ORGANIZATION AND DELIVERY OF PERSONAL HEALTH SERVICES

Public Policy Issues

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This paper will examine some of the alleged defects in the present personal health services system, state some assumptions that may condition changes, pose public policy issues that require resolution to effect desirable changes, and set forth specific proposals designed to improve these services. The viewpoint will be primarily that of the patient and the community, but not to the exclusion of the views of the health professions and institutions. The object will be to identify major issues and nodal points in the health services system that might be influenced by leadership, discussion or programs initiated at the federal level.

Personal Health Services means all health services other than Environmental Health Services. Specifically, those things done to and for all individuals who request or require health services provided by doctors, nurses and dentists and the allied health professions. No distinction is made between so-called preventive, diagnostic, therapeutic and rehabilitative functions, nor would it be helpful to separate the physical, emotional and social components of illness. These are transient divisions of interest, emphasis, organization and style based more on tradition and arbitrary jurisdictional arrangements than on humanitarian, scientific or technical constraints. No distinction is made between the various sites of care at which Personal Health Services may be given; for example, the solo practitioner's office, the outpatient dispensary, the voluntary, private or public hospital—their clinics and wards, the health department clinic, the group practice clinic, the home, the factory or the school. Nor is the posture of the patient, vertical or

horizontal, a factor in the basic definition. Finally, the methods by which the patient's care is financed, whether from public, private or voluntary sources, the methods by which the charges are paid, whether through premiums, fees, grants or taxes, and the methods by which the physician's effort is compensated, whether by fee-for-service, sessional payment, capitation or salary, do not affect this definition.

Alleged Defects

Little objective data support the following statements, but evidence of a substantial ground swell of public opinion, social concern and political action suggests that the alleged defects have some basis in reality.

Defect number 1. Personal Health Services frequently are not continuously available to all segments of the population except at emergency rooms of hospitals, or through telephone answering services. General care available at the former, except for immediately life-threatening conditions, is frequently regarded by both the consumers and the profession as inappropriate and inadequate.[1] A telephone answering service is part of a communication system and not a personal health service.

Defect number 2. Generalists are declining and superspecialists are increasing. The rate per 100,000 population for all physicians is said to be too low and the ratio between the two kinds of physicians inappropriate. The competence of the generalists to manage many problems that require a thorough knowledge of contemporary scientific medicine[2] and the interest of the superspecialists in early, nonspecific and undifferentiated "complaints" are called into question.[3] The American "specialist" is virtually unknown in other countries; he frequently confuses himself both with "consultants" and "generalists." He is perhaps best described as a "consultoid" since he is apt to have the training and aspirations of the former but does the work of the latter.

Defect number 3. Health professionals employ their talents inappropriately and scarce human resources are wasted.[4] The medical care establishment tends to distribute its skills and knowledge more in accordance with selective individual utilization of services than with the collectively perceived needs and expressed demands of the community.[5] For example, pediatricians are trained to manage complex problems, but spend much of their time providing well-child care to "private" patients in their offices and to "public" patients in health department

clinics. Responsibility for coordinating the care of patients seen in the latter setting may be the responsibility of a public health nurse; the itinerant or rotating physician advises on medical problems only. The same physician in the former setting may spend much of his professional time coordinating the care of his patient in the absence of skilled public health nursing services. Nurses could undertake many tasks currently done by doctors, including the administration of screening questionnaires and tests, instruction and health education, certain treatments and domicillary visiting and care.[6]

Defect number 4. Communication between different sources and levels of personal health services is inadequate. The recording, storage, retrieval and transmission of medical information is outmoded compared to developments in the other service systems of contemporary society. Information about patients' prior and present health problems and their treatment, or the reasons for referrals or consultations and their outcome, frequently is not transmitted between health professions and institutions responsibly, rapidly and reliably.[7]

Defect number 5. Inappropriate institutionalization of patients not only increases the cost of the whole health services system, but also may be harmful and even life-threatening. The former point has been made frequently; it is less widely appreciated that a constant and not always trivial risk exists of experiencing a medication error, an adverse reaction to a diagnostic reagent or drug or of sustaining an injury in the strange environment of the hospital.[8] Evidence indicates that patients removed precipitously from their customary habitats to nursing homes experience substantially higher age-specific mortality rates than do others who are not similarly uprooted.[9] The benefits of appropriate institutionalization have to be balanced against the risks of inappropriate institutionalization.

Defect number 6. Skepticism is growing that academic medicine, community medicine (the new public health) and private medicine (the so-called "organized" profession) always act either alone or collectively in the public interest. That tripartite division of responsibility and accountability can be confusing both to members of the health professions and to the public. It is uncertain who is "in charge" of seeing that society has the personal health services it can collectively command from the resources it provides.

Who is responsible for developing the information, providing the leadership, convening the committees, proposing the alternative solu-

tions, implementing programs, providing and coordinating services and evaluating them? If the personal health services of a community are inadequate or inappropriate, with whom do the citizens get in touch?

Assumptions

Any discussion about possible changes in the organization and delivery of personal health services is of necessity based on certain assumptions, some widely held and accepted and others more personal and restricted. The assumptions on which the present arguments and proposals are based are as follows.

Assumption number 1. Physicians will continue to be the primary professionals responsible for the provision of personal health services. They will need all the advice and counsel obtainable from a variety of other professions and lay groups and all the scientific and technical help they can use from the allied health professions and other professional groups, but medicine will be the profession finally accountable for the personal health *services* of society. By contrast, more individuals will become increasingly responsible, in our open, democratic society with its increasing level of education, for their own personal *health.*

Assumption number 2. The accountability of physicians is determined by a social contract of greater antiquity and wider applicability than the Hippocratic Oath. Society as much as medicine is a party to this contract; negotiations are conducted on a continuing basis at all levels of society and from time to time find wide-spread social expression through legislation, rules, regulations, accreditation, licensing, franchising, fiscal controls, professional standards, expressive and instrumental leadership and public utterances. In all of these arrangements, medicine needs to be exquisitely sensitive to the notion that it is but one of two parties to the contract. In the final analysis the consumer always has the upper hand; health, health services and the organization of health services are too important to be left solely to the "experts" who constitute the medical profession.

Assumption number 3. For pluralistic societies in general, and personal health services in particular, with their mix of public, private and voluntary resources and interests, the likelihood is increasing that distinctions will be made between social responsibility for discussions of policy issues, on the one hand, and for authority and public accountability with respect to implementation of solutions, on the other. In that connection, the report of the National Commission on Community Health Services is disappointing; a predictable outcome since, for ob-

scure reasons, both academic medicine (i.e. the medical schools) and private medicine appear to have been underrepresented on the Commission.[10] The report seems to dodge the issues of authority and accountability by such statements as: "All communities of this nation must take the action necessary to provide comprehensive personal health services of high quality to all people in each community." Counsels of perfection and problems to be solved are listed, but nowhere does it specifically have any recommendation about who should be in charge of bringing all that to pass. It does go on to recommend that "every state should have a single, strong, well-financed, professionally staffed, official health agency with sufficient authority and funds to carry out its responsibilities." It is silent on the precise nature or extent of the authority, responsibility or accountability. The agency should "provide all the environmental and personal health services for which it is responsible . . take leadership in broadening the scope and quality of health services available in communities, and respond positively to the health needs of the public," in the opinion of the Commission. In the long run, if not the short, the public will insist that some one commission, council, or board of trustees, and possibly some new health services authority or agency, and in turn, some one designated individual be charged with responsibility for monitoring the availability and accessibility of effective and efficient personal health services in each community. In the absence of satisfactory performance, the board would be accountable and, if necessary, the individual would be replaced. That seems one of the better ways to insure first-rate administration and management in a free, open and competitive society. Someone must inevitably be in charge and accountable.

