—the earliest forms of prepayment—were seen as appropriate and necessary only for the working class. Collective organization had not yet been successfully projected as an ideal for medical care; it was, at first, only an expedient.

### *The Origins and Limits of Private Group Practice*

Private group practices—also called "private group clinics" or "group medicine"—represented another form in which corporate organization entered medical care. Unless combined with contract practice for companies or lodges, private clinics did not necessarily involve any change in the mode of payment. Nor did they reflect any reduced economic power of physicians in relation to their clients. But group practice changed the relations of physicians to each other. Unlike lodge practice, it gathered physicians into a single organization, often with business managers and technical assistants, in a new and more elaborate division of labor. Typically, some doctors brought capital as well as labor to the enterprise and became its owners, while other doctors were their employees. And so group practice, though under the control of members

of the profession, introduced a type of hierarchical, profit-making organization into medical practice.

The point of origin for group practice in America was the Mayo Clinic. Though in many ways unique, it was the prototype for other private clinics, and its development discloses some of the underlying forces that brought about the earliest groups. In the 1880s William and Charles Mayo joined their father in building up a large and flourishing general practice in Rochester, Minnesota, a small town in the cornfields ninety miles south of Minneapolis. Like their father, the two brothers increasingly specialized in surgery, adopting the newest techniques and creatively extending them in new operations. In addition to other work, William Mayo became a district surgeon for the Chicago and Northwestern Railroad, which played an important part in widening the radius of their practice. Their reputation for skill, invention, and exceedingly low mortality rates attracted both patients and professional respect. By the 1890s, when their father retired, they were doing hundreds of operations a year; by the turn of the century, about three thousand. Forced to choose between limiting their practice or bringing in new partners, they decided to expand partly because they wanted to be able to travel to the East and to Europe to keep up with new scientific developments. In 1892 they invited a respected, fifty-year-old neighboring practitioner to join them, and over the next ten years they added several younger doctors who were adept in new diagnostic techniques, such as blood tests, X-rays, and bacteriological examinations. As Helen Clapesattle explains in her history of the clinic, until the appointment of a young assistant surgeon in 1903, the Mayos chose "partners and assistants who could relieve them of the nonsurgical phases of the practice, while they kept the operating entirely in their own hands." The specialization in diagnostic techniques reflected both the tremendous scientific advances in diagnosis and the distinctive needs of the enterprise. "The primary function of the diagnosticians," writes Clapesattle, "was to pick from the procession of patients passing before them those whom the Mayo brothers as surgeons could benefit."[33] In 1904 the Mayos hired Dr. Louis B. Wilson, previously assistant director of the bacteriology laboratories at the Minnesota State Board of Health. The following year, Wilson worked out a method for staining fresh tissues that permitted him to do an analysis quickly enough to report to the Mayos while an operation was in progress. This was one of the key breakthroughs in the emergence of clinical pathology—that is, the use of pathology in medical practice rather than strictly for teaching and research.

Diagnostic work and research gradually became as important as surgery. By 1914, when the clinic opened its own building, there were seventeen doctors on the Mayos' permanent diagnostic staff as well as eleven clinical assistants, and in the 1920s, with the growing emphasis on preventive health examinations, the diagnostic services at the Mayo Clinic reached parity with surgery. The clinic also developed into a center of graduate medical education, augmenting its influence in the profession. In 1897 the Mayos began to bring in interns. Many practicing doctors also came to observe the Mayos at work, and they independently organized a Surgeons' Club to conduct what today would be described as courses in continuing education. In 1915, having accumulated a large fortune, the Mayos gave $1.5 million to endow the Mayo Foundation for Medical Education and Research, which later became affiliated with the University of Minnesota as a graduate medical school.



Originally, the Mayos' practice was strictly proprietary. They retained control even after other doctors joined them. Those taken into the partnership participated only in the income, not the ownership. However, in two stages beginning in 1919, the Mayos gave up ownership and converted the clinic into a nonprofit organization. In 1923 all former partners, including the Mayos, became salaried staff. Nonetheless, the Mayos still retained control; only as they withdrew from practice in the following decade did power pass to committees of physicians on the permanent staff. By 1929 the Mayo Clinic had become a huge organization: 386 physicians and dentists (211 permanent staff, 175 fellows) and 895 laboratory technicians, nurses, and other workers. The clinic had 288 examining rooms, 21 laboratories, and was housed in a fifteen-story building.[34]

From Rochester, the admirers of the Mayo Clinic spread out across the country. A young doctor who worked as an assistant at the clinic from 1906 to 1909, Donald Guthrie, founded the Guthrie Clinic in Sayre, Pennsylvania, in 1910. In the summer of 1908, a general practitioner from Topeka, Kansas, Charles F. Menninger, returned home from the Mayo Clinic. Sitting at the family dining table with his three boys—Karl, Edwin, and Will—he is said to have declared, "I have been to the Mayos and I have seen a great thing. You boys are going to be doctors and we are going to have a clinic like that right here in Topeka."[35] During World War I, the experience of the medical corps impressed many young doctors with the value of coordinated medical groups, and in the years immediately afterward many new groups were formed.

