

CONTROLLING AND PROMOTING QUALITY IN MEDICAL CARE

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The achievement of good quality medical care is dependent on social action in the direction of both (a) establishing proper underlying conditions and (b) influencing system operations. While the first of these types of social action is obviously essential before the second type of action can take place, in this paper it will be treated very briefly. Our principal focus will be on the second type of social action—influencing the operations of a medical care system so that quality can be reasonably assured. Then we will examine briefly some current issues in legislation on controlling the quality of medical care.

I

UNDERLYING CONDITIONS FOR MEDICAL CARE QUALITY

There has been a tendency to regard the *quality* of medical care as something elusive, intangible, not subject to measurement nor attainable through crass administrative manipulation. In reality, there is no great mystery about most of the basic conditions necessary for the attainment of good quality medical care for a population, and all of them are subject to improvement through social action.

The maintenance of a safe and hygienic environment is obviously basic. The first tenet of good medical care should be the prevention of disease and disability, whenever this is possible. Safe factories and highways, pure water and clean air, protection from disease-carrying vectors, decent housing and effective waste-disposal—these and many other measures of environmental control are clearly necessary before we set out to treat the disorders that would result from their lack. The vast legal structure for achieving a healthful environment has been discussed in many works.¹

Second, and related also to disease prevention, is the requirement of an educated people. Considering education in the broad sense of all the informational influences on behavior, there should be measures which lead people to live in a manner more conducive to health.² Education on such things as avoidance of communicable disease, sound nutrition, safety, sex behavior, mental health, and scores of other subjects is important for preventing much disorder. Education is also essential for encouraging reasonable use of a medical care system when prevention has failed. Such education, of course, occurs only partly in schools, and some of it—like cigarette advertising—may be negative in its effect on health, but a deliberate positive educational effort is an essential part of the formula for good medical care.

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¹ See, e.g., F. GRAD, *PUBLIC HEALTH LAW MANUAL* (1965).

² See generally A. KNUTSON, *THE INDIVIDUAL, SOCIETY, AND HEALTH BEHAVIOR* (1965).

A third underlying condition is an adequate supply of physical and human resources—facilities and manpower—for providing medical care.³ Physicians, dentists, nurses, and a growing list of other allied health personnel must be trained; hospitals, health centers, laboratories, and other structures must be built and equipped.⁴ Drugs must be produced in adequate types and amounts, and appliances must be manufactured. All these resource development tasks require large investment and planning, as is especially manifest in the underdeveloped nations, where deficiencies in these resources are so marked.⁵ Yet one cannot hope to attain quality in medical care for a population without adequate quantities of resources.

Financial access to the medical care resources is a fourth basic requirement. Since illness in any individual is largely unpredictable, if funds are to be available to pay for medical care promptly in time of need, they must be somehow set aside in advance. Besides personal savings, which are seldom reliable, this ordinarily means use of insurance—private or social—or of public revenues to support the costs.⁶ Hundreds of special programs for financing medical care for certain persons (like the poor) or certain illnesses (like tuberculosis) or certain types of service (like hospitalization or dental care) have evolved to meet this requirement.⁷ Financial access is obviously not by itself sufficient, but it is clearly a necessary condition for achieving good quality medical care. The legal foundations for the collective support of health services include the insurance laws, welfare legislation, and countless appropriating statutes at federal, state, and local levels.

A fifth underlying condition for achieving medical care quality is spatial or geographic accessibility of the resources. This depends, of course, on the reasonable location of facilities and personnel in relation to where people live, and it also depends on channels of communication and transportation.⁸ In large part, medical resources have been located more in relation to the market—to effective buying power—than to sickness needs, so that the quality of care for many people suffers from this fact alone.⁹ If quality of health service is to be assured, deliberate steps must be taken to provide a reasonable geographic distribution of resources. Since it is not economically feasible to provide elaborate equipment at every village crossroads, so to speak, this goal has been approached increasingly through the concept of “regionalization”—that is, a functional network of facilities, with central, intermediate, and peripheral

³ Cf. U.S. PUBLIC HEALTH SERVICE, *HEALTH RESOURCES STATISTICS: HEALTH MANPOWER AND HEALTH FACILITIES 1968* (Public Health Service Pub. No. 1509, 1968).

⁴ See generally SELECTED PAPERS OF JOSEPH W. MOUNTIN 92-94, 128-36, 181-83 (J.W. Mountin Memorial Committee ed. 1956).

⁵ See J. BRYANT, *HEALTH AND THE DEVELOPING WORLD* (1969).

⁶ See generally H. SOMERS & A. SOMERS, *DOCTORS, PATIENTS, AND HEALTH INSURANCE* (1961).

⁷ See, e.g., M. ROEMER & E. WILSON, *ORGANIZED HEALTH SERVICES IN A COUNTY OF THE UNITED STATES* (Public Health Service Pub. No. 197, 1952).

⁸ See generally U.S. PUBLIC HEALTH SERVICE, *AREA-WIDE PLANNING FOR HOSPITALS AND RELATED HEALTH FACILITIES* (Public Health Service Pub. No. 855, 1961).

⁹ See generally F. MOTT & M. ROEMER, *RURAL HEALTH AND MEDICAL CARE* (1948).

elements and a two-way flow of patients and services among them.¹⁰ This geographic issue has special relevance for quality maintenance, of which more will be said below.

Finally, a sixth underlying requirement for maintenance of medical care quality is a continuing flow of new knowledge. Medical technology must be continually fed by research.¹¹ This demands an especially costly type of investment, for many research efforts yield no positive results. Not every locality, of course, needs to conduct research, so long as new scientific findings can be rapidly communicated and applied. The very act of engagement in research, however, has a stimulating effect on a system of medical care delivery, which some maintain is necessary for quality maintenance. The performance of research on human or animal subjects comes under special legal and ethical constraints, illustrating the need to balance the interests of one social goal (advancing knowledge) with another (protecting individual rights).¹²

These six areas for social action, then, may be considered to embody the minimum underlying requirements for achieving good quality medical care. They are rudimentary conditions that must be assumed before more refined steps can be taken to maintain or *control* the quality of care. Yet they must be explicitly recognized in any discussion of this subject just because they cannot be taken for granted; they require a vast amount of deliberate social planning and action. It is not uncommon for deficiencies in medical care quality to be naively attributed to failures in the "control" mechanisms to be discussed below, when the root cause is simply a quantitative lack of medical or financial resources or transportation or some other basic requirement outlined here.

II

INFLUENCING OPERATIONS OF THE MEDICAL CARE SYSTEM

Assuming the existence of the basic conditions sketched above, there are a great many further social actions needed to assure sound operation of a medical care system, so that good or high quality service is rendered. As one of the ancient "liberal professions," medicine has tended to resist regulation by the state and, instead, to develop an elaborate structure of self-disciplinary measures.¹³ Yet there are numerous governmental or legally based controls in operation, alongside those that have been developed voluntarily.