In all of this, personal health services are, should be and will continue to be, given by individual members of the health professions. It is an assumption on which later proposals are based that the most effective contributions of these individuals require some semblance of formal coordination and organization and that someone has to be in charge of achieving this; it is unlikely to happen spontaneously.

Assumption number 4. Medical care in the form of personal health services is now accepted as a universal civic right rather than as a private luxury or a philanthropic gesture. That view will undoubtedly spread rapidly, as it has in most other countries. Civic rights in this country require participation and accountability on the part of both individuals and the private and public agencies and institutions that serve them. Once the participation of delegated authority or "govern-

ment" is accepted, the issues revolve around the nature and extent of the participation, not around the question of its morality. It is assumed that need is increasing for greater participation by governments and publicly accountable authorities at all levels in the solution of problems concerned with the provision of personal health services.

Assumption number 5. The distinction between medical *cure* and medical *care* will remain. Absolute need for personal health services is a bottomless pit; each society determines its own diseases and problems. Where medical science has provided a medical cure little question remains about the appropriate action to be taken. Where the outcome of specific therapy is uncertain, where the positive benefits of interest, concern, support, information, counsel, education and "caring" are substantial, personal health services will be needed. It is for this aspect of personal health services that society looks to the health professions as much as for the application of effective scientific cures. "General" practitioners may be disappearing, but the "general" problems patients bring to them are not.

Assumption number 6. This country will develop an increasingly explicit National Health Services Policy, but not a National Health Service, if by the latter is meant a statutory service under which all doctors are paid salaries by the federal government or its agencies, or that their total annual remuneration is determined by a uniform formula applied to all physicians.

Assumption number 7. The medical care industry will no longer be able to resort to authoritarian pronouncements as adequate justification for increasing allocations of scarce resources. The overall allocation of manpower, facilities and money will undoubtedly continue to rise, but not as rapidly as the pressures for increased efficiency and effectiveness in the use of the resources society currently allocates to medical care. These pressures have influenced other service industries, such as transportation, communications, inn-keeping, education and defense. Automation, substitution, vertical mobility of manpower and stratification of skills, facilities and institutions are among the innovations to be anticipated.[11]

Assumption number 8. The majority of all personal health services will be reimbursed through third-party payments and it seems almost inevitable that sooner or later this country will have a national health insurance plan, financed through statutory employee-employer contributions, individual premiums and general taxes. The only question is when; and the assumption is that it will be sooner rather than later.

In the long haul, the welfare, means test, medical indigency, Poverty Program and Title XIX approaches have little in the way of history or logic to sustain them, except as steps on the path toward a universal social insurance program. Everything in this world does not necessarily succeed on its merits, but in an affluent democracy with free public education and a high level of contemporary employment, the means test and the equation of welfare with charity, rather than with well-being will become anachronisms.[12]

Whatever the sources of funds that pay for an individual's medical care, at the point of receipt of care, the patient is likely to insist more and more on being regarded as a "private" citizen; he will present his "Medicare," "Medicaid" or "Blue Shield" card to the physician only for purposes of his identification and the physician's reimbursement. All patients have the right to discuss their personal health problems in "private" with a physician or nurse. The distinctions between "private," "service" and "welfare" patients insofar as receipt of medical care is concerned will tend to disappear. Distinctions between social, occupational and educational groupings are likely to remain.

The wisdom of a proposition enunciated by Sir William Beveridge will sooner or later be recognized in the United States; probably later rather than sooner. He stated: "Whether or not payment towards the cost of the health service is included in the social insurance contributions, the service itself should be organized, not by the Ministry concerned with social insurance, but by departments responsible for the health of the people and for positive and preventive as well as curative measures."[13]

The mission of a Social Insurance "Ministry" is to collect premiums, pay benefits and account to the people for the use of their funds. It must, of necessity, be concerned with accounting, and with the search for fraud and chicanery. Such responsibilities seem to place undue emphasis on the pecuniary aspects of the provision of health services and perpetuate the vulgar American debate over the methods of payment for personal health services at the expense of informed discussions about the methods of organizing effective services of high quality.

The problems of financing and of organizing and monitoring services will be accepted as separate functions requiring different values and skills. Compared to the latter, the former pale into insignificance.

Public Policy Issues

The underlying message to be derived from the passage of the Social

Security Amendments of 1965, the Heart Disease, Cancer and Stroke Amendments of 1965 (the Regional Medical Programs), the Comprehensive Health Planning and Public Health Service Amendments of 1966, and from the Coggeshall report[14] and the report of the National Commission on Community Health Services[10] is that no explicit objectives exist that might constitute the basis for clearly enunciated national health services policies. Implicit in all five is the notion that objectives and policies should be developed. Public policy issues with respect to the provision of personal health services can and should be debated by broadly constituted bodies whose mandate comes from the federal administration. Nowadays, reports from other bodies appear to have limited impact. By the same token, these groups should have time for adequate discussion and reflection; the notion that instant deliberation is associated with infinite wisdom is not supported by experience. Years, not weeks and months, are required for adequate consideration of major issues. Clear recommendations based on full participation and extensive time commitments by members of such bodies are sound bases for public debate and appropriate legislative action.

Policy issue number 1. Should the President, the Secretary of Health, Education and Welfare or the Surgeon General have a permanent advisory group whose total effort is devoted to studying and evaluating the current and anticipated problems of health services, considering proposals for their solutions, planning for the prudent use of resources and recommending policies?

Proposal A. A Council of Health Advisers similar to the Council of Economic Advisers should be established. Such a group, including representatives from several relevant professions and disciplines could serve two or three year full-time appointments. Supported by an adequate staff they could provide the basis for informed public discussion of the issues. Their functions would differ entirely from those of itinerant consultants and advisory councils who meet briefly several times a year. The new Council would be different from politically motivated commissions designed to provide sudden visibility or instant publicity for some contemplated political activity. A few "boys in the back room" writing speeches and fighting administrative fires do not serve the function either.

Among the first questions to be considered are:

1. What are the legal bases for the establishment of boards of health and for the appointment of members? What are the implica-

tions of these arrangements for the potential improvement of personal health services? What changes, if any, are essential to achieve various objectives?

2. What are the legal bases for licensing, franchising, certifying and accrediting physicians, nurses and other health personnel and the institutions in which they work? What changes, if any, are essential to achieve various objectives?

Policy issue number 2. Who is to be responsible for organizing the personal health services within each political or geographic jurisdiction? The prime contenders would appear to be the president or executive director of the local medical society, the administrator of the "leading" local hospital, the president or executive director of the hospital planning council, the commissioner of welfare, the health officer, the dean of the "leading" local medical school, or the chief officer of some voluntary agency or business enterprise.

The person to be in charge should be, at least initially, a physician who combines high intelligence, political sensitivity, concern about and knowledge of the problems, demonstrated executive capacity and preferably experience or formal training in health services administration. Sensitivity to the limitations of medicine and to the idiosyncrasies of the profession are necessary, but not sufficient qualifications; they do imply the need for a physician in the top position. To attract a person of the desired caliber from his present position, performance expectations and salaries will need to be competitive.