Data on the growth of group practice are unfortunately incomplete because the earliest surveys were conducted around 1930. An AMA survey conducted in 1932 found that, of existing groups, eighteen had been founded prior to 1912; in that year another nine were established. The

period from 1914 to 1920 saw a high rate of growth, with a peak from 1918 to 1920. As of 1932 the AMA found about 300 group practices with a median size of between five and six physicians.[36] In another survey published in 1932, C. Rufus Rorem estimated that there were about 150 private group clinics in the United States, involving about 1,500 to 2,000 physicians. On the basis of a study of fifty-five of these clinics, Rorem put the median number of doctors in such groups at eleven.[37] This discrepancy is probably explained by differences in definition and methodology.*

The two surveys agreed on the predominance of the clinics in the Middle and Far West and their concentration in small cities. These geographical patterns are important clues to the forces that produced the group clinics. The AMA survey found half of the groups in cities with less than 25,000 people and two thirds in cities of under 50,000. On the other hand, only 4 percent of the groups were located in cities with a population of over half a million. Clinics in the East were rare.[38]

These findings contradict the usual expectation that complex organizations develop first and most rapidly in urban areas. But this may have been a case of the advantages of backwardness. The late Russell Lee, who founded the Palo Alto Clinic in Palo Alto, California, suggested to me in 1975 that the clinics grew up in the West because they met the demand there for specialized services, mainly surgery and diagnostic examinations. In the East, such services were provided by the established voluntary hospitals and their affiliated physicians. The absence of large and venerable voluntary hospitals in the West, particularly in small cities, created an opportunity in the early 1900s for the development of proprietary clinics.[39] Similarly, the 1933 AMA study pointed out that in large cities with ample hospitals and laboratory services, doctors did not have the same motive for forming groups; the available hospital and outpatient facilities provided medical care "for many who, in a smaller place, would patronize a group."[40]

The doctors originally involved in the clinics did not found them for ideological reasons. They did not, as Rorem observed, "regard group practice as an experiment in social reform."[41] The Mayos expanded without any initial design. Though they were often called the "fathers" of group medicine, William Mayo once remarked "if we were we did

*Rorem defined group clinics as groups of physicians, representing two or more specialties, who engaged in "cooperative and contiguous" practice, shared responsibility for patients, pooled their income, and employed a business manager. The AMA, however, rejected many of these qualifications in its definition, which included groups that did not pool income and represented only a single specialty. Rorem located clinics through the association of clinic managers, which probably led him to overlook many clinics too small to have a manager. The AMA located clinics through its network of county medical societies and consequently seems to have picked up many smaller ones.



not know it." Yet by 1910 he was saying that medical care had become a "cooperative science" and "individualism in medicine" could no longer continue.[42] In 1915, the reformer Michael Davis visited the Mayo Clinic; like Menninger, he saw the future, and it worked. Soon afterward he wrote of group practice as a remedy for the disappearance of the family doctor. It used to be that the family physician interpreted the specialists' advice; no longer was this so, even though the majority of doctors were still general practitioners. Families were calling on many specialists directly, and the result was inefficiency and lack of coordination. "Modern industry is the result of specialization, based upon progress in pure and applied science, *plus* organization," Davis wrote. "In modern medicine we have developed specialization . . . but in private practice we have not developed organization."[43]

Many doctors, however, were hostile to group practice, In communities where doctors had formed group practices, the solo practitioners tended to be "definitely antagonistic, even belligerent," Rorem reported.[44] They often complained that the groups cut fees below prevailing rates. Even the Mayos were bitterly criticized by colleagues in Minnesota who accused them of underselling and publicity seeking. The AMA never condemned group practice outright, but it worried about its impact and rarely missed an opportunity to point out its disadvantages. In an editorial in 1921, the association's *Journal* noted, "The development of modern medicine, and especially of scientific laboratory diagnosis, may make necessary some such cooperative plan as these groups are intended to provide. But what of the outcome of this new development? What of the physicians outside the group? Some evidently are seeing the advantages and are forming other groups—perhaps in some instances forced to do so in self-defense!" And then it asked the question that the rise of group practice inevitably posed to general practitioners, "Does it mean that the family physician is being replaced by a corporation?"[45]

Although they were profit-making organizations, group practices were not all legally organized as corporations. Many had created a dual organizational structure: a clinic organization comprising the medical practitioners and a property corporation that owned the plant and equipment. The clinic then leased the facilities from the property corporation. This split made possible a division of earnings that reflected the partners' varying contributions of labor and capital to the venture. The clinic itself might be organized as a sole proprietorship, a partnership, or a corporation.[46]

Legal arrangements aside, the early clinics had a definite class structure. Many of them began when a successful surgeon or internist built

up an organization around his practice; these were called "one-man groups." In other cases, doctors who referred patients to each other and perhaps shared contiguous offices formalized their relations and began to add doctors to take care of additional work.[47] But though clinics varied in the distribution of power, the physicians in groups generally fell into two classes: owners, who shared in the partnership or stock, and employees, who received a wage. Rorem found the median age of the owning physicians to be forty-six, while the employed doctors' median age was thirty-four. Surgeons and internists predominated among the owners; pathologists, radiologists, and dentists were rarely among them.[48] In 1923 in an unusually graphic analysis of the workings of private clinics, Rexwald Brown, a doctor in group practice in Santa Barbara, California, described the older men as typically successful practitioners with many patients who had "passed through the weary years of small financial returns" and looked forward "to a lightening of their loads, a better service to their patients, opportunity for needed study and something of relaxation." Tensions with the younger staff were common, as Brown explained with evident bias:

> The younger men enter the group with little or none of the realities of general practice as a background. Many of them have been trained in hospitals devoted to special phases of disease. . . . Too much perhaps they expect the world to recognize them as having arrived in achievement. They know not the struggles, trials and hardships of building up a practice, and the slow yearly increase of income . . . .
>
> Thus, the stage is set for the attitudes of mind which become apparent as the group practice grows in volume. The younger physicians, be it understood, are on salary, and the group at its beginning has no material assets other than the equipment furnished by the older physicians. The real assets . . . are intangible . . . the practices of the older men, their years of contact with patients, their successes, reputations . . ..
>
> It is not long before the young specialist becomes cognizant that he is making good. His patients are numerous, and as he is well trained and skilful, his results win admirers. . . . He feels his compensation is not commensurate with his attainments and value to the group. He becomes restless, rather critical of the older men, who are finding time for medical conventions and vacations, and who are insisting on the younger men answering night calls and handling other exacting but essential routine matters of practice. He labors under the thought that he is being exploited. . . .