There is no question about the historical trends toward increasing social controls over the provision of medical care, emanating from both legal and private sources.¹⁴

¹⁰ See generally W. McNERNEY & D. RIEDEL, *REGIONALIZATION AND RURAL HEALTH CARE* (1962).

¹¹ See generally R. SHRYOCK, *AMERICAN MEDICAL RESEARCH, PAST AND PRESENT* (1947).

¹² See CLINICAL INVESTIGATIONS IN MEDICINE: LEGAL, ETHICAL, AND MORAL ASPECTS (I. Ladimer & R. Newman eds. 1963); *Symposium—Ethical Aspects of Experimentation with Human Subjects*, DAEDALUS, Spring 1969; Havighurst, *Compensating Persons Injured in Human Experimentation*, 169 SCIENCE 153 (1970).

¹³ See generally A. CASTIGLIONI, *A HISTORY OF MEDICINE* (1941).

¹⁴ See R. SAND, *THE ADVANCE TO SOCIAL MEDICINE* (1952).

As medical science has developed more knowledge, society—in the United States and everywhere else—has made increasing demands that it be applied effectively.¹⁵ Yet, there are obvious deficiencies in the day-to-day application of knowledge, and we hear countless recommendations for further organizational steps to assure medical care quality.

In the pages that follow, we will attempt to review the general nature of social mechanisms that now operate in the United States to protect or encourage good quality medical care. Many, though by no means all, of these mechanisms are regulatory in a legal sense. Along with these accounts, we will consider the weaknesses in current practices, in relation to an ideal system that might be envisaged, and the various changes that are being recommended to assure quality more reliably.

The social mechanisms of control over the provision of medical care will be discussed under nine headings: (1) personnel standards; (2) facility standards; (3) control of drugs and appliances; (4) organizational frameworks; (5) disciplinary incentives; (6) continuing education; (7) judicial controls; (8) geographic regionalization; and (9) comprehensive health planning.

A. Personnel Standards

The basic assurance of minimal standards of competence of health personnel in the United States rests, of course, in the state licensure laws. Unlike the practices in most other countries, American governments do not rely simply on graduation from an approved school or university as proof of adequate training but require a state examination as well.¹⁶ The National Board of Medical Examiners, a voluntary body, has had the effect of up-grading and inducing uniformity in these state examinations, as they apply to medicine, but there are great diversities in the rigor of examinations in other health disciplines. Numerous questions can be raised about the effect of the state licensure laws in inhibiting free movement of health practitioners between states (in the interest of reducing professional competition within a state), thereby limiting quantitative resources in certain jurisdictions. There are also serious questions about the constraints against innovation in the laws governing licensure of nurses and other paramedical disciplines, which have special importance in coping with the increasing demands for medical care that cannot be met by our supply of doctors.¹⁷

More specifically relevant to the quality issue is the permanence of licensure—a lifelong entitlement—in all the health professions. The rule appears to be “once a physician, always a physician,” unless some grievous violation of the medical practice acts has been committed. Yet with the rapid advances in medical science—and

¹⁵ See, e.g., QUALITY IN HEALTH CARE (Proceedings, Nat'l Health Forum 1968).

¹⁶ See generally R. Roemer, *Legal Systems Regulating Health Personnel: A Comparative Analysis*, 56 MILBANK MEMORIAL FUND Q. 431 (1968).

¹⁷ See Hershey, *Scope of Nursing Practice*, 66 AM. J. NURSING 117 (1966); Forgotson & Cook, *Innovations and Experiments in Uses of Health Manpower—The Effect of Licensure Laws*, 32 LAW & CONTEMP. PROB. 731 (1967).

the same applies in dentistry, laboratory technology, optometry, and all fields—the quality of a practitioner's work can rapidly deteriorate if he does not continually refresh his knowledge. Many proposals have been made for periodic re-licensure of the health professions—dependent perhaps on attendance at special courses of instruction, if not on formal examinations—but none has yet been acted upon.¹⁸

Certain health disciplines, it may be noted, are not subject to state licensure at all (or are not so licensed in all states—like laboratory technology), and their qualitative control is left entirely to nongovernmental standardization.¹⁹ Other fields, like hospital administration (which is licensed in only one state—Minnesota), do not even have a voluntary certification program; quality control rests on voluntary accreditation of the schools of professional training and membership in professional societies, such as the American College of Hospital Administrators.

More pervasive than the licensure controls of state governments, however, are the various voluntary controls over performance standards by the professions themselves. In medicine, the influence of “medical ethics” has been recognized for centuries.²⁰ While much of so-called ethics is directed at control over the business aspects of competition (the proscriptions against advertising, against criticizing a fellow-practitioner, and so forth), much is clearly designed to protect the patient (for example, confidentiality and guarding against possible harm) and is accordingly promotive of quality. At the same time, “ethics” have too often been used to obstruct needed innovations in the organization of medical care, like group medical practice or salaried (as against fee-for-service) remuneration, so that their effect may actually be anti-quality.²¹ Similar positive and negative effects of professional ethics apply in dentistry and optometry. The ethical standards, evolving in an era of private competitive practice, undoubtedly require modification in the current world of much more highly organized medical services.

The numerous specialty certification programs in medicine and dentistry are clearly measures promotive of quality standards outside the realm of government. There are now some twenty principal specialty boards, set up by the American Medical Association, and about another twenty to thirty subspecialty fields under these.²² Each board establishes standards both for training, after the M.D. degree, and for examination (usually both written and practical) of the candidate. Specialty board certification has gained its strength not only through its clarification to patients of a doctor's qualifications but also through providing a basis for medical participa-

¹⁸ See, e.g., 2 REPORT OF THE NATIONAL ADVISORY COMMISSION ON HEALTH MANPOWER (1967); Kessel, *The A.M.A. and the Supply of Physicians*, in this symposium, p. 267.

¹⁹ See, e.g., U.S. PUBLIC HEALTH SERVICE, CLINICAL LABORATORY PERSONNEL IN STATE LICENSING OF HEALTH OCCUPATIONS 30-33 (Public Health Service Pub. No. 1758, 1967).

²⁰ See, e.g., M. GELFAND, *PHILOSOPHY AND ETHICS OF MEDICINE* (1968).

²¹ See, e.g., Comment, *The American Medical Association: Power, Purpose, and Politics in Organized Medicine*, 63 *YALE L.J.* 937 (1954).