Since the Regional Medical Programs are interpreted as an enticement to the medical schools to become involved in the health problems of the community, it has been concluded by some that the brains and potential leadership in medicine are more likely to be found in medical schools than elsewhere. On the other hand, leaders are in such short supply that the best individuals to assume responsibility for organizing personal health services in each community should be recruited from any source. Certainly the record of persistent lack of interest in medical care problems on the part of most health departments in the country suggests that few of the leaders for these new responsibilities are likely to be found in them. Hospitals, medical schools and medical associations are more likely sources.

What agency or institution is to be responsible for organizing, coordinating, monitoring and evaluating personal health services in the community? The suggestion that the medical schools should take on

this responsibility through the Regional Medical Programs appears to stem more from the necessity for getting their faculties concerned about contemporary health problems in the community than from a conviction that they represent the best institution to coordinate the health services of the community. Central involvement is different from overall responsibility. Most hospitals traditionally have lacked interest or concern in vertical patients or potential patients. In one sense, they deal with the failures of the health services system, if it is correct that one of the principle objectives of an effective health services system is to keep people out of hospitals. The medical society is another possibility, but its traditional preoccupations with professional postgraduate training and economic interests to the exclusion of concern for problems relating to the organization of health services tends to eliminate it as the best institution for this purpose. The health departments have the broadest social mandate and the traditional legal basis for undertaking the function. What they lack is the power, ability, energy and imagination to undertake it. Power is obtained by appointing a powerful board or commission; the other attributes, by appointing the best available person, and giving him both authority and responsibility. The new Comprehensive Health Planning Councils may help to achieve that.

Proposal B. The United States Public Health Service[16] should institute a program of awards for career health services administrators. These would be analogous to awards for career investigators and career teachers. The awards, including local matching funds, should be generous and of long duration, if not for life, designed to attract the best possible people to the field without regard to previous background, present affiliations, professional degrees in public health or hospital administration or any other vocational credentials. The awards should be made competitively by a national advisory committee; they might be applied for through the office of the governor of a state or the mayor of a metropolitan district. The object would be to provide sufficient leverage to attract the best possible talent to the top positions in administrative medicine. Many of these new individuals would replace the present health officers; some would constitute additions. Civil Service regulations and salary scales would need to be modified accordingly; obsolete regulations stipulating that health officers should be graduates of schools of public health should be abolished; such requirements are analogous to the notions that all professors should have higher university degrees—some do and some do not.

Proposal C. This proposal is identical to that made by the National

Commission on Health Services; namely, "that each State have a State Health Policy and Planning Commission, responsible to the governor, which would advise him on health planning for the state. Such a Commission would be representative of governmental, private and voluntary groups. It would have no administrative functions, but would by the plans it made, set the framework for administration of health services in the state whether these services were offered by governmental, private or voluntary groups." Local health departments could have similar planning commissions. The Comprehensive Health Planning Act stipulates that eligibility for grants depends upon the governor designating a responsible agency and appointing a top level planning and policy council.

Proposal D. It is virtually impossible to plan rationally without information on which to make decisions. Accordingly, it is proposed that a system of federal formula grants be developed to encourage each state and metropolitan health department to expand its vital statistics unit to a health statistics unit, similar to the National Center for Health Statistics. Health services utilization studies, epidemiologic studies, operations research, and community surveys, in addition to vital statistics functions should be undertaken. Similarly, funds should be provided for standards and evaluation units and for policy planning units.

These last three proposals are designed to clarify the mandate for the task, involve the power structure of the community, designate the administrative authority, assign responsibility, attract the best possible leadership talent for the position of chief executive, and provide him with an adequate staff. Unless such steps are taken, it is difficult to see how much of importance can be achieved.

Policy issue number 3. Is any pattern to be established of hierarchical organization or stratification of services, facilities, and institutions in a regional configuration? The implication of the legislation establishing the regional medical programs is that some form, perhaps any form, of regionalization is to be encouraged with all deliberate speed. That is bound to be an interesting experiment, for if the United States succeeds in regionalizing its services along the lines of categorical diseases, it will be the first country in history to do so. All previous proposals and attempts at regionalization foresaw stratification by levels of care and sophistication of facilities, not by diseases.

The fallacy of the categorical disease approach to the organization of services lies in the notion that only one diagnostic system exists, the one customarily taught in medical schools.[15] The application of the full

traditional diagnostic ritual is, of course, appropriate for the clinical problems seen in university hospitals, but these represent only a tiny fraction of the illnesses brought to primary care general physicians in the community. As much as half of all illnesses seen at that level are treated without a definite diagnosis being made within the rubrics of the International Classification of Diseases.[17] Is it reasonable to imply that every patient at every visit to his physician have a "complete" history and physical examination and extensive laboratory tests done? Unlike the law, the conventional wisdom in the medical school states that every patient is "ill" until proved "well."[18] Another definition familiar to medical students suggests that a "well" person is one who has not been adequately investigated at a university hospital!

One has to ask therefore about the possibilities of finding unusual diseases in an ambulatory population visiting primary care physicians. The common diseases are the common diseases; the rare diseases are rare. Patients present complaints, symptoms and occasionally signs; not labeled diseases. What is needed are adequate supporting personnel and facilities to confirm, when requested, the primary care physician's diagnosis or, when the probability arises that a severe, serious, uncommon or rare disease is present, to investigate the problem thoroughly. Some evidence suggests that the consultant at the teaching hospital is more apt to confirm the primary physician's diagnosis than to modify it.[19] Epidemiologic studies focused on the utilization of health services for cohorts of patients presenting with different patterns of symptom/complexes would be the approach to understanding these problems.

Superspecialism is here to stay. It could be argued that specialism is more a function of the increased demand for services and of the concentration of this demand in hospitals than it is the result of scientific progress. Doctors can limit their activities and explore patients' problems in greater depth at medical centers. These economies of scale permit the development of increased knowledge, which is the result of specialization not its cause. The question is not whether superspecialization is beneficial, but whether the number of superspecialists bears the appropriate relationship to the numbers of specialists and generalists. Some of the imbalance may be associated with the fact that hospitals in the United States, in contrast to those of Europe, are not staffed solely by full-time clinical physicians. For senior staff physicians, who may spend only a fraction of their days in the typical American hospital, to have their patients cared for continuously, it is necessary to have extensive superspecialty residency programs. The demand for house staff,

supported by categorical disease-training programs, perpetuates and expands the concentration of superspecialists.

How are society's medical resources to be apportioned and related? On the one hand, the public demands help with its medical and related social problems for a diminishing group of physicians in the community giving primary medical care. On the other hand, it demands the intense application of limited resources to investigation of the highly selected, complicated, or rare diseases which superspecialists expect to uncover in patients frequenting university medical centers. Between the two levels of demand, an effective balance must be struck. From the overall viewpoint of society, the former arrangement is unsatisfactory particularly in the central cities and in rural areas, and the latter unrealistic. That is not to say that as a means of contributing to advances in medical science the power of the post Flexnerian university medical center has not been demonstrated beyond question.

Between the two extremes of primary physician and superspecialists lie the specialists: general internists, general pediatricians, general surgeons and obstetricians working for the most part in solo practice, occasionally in partnerships and, infrequently, in small groups, unassisted by ancillary help, and using the community hospitals as workshops. The arrangements are inefficient; patients requiring brief investigation are hospitalized, urgent cases and "out-of-hours" patients are seen in the emergency room and immunizations and "preventive" care are provided for the indigent under health department auspices. Referral to a medical center may mean "loss" of both the patient and an opportunity for the primary physician to learn from the experience and maintain professional competence.