The young doctor's sense that he was exploited made it difficult for the clinic to continue in its old form. For as Brown explained, it would be unwise for the older doctors simply to fire the unhappy young man, since he had become "an integral part in the success of the group." The remedy, he suggested, was to give the younger man a share in the partnership, while creating an executive committee of senior partners to maintain some central control; he also recommended creating a departmental structure, in which each department would be assessed its share of the overhead and then allowed to keep the collections for its services.[49]



Such changes effectively recognized that the employed physician could not be indefinitely kept in the position of a wage earner. The difficulty of maintaining hierarchical control over the employed physicians tended to weaken the power of capital over labor in group practice. Groups sometimes broke up over these economic conflicts. In a speech to a conference of clinic managers after his report appeared, Rorem cited as a reason for their low growth internal differences among doctors about their relative economic value to the group.[50] The AMA noted in its study of medical groups that there was "powerful resistance" to industrializing medical practice. "The physician, unlike the industrial worker, always has the alternative of individual practice, should he prefer it to any form of association in his work."[51] And he often did.

After the spurt in growth following World War I, the spread of group practice seems to have slowed down. The rapid growth after the war may have been due to the lag in development of laboratory and hospital facilities in middle-sized cities after the need for those services had already been recognized. Later in the twenties, hospitals and laboratories expanded to meet the demand. "A much larger percentage of individual physicians can now obtain access to these without the necessity of forming a group," the 1933 AMA analysis of group practice claimed. "A perhaps excessive development of specialization has also made available a wide choice of specialists for consultation in most cities. These developments reduce the incentive to form groups in order to obtain access to equipment and consultations."[52] The private clinics fulfilled the expectations that specialization and technology would lead to the rise of complex organizations in medical practice, but they found only a limited niche in the twentieth century's first decades.

## CAPITALISM AND THE DOCTORS

### *Why No Corporate Enterprise in Medical Care?*

Doctors opposed corporate enterprise in medical practice not only because they wanted to preserve their autonomy, but also because they wanted to prevent the emergence of any intermediary or third party

that might keep for itself the profits potentially available in the practice of medicine. It was "unprofessional," the AMA stated in a section of its code of ethics adopted in 1934, for a physician to permit "a direct profit" to be made from his work. The making of a profit from medical work "is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy."[53] Not that the AMA believed it was wrong for doctors to make a profit from their work. Nor did it reprimand the physician owners of medical groups for making a profit off of the work of other doctors. The AMA opposed any one else, such as an investor, making a return from physicians' labor. The AMA was saying, in short, that there must be no capital formation in medical care (other than what doctors accumulated), that the full return on physicians' labor had to go to physicians, and consequently, by implication, that if medicine required any capital that doctors themselves could not provide, it would have to be contributed gratis by the community, instead of by investors looking for a profit. In other words, physicians must be allowed to earn whatever income the capital contributed by the community might yield to them.

Physicians did not want to be subjected to the kind of hierarchical controls that typically prevail in industrial capitalism. One function of the hierarchical organization of work in the capitalist enterprise is to make possible a much higher rate of capital accumulation than would otherwise occur. As the economist Stephen Marglin argues, "By mediating between producer and consumer, the capitalist organization sets aside much more for expanding and improving plant and equipment than individuals would if they could control the pace of capital accumulation."[54] Once the organization successfully inserts itself between the producer and the market—whether by virtue of superior efficiency through the division of labor, as Adam Smith argued, or by exacting greater effort and discipline from workers and substituting cheaper unskilled labor, as Marxists contend—the individual producer becomes dependent on the enterprise to secure work and a livelihood. The AMA was wary that a similar process might take place in medical care. "Not a small part of the business acumen of present society," stated its Bureau of Medical Economics, "is expended in seeking an opportunity to intervene in business relations between buyers and sellers in order to abstract a profit from the interflow of commodities and cash. Sometimes an actual service is performed by facilitating action and providing information to one or both parties." But in its most undesirable form, "such intrusion and tribute extortion has come to be known as 'racketeering.'" Anxious to avoid this sort of "intrusion" into medical care, the AMA



cited the slogan of some French physicians—"no third party"—as a worthy example and declared, "Where physicians become employees and permit their services to be peddled as commodities, the medical services usually deteriorate, and the public which purchases such services is injured."[55]

The doctors objected not only to private enterprise but to any middleman coming between them and their patients, whether that third party was a company, a fraternal lodge or union, or any other organization. In 1911, one Pennsylvania doctor remarked of lodge practice that "the physician is being exploited for the benefit of the middleman; his services are purchased at wholesale and sold at retail."[56] The AMA objected also to nonprofit institutions deriving a profit from medical service, even though the profit might be used for "other 'philanthropic' purposes to the glory of the institution and its administrators."[57]

Since other groups also wanted to avoid hierarchical subordination and the extraction of a profit from their labor, the question may be asked: Why did doctors succeed? The answer, I believe, lies in the inability of corporate enterprise to insert itself successfully between producer and consumer in medical care under the economic conditions that prevailed in the early twentieth century. The physician had a resource that the ordinary worker lacked. Patients develop a personal relation with their physicians even when medical care takes place in a hospital or clinic. In this respect, hospitals and clinics are fundamentally unlike factories. The doctor's cultural authority and strategic position in the production of medical care create a distinctive base of power.* If, as often happened in group practice, the doctor threatened to leave, he might take his patients with him. This was the problem the group practices faced in dealing with their discontented young physicians. The older doctors might have brought capital to the enterprise in the beginning, but the younger doctors accumulated a kind of capital in the process of serving patients. They acquired reputations, devoted patients, and skill and experience. To substitute another physician, even if he were equally competent, might not succeed in holding the first physician's patients. (Though the group practice might have rotated patients among employed doctors to prevent the formation of individual loyalties, the failure to provide a personal doctor could have limited their competitive appeal.) The younger physicians generally had to be given a share in the partnership because they had the alternative of individual practice and, by virtue of their relations with patients, had acquired some of the group's capital.

*On the concepts of cultural authority and strategic position, see the Introduction.