²² See *DIRECTORY OF MEDICAL SPECIALISTS HOLDING CERTIFICATION BY AMERICAN SPECIALTY BOARDS* (1967).

tion in organized health care programs. Hospitals grant authorizations or "privileges" to doctors on what they may do within the hospital walls on the basis of their board certifications.²³ Governmental agencies, furthermore, limit payments for certain services—such as under crippled children's programs or under certain state workmen's compensation laws on occupational injury care—to board-certified specialists.²⁴

Beyond these are the numerous controls over all classes of personnel extended by hospitals, public or private. Within its walls, the governing body of a hospital—usually a board of directors—is responsible for the quality of patient care, so that it imposes standards on both its attending physicians and its many direct employees. The mode of work of the latter, their channels of recruitment and supervision, are the major substance of the discipline of hospital administration, for which a substantial professional movement has developed.²⁵ The surveillance over physicians, through medical staff organization, has come to involve an intricate body of policies and practices, nearly all of which are directed to maintenance of the quality of patient care.²⁶ Moreover, the influences on physician behavior within the hospital undoubtedly spill over to affect medical performance in private offices and other settings outside the hospital. Unfortunately, there is a wide range of diligence with which medical staff organization is structured in the American scene, the smaller institutions—especially those under proprietary sponsorship—being much less rigorous than the larger ones under voluntary nonprofit or governmental sponsorship.²⁷

B. Facility Standards

Quite aside from the licensure and other controls over health personnel who work in organized facilities, there are both governmental and voluntary controls over the facilities themselves. The movement in the United States was an outgrowth of the efforts to upgrade surgery, with the founding of the American College of Surgeons in 1913, leading to the first "hospital standardization" program in 1919.²⁸ In 1946, the national Hospital Survey and Construction Act, the so-called Hill-Burton Act, provided grants to the states for hospital construction, stipulating for grant receipt that the state have a law requiring all hospitals to meet certain standards of construction and operation.²⁹ With this stimulus, voluntary agencies went a step

²³ See generally MEDICAL STAFF ORGANIZATION IN THE MODERN HOSPITAL (C. Eisele ed. 1967).

²⁴ See, e.g., M. Roemer, *Standard-Setting in Medical Care Programs*, in ADMINISTRATION IN CRIPPLED CHILDREN'S SERVICES 56-61 (University of California School of Public Health, 1962).

²⁵ See MODERN CONCEPTS OF HOSPITAL ADMINISTRATION (J. Owen ed. 1962).

²⁶ See Donabedian, *Promoting Quality Through Evaluating the Process of Patient Care*, 6 MED. CARE 181 (1968).

²⁷ See M. ROEMER & J. FRIEDMAN, DOCTORS IN HOSPITALS: MEDICAL STAFF ORGANIZATION AND HOSPITAL PERFORMANCE (forthcoming).

²⁸ See generally L. DAVIS, FELLOWSHIP OF SURGEONS (1960).

²⁹ Hospital Survey and Construction Act, ch. 958, 60 Stat. 1040 (1946). See generally L. ABBE & A. BANEY, THE NATION'S HEALTH FACILITIES: TEN YEARS OF THE HILL-BURTON HOSPITAL AND MEDICAL FACILITIES PROGRAM 1946-56 (Public Health Service Pub. No. 616, 1958).

further, and the College of Surgeons joined with the American College of Physicians, the American Medical Association, and the American Hospital Association to form in 1952 the Joint Commission on Accreditation of Hospitals.³⁰ In most respects, the JCAH standards are higher than those of the state hospital licensure laws, but on selected topics (like infant nurseries or pathology laboratories) a state law or its regulations may be more demanding.³¹

Just as with specialty certifications in medicine, there is an interplay between governmental and private quality controls in the hospital field. State services for crippled children or vocational rehabilitation of adults have long required use only of "accredited" hospitals, and with the enactment of Medicare for the aged in 1965, JCAH accreditation became an official nationwide standard for participation of hospitals in that large federal program.³² Apparently some legal question may be raised about this delegation of public authority to a voluntary body, but federal law, as now written, generally compels approval for participation of any JCAH-accredited hospital even though in certain respects a state's hospital licensure standards or, indeed, the federal "Conditions of Participation for Hospitals"³³ may be higher.

The more serious problem in hospital quality controls, however, is not in the content of standards—official or voluntary—but in their actual implementation.³⁴ Inspections and enforcement of the state laws are usually a responsibility of the state departments of health, and the inspectional staffs of these agencies are notoriously weak.³⁵ In general, state governments have been very hesitant about exercising any substantial surveillance over institutions so prestigious as community general hospitals. Both the frequency and scope of inspections have typically been scanty. The meager funding of the responsible state agencies is perhaps both a cause and an effect of these attitudes, and even the relatively large financial resources of the Medicare program have not strengthened very much the state budgets for hospital surveillance.

Other facilities, especially nursing homes for the chronically ill and aged, also come under state licensure laws.³⁶ Being mainly small proprietary enterprises, less identified with the local power structure than hospitals, these facilities often get closer surveillance than hospitals. On the other hand, there is still much hesitation

³⁰ See JOINT COMMISSION ON ACCREDITATION OF HOSPITALS, STANDARDS FOR HOSPITAL ACCREDITATION (1969).

³¹ See K. TAYLER & D. DONALD, A COMPARATIVE STUDY OF HOSPITAL LICENSURE REGULATIONS (University of California School of Public Health, 1957).

³² 42 U.S.C. § 1395x(e)(8) (Supp. IV, 1969). See generally Cashman & Myers, *Medicare: Standards of Service in a New Program—Licensure, Certification, Accreditation*, 57 AM. J. PUB. HEALTH 1107 (1967).

³³ U.S. SOCIAL SECURITY ADMINISTRATION, HEALTH INSURANCE FOR THE AGED: CONDITIONS OF PARTICIPATION FOR HOSPITALS (1966).

³⁴ See generally H. FRY, THE OPERATION OF STATE HOSPITAL PLANNING AND LICENSING PROGRAMS (Am. Hosp. Ass'n Monograph No. 15, 1965).

³⁵ See Shain & M. Roemer, *Hospitals and the Public Interest*, 76 PUB. HEALTH REP. 401, 405-07 (1961).

³⁶ See, e.g., Penchansky, *Changes in Nursing Homes: Legislative Pressures and Institutional Barriers*, 14 NURSING HOMES 17 (1965).

to enforce quality standards by closing down substandard institutions, because of the simple lack of alternative arrangements to care for the vast numbers of long-term patients. The problem of quality control is obviously tied up with the whole question, mentioned earlier in this paper, of having quantitatively adequate resources to meet health needs.

Aside from basic hospital licensure laws, there are numerous other state and also federal statutes that influence the quality of service rendered by hospitals.³⁷ State sanitary codes may control hospital environmental sanitation or methods of handling cases of communicable disease; labor laws may, among other things, control the conditions of work and the safety of elevators, boilers, and other hospital equipment; fire prevention regulations have many impacts on hospital design; federal narcotics laws control the handling of these drugs; regulations of state departments of education affect the operation of schools for nurses or other health personnel. Such measures all have some bearing on the quality of hospital care.

C. Control of Drugs and Appliances

The quality of medical care must take account of the drugs and appliances prescribed by the doctor or others (dentists, optometrists, physiotherapists, and so forth) as well as the facilities in which care is given. Under the interstate commerce clause of the Constitution, regulation in this sector has come more from the federal than from the state governments. In this field, moreover, law has played a much larger part than voluntary controls or self-regulation.