In this patchwork of organizational confusion it is never clear to whom the patient should turn as a source of primary care. Who does Mrs. Jones call at 3:00 a.m. when she wants a doctor? Who is to act as guide, counsellor, advisor, triage officer, personal advocate, door-opener and interpreter for the individual who needs, seeks and demands the best that contemporary scientific medicine has to offer? Society traditionally has looked to the medical profession to provide that service. Certainly the service is essential and must continue to be provided; if not by physicians, then by others. Chiropractors, pharmacists, "granny midwives," nurses, medical students working in emergency rooms, telephone operators and neighbors can provide parts of this service and currently do.

The central issue in American medicine is the matter of primary

medical care. Is the source of this care to be provided by physicians, and if so, what kind of physicians? Is it to be provided under the direction and supervision of physicians? Is it to be obtained from other sources? Should physicians confine their attentions to patients who can give clear accounts of their problems in the office or the hospital? Generalists are decreasing in relationship to the population and internists and pediatricians find themselves unprepared or mistrained for the problems brought to them in their community practices.[3, 20] Deficiencies in the total numbers of physicians in the country have been attributed to the monopolistic tendencies of the medical profession; the maldistribution of physicians' skills has been attributed to the categorical granting mechanisms of the federal government and to the removal or exclusion of patients with early, trivial, common and chronic diseases from the university teaching hospitals.[21]

At this time, apportioning blame or attributing errors of past judgment is of little use. The question is what can be done now in the way of public policy in the pluralistic scheme of things to encourage innovation and coordination and diminish human suffering, waste, inefficiency and confusion? The following proposals are designed to achieve these ends.

Proposal E. A National Commission on Personal Health Services should be appointed on a long-term basis (three to five years) to consider all aspects of health services organization; not manpower alone, not education and training alone, not facilities alone, but the organization and delivery of services. The agenda could be prepared by the Council of Health Advisers but the first item, and perhaps the only item for the first year, should be the problems of primary medical care.

Policy issue number 4. Can the health services system or the medical care industry continue to permit 90 per cent of its services to be provided as if it were what Brotherston called a "cottage" industry?[22] A strong case can be made for the fact that the solo practice of medicine by physicians, unassisted by nurses, ancillary health workers, social services and reliable laboratory facilities is antiquated, if not obsolete; it is certainly wasteful and may be dangerous. Solo practice is obsolete because it implies that the physician will be continuously available to his patients; few physicians now attempt to maintain that fiction. The solo practitioner is apt to use his own training and skills inefficiently, has no way of extending his services, and receives few stimuli to maintain standards. Studies of the work of solo practitioners suggest that standards tend to vary widely but frequently are low.[23]

The case for the *personal* physician has been made repeatedly and eloquently.[24,25,26] The National Commission on Community Health Services urges that steps be taken to provide all citizens with a personal physician.[10] It is silent about how that might be accomplished. The case for the *family* physician is less clear; some interpret the term to mean that the same physician should take care of all members of the family throughout their lives, others interpret it to mean that the patient should be considered as a person who becomes ill in the context of his family. The former seems an unrealistic ideal; the latter essential in the light of current knowledge about the influence of emotional and social factors and of home and job, on health and disease.

It seems highly unlikely that general practice or family medicine in the traditional sense is going to flourish in this country; for the most part, it is regarded by academic medicine as an obsolete approach to the delivery of medical care. The academic machinery to train general practitioners has been dismantled. A much more feasible solution is to train general pediatricians, general internists and obstetricians to provide primary medical care. The pediatricians and internists could be assisted by public health nurses and health aides, and the obstetricians by nurse-midwives who could handle prenatal and postnatal care and normal deliveries. A Primary Care Unit might consist of two physicians, two nurse practitioners and a health aide. A reasonable mix of these three kinds of physicians would be one obstetrician to two pediatricians to four internists. These seven physicians, assisted by the assignment of six nurse practitioners, two nurse midwives and four health aides, would constitute the Primary Care Group; in addition, a social worker, two laboratory technicians and two medical secretaries could be added to each group. Other clinic nurses, technicians and secretaries could be provided by the physicians themselves in accordance with their present practices.

Financial support in the form of construction loans to encourage group practice clinics is desirable and should be expanded aggressively, but other measures are needed.

Proposal F. Federal formula grants, matched by other funds, should be given to state and local health departments to pay for nurse practitioners and health aides (plus local travel and other expenses) to be assigned, without charge, to physicians who work at least in pairs, in a formal partnership arrangement. The minimum unit would be two physicians, one nurse practitioner and one health aide. In addition, many of the public health nurses presently assigned to traditional cate-

gorical (often outmoded) health department programs should be shifted to the private offices of the physicians working in partnerships. Only a few thousand physicians might be interested initially, but the idea might sooner or later prove attractive to young physicians entering practice, particularly if the programs were given the kind of publicity and enthusiasm associated with the promotion of equipment for the doctor's office and drugs for his patients. Requiring financial accounting from the physicians for the services of the nurses is unnecessary. Let them submit a simple request to the health services administrator in their locality; if the competition for available nurses is great, a one-page essay justifying the assignment might help in making decisions and encouraging innovations. The assignment of a health aide in addition to the public health nurse would assist in the training and upgrading process and, without altering the standards of service, might permit physicians working with less affluent patients to have more direct communication with these patients.

As incentives to the formation of larger Primary Care Groups, federal grants could be assigned to state and local health departments to provide a social worker, two laboratory technicians and two medical secretaries for each such group. The precise ratios could be scaled to the size of the group and the population served. These kinds of grants would be positive incentives for physicians to organize themselves more rationally; it would permit them to extend their services to larger numbers of patients, and would help to overcome the dysfunctional barriers between "private" and "public" personal health services.

In addition, grants could be made to local communities, corporations formed by groups of physicians, nonprofit "health services authorities" or to hospitals to let them construct buildings that such groups could lease. Funds for modernization would permit structural changes in doctors' office buildings for new Primary Care Units and Groups.

None of these proposals should interfere with the doctor's freedom to join or leave such units or groups under any kind of partnership or contractual arrangements he cares to make. Fees could be collected on a fee-for-service or prepaid basis. "Medicare" and "Medicaid" cards should cover many of the services provided under Social Security, and other federal, state and municipal medical care plans.

Distinctions are not always made between the manner in which the patient finances his medical care, the manner in which the physician collects his earnings and the manner in which his earnings are distributed to him. Although further study is needed of the influence of

various monetary and non-monetary incentives on standards of care and levels of interest, and on the satisfactions of both the patient and the physician, it is not incompatible with physicians collecting on a fee-for-service basis and distributing their earnings in partnerships or groups by formulas that reward training, experience, volume of work performed, responsibilities, hazards, risks, merit and seniority.

Larger groups could be formed with multiples of the Primary Care Units and Groups. In the central cities such groups could be used as modules in neighborhood health centers to provide services to the poor and medically indigent, subsidized as necessary by grants and other support. In suburban areas their clientele would be middle class and in rural areas a mixture. If a community wanted to encourage the formation of a Primary Care Group of physicians, in contrast to the more modest partnership units, the health services administrator would need to take steps to see that the facilities were provided and the salaries made available from taxes, premiums or other sources.