A key consideration here is that the costs of going into individual practice were not inordinately high. Solo practice would have been much less attractive if physicians had no access to community hospitals.

The hospital itself also did not stand between the doctors and the market. On the contrary, the doctors came to stand between the hospital and its market. This was the source of doctors' control of hospitals, as hospitals increasingly depended on payment by patients rather than on bequests and donations. As I indicated in Chapter 4, the hospitals needed the doctors to keep their beds occupied. In this context, as in group practice, the physicians' authority with patients and their strategic position in the system represented a resource that gave them power over institutions.

By the 1920s, corporate organization was generally confined to the pharmaceuticals, hospital equipment, and other industries on the periphery of medical care. Wherever physicians were directly involved—in medical practice, hospital care, and medical education—corporate enterprise was limited. This had not always been so. Profit-making medical schools and hospitals were quite common in 1900, yet both were soon in decline. My argument here is that the profession's success in establishing its sovereignty in medical care depended on the banishment of profit-making businesses from medical education and hospitals as well as from medical practice itself.

Proprietary schools did not threaten to dominate physicians, but they could not attract the capital investment that a full-scale scientific education required. I have already discussed how medical schools, once virtually all proprietary, became nonprofit. Longer and more expensive scientific and clinical training, first adopted at a few universities and then required of other schools by licensing laws, made medical education unprofitable. The proprietary schools could not raise tuition high enough to make a profit because students would not have been willing to pay that much; a medical career then would not have returned so large an investment. Subsidies were inescapable, but proprietary schools found it impossible to obtain them. "So long as medical schools are conducted as private ventures for the benefit of a few physicians and surgeons who have united to form a corporation or a faculty, the community ought not to endow them," President Eliot of Harvard wrote. Only after eliminating the "fee system" was Harvard Medical School able to attract substantial endowments.[58] This was true elsewhere. In the 1890s, Jefferson Medical College in Philadelphia tried to raise money for a building fund, but had no success because of public awareness that the faculty took a profit. In 1894 William Potter, one of Philadelphia's wealthiest



businessmen, was added to the board of trustees, and he at once insisted that Jefferson reorganize as a nonprofit corporation, which it did the following year. As a result, Jefferson was able to attract contributions and emerged as one of the few old medical colleges to survive independently of a university, though only by dropping its profit-making status.[59]

The transition to nonprofit organization in medical schools was the outcome of a long struggle over the licensing laws between medical societies and commercial schools. The proprietary schools had resisted the imposition of heavy licensing requirements, but they lost out as the medical profession grew in political strength and cultural authority. The reasons for their decline are bound up in the reasons for the rise of the profession—the growing ability of physicians to assert their collective interests over the more parochial interests of the physicians who profited from the commercial colleges.

In some ways, the hospital presents a striking contrast to the medical school. In the nineteenth century, while medical education was profitable and conducted as a commercial enterprise, hospital care was unprofitable and conducted as a charity. Around the turn of the century, medical education became unprofitable, while hospital care turned profitable. But in the end, the hospitals remained largely nonprofit too.

Although many proprietary hospitals were established around 1900, they were generally small and never accounted for a large proportion of total hospital capacity. In 1910, according to one estimate, proprietary hospitals represented 56 percent of the total number of hospitals, but they declined to 36 percent by 1928, 27 percent ten years later, and a mere 18 percent by 1946. In hospital beds, they accounted for only 6 percent of the total in 1934 and just 2.8 percent a decade later.[60]

Profit-making hospitals were generally converted to nonprofit corporations by the physicians who owned them. Originally, proprietary hospitals were a means of defending professional autonomy; many were founded in response to closed-staff organization at other institutions. The AMA reported in 1929 that doctors who ran hospitals for profit found the hospital itself "a losing proposition"; the advantage for the doctor was that the hospital "enables him to take care of a larger number of patients in a given time."[61] Physicians' interest in maintaining proprietary hospitals waned, however, as community hospitals opened their staffs to wider membership and doctors found they were able to have the public provide the capital for hospitals and maximize their incomes through their professional fees.

Various other considerations also persuaded doctors to yield title to most of the hospitals. Professional authority is, in some respects, a functional equivalent of property ownership. It gives physicians substantial control over the operation of hospitals and other medical institutions

without encumbering them with the risks of investment. In addition, the charitable origins of the hospital left voluntary institutions with a variety of legal privileges, such as exemptions from taxes and charitable immunity from malpractice liability. These privileges put the profit-making hospital at a competitive disadvantage.

Some doctors—the proprietors of commercial medical schools, hospitals, and clinics—might have gained by profit-making organization. But the profession as a whole would have lost some of its independence and its control over the market. Corporate capitalism was kept out of medicine partly because of the support that courts, legislatures, unions, and the public gave to the ideal of a free profession; partly because of the absence of any decisive competitive advantage of corporate organization in medical practice at this stage of development (prior to the rise of third-party health insurance); and partly because of the economic power over organizations possessed by doctors as a result of their direct relation to patients. But the exclusion of the corporation from medical care, like the exclusion of the state, helped maintain the collective autonomy of the profession and reflected its general success in asserting its collective interests over the interests of individual physicians.

### *Professionalism and the Division of Labor*

The primacy of the profession, particularly its success in resisting corporate domination, contributed to the development of a distinctive division of labor in medical care. In industry, despite the resistance of artisans, the dictates of the market broke up the work of skilled craftsmen into low-skill—and consequently cheaper—labor. In medicine, physicians maintained the integrity of their craft and control of the division of labor. While medicine itself became highly specialized, the division of labor among physicians was negotiated by doctors themselves instead of being hierarchically imposed upon them by owners, managers, or engineers. And professional interests and ideals decisively influenced the increasingly complex division of labor between physicians and the occupations that emerged with the growth of modern hospitals, clinics, and laboratories.