The sequence of major federal laws on food and drug control, from the first act of 1906 to the major amendments of 1939 and 1962, is a saga of increasing governmental surveillance over the quality of one facet of medical care that has been well reviewed elsewhere.³⁸ Suffice it to say that, with the years and a series of drug tragedies, legal regulation over the production, labeling, and advertising of drugs has increased. It was only in the 1962 legislation, however, that drug manufacturers were required to prove the efficacy, as well as the safety, of their products.³⁹

Federal as well as numerous state laws designate the requirements for medical prescription of various drugs, as distinguished from those that may be purchased directly "over-the-counter" by a patient. These constitute, of course, major controls over the quality of drug therapy. Yet one may question the medical soundness of permitting the direct sale of any of the countless "patent medicines," which may have the effect of allaying superficial symptoms and delaying the procurement of proper medical attention. The only real defense of self-prescribed medication is that it is less costly to the patient, but this may often be at the expense of quality.

³⁷ See generally M. Roemer & McClanahan, *Impact of Governmental Programs on Voluntary Hospitals*, 75 PUB. HEALTH REP. 537 (1960).

³⁸ See Anderson, Young & Janssen, *The Government and the Consumer: Evolution of Food and Drug Laws*, 13 J. PUB. LAW 189 (1964).

³⁹ Drug Amendments of 1962, Pub. L. No. 87-781, 76 Stat. 780. See generally R. HARRIS, *THE REAL VOICE* (1964).

Even with respect to the many aspects of drug production and distribution that come under legal surveillance, the problem of inadequate staffing of inspectional agencies remains.⁴⁰ The federal Food and Drug Administration in the U.S. Department of Health, Education, and Welfare is faced with theoretical obligations that it is quite incapable of carrying out.⁴¹ While the situation has improved in recent years, monitoring over the manufacturing process and drug advertising—addressed both to the general public and to doctors—is hardly able to identify more than the worst abuses. The frequent claim that brand-name preparations of certain chemical compounds are “purer” or more reliable than generic-name versions of the same compound could never be made if governmental surveillance over the manufacturing process were adequate.

The plethora of drugs in the free pharmaceutical market has led many hospitals and organized medical care programs (health insurance plans, welfare medical programs, and so forth) to institute the use of drug formularies—that is, lists of specified drugs which may be prescribed at the expense of the program.⁴² While formularies are largely focused on cost controls, they likewise serve to some extent as quality control measures. Current legislative debate over federal amendments to the Medicare law to provide drugs to the aged is bringing the question of a major national drug formulary into the limelight. The day-to-day prescribing practices of physicians, however, both in hospitals and outside, are subject to very few constraints or guidance, in the face of an endless barrage of advertising claims by pharmaceutical companies.⁴³

D. Organizational Frameworks

While the above sections have been concerned largely with deliberate legal and professional controls over the quality of medical care, more widespread impacts in recent years have probably come from the increasing organization of medical services brought about by general scientific and social pressures. The entire specialization of medicine and its allied fields, and the inherent need for structuring and coordination of the diverse resultant disciplines, have led to countless forms of health care organization in the interests of both economy and quality. In the light of the continued predominance of individualistic solo medical practice and the steadily rising costs of medical care in America, this statement may seem paradoxical. Yet the trends are clear.

Within hospitals of all types, the degree of departmentalization and other forms of bureaucratic organization has increased steadily. Whatever may be lost in the

⁴⁰ Janssen, *FDA Since 1938: The Major Trends and Developments*, 13 J. PUB. LAW 205, 216 (1964).

⁴¹ See, e.g., O'Brien, *Drug Testing: Is Time Running Out?*, BULL. OF THE ATOMIC SCIENTISTS, Jan. 1969, at 8.

⁴² See generally R. CLAPP, *STUDY OF DRUG PURCHASE PROBLEMS AND POLICIES* (U.S. Welfare Admin. 1966).

⁴³ See generally *DRUGS IN OUR SOCIETY* (P. Talalay ed. 1964); Ruge, *Regulation of Prescription Drug Advertising: Medical Progress and Private Enterprise*, 32 LAW & CONTEMP. PROB. 650 (1967).

personal sensitivities of patient care, there is no question that this process has enabled hospitals to do far more sophisticated diagnostic and therapeutic work than ever before.⁴⁴ Moreover, it is bigness more than organization as such that yields impersonalities; without careful organization, large hospitals would be inefficient bedlams. The processes of delegation of authority, subdivision of responsibilities, communications, records, systematic reviews of performance, and all the other elements of complex organization seen in the modern hospital are basically designed to protect and enhance the quality of medical care.⁴⁵ The real problem is that there are still too many hospitals of too small a size (under 100 or even under fifty beds) to give the range of skilled services that modern medical technology can offer.

The tendency of general hospitals to become truly generalized is a move in the direction of quality enhancement.⁴⁶ Admission of psychiatric patients to local general hospitals, rather than to enormous understaffed mental institutions, is one such increasing trend. The closing down of the old infectious disease hospital or "pest-house" and incorporation of isolation wards in the general hospital is another. The affiliation of nursing homes with hospitals or the addition of "extended care" wings to general hospital facilities is still another move to bring previously isolated types of patient into the mainstream of modern medical care. Construction of "medical arts" buildings, or facilities for doctors' offices, pharmacies, dentists, laboratories, and so forth, adjacent to general hospitals brings the care of ambulatory patients into closer connection with the more elaborate hospital technology.

Outside of hospitals, the movement toward greater organizational complexity is in the same direction. In its most important form, we see the slow but steady increase of group medical practice; though still a minority, about twelve per cent of clinical physicians are now so engaged.⁴⁷ A vast literature discusses the economics, administration, and trends of group medical practice in the United States, but here we may simply note its capabilities in coordinating the specialties, mobilizing greater technical resources (laboratory, x-ray, and so on), providing preventive and social services—all yielding a probable enlargement of medical care quality.⁴⁸ Restrictive state laws, which in past years inhibited the growth of private medical groups, especially when associated with prepayment, have been repealed or declared unconstitutional in all but a few jurisdictions.⁴⁹

There are other forms of organization of ambulatory medical services which enhance quality of care. The "neighborhood health centers," initiated by the U.S.

⁴⁴ See generally HOSPITALS, DOCTORS, AND THE PUBLIC INTEREST (J. Knowles ed. 1965).

⁴⁵ See generally M. MacEachern, HOSPITAL ORGANIZATION AND MANAGEMENT (3d rev. ed. 1962).

⁴⁶ See, e.g., NATIONAL ADVISORY COMMISSION ON HEALTH FACILITIES, A REPORT TO THE PRESIDENT (1968).

⁴⁷ See M. Roemer & DuBois, *Medical Costs in Relation to the Organization of Ambulatory Care*, 280 N. ENG. J. MED. 988, 993 (1969).

⁴⁸ See generally E. Jordan, THE PHYSICIAN AND GROUP PRACTICE (1958).

⁴⁹ See generally ASPEN SYSTEMS CORP., GROUP PRACTICE AND THE LAW (1969); Kessel, *Price Discrimination in Medicine*, 1 J. LAW & ECON. 20 (1958).