Proposal G. As a next step, serious attention should be given to the matter of phasing out solo practice within the next decade. Health authorities have not hesitated in other areas to "redefine the unacceptable" by means of rules, regulations, controls and legislation.[27,28] Steps could be taken to insure that after a reasonable warning period, no new medical licenses would be granted to physicians who planned to enter solo practice. Alternatively, insurance payments (both social and voluntary) might only be made to those newly licensed practitioners who entered into partnerships or joined groups. Still another method might be for appropriate accrediting bodies to inspect, license or franchise doctors' premises. A parallel reorientation of medical education would be required.

Such notions will undoubtedly engender great controversy, but they seem no more startling than earlier ideas about diploma-mill medical schools, unjustified surgery, fee-splitting or unacceptable hospital standards. The solo practice of medicine by physicians and the practice of primary medicine by physicians without the help of nurse practitioners, health aids or other trained ancillary health workers is obsolete. Steps should be taken to encourage other forms of organization and to discourage that outmoded form. Clearly, positive incentives are preferable to restrictions, but the latter might become necessary.

The Primary Care Unit would be expected to provide continuously available personal health services with a public health nurse or a health aide to provide preliminary screening, backed up by a physician. At

least two members of the team would always be on call. Common records and adequate communication would be other expectations.

An ambulance service organized, provided, franchised or chartered by the health services administrator would be an additional essential resource.

The basic group of seven physicians with their 13 assistants assigned by the health department and the physicians' own ancillary help should be able to look after a population of at least 20,000 persons.

Clearly, all the primary care physicians would have privileges in the community, county or municipal (e.g. public) or voluntary hospitals. As qualified specialists, they would each work on the appropriate service in the hospital. One has to ask whether visits and care at home would be provided. Usually, diagnostic and specific therapy for acute, nonserious, common illness can be most efficiently and effectively carried out in the office. On the other hand, management and care of chronic illness frequently is most effectively carried out at home, particularly for elderly patients. Here health aides and home aides can augment the work of public health nurses. Organized home care programs based on the community hospital can augment the work of the Primary Care Unit.

The hospital is increasingly becoming the focal point for the delivery of medical care. By the same token the hospital is now being defined in terms other than the number of beds it contains. It is thought of in terms of a full range of services for both vertical and horizontal patients. No one has determined the optimum size of a hospital, but it does appear that small hospitals tend to be characterized by low utilization and perhaps lower standards of care.[29] The notion that every patient admitted to the hospital needs or should be subjected to the risks of the full armamentarium of modern medical skills and technical apparatus also is open to question. It should be possible for a primary care physician to have some place where his patients can lie down for a few hours or a few days to undergo observation, investigation or simple treatment, including delivery. An "overnight" facility, or a motel staffed with health aides and with a nurse on call could provide the necessary services.[30] Patterns might differ; such a unit might customarily be part of a community hospital or medical center, but it would not be impossible to have such an arrangement as part of a rural health center housing a seven-man Primary Care Group. That would be safe and realistic if supported by good communications and an ambulance,

minibus or helicopter service. Clearly, no surgery would be contemplated in such units.

In thinking about the community hospital as a central source of care, it is important to focus on problems of organizing resources to provide and coordinate services. Emphasis on building standards and on the "number of beds," which preoccupies the Hill-Burton programs, or on the search for "doctors" in the central city or the rural village, which preoccupies community leaders, needs to give way to concern for the provision of adequate balanced health services systems.

Again, an arrangement of grants for the provision of programs containing certain basic coordinating services such as communications, transportation and information handling would encourage their development. The state or local comprehensive health policy and planning council could determine the conditions under which resources would be allocated. The Comprehensive Act suggests the kinds of authority and control that need to be built into the health services system at the state and local levels if the all-pervasive influences of "bed counting" and wasteful, prideful hospital competition are to stop.

The object of all these arrangements would be to develop a system of secondary medical care centers in community hospitals of not less than 100 beds and preferably of perhaps 400 beds or more. Economies of scale permit more efficient development and use of specialized diagnostic and therapeutic services. The density of population would condition the size of the hosiptal. Hospitals of 100 beds could serve communities of 25,000 to 30,000 persons; this might involve a Primary Care Group of seven physicians, a two-physician Primary Care Unit and, initially, one or two remaining solo practitioners. The larger sized hospital might serve a population of 100,000 with perhaps three seven-man units, several partnerships and so on. Both hospitals should have full-time chiefs of services who would act as consultants to the primary practitioners on their respective services. Diagnostic laboratory and x-ray facilities and organized home care and emergency ambulance services should be available. Depending upon the size of the population served, a multiphasic screening clinic might be provided.[31]

At every stage of the hierarchy of services a system of formula and incentive grants could encourage what is best with respect to knowledge about contemporary health services and discourage what is poor. The leadership of the health services administrator, with knowledge from his health statistics unit and his standards and evaluation unit, and the

understanding and support of his comprehensive health policy and planning council, would provide opportunities for freedom, flexibility, experimentation, innovation, leadership and improved standards.

Policy issue number 5. To what extent should the medical school and its university hospital be responsible for the organization, delivery, monitoring and evaluation of personal health services in the surrounding community? Granted that the university medical school has responsibilities for education, research and services, one may immediately ask, education for what, research in what and services for whom?

One of the apparent purposes of the Regional Medical Programs is to encourage, if not to entice medical schools into a greater awareness and concern for the problems of delivering medical knowledge in the form of medical care to the community. Associated with that, hopefully, would be a concern for educating a large proportion of graduates in ways that encouraged greater interest and commitment to the problems of providing primary care and greater emphasis on preventive and rehabilitative medicine.

Is asking an educational institution to assume a major responsibility for the direct provision of personal health services in the best interests of improved services for the whole community in the long run? How can one institution be the principal social agency responsible for contemporary education, research and total community service, an instrument for change, an evaluator of those changes and the initiator of future changes—all at once? Surely these functions should be distributed among different agencies and institutions in society?[32]

Some one institution in society should discuss and assess the past, reformulate the problems of the present and anticipate the future. These, it seems, are the functions of the university, its medical school[33] and hospital. The fact that new ideas about the delivery of medical care or the organization of health services have not, in the past, come from medical schools does not mean that this state of affairs must exist forever. Nor does it mean that the university should take on the task of organizing all the health services for a community or region. It is doubtful if such an arrangement would be in the best interests of improving health services for the next generation and a system of regionalization that puts the medical school in charge of the whole system may be inadvisable and probably unworkable. That is not to say that the medical school and its hospital should not be an integral part of the Regional Health Services system and fully responsible for its own particular educational and service contributions.[32, 34]

Organization of Services

Basically, six types of personal health services can be provided appropriately, and in some cases only, by either university medical centers or by large sophisticated medical centers. These are: tertiary medical care, secondary medical care, primary medical care, emergency care, social rehabilitation and multiphasic screening. The organization of the services or levels of care is a separate matter from the staffing of the services and from the geographic site of the care. It would be quite feasible for a superspecialist to work both on that service and on the consultant and diagnostic service. He could, but probably would, be less inclined to work in the primary care service. Medical "firms," in accordance with the English tradition, could be organized to provide care, and of course education and research, at one, or the most two, such levels. All services except the multiphasic screening clinic would require facilities for the care of both horizontal and vertical patients; the mix of facilities would vary.