Doctors did not simply want to maintain a "monopoly of competence." They wanted to be able to use hospitals and laboratories without being their employees, and consequently, they needed technical assistants who would be sufficiently competent to carry on in their absence and yet not threaten their authority. The solution to this problem—how to maintain autonomy, yet not lose control—had three elements: first, the use of doctors in training (interns and residents) in the operation



of hospitals; second, the encouragement of a kind of responsible professionalism among the higher ranks of subordinate health workers; and third, the employment in these auxiliary roles of women who, though professionally trained, would not challenge the authority or economic position of the doctor.

The growth of technology and organization raised a new and difficult question in medicine: Who would control and make money from the new kinds of work that were created? In deterring profit-making enterprises, the physicians removed the danger that the organization and profits of medical work would be controlled by managers and investors. But in the new division of medical labor, there were uncertainties about the boundaries of competence and authority of emerging technical and professional occupations. Doctors who specialized in technologically advanced fields, such as clinical pathology and radiology, wanted to maintain their primacy over the new occupations as well as their autonomy from hospitals. Although specialized training might be required to perform laboratory tests, X-rays, and anesthesia, it was not clear, as Rosemary Stevens points out, that the specialists had to be physicians. Nurses became strongly established as anesthetists before the 1920s, and nonphysicians were sometimes originally in charge of X-ray units. In the early stages of development, there were too few doctors trained in these fields to meet the demand. But in these and other areas, physicians ultimately prevailed and other medical personnel became their subordinates. Moreover, by the late 1930s, the hospital-based specialties were also successfully demanding that hospitals pay them by fee instead of salary. The radiologists and hospitals reached an understanding in 1937; the anesthesiologists the following year.[62]

The development of clinical laboratories offers a particularly graphic illustration of professional control of the division of labor. As late as 1890, most laboratory procedures used in medical care were performed by a doctor with a microscope and slides working in his home or office. Over the next decade, the number of tests and complexity of equipment began to increase significantly. Laboratories became complex organizations, operated by health departments, hospitals, and independent companies. The tests themselves, it became apparent, could be performed by specialists who were not physicians. But could these new specialists also interpret the tests to patients? And could they manage laboratories?[63]

The laboratory industry was divided primarily between hospital and commercial laboratories. As of 1923, according to an AMA survey, about 48 percent of hospitals had laboratories. Commercial laboratories, often operated by businessmen or chemists rather than doctors, were fewer

in number; a survey in 1925 indicated that they represented about 14 percent of the total number of laboratories. Despite possible economies of scale, these outside laboratories continued to perform a small share of the tests over the next several decades. As William White has shown, the hospital standardization program of the American College of Surgeons played a critical part in ensuring that laboratories developed mainly in hospitals under the control of pathologists. The college's standards for certification required hospitals to have a laboratory and to place a physician, preferably a pathologist, in charge. Contracts with outside laboratories were not considered satisfactory. By giving the pathologists a monopoly on laboratory tests in the hospital, the surgeons evidently intended to subsidize less profitable procedures pathologists performed, such as autopsies. Originally a small franchise, hospital laboratories became extremely lucrative for the pathologists as tests increased.

The pathologists' control of the laboratory business naturally gave them power over other laboratory workers. In 1929 the recently formed American Society of Clinical Pathologists, made up exclusively of physicians, began operating a system for certifying laboratory personnel. Their program required medical technologists, the higher of the two grades it certified, to have two years of college and a year's working experience and to pass a written examination; they also had to be personally recommended by a physician. Six years later, the educational standard was raised to a college degree. The code of ethics stipulated that registered technicians and technologists "shall agree to work at all times under the supervision of a qualified physician and shall under no circumstances, on their own initiative, render written or oral diagnoses except in so far as it is self-evident in the report, or advise physicians and others in the treatment of disease, or operate a laboratory independently without the supervision of a qualified physician or clinical pathologist."[64] Since pathologists controlled the labor market for technicians, laboratory workers had a strong incentive to meet the requirements for certification. The pathologists opposed any government licensing of technologists, which would have reduced their flexibility in the use of personnel.

Thus professionalism did not mean the same thing for these paramedical workers as it did for physicians. Professionalism in this instance was not primarily an effort to monopolize a sphere of competence; subordinate professional institutions were developed under the aegis of physicians. The pathologists encouraged the development of a responsible professionalism among technologists to upgrade the quality of their work force and to free themselves from supervisory responsibilities.



Craft guilds in the sixteenth century, George Unwin writes, were "engaged in a constant struggle as to which of them should secure the economic advantage of standing between the rest and the market."[65] Twentieth-century American physicians were engaged in a similar struggle with other health care occupations such as laboratory technicians. Not only did the medical profession succeed in preventing corporations from standing between its members and the market; doctors themselves were able to occupy this strategic position, preventing those like laboratory technologists from assuming a competitive entrepreneurial role. The conflicts between obstetricians and midwives involved similar issues: The traditional midwife was a competitor; her successor, the nurse-midwife, was not. Of course, not all groups were so restricted; dentists and optometrists remained independent practitioners. And osteopaths and chiropractors also had unmediated access to the market, but they were often limited in their access to hospitals and right to prescribe drugs. Only physicians had access simultaneously to the market and to the full technological resources of the medical system.

Within medicine itself, the division of labor between specialists and general practitioners was also a point of conflict. When specialists claimed that various techniques and procedures required their skills, general practitioners often found themselves damned in the same breath as nonphysicians. The obstetricians who argued that midwives were inadequately prepared to handle deliveries frequently said the same of GPs.[66] Hence two different conflicts were often taking place on the same terrain. The specialists sought to achieve ascendancy over the nonphysician specialists in their areas—obstetricians over midwives, ophthalmologists over optometrists, anesthesiologists over nurse anesthetists, and so on. And they also sought to impress upon the general practitioner the limit of his abilities.

The outcome of these two conflicts, as of 1930, was very different. The nonphysician specialists were subordinated to the doctors' authority, usually permitted neither to practice independently of the doctor nor to interpret the results of tests or X-rays directly to patients. Nurses and technicians had no chance of working their way into positions as physicians. On the other hand, the general practitioners resisted any attempt to grant specialists exclusive privileges over some kinds of medical work, or to limit their opportunities for specialty training and career development.