Office of Economic Opportunity in the slums of the larger cities, have brought to the poor a quality of care they seldom knew before.⁵⁰ The traditional, preventively oriented clinics of health departments for mothers and babies have been expanding into comprehensive care centers for these demographic groups.⁵¹ New sensitivity to the special problems of adolescents is being shown in a spate of "youth clinics" across the nation.⁵² Hospital "emergency rooms," faced with steadily increasing demands from all sorts of patients (poor and affluent, urgent and nonurgent), have been increasing their staffing and their organizational structure.⁵³

All these forms of increasing institutional organization may not appear to be methods of "control" over medical care. In reality, they are indirect modes of influence *before* performance; they are methods of structuring health personnel so that their subsequent behavior is likely to be better than it would be if the individual were left to himself. Beyond these organizational influences are still other measures of medical quality control which have their effect by giving "rewards and punishments," so to speak, *after* the event, thereby hopefully influencing future behavior.

E. Disciplinary Incentives

In contrast to the organizational controls just discussed, a series of quality promotion measures have evolved which apply surveillance over medical performance already done. Within hospitals, "tissue committees" have long been established to review the pathological reports of tissues or organs removed at surgery. Findings of nonpathological or normal tissues in the work of particular doctors, beyond a reasonably acceptable level, point to the performance of unnecessary surgery.⁵⁴ Physicians so identified can be warned or penalized by the medical staff. The very existence of such review committees in a hospital can serve to induce diligence in surgical judgment.

Sometimes the entire range of medical and surgical work in a hospital can be subjected to review by an outside expert who studies all or a sample of the patient charts. Such "medical audits" are typically ordered by a hospital board of directors, which is involved in some controversy with the medical staff. Medical audits may also be arranged by the medical staff to resolve some internal dissension or simply to promote better quality work. In one state (New York), medical audits are performed by the State Department of Health as a feature of the hospital licensure law.⁵⁵

⁵⁰ See generally Stoeckle & Candib, *The Neighborhood Health Center—Reform Ideas of Yesterday and Today*, 280 N. ENG. J. MED 1385 (1969).

⁵¹ See A. LESSER, COMPREHENSIVE OBSTETRIC CARE PROGRAM AND THE CHILD HEALTH ACT OF 1967 (U.S. Dep't of Health, Education, and Welfare, 1968).

⁵² See, e.g., Page, *The Free Clinic: "If You Need Help, Don't Split,"* PRIVATE PRACTICE, Nov. 1969.

⁵³ See generally M. SUSSMAN ET AL., *THE WALKING PATIENT* (1967).

⁵⁴ See Lembcke, *Evolution of the Medical Audit*, 199 J.A.M.A. 543 (1967).

⁵⁵ N.Y. PUB. HEALTH LAW § 2803 (McKinney Supp. 1970).

Medical audits on the quality of professional work are also done, in certain organized programs, on ambulatory services.⁵⁶ Group practices collaborating with the Health Insurance Plan of Greater New York have been so audited many times by the HIP headquarters office. Clinics sponsored by the Welfare and Retirement Fund of the United Mine Workers of America have also been audited in this way. In the operation of any network of clinics, such as those for child health services or venereal disease control under a large health department, surveillance is normally exercised through periodic review of records by higher officers in the system.

Quality controls over the work done by private medical practitioners (or dentists, optometrists, or others) in their individual offices are much more difficult to apply. Probably the most widely applied method is through "claims review" in various third-party payment programs.⁵⁷ Under voluntary health insurance plans, such as Blue Shield, doctors' bills are reviewed administratively before payment, and deviant medical actions may be identified in the process. Certain health insurance plans sponsored by county medical societies in California (described as "medical foundations") have developed especially painstaking procedures for review of claims submitted, disallowing or reducing payment on a relatively high proportion of bills.⁵⁸ Governmental medical care programs for the indigent, under welfare departments, have long had such review procedures of fee-for-service claims, and under Medicare the "fiscal intermediaries" are expected to maintain such procedures.⁵⁹ While these bill review mechanisms are directed mainly at cost controls, they inevitably have impact on the quality of care at the same time. The very existence of the third-party review may be the most significant disciplinary influence, in that the physician knows that someone, other than his patient, will be monitoring his work. This is probably of greater import than the occasional penalty to a practitioner found guilty of deviant behavior.

The basic fee-for-service system of medical remuneration that prevails in the United States creates clear incentives to maximize the volume of service furnished to patients.⁶⁰ The negative results of unnecessary surgery, excessive office visits, inhibited referrals to specialists (for fear of loss of the patient and his fees) are widely recognized.⁶¹ At the same time, the fee system may have its good effects in maximizing attention to the patient, even when the physician is under pressure. The long sixty- or seventy-hour work week of American doctors is undoubtedly related

⁵⁶ See Donabedian, *Promoting Quality Through Evaluating the Process of Patient Care*, 6 MED. CARE 181 (1968).

⁵⁷ See generally B. DARSKY, N. SINAI & S. AXELROD, *COMPREHENSIVE MEDICAL SERVICES UNDER VOLUNTARY HEALTH INSURANCE* (1958).

⁵⁸ See Sasuly & Hopkins, *A Medical Society-Sponsored Comprehensive Medical Care Plan*, 5 MED. CARE 234 (1967).

⁵⁹ See, e.g., *Medicare Fee Review Today*, MED. ECON., Dec. 25, 1967, at 53.

⁶⁰ See, e.g., Alexander, *The Effects of Change in Method of Paying Physicians: The Baltimore Experience*, 57 AM. J. PUB. HEALTH 1278 (1967).

⁶¹ See, e.g., M. Roemer, *On Paying the Doctor and the Implications of Different Methods*, J. HEALTH & Soc. BEHAV., Spring 1962, at 4.

to the financial incentives of the fee system. The work-weary doctor might not be able to do the best quality work, but this may be better than neglect of patients in the absence of suitable incentives.

When physicians and other personnel work on salaries in an organized framework, such as a clinic or health center, immediate monetary incentives are replaced by the incentives of peer review.⁶² Winning the respect of one's colleagues can be a greater incentive to quality performance than immediate cash rewards from the patient. This is seen strikingly in university or other teaching hospitals, but the effects can operate anywhere. Material rewards may at the same time be given by a system of promotions and salary merit increases, based on colleague review, just as prevails in universities. In the British National Health Service special "merit awards" are given to salaried hospital physicians who are judged by their peers to be doing outstanding work.⁶³

F. Continuing Education

The rapid advancements of medical science demand that physicians and other health workers engage in lifelong learning if the quality of their work is to be sustained. There are many mechanisms for providing such educational influences.

Aside from the constant flow of medical journals and books, formal lectures and conferences on new medical developments are sponsored by professional societies, hospitals, government agencies, voluntary health agencies, and other bodies. Even medical television programs have been organized in networks of hospitals. Of course, reading or attending lectures or viewing telecasts are voluntary matters, and many physicians needing the education most may be the least likely to get it because of work pressures or attitudes of indifference.⁶⁴ Furthermore, any extended absence from his office for purposes of postgraduate education ordinarily means loss of income for the private practicing physician.