1. *Tertiary medical care or the superspecialty service.* The medical center quite rightly has on its faculty superspecialists whose contributions to the understanding of biological processes and hence to the development of "cures" or "preventive" measures are the result of the concentration of suitable problem patients for them to study. The investigators are interested in these patients and their problems. Such patients frequently are best cared for either in elaborately equipped clinical research units or on intensive care units. An appropriate supporting staff of nurses and technicians is needed that has quite different interests, attitudes and training to those required for the staff providing primary medical care. Similarly, superspecialty clinics are needed to which these patients can come when they are ambulatory. The posture of the patient is unrelated to the source or site of care. Patients need to be referred in from a wide catchment area including many primary care units and groups as well as from secondary care community hospitals to achieve the economies of scale that will permit and encourage necessary superspecialization. Ambulances, minibuses and helicopters can simplify transportation and two-way television, teletypes, dataphones and tele-xerography can hasten communication.

2. *Secondary medical care or the consultant and diagnostic service.* The medical center needs to provide consultants to back up the primary and secondary physicians in the community. It should be

possible for a general internist, pediatrician or obstetrician working in his Primary Care Group of seven physicians to refer his patient with possible heart disease to the medical center for another opinion. It is also to be hoped that this primary physician could refer his patients with "unexplained weakness," or his patients with "unexplained dizziness," and that they could share the same minibus or ambulance with the patients thought to have "heart disease," "cancer" or "stroke." Such patients would be seen either in the diagnostic and consultant clinic, possibly housed in an "overnight" facility or admitted to a regular secondary care ward for appropriate study and management. That service would be organized essentially to provide needed support for the primary physicians in the adjacent community; patients would be seen only by referral, and on completion of their diagnosis and treatment, would be referred back to their primary physicians. Diagnostic services from the chemistry, bacteriology, pathology and radiology departments could be arranged through this service for referred patients.

3. *Primary medical care service.* If the medical center wishes to educate physicians to provide primary medical care and to experiment with new ways of providing that care, it is essential to have such a unit. Patients with hematological disease and neurological disease are needed for training hematologists and neurologists to give tertiary medical care; similarly, patients with undifferentiated medical problems are needed for training primary care physicians. One wants to avoid the confusion inherent in the encounter between the patient who says to the doctor, "I hope you treat what I've got," and the physician who says "I hope you've got what I treat."

The primary care service would be used for teaching primary medical care, particularly to those medical students and residents interested in providing this kind of care. The faculty would need to have special informed interests in such care; the addition of a few general practitioners to the staff is not what is meant. What is needed are competent general internists, general pediatricians and obstetricians who are interested and trained to teach that kind of medicine. They should be of the same intellectual and professional caliber as their colleagues on the faculty although their areas of competence and interest may be different. They should be expected to be more interested in epidemiology and in patient care research and medical care research than in laboratory research, but rigidity

in that as in any other part of an academic institution would be stifling.

The way to establish such a service, it seems, is for the medical school to accept responsibility for providing effective and efficient primary medical care that is directly accessible and continuously available to a defined population. The numbers served should be large enough for educational and patient care research purposes and should be roughly representative of the socioeconomic structure of the community. If anything, middle-class patients might outnumber others because more of them are in society and they will require more physicians trained to care for their needs. The patient population could be defined geographically or by enrollment.

The primary care physicians would have faculty appointments and would care for their hospitalized patients on the regular medical and pediatric services. That could be an aspect of secondary care or might be referred to as the community service. If an overnight care unit or motel were available, it could be used for vertical patients needing transient horizontal facilities. On the primary care service, as elsewhere, the posture of the patient would not determine the site of the care.

Payment for services could be on any basis. Some schools might want to establish group practices; others might wish to experiment with the kind of basic Primary Medical Care Unit or Group discussed earlier. Whatever arrangements are made, the organization and administration of the medical school's primary medical care service should experiment with new methods of staffing, information handling and spatial arrangement. The reason for emphasizing the need for innovation on the primary care service is because it has been disproportionately neglected by the medical schools and their hospitals. Relationships with the secondary and tertiary medical care units in its own hospital, with the emergency service and the multiphasic screening clinic as well as with community social agencies should be exemplary.

4. *Emergency care or emergency service.* The medical center needs to provide comprehensive emergency services, not just an "emergency room." With adequate primary care in the surrounding community, the pressure on the emergency service to handle other than life-threatening catastrophes should be minimal. Such rooms could be organized efficiently to handle patients from satellite hospitals

brought in by ambulance and helicopter. The possibilities of providing surgical teams flown in helicopters to the sites of major accidents is an innovation from military medicine and could be adopted for broader use.

Emergency services should involve more than care of the immediate emergency; each patient should be referred and followed to see that he receives the proper level of care from one of the other hospital services, or from a primary care unit or social rehabilitation unit in his community.

5. *Social rehabilitation service or neighborhood health center.* Many major medical centers should have a social rehabilitation unit to cope with the health problems of the poor in the central city or the rural slum. These groups, if they are to be helped, require as much or more in the way of social services as they do of traditional medical services. The culture of poverty, and the basic cognitive defects that set many of the poor apart from others need to be understood as a basis for helping them. Here the medical school, supported by the Office of Economic Opportunity, can provide a demonstration unit appropriately organized and staffed for the tasks at hand. The neighborhood health centers, with the one door approach to medical, social and welfare services are excellent models. Such units, each serving perhaps 10,000 to 20,000 individuals are needed for educating young physicians to undertake that important service in society and perhaps in other relatively disadvantaged parts of the world. In general, the mix of necessary social and medical services required by clients of social rehabilitation units and neighborhood health centers would be quite different from the mix required by other groups in society. Health and medical care may, in fact, be quite low among the priorities of the poor. Much must be learned about new ways to help them, and particularly about new ways to provide them with helpful medical information and care. Research into such problems should be an integral part of such units. The fact that the social rehabilitation unit or neighborhood health center also acts as the first contact source of care for a distinct population group does not mean that this method of care is synonymous with what has been defined as primary medical care. It is possible that large blighted areas in metropolitan districts and scattered rural slums may require a number of social rehabilitation units to serve the needs of their poor. One or more of them might be the responsibility of the

medical school, others might be the responsibility of a health department, community hospital or other agency.

Such units are unsuitable for teaching primary medical care of the kind demanded by most segments of the middle class in developed societies. Too often comprehensive care clinics and family medicine clinics have foundered because young impressionable students were assigned hard-core, multiproblem families to learn about the "social problems of medicine." Medical students soon learned that the combined resources of the medical faculty and of the community's social and welfare agencies had been unable to break the cycle of poverty, ignorance and disease. How, the students ask, could they be expected to solve such problems? In short, the social rehabilitation unit is excellent for learning social rehabilitation, but inappropriate for learning primary medical care, secondary care or superspecialty care. By the same token, physicians with dominant interests in these three aspects of medicine are unlikely to be effective teachers of social rehabilitation. It seems unwise to distract them from their equally important work. What is needed is a different set of teachers with a different set of interests. Students and young physicians can then be assigned to social rehabilitation units to learn about social rehabilitation not about primary, secondary or tertiary care.

6. *Multiphasic screening service.* More multiphasic screening clinics must be developed at medical centers of the kind initiated by the Kaiser-Permanente Hospitals.[33] Much is to be learned about the relative costs and benefits of periodic health examinations and anticipatory care, and such clinics are justified at university centers for research purposes. These clinics can screen 24,000 persons per year and all the citizens in a city of 100,000 could be screened every four years. Primary care physicians in the community could refer patients for periodic screenings and eventually the possibilities of promoting concern for preventive medicine might be substantial. Many large secondary community hospitals might have such clinics as well.