Before the 1930s, there were no limits on the entry of general practi-

tioners into specialty practice. The routes to specialization were numerous; there was no single path that could be easily monitored. Many physicians first went into general practice, developed an interest in a field and gradually restricted the cases they accepted. Others took internships emphasizing a specialty; still others learned special techniques as junior attending physicians. Some received training while serving as assistants to established practitioners. And some took short postgraduate courses in New York, Chicago, or other cities in America or Europe. There were thirteen independent, mostly proprietary postgraduate schools in 1910, according to Flexner, and by 1914 five were operated by universities. At this time, only a few doctors received their specialty training during residencies following their internships.[67]

Soon after the Flexner report came out, the lack of any standards or regulation in the practice of the specialties became identified as a problem by leaders in medical education and the specialties. A committee appointed by the AMA Council on Medical Education in 1913 recommended that the AMA regulate postgraduate schools and drive out commercialism in graduate as in undergraduate education. In 1915 it proposed a standard of two years of graduate training in addition to the internship. World War I accentuated the sense that specialty practice needed standards. In its examinations of physicians who claimed to practice a specialty, the military found many unqualified. Of the ophthalmologists, for example, 51 percent were rejected. After the war, the AMA council announced it would concentrate on reform of graduate training, but as Stevens points out, it had to move cautiously because of the influence of general practitioners in the AMA who wanted access to hospitals and opportunities for specialty training.[68] The system of certification by specialty boards, therefore, grew up outside the AMA and only developed on a general basis in the 1930s. And, even then, the specialty boards had no power to prevent uncertified doctors from practicing as specialists, or to compel hospitals to employ the boards' certification as a requirement for admitting privileges.

And so, even after some order was introduced into specialty training and certification, American medicine did not develop the kind of two-tiered system that emerged in England, where the specialists (consultants) acquired a monopoly on hospital positions. On the other hand, general practitioners in America were not guaranteed the role of GPs in England, where patients could consult a specialist only by referral from a general practitioner. Since patients went directly to specialists in America, the general practitioner did not stand between the specialist and the market. And, in the long run, this failure to gain a secure mediating role contributed to the breakdown of general practice.



The influence of professional sovereignty on the division of labor in American medicine created fluid boundaries within the profession, but sharp boundaries around it. Among physicians, the division of labor was only loosely regulated, but between physicians and other occupations, it was hierarchical and rigid. The possibilities of moving from nurse or technologist to physician were negligible; experience at one level did not count toward qualification at the next. Moreover, the subordinate occupations, such as nursing and laboratory work, became more hierarchically stratified than did medicine. The medical profession resisted any division into two classes; the nurses divided themselves into three (registered nurses, licensed practical nurses, and nurses' aides).

Had medical care become a corporate enterprise, the medical care firm (even if run by doctors) would have had an incentive to seek greater flexibility in its use of personnel. It might have tried to substitute the cheaper labor of ancillary workers for physicians in many areas that physicians insisted on retaining. It is not clear, for example, that obstetricians would always have been used in normal deliveries, or that pediatricians would have been the logical choice to take care of well babies. The firm might also have subjected its doctors to more hierarchical control: The physician with limited graduate training might not have been free, for example, to do whatever procedures he considered himself competent to perform. As in other industries, the management of the enterprise might have sought to take away from the workers control over the division of labor, which physicians retained through the system of professional sovereignty.

### *The Economic Structure of American Medicine*

It may help, in bringing together the threads of the preceding analysis, to contrast it with two other explanations of the political economy of American medicine.

In perhaps the single most influential neoclassical treatment, Kenneth Arrow argues that the distinctive structural characteristics of medical care can be explained as adaptations to "uncertainty in the incidence of disease and in the efficacy of treatment." By special structural characteristics, Arrow means those that depart from the standard model of a competitive market: the ethical restrictions on physicians' behavior, such as the bar against advertising and overt price competition and the expectation that advice given by a doctor will be divorced from self-interest; licensing restrictions and the high, heavily subsidized cost of medical education; and special pricing practices—the sliding

scale and the insistence of physicians on fee-for-service as against prepayment.

Arrow suggests that these various structural features are attempts to compensate for imperfections in the medical market. His point of departure is the concept of "market failure"; as he puts it: "[W]hen the market fails to achieve an optimal state, society will, to some extent at least, recognize the gap, and nonmarket social institutions will arise to bridge it." The medical care market fails to perform efficiently because patients cannot assess the value of treatment, nor obtain insurance that would compensate them for any imperfect outcome. "The value of information is frequently not known in any meaningful sense to the buyer; if, indeed, he knew enough to measure the value of information, he would know the information itself." Patients are utterly dependent on physicians in ways that buyers are not normally dependent on sellers. Consequently, according to Arrow, other safeguards, such as ethical restrictions on physicians' behavior and licensing restrictions on entry into the market, arise to protect patients.[69]

Unfortunately, Arrow leaves unexplained the connection between the prevalence of uncertainty and the insistence of physicians on fee-for-service payment. Prepayment is itself an adaptation to uncertainty in the incidence of disease and the costs of treatment; if anything, the profession's opposition to contract practice (and later to health insurance, medical cooperatives, and other prepaid health plans) increased the burden of uncertainty that patients had to bear.

This missing link in Arrow's argument is related to more fundamental difficulties. Uncertainty in medical care is partly a product of the way the market is organized. If the purchaser of medical services were the state or some collective agency, such as a fraternal society, it could employ knowledgeable agents to choose among physicians and medical facilities. Uncertainty has also been enhanced by the medical profession—in fact, by some of the features Arrow discusses, such as codes of professional ethics that require doctors called in on consultations to withhold from patients information that would discredit a colleague. Of course, most uncertainty is not artificially manufactured. Uncertainty reflects more general cultural beliefs. Democratic thought in the early 1800s held that all that was useful in medicine was within the reach of ordinary men. As I've argued earlier, the advance of science and decline of confidence in common sense between the Jacksonian and Progressive eras helped restore a belief in the legitimate complexity of medicine. An increased sense of uncertainty (as was evident in the Supreme Court decision in *Dent* v. *West Virginia*) favored the reinstitution of licensing at the end of the nineteenth century.