To encourage participation in continuing education activities, various inducements are offered. In the accreditation program for hospitals, mentioned earlier, it is required that monthly educational conferences be held, attended by a minimum percentage of the medical staff members. Since accreditation of the hospital is important for the attending physicians, this constitutes a strong moral compulsion. The American Academy of General Practice bases election to membership—a mark of accomplishment—on attendance of the practitioner at a certain number of educational programs, and this level of attendance must be continued for maintenance of Academy membership.⁶⁵

In organized medical care programs, like the Kaiser-Permanente Health Plan,

⁶² See generally *Report of the Panel on the Organization of Health Services*, in 2 REPORT OF THE NATIONAL ADVISORY COMMISSION ON HEALTH MANPOWER 181 (1967).

⁶³ See A. LINDSEY, *SOCIALIZED MEDICINE IN ENGLAND AND WALES* 340-46 (1962).

⁶⁴ See generally Shepard, *History of Continuing Medical Education in the United States Since 1930*, 35 J. MED. EDUC. 743 (1960).

⁶⁵ See James, *The General Practitioner of the Future*, 270 N. ENG. J. MED. 1286, 1291 (1964).

the salaried physicians are allowed off a half-day each week and a longer period each year specifically for educational purposes.⁶⁶ Large governmental medical care programs, like that of the Veterans Administration, grant educational leave, on full salary, to their medical and allied personnel. There is no legal requirement for such education, however, applicable to the general body of physicians in the United States, equivalent to arrangements in the Soviet Union for periodic postgraduate study.⁶⁷

G. Judicial Controls

As a sort of last resort for quality control, one may consider the rights of the patient to sue the doctor or hospital or both for harm suffered from improper medical care. The exercise of this right has obviously been increasing in recent years, as patients—with the aid of lawyers—have become more aware of it, as the sanctity of the medical profession in the public eye has diminished, and as the courts have become more demanding of what may be expected of the average provider of medical service.⁶⁸

From the viewpoint of quality controls, there is no question that the threat of malpractice suits is an inducement to elevate the diligence of medical performance. Since most such suits involve the management of serious cases in hospitals, the influence is felt strongly on the organization of medical staffs and other components of hospital operation. To some extent, the fear of malpractice actions may lead to extravagance—such as the x-ray of every sprained ankle for the remote possibility of a small fracture—but, on the whole, it is a powerful stimulus to establishing rules for encouraging thorough work. It is also an inducement to careful medical record-keeping, which in turn helps to promote better continuity of medical care.⁶⁹ Medical journals contain many articles, and even regular columns, on medico-legal decisions, to continuously alert doctors to their potential liabilities and the need for caution. Malpractice insurance premiums have steadily mounted in recent years, as another reminder to the doctor, especially the surgeon, of the need for consummate care in all his work.⁷⁰

Aside from the role of the courts, there are many organized medical care programs that provide the patient an administrative mechanism for redress of grievances.⁷¹ In governmental systems like that of the Veterans Administration, there are estab-

⁶⁶ See Cutting, *Group Medical Practice and Prepayment*, in *MEDICAL CARE: SOCIAL AND ORGANIZATIONAL ASPECTS* 250, 254 (L. DeGroot ed. 1966).

⁶⁷ See M. FIELD, *SOVIET SOCIALIZED MEDICINE* 122 (1967).

⁶⁸ See generally C. KRAMER, *THE NEGLIGENT DOCTOR: MEDICAL MALPRACTICE IN AND OUT OF HOSPITALS* (1968).

⁶⁹ See generally A. CIOCCO ET AL., *THE FUNCTIONS AND EDUCATION OF MEDICAL RECORD PERSONNEL* (1957).

⁷⁰ See, e.g., *Malpractice—More Lawsuits, Higher Losses, Soaring Premiums*, *Med. World News*, Oct. 24, 1969, at 7; *Liability—MDs are Running Scared*, *Am. Med. News*, Apr. 20, 1970. See also STAFF OF SUBCOMM. ON EXECUTIVE REORGANIZATION OF THE SENATE COMM. ON GOVERNMENT OPERATIONS, 90TH CONG., 1ST SESS., *MEDICAL MALPRACTICE: THE PATIENT vs. THE PHYSICIAN* (Comm. Print 1969).

⁷¹ See, e.g., U.S. SOCIAL SECURITY ADMIN., *SOCIAL SECURITY HANDBOOK* 326 (3d ed. 1966).

lished channels for complaint against doctors, nurses, or others with whom the patient has reason to be dissatisfied. Voluntary health insurance plans, especially those sponsored by consumer groups, make similar provision.⁷² Many community general hospitals deliberately invite patients to write out any complaints they have about services received. All these procedures offer a system of checks and balances against negligent performance by health practitioners.

In the ordinary community practice of medicine or dentistry, the safeguards against careless work are less exacting.⁷³ Many local medical or dental societies have established committees to hear complaints of private patients against their doctors (perhaps as a hedge against malpractice suits), but few patients are aware of this channel; moreover, few outside of the most egregious cases yield any penalty to the doctor through this route. The publicizing of malpractice awards in the general press has probably done more to apprise patients of their rights to legal redress of injuries, while similarly alerting doctors and hospitals to the need for quality maintenance in their daily work.

H. Geographic Regionalization

As noted earlier, one of the underlying conditions for assuring quality of medical care is the deployment of adequate resources (personnel, facilities, and equipment) geographically. But this does not mean that scarce and complex facilities can be located everywhere; rather, there must be a system of transportation and communication through which persons at any location, however rural, have access to the resources which exist at the major medical centers, associated usually with medical schools.⁷⁴

Such assurance of quality throughout geographic regions has been approached in many ways. First of all, without any deliberate planning, there is a spontaneous or informal tendency of patients at peripheral locations to travel to distant medical centers for treatment of difficult conditions, although the likelihood of such movement has been shown to depend on the patient's socio-economic status.⁷⁵ Second, there have been a number of special regionalization schemes, supported by foundation or governmental grants (in upstate New York, Maine, Michigan, and Virginia, among others) where formal ties have been established between central and peripheral hospitals; advisory services in various technical fields are shared; pathology specimens or x-ray films are sent to the central facility for examination; educational conferences are held, and so forth.⁷⁶ A third approach is seen in certain commonly admin-

⁷² See Schwartz, *Consumer Sponsorship and Physician Sponsorship of Prepaid Group Practice Health Plans*, 55 AM. J. PUB. HEALTH, 94, 96-97 (1965).

⁷³ See generally THE ENVIRONMENT OF MEDICAL PRACTICE (R. Robins ed. 1963).

⁷⁴ See generally M. Roemer & Morris, *Hospital Regionalization in Perspective*, 74 PUB. HEALTH REP. 916 (1959).