Under the proposed distribution of services and functions, a reasonable mission for the medical center is possible. It would provide tertiary care and multiphasic screening for a region, for a metropolitan district or a whole state. It would provide secondary care and emergency services for a more circumscribed area in the community where Primary Care Units and Groups and other physicians remain in solo practice.

Finally, the medical center would have a primary care service and a social rehabilitation service for the immediate neighborhood. All physicians working in any of these units would have appointments on the medical school faculty.

Proposal H. Specific Federal Grant Programs for university medical centers are needed to support: 1. primary medical care service, 2. social rehabilitation service, 3. multiphasic screening service, and 4. transportation units using ambulances, minibuses, helicopters and two-way radio-telephones. None of these programs sound less reasonable than grants to support animal farms, primate colonies or computer centers.

Education

The benefits bestowed on society by the efforts of the medical specialty boards are accepted, but the boards as presently constituted may have outlived their usefulness. It may be time for the universities to reclaim their authority to certify the competence of their graduates. The current requirements of the specialty boards tend to encourage time-serving and completion of chronological requirements They seem to place undue emphasis on "passing the examination," rather than on developing curiosity, increasing learning capacity and expanding powers of analysis and synthesis.

Accordingly, it seems that the universities should reassert their authority to both educate physicians for specific tasks and to grant them appropriate degrees of certifying their levels of attainment. The recommendations of a report to the Royal College of Physicians in Canada has real merit.[36] It suggests that medical schools train three levels of physicians after graduation. Only the matter of their education will be discussed here. The problems of status and remuneration can be handled through administrative arrangements consonant with the organization of the health services system described above.

The need to train "physician assistants," "nurse practitioners" or a variant of the traditional public health nurse to work with physicians, particularly in the provision of primary medical care, is a matter of great importance. In the discussion that follows, it is assumed that physicians will continue to be *responsible* for organizing and supervising the delivery of primary care, even when they do not "give" all of it themselves.

Primary care physicians would be internists and pediatricians interested in providing continuously available primary care to people in

their respective age groups in a family setting in the community. Graduate training of such physicians would be centered in the primary care unit; it should emphasize ambulatory care, treatment of the common acute diseases and management of the common chronic disorders, as well as preventive measures, counseling and an understanding of psychiatric and social problems. Opportunities to work in teams with physician assistants, nurse practitioners, public health nurses, health aides and social workers, as well as to use the multiphasic screening service and the consultant and diagnostic service should be available. The staff would, of course, have available overnight and regular hospital beds on the community service in which to care for their own patients. When necessary, patients could be transferred to the tertiary or superspecialty services and followed, but not cared for by the primary care physician.

Training to this level should take three years after completion of medical school and a graduate would be known as a *Doctor of Clinical Medicine* and given an appropriate university degree. They would constitute the largest output of the medical education system. Since the resources of university hospitals would be insufficient to meet all the demands for that kind of physician, Primary Care Units and Groups would have to be used that were established at appropriate community hospitals affiliated with the medical schools.

Elementary training in epidemiologic methods should be included so that primary care physicians could participate in such research, if they so wished.

Secondary care physicians would be essentially specialist-consultants in internal medicine, pediatrics, surgery and obstetrics and their training would be focused on the more complicated, but relatively common, diagnostic and therapeutic problems associated with the practice of medicine. These physicians would be discouraged from providing primary care and would see patients only on referral. Their training would take place largely on the general wards of the community service with horizontal patients. General surgeons and obstetricians would be trained to this level and might be expected to take five years after medical school graduation. The obstetricians would be expected to work with the assistance of one or more nurse-midwives.

A knowledge in depth of scientific medicine would be expected, but experience in a research laboratory for a year or so does not seem appropriate. Physicians trained in this manner would become full-time

staff in community hospitals and directors of medical education.

A graduate of such a program would be known as a *Doctor of Medicine* and given an appropriate degree by the university.

Epidemiologic methods, patient care research and experience with clinical trials might be emphasized as part of their training.

Tertiary care physicians would be the clinical scientists and the superspecialists. They would be expected to have research experience in depth, in one or more of the basic sciences, probably to the level of the Ph.D. They would require a total of six or eight years of training. The limited numbers of highly trained graduates of such programs could be those who contributed to major advances in the understanding of disease processes and medical cure. They would see the limited kinds of patients in which they were interested and would have vertical and horizontal facilities at their disposal in accordance with the immediate needs of the patients for whom they were responsible. Referral for investigation to these superspecialists might occur quite frequently and complete transfer of responsibility for continuing medical care less often. A graduate of this program would be known as a *Doctor of Biological Medicine.*

In all of these arrangements it is assumed that mobility between levels could occur. A Doctor of Biological Medicine who wished to shift to primary medical care would be expected to take the appropriate clinical training and obtain the degree. The system would allow appropriate changes, but in a carefully organized and suitably selective educational program, one would expect this to be minimal.

The comments above refer to the fourth stream of graduate education, which would result in the degree of *Doctor of Administrative Medicine.*

Nurses' education could be organized along lines similar to that of physicians'. Three years of professional education should surely be enough to prepare nurses for work on the general wards of community hospitals and on the secondary care services. An additional two years would probably be required for work as a nurse practitioner, public health nurse, nurse-midwife, intensive care, operating room, emergency room or superspecialty nurse. Health Aides could be trained in community colleges with two-year programs as are medical secretaries and technicians. Opportunities for mobility could be provided by allowing those interested to transfer between levels after completion of on-the-job training and examination, or they could return to a medical center for additional education.

It would be a prerequisite of all the arrangements proposed that physicians and nurses work together in the various units and combinations proposed. Without being educated and trained in this pattern, it is difficult to see how effective collaboration can be expected in later professional work.

Proposal I. Federal training programs and fellowship programs that are oriented to levels of care, not to categorical diseases, should be introduced. These could support the training of Doctors of Clinical Medicine, Doctors of Medicine and Doctors of Biological Medicine as well as Doctors of Administrative Medicine. At present, research training in biological medicine is more generously supported than training for the other three categories. One wonders whether the control and distribution of training funds has not played a role in the current maldistribution of physicians available for each of these four main streams of graduate medical education.

Proposal J. Finally, a federal grant program should finance health services research centers akin to the clinical research centers. These would be concerned with research development and demonstration in the organizational and administrative problems of delivering health services; that is, with medical care and patient care research and services. Such units could be developed by universities, teaching hospitals and health agencies. Their efforts need not be restricted to any one level of care, but initially the need is probably greatest at the levels of primary care and secondary care. If more is known about the workings of the health services system and about the medical care process, society would be in a better position to organize personal health services on a rational basis.

