

The Expanding Physician Supply and Health Policy: The Clouded Outlook

ELI GINZBERG, EDWARD BRANN,
DALE HIESTAND, and MIRIAM OSTOW

*Conservation of Human Resources,
Columbia University*

THIS ESSAY PROPOSES TO RAISE COMPLEX conceptual questions about an issue that is on the nation's health agenda and that may sooner or later lead to radical policy intervention. In the twelve years between 1978 and 1990, the best estimates suggest that the physician supply in the United States will increase by 40 percent, on a per capita basis by 30 percent, a rate of increase roughly three times faster than in the two preceding decades when the growth of the American economy was considerably greater than what most experts predict it will be in the 1980s. Moreover, in the 1960s the national mood stimulated additional demands for health services; the dominant mood today and throughout this decade will be to constrain health costs.

Since we as a people are much more oriented to the future than the past, it may be useful to introduce the subject at hand with a highly abbreviated account of what occurred between 1950 and 1980, a period that came to be dominated by an ever-broader consensus of opinion that the United States was suffering from a shortage of physicians that required large-scale federal intervention if a crisis in health care delivery was to be avoided.

In 1949, President Truman's proposed legislation for national health

insurance (NHI) was summarily rejected by Congress. The Magnuson committee was then appointed to recommend alternative ways of improving the health care of the American people. In 1952 shortly before Truman left the White House, the committee recommended a substantial increase in government funding to enlarge the health resources base, including federal support for medical education. The severe financial problems of the nation's medical schools, practically none being able to meet their budget out of current income, threatened even their ability to maintain existing programs, and prohibited any expansion of enrollments or improvement in the quality of instruction (President's Commission on the Health Needs of the Nation, 1952).

The American Medical Association (AMA) lobbied effectively to kill the proposal for federal support of medical education. Despite the prodding of several additional distinguished advisory committees, headed by Bayne-Jones (U.S. Department of Health, Education, and Welfare, 1958) and by Bane (U.S. Department of Health, Education, and Welfare, 1959), which created an overwhelming sense of the urgent need to increase the physician supply, Congress took no action until 1963 when it made some funds available for the expansion and construction of medical schools. The perception of a national shortage replaced the long-recognized concern with regional differences in physician supply and urban-rural inequality in physician distribution.

With the basic approach decided upon, Congress acted on a great many additional fronts during the next decade, including providing appropriations for medical schools in distress, encouraging schools to expand enrollments, making loans and grants available to medical students, underwriting special remedial courses for minority students interested in applying to medical schools, funding residency training in family practice, and providing for capitation payments to schools preparing health professionals.

At a meeting sponsored jointly by the Carnegie Corporation and the Commonwealth Fund in Fort Lauderdale in 1966, the participants—with the exception of two economists, Rashi Fein and Eli Ginzberg—would not critically examine the proposition that vigorous national action was called for to expand the education of physicians. A professor of medicine said he was appalled to hear an economist question the need for more physicians. A leading physicist suggested that the demographic trends clearly proved the need for more physicians.

If numbers proved anything, it was that they were relatively easy to manufacture and in a friendly environment could quickly gain public currency. In the mid-1960s, the Department of Health, Education, and Welfare (HEW) proclaimed a shortage of 50,000 physicians, a figure that was almost immediately accepted by the Congress, the public, and by all the other groups that favored expansion.

As late as 1971 Congress, acting on the premise that shortages of physicians and other health professionals still existed, passed new legislation, the Comprehensive Health Manpower Training Act of 1971 (P.L. 92-157), which provided for capitation payments to medical schools. It also made funds available for the first time for residency training in family practice. Through the latter action it began to shift the debate from a shortage of total numbers back to the older concept of "maldistribution," a term, however, that required redefinition in view of postwar population shifts, the changing rural-urban landscape, and the technological transformation of medical practice. Some simple arithmetic ratios were developed that "proved" that certain regions, states, and localities had, on a per capita basis, below average numbers of physicians, specialists, and general practitioners.

To conclude this remembrance of things past it may be recollected that in 1974 Dr. Charles Edwards, then assistant secretary for health, suggested in congressional testimony that the physician shortage was at an end and that the country might soon face a surplus (U.S. Congress, House, Committee on Interstate and Foreign Commerce, 1974). The respective committees of the House and Senate were unable during the next several years to reconcile their differences regarding new health manpower legislation, but in 1976 a compromise health manpower act stated unequivocally that it was the view of the Congress that the shortage of physicians had ceased to exist (the Health Professions Educational Assistance Act of