⁷⁵ A. Ciocco & I. Altman, *MEDICAL SERVICE AREAS AND DISTANCE TRAVELED FOR PHYSICIAN CARE IN WESTERN PENNSYLVANIA* (Public Health Service Pub. No. 248, 1954).

⁷⁶ See, e.g., L. Rosenfeld & H. Makover, *THE ROCHESTER REGIONAL HOSPITAL COUNCIL* (1956).

istered networks of hospitals, such as those coming under a Catholic sisterhood or the Appalachian complex of ten general hospitals established by the trust fund of the coal industry and the United Mine Workers; in these hospital systems there is a good deal of exchange of information and personnel.⁷⁷ Similar interflow applies, of course, to hospitals of the military forces, the U.S. Public Health Service, and the Veterans Administration.

A fourth approach has been embodied in national legislation enacted in 1965. The Heart Disease, Cancer, and Stroke Amendments to the Public Health Service Act provides grants to the states, universities, and other entities for establishment of "regional medical programs" (RMP) for improving the quality of care for these three sets of diseases, which constitute the nation's leading causes of death.⁷⁸ These RMP activities have taken many different forms throughout the country, but most of them are directed toward elevating the quality of medical care in the average setting to a level comparable with that offered in the leading medical centers. The most frequent method of attaining this goal is through various educational programs for doctors, nurses, technicians, and others. Assistance has also been given in the organization of new forms of therapeutic service, such as "coronary care units" or "stroke rehabilitation programs" in community hospitals. Cancer registries (for epidemiological research) and cancer-detection programs (Pap smears, mammography, and so forth) have also been launched. While the persistent autonomy of individual hospitals and the sovereignty of the private medical practitioner in America set limits on the effectiveness of RMP efforts, they have undoubtedly raised the consciousness of the health professions about the usefulness of the regionalization concept for quality promotion.⁷⁹

I. Comprehensive Health Planning

A final social mechanism for deliberate promotion of medical care quality is the national movement, identified as "comprehensive health planning" (CHP), to improve the coordination of our pluralistic medical care system and to encourage its modification in reasonable response to needs. The 1966 legislation, which brought focus and visibility to this movement, gives federal grants to the states and to areas within states for the improved planning of health manpower, facilities, and services.⁸⁰

Planning of certain sectors of personal medical care or environmental health service has, of course, been carried out for years. State health departments have devoted a good share of their energies to planning and promoting various preventive programs throughout the local jurisdictions of a state, often offering grants for

⁷⁷ See generally M. BLUMBERG, *SHARED SERVICES FOR HOSPITALS* (1966).

⁷⁸ 42 U.S.C. §§ 299-99j (Supp. IV, 1969). See generally Clark, *The Challenge of Regional Medical Programs Legislation*, 41 J. MED. EDUC. 344 (1966).

⁷⁹ See Bodenheimer, *Regional Medical Programs: No Road to Regionalization*, 26 MED. CARE REV. 1125 (1969).

⁸⁰ 42 U.S.C. § 246 (Supp. IV, 1969). See generally Cater *et al.*, *Comprehensive Health Planning*, 58 AM. J. PUB. HEALTH 1022 (1968).

support of services that fit into a "state plan." Hospital construction under the Hill-Burton Act has depended on state-wide identification of areas of bed shortage, with subsidy decisions based on a rational ordering of priorities. Local voluntary hospital planning councils have exerted similar influences with respect to facilities outside of the Hill-Burton orbit. The special feature of the CHP program, however, is its breadth of scope, intended to encompass *all* aspects of health services, in both public and private sectors, and mandatorily including in the decision-making process a dominant voice for consumers, as distinguished from providers, of health services.⁸¹

In the relatively conservative national milieu which has characterized the nation since 1968, little has so far been actually accomplished by the state CHP programs. The sovereignty and vested interests of the countless public and private health agencies in the nation, not to mention the individual medical and paramedical practitioners, have not been noticeably disturbed.⁸² The very existence of state CHP councils appointed by the governors, however, provides a prominent sounding board for discussion of critical health care issues, such as the problem of sharply rising personal medical care costs, the manifest shortage of doctors, or the squalorous and crowded conditions in many large urban public hospitals serving the poor.⁸³ All of these issues affect the quality of medical care received by people, and open identification of problems is certainly the first step toward solution. Eventually the mechanisms of comprehensive health planning may do more to influence quality maintenance than any of the specific programmatic or legal approaches discussed above.

III

SOME ISSUES AHEAD

The above discussion of nine paths of medical quality promotion or control does not exhaust the subject, but it may be enough to indicate that a variety of deliberate social actions are feasible and operative today. Yet in reviewing these actions one may get a falsely optimistic impression. In actuality, there is no sector of the field about which we can be satisfied. Relative to our scientific knowledge or the demonstrated achievements in particular places, we can say that there are serious deficiencies in quality maintenance throughout the nation. Our potentialities for maintaining standards on personnel and facilities, for sound institutional organization, for disciplinary incentives, and for continuing education, regionalization, and so on, are far greater than have been implemented in practice.

At this juncture in the development of health services in America, one can identify a number of issues which present challenges for the future control of medical care quality.

⁸¹ See generally M. Roemer, *A National Health System: Analysis and Projection*, HOSP. PROGRESS, Sept. 1969, at 71.

⁸² See generally N. ANDERSON, *COMPREHENSIVE HEALTH PLANNING IN THE STATES: A STUDY AND CRITICAL ANALYSIS* (1968).

⁸³ See, e.g., *The Plight of the U.S. Patient*, TIME, Feb. 21, 1969, at 53.

A central question is the degree of governmental supervision over medical care that may be expected under a program of nationwide health insurance covering the whole population. Interest in and support for national health insurance are clearly mounting, so that some form of legislation for this purpose may reasonably be expected within a few years.⁸⁴ We have had the experience of Medicare for the aged since 1966, and it is clear that—beyond increasing the financial accessibility of some 20,000,000 old people to medical care (more than a small achievement)—little has been accomplished in improving the quality of services. Not that the law ignored quality considerations, for the requirements of “utilization review” in institutions, “transfer agreements” between extended care facilities and general hospitals, and the whole process of “certification” of the providers of service have clear quality objectives.⁸⁵ But in practice the implementation of these mandates has been relatively pallid. The delegation of direct supervisory responsibilities to private “fiscal intermediaries” and state health departments has yielded rather loose enforcement, and nothing significant has been done to modify the basic system of medical care. Perhaps the most conspicuous result of the law has been its inflationary effect on medical and hospital prices.⁸⁶

Yet, the very visibility of problems under a federal health program has sown the seeds for corrective action. The climbing of costs has led to mounting demands for extension of Medicare to cover all age groups, so that everyone can have financial protection.⁸⁷ At the same time, pressures are growing for modifying the basic system of health care delivery, so that both efficiency (output per dollar spent) and quality would be enhanced. Prominent in today’s dialogue is the “health maintenance contract” called for by the former Secretary of Health, Education, and Welfare Robert Finch as an approach to alteration of the system.⁸⁸ Somewhat similar to the policies of existing prepaid group practice plans, like Kaiser-Permanente, these contracts would establish an annual cost, in advance, for meeting the total curative and preventive needs of individuals through the resources of a “health maintenance organization.” Such an organization could conceivably be a county medical society, representing many individual practitioners, as well as a team of physicians and other personnel working in a systematic framework.