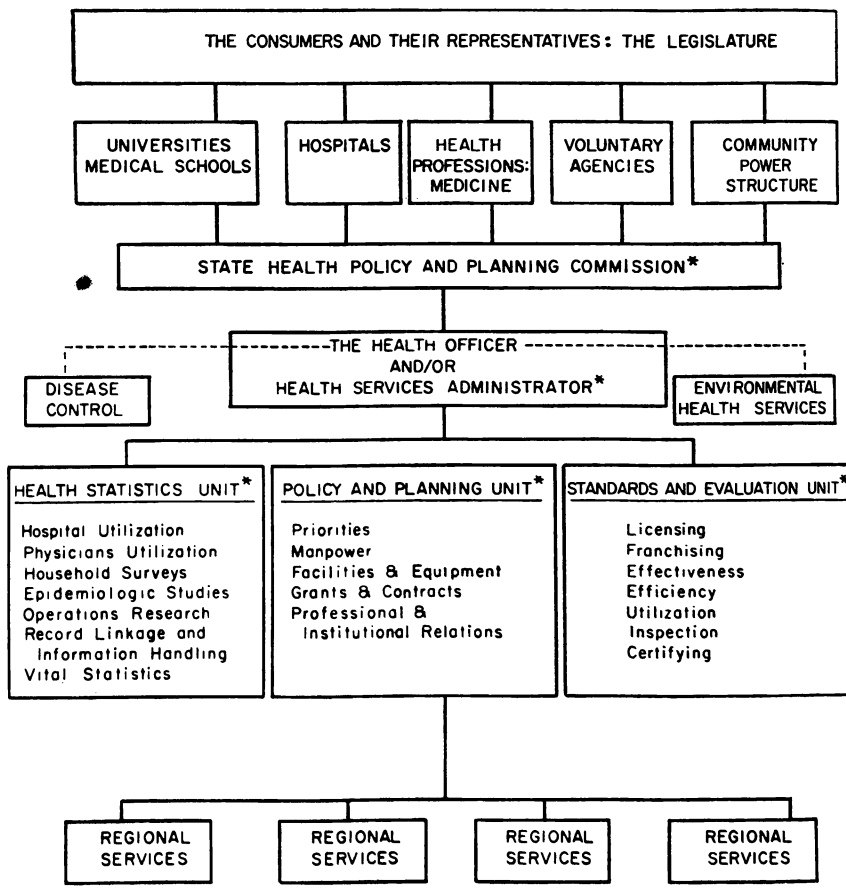
CONCLUSION

These and related public policy issues need to be the object of substantial debate and discussion both by a council of health advisors and by a national commission prepared to invest a great deal of time in their study. The result should be an initial statement of objectives for a health services system for the country designed to maintain flexibility and freedom, as well as ample encouragement and opportunity for innovation and criticism, but which also would provide leadership and clear statements of goals—always, of course, subject to renegotiation in terms of the social contract. To say that this can be accomplished "without interfering with the patterns or the methods of financing, or

with the administration of patient care or professional practice, or with the administration of hospitals," is quite unrealistic. One cannot change without changing.

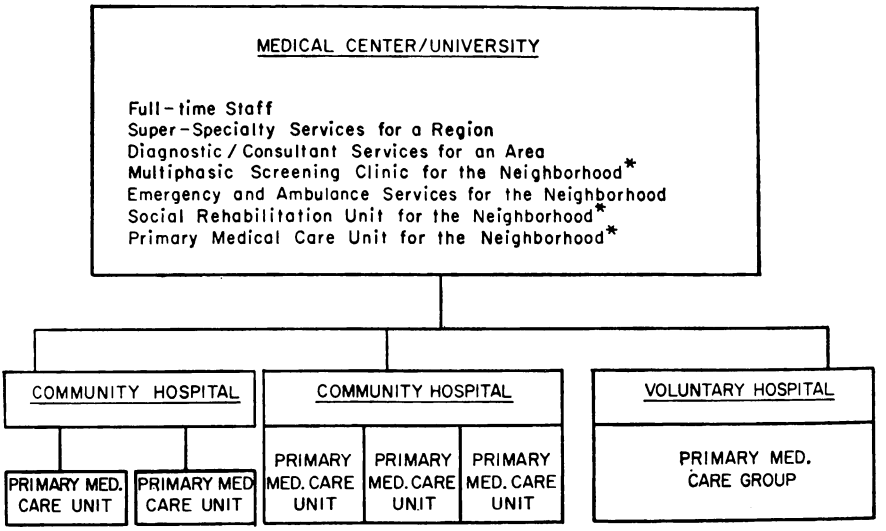
A model to guide the reader through the maze of proposals is provided in the four adjacent charts.

FIGURE I. THE STATE OR METROPOLITAN DISTRICT



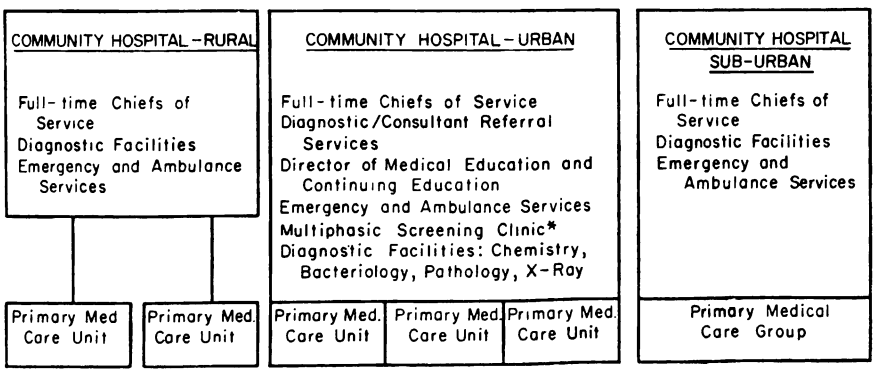
* Proposed Federal Programs

FIGURE 2. TERTIARY MEDICAL CARE: THE REGION



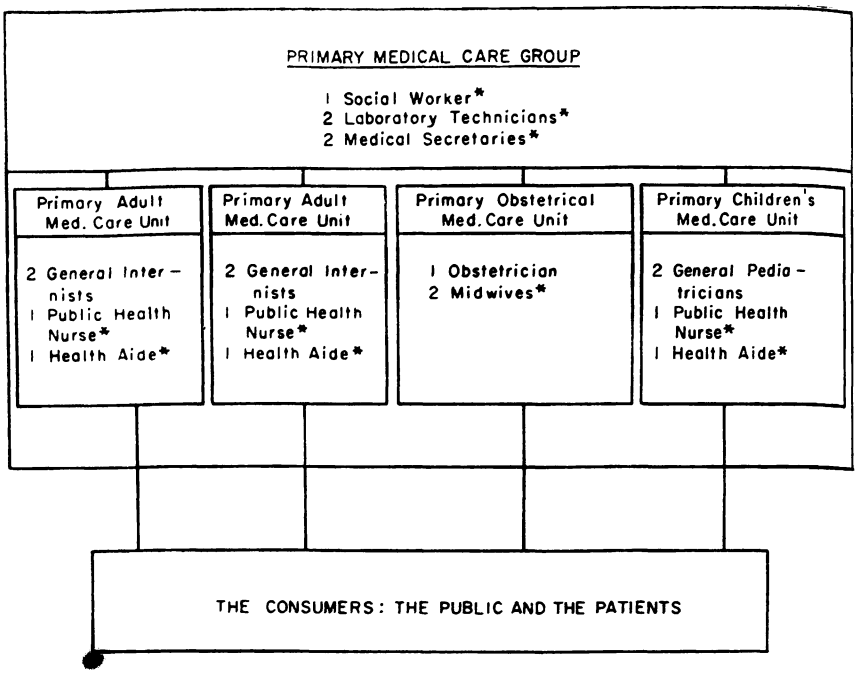
* Proposed Federal Programs

FIGURE 3. SECONDARY MEDICAL CARE: THE LOCAL AREA



* Proposed Federal Programs

FIGURE 4. PRIMARY MEDICAL CARE: THE NEIGHBORHOOD



* Proposed Federal Programs

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