But while the growth of uncertainty may explain why there were departures from the competitive market, it cannot explain the form the departures took. Other institutional arrangements, besides the restrictive practices adopted by the profession or enacted at its behest, would also have been adaptations to uncertainty, but they met resistance and were defeated. The particular alternative to the competitive market that developed in America cannot be derived from a purely abstract analysis; it requires an analysis that is both structural and historical. The structural features Arrow discusses have a history. He writes that when the market fails, "society" will make adjustments. This is too abstract. It is as if some inner dynamic were pushing the world toward Pareto optimality. One has to ask: For whom did the market fail, and how did "society" make these adjustments? The competitive market was failing no one more than the medical profession, and it was the profession that organized to change it—that barred advertising and price competition, lobbied for licensing laws, engaged in price discrimination, and fought against prepaid health plans.

Yet there is a still deeper problem. Arrow looks at the structure of the medical market as a rational adaptation to certain inherent characteristics of medical care; he attempts to explain the particulars of the system at a given moment in history in terms of universal features of medicine. There is the presumption that what is real is rational or, as the economists say, "optimal." (The sociological version of this fallacy is that what is structural must be functional.) The result is not so much to explain as to explain away the particular institutional structure medical care has assumed in the United States.

Recent Marxist interpretations maintain that the interests of corporate capitalism brought about the rise of scientific medicine. One account, E. Richard Brown's *Rockefeller Medicine Men*, argues that capitalists personally exercised control over the development of medicine through the foundations they established. In Brown's view, scientific medicine was consonant with the capitalist view of the world, while the more holistic orientations of homeopathy and herbal medicine were not. Scientific medicine, he writes, was "a tool developed by members of the medical profession and the corporate class to serve their perceived needs." The Rockefeller philanthropies favored scientific medicine because it helped "legitimize" the inequalities of capitalism by diverting attention from the social causes of disease; capitalists also had an interest in maintaining the health of their workers.[70]

One must, I suppose, have a deep appreciation of the fragility of capitalism to imagine that it might have been threatened by the persistence of homeopathy. Some of the most enthusiastic believers in scientific

medicine, one needs to recall, were socialists, who were outraged by the failure to extend its benefits to the working class. No doubt the Rockefellers sought to gain public credit and good will by supporting research approved by medical authorities. But this no more proves that scientific medicine peculiarly benefited their interests than bequests to churches by the rich prove that Christianity peculiarly benefits millionaires. The legitimacy of capitalism rested on more ample foundations than the alleged ideological functions of medicine in focusing attention on bacteria rather than class interests. Compared to the beliefs in economic opportunity and religious and political freedom, medicine played an insignificant role in sustaining democratic capitalism in America.

Marxists frequently claim that capitalism encouraged an emphasis on medical care rather than public health and prevention. In support of this point, Brown cites Rockefeller investments in medical research, the uses of medical care in industry, and the alleged support of liberal capitalists for compulsory health insurance. This argument cannot survive close inspection. During the Progressive era, to the extent that corporations were concerned about health, they were interested mainly in preventive engineering and industrial hygiene rather than medical care; employers did not wish to assume the costs of medical treatment nor to offend private physicians by trespassing on their terrain. Almost all employers were opposed to compulsory health insurance; the organizations that Brown mentions as supporting such proposals actually led the opposition.[71] Much of the Rockefeller work did involve public health, and Brown himself writes that Frederick Gates, who managed the Rockefeller philanthropies, "insisted from the beginning of his career to its end that 'the fundamental aim of medical science ought to be not primarily the cure but primarily the prevention of disease.'"[72]

It is difficult to see why capitalism, as a system, would have benefited by favoring medical care over public health. Sanitary services were relatively inexpensive and undoubtedly a better investment than the services of physicians. To be sure, many companies resisted public health measures that would have increased their production costs or limited their markets. On the other hand, for equally self-interested reasons, life insurance companies actively stimulated public health measures. The expansion of trade, increasing coordination of economic activities, and complex needs of large businesses all created a demand for public health that industrial capitalism needed to satisfy. Moreover, reform movements, including the labor movement, were not simply spectators to developments cleverly engineered by capitalist foundations. The conflicting interests among businesses and between business and the



public had to be resolved by government. Employers were not always united, and they did not win every battle; they did not need to.

There is no doubt that capitalism encourages an attitude of rational calculation that affects public health and health care as it does every other realm of life. The conservative economist Joseph Schumpeter observed that "although the modern hospital is not as a rule operated for profit, it is nonetheless the product of capitalism not only . . . because the capitalist process supplies the means and the will, but much more fundamentally because capitalist rationality supplied the habits of mind that evolved the methods used in these hospitals."[73] From William Petty to contemporary cost-benefit analysis, there have been attempts to apply the logic of rational calculation to medical care and public health. It is not possible to say that this inevitably favors medical rather than public health measures; quite often such calculations are used to prove the opposite. Reformers have often used such calculations to show that public health measures are rational social investments. The issue is not the use of equations but what goes into them.

The Marxists and, curiously enough, some right-wing advocates of the free market, have emphasized—excessively, in my view—the monopolization of medical practice by regular physicians. The repression of competing systems of medicine was only a minor and relatively unsuccessful means of advancing the interests of the profession. Though the regular physicians tried to suppress the homeopaths and botanics, the dissidents had to be brought in as partners in the licensing movement of the late nineteenth century. They disappeared only after they were licensed. Even the new forms of practice that emerged at the turn of the century won legal authority. The osteopaths and chiropractors were able to secure separate licensing statutes, and the Christian Scientists received protection as a religious denomination. The triumph of the regular profession depended on belief rather than force, on its growing cultural authority rather than sheer power, on the success of its claims to competence and understanding rather than the strong arm of the police. To see the rise of the profession as coercive is to underestimate how deeply its authority penetrated the beliefs of ordinary people and how firmly it had seized the imagination even of its rivals.

Yet changes in the distribution of power did play a major part in the social transformation of American medicine, and here we have the first of five major structural changes delineated in the preceding pages. This was the emergence of an informal control system in medical practice resulting from the growth of specialization and hospitals. The need for referrals and hospital privileges brought about a shift from dependence on clients to dependence on colleagues and promoted a change in the

profession from a competitive to a corporate orientation. It gave impetus to strong professional organization and enabled physicians to assert their long-run collective interests over their short-run individual interests. It encouraged former rivals to put aside their differences and work together in behalf of licensing laws and other common political objectives. As professional bickering died down, the authority of the profession rose. The profession's mastery of itself was the precondition for its mastery of public sentiment.

Stronger collective organization and authority brought about the second major structural change, the control of labor markets in medical care. Licensing, of course, restricted the supply of doctors. The main function of medical licensing was not so much to exclude rival practitioners as to cut down on the number of regular physicians by making medical education unprofitable. For it was the licensing boards—and not primarily the Flexner report, as another familiar reading of history has it—that tightened the noose on commercial medical schools. Fewer graduates not only meant fewer practitioners competing with one another, but also cut off the supply of cheap professional labor for free dispensaries and contract practice. It gave physicians more control over the terms of their relationships with patients. And through certification programs and the encouragement of responsible professionalism among their subordinates, doctors secured the advantage of standing between other technical personnel and the market.

Third, the profession secured a special dispensation from the burdens of hierarchy of the capitalist enterprise. No "commercialism" in medicine was tolerated, and much of the capital investment required for medical practice was socialized. The reform of medical schools brought large subsidies into the formation of physicians' human capital, on which they received the return. The opening of community hospitals to private practitioners meant they were able to use the capital invested in hospital facilities by the public, at no charge and without any restriction on their fees. (Doctors originally paid for the use of hospitals by giving free care on the wards, but free service declined while the capital invested in hospitals and the value of hospital appointments increased.) Health departments, beginning with free laboratory diagnosis for diphtheria, provided physicians various technical services whose costs they also did not have to bear. Health centers and school health programs, by performing diagnostic work and making referrals to private practitioners, found new disease in need of treatment and thereby stimulated the demand for medical services. Privately endowed and later publicly supported medical research socialized the costs of technical innovation.



The elimination of countervailing power in medical care was a fourth element in the structural development of professional sovereignty. The state, corporations, and voluntary associations (such as fraternal societies) might have exercised countervailing power, but all were kept out of medical care, or on its margins. Their exclusion meant no organized buyers offset the market power of physicians. Doctors could then set prices according to what clients could pay. The absence of countervailing power was also a key to the political influence of the profession. As I noted in Chapter Three, those occupations that obtained licensing protection in the late nineteenth century had the advantage of not facing any organized buyers or employers who might have had an interest in preventing licensure from being imposed. Preserving that advantage gave physicians a clear field on many political issues strategically related to medical care.

The fifth development was the establishment of specific spheres of professional authority. Medical care came to be characterized by a series of internal boundaries demarcating the profession's domain. The vigilantly guarded border between public health and curative medical services was one example. In the hospital there was a split between two lines of authority, one professional, the other administrative. In the drug market there developed a division between ethical and over-the-counter drugs, the former available only by the authorization of a physician. The general absence of integrated organization and higher-level management in the medical system had the function of preserving the sovereign position of the profession. The various attempts to rationalize the organization of hospitals or of medical practice and public health foundered on the resistance of private interests. No program, policy, or plan was acceptable, even worth considering, unless it respected the professional sovereignty of physicians.

This pattern of structural accommodation to the interests of the profession was what confounded the early predictions that solo practice would be superseded because it was inefficient. With access to hospitals, physicians acquired the technological resources necessary for the practice of modern medicine without becoming part of an organization. Other institutions, such as health departments, performed diagnostic functions for them. These complementary relations allowed physicians to escape the pressures that might have forced them to accept organizational controls. Private medicine was sustained by the willingness of public institutions to assume part of its cost.

This was no devious trick of the profession. It was a political decision made in the hope of preserving the personal relations between doctor and patient. Now, it may be said that many Americans had no such rela-

tions with physicians—quite so, and they had little influence in the decisions. But, perhaps more important, what Americans saw of bureaucratic organization in medical care—the public dispensary, the company clinic—was not encouraging.

By the 1920s, the medical profession had successfully resolved the most difficult problems confronting it as late as 1900. It had put aside long-standing sectarian quarrels and won stronger licensing laws; turned hospitals, drug manufacturers, and public health from threats to its position into bulwarks of support; and checked the entry into health services of corporations and mutual societies. It had succeeded in controlling the development of technology, organizational forms, and the division of labor. In short, it had helped shape the medical system so that its structure supported professional sovereignty instead of undermining it.

Over the next few decades, the advent of antibiotics and other advances gave physicians increased mastery of disease and confirmed confidence in their judgment and skill. The chief threat to the sovereignty of the profession was the result of this success. So valuable did medical care appear that to withhold it seemed deeply unjust. Yet as the felt need for medical care rose, so did its cost, beyond what many families could afford. Some agency to spread the cost was unavoidable. It would have to be a third party, and yet this was exactly what physicians feared. The struggle of the profession to maintain its autonomy then became a campaign of resistance not only to programs of reform but also to the very expectations and hopes that the progress of medicine was constantly arousing. To continue to escape the corporation and the state meant preserving a system that was at war with itself.

# BOOK TWO

# THE STRUGGLE FOR MEDICAL CARE

## *Doctors, the State, and the Coming of the Corporation*