The probability is high that any future national health insurance legislation will contain numerous incentives toward medical teamwork and regionalization for the sake of economy, if not quality. Bills currently introduced in Congress contain

⁸⁴ See, e.g., *National Health Care—The Gathering Storm*, Am. Med. News, Oct. 27, 1969; *National Health Insurance Gains Support in Congress*, CONG. Q. FACT SHEET, Sept. 18, 1970, at 2269.

⁸⁵ See generally M. GREENFIELD, *HEALTH INSURANCE FOR THE AGED: THE 1965 PROGRAM FOR MEDICARE passim* (University of California Institute of Governmental Studies, 1966).

⁸⁶ See, e.g., *The \$60-billion Crisis over Medical Care*, BUS. WEEK, Jan. 17, 1970, at 50.

⁸⁷ See, e.g., Anderson, *The Growing Pains of Medical Care* (pts. 1-3), THE NEW REPUBLIC, Jan. 17, 1970, at 15, Jan. 24, 1970, at 13, Feb. 7, 1970, at 17.

⁸⁸ See Statement of the Secretary of Health, Education, and Welfare on Medicare and Medicaid Reforms, Press Release, Mar. 25, 1970.

provisions for encouraging group practice, preventive services, judicious hospital admissions, and continuity of care under the eye of a "primary physician."⁸⁹ If and when a national medical payment system covers everyone in the country, we may assume that the methods of surveillance over personnel and facilities, and their performance, will be steadily tightened. We may also expect to see greater public controls over the supply and location of hospital beds, the sale and advertising of drugs, the pricing of medical and hospital services, the output and location of trained personnel, and other such elements of the system which influence both costs and quality. Many proposed controls in medical care programs seem directed more against financial waste than toward quality promotion, but one must realize that waste itself nearly always influences quality negatively, if only by squandering resources which could be used in some other sector of the health care system.

Another key question in the years ahead is how to resolve the conflict, or apparent conflict, between considerations of quantity and quality in medical care. If medical care is to be extended equitably to everyone, it is generally assumed that much greater use will have to be made of auxiliary personnel, such as midwives for uncomplicated childbirth, nurse-anesthetists, medical assistants for many procedures now done by physicians, and so forth.⁹⁰ Medical history-taking may come to rely heavily on questionnaires filled out by the patient, and diagnostic screening on the performance by technicians of a battery of automated tests.⁹¹ Will such "mass production" methods mean a sacrifice in the quality of medical care?

This is a tricky question, for it depends on *whose* medical care one is talking about. For the many persons who had no care or very inadequate care before, the provision of some reasonable level of service, however automated, would be a qualitative improvement. For some other persons, in a small percentage of cases, the performance of a nurse-anesthetist or a midwife might lead to difficulties which a physician would have averted. Evaluation rests on the subtleties of calculating the greatest good for the greatest number. Moreover, everything depends on the extent of supervision of paramedical personnel and the thoroughness of their training. So far as we can tell, the British National Health Service, with its extensive use of midwives for most deliveries, has a better maternal and neo-natal mortality record than the United States with its theoretical desideratum (far from achieved) of obstetrical specialists.⁹² Appropriate supervision of auxiliary personnel, of course, requires an organized medical care system. Thus, maintenance of quality in combination with an enlarged quantity of medical care makes the systematic organization of services essential.

⁸⁹ See, e.g., *The Choices in National Health Plans*, MODERN MED., Apr. 6, 1970, at 24.

⁹⁰ See, e.g., U.S. PUBLIC HEALTH SERVICE, EDUCATION FOR THE ALLIED HEALTH PROFESSIONS AND SERVICES (Public Health Service Pub. No. 1600, 1967).

⁹¹ See, e.g., Collen *et al.*, *Automated Multiphasic Screening and Diagnosis*, 54 AM. J. PUB. HEALTH 741 (1964).

⁹² See Wegman, *Annual Summary of Vital Statistics—1968*, 44 PEDIATRICS 1031, 1034 (1969).

In any system of organized medical care likely to develop in the United States, nevertheless, it is certain that room will be left for a private sector. Just as in Britain and even the Soviet Union, the patient who is not satisfied with the constraints of the system and is able to pay privately is free to purchase care outside the system.⁹³ The extent of private service is bound to depend on the strength and effectiveness of the official system. If the public system is meagerly financed and a private sector is allowed to develop to large proportions, the public program can be further weakened by the very syphoning off of resources to serve the minority of affluent people; this vicious circle can only be avoided by adequate public financing of any national health program.

A final question for the future concerns the extent of national resources we are willing to devote to the health services. It is now just over six per cent of Gross National Product, a proportion higher than that of the European countries with national health insurance programs.⁹⁴ Presumably, our flexible free market in medical care has yielded both a high volume of services and high prices per unit of service. Could adequate services be extended to everyone, with reasonable quality standards, without substantially increasing the proportion of our G.N.P. devoted to health purposes?

We cannot give a sure answer to this question, but current trends suggest that a higher proportion of G.N.P. will probably be devoted to health service in the future, as pressures mount for extension of both quantity and quality of care. Even if improved organization and rationalization of services stem the rise in costs, it will probably be hard to keep pace with the financial effects of higher utilization rates and continually elevated quality standards. Perhaps some hope for controlling costs lies in the replacement of material rewards for entrepreneurial medicine with rewards of honor and respect, which may, indeed, be expected to play a larger part in a more highly organized medical care system.

Whatever may happen to costs, there is no question about the long-term trend toward increasing social controls, both governmental and voluntary, over the quality of medical care. Extended social financing will inevitably lead to deeper social concern for the quality of the product on which the people's money is being spent. Increased organization, automation, coordination, and supervision of medical care may well lead to certain impersonalities, compared to the traditional image of the family doctor.⁹⁵ But these changes could lead also to greater assurance of a minimum standard of health care for everyone. They should, in fact, enable every person to

⁹³ See M. Roemer, *Highlights of Soviet Health Services*, 40 MILBANK MEMORIAL FUND Q. 373, 376 (1962).

⁹⁴ B. COOPER, NATIONAL HEALTH EXPENDITURES, 1929-1969 (U.S. Social Security Admin., Research and Statistics Note No. 18-1969, Nov. 7, 1969).

⁹⁵ See generally Mechanic, *The Changing Structure of Medical Practice*, 32 LAW & CONTEMP. PROB. 707 (1967).

have a primary physician to oversee his total personal health—a benefit all too frequently lacking in our current fragmented medical setting. Organization, furthermore, by delegating more and more tasks to auxiliary personnel or even to machines, can free the time of the skilled physician, so that he has greater opportunity for maintaining those interpersonal relations and exercising those judgments of which the doctor alone is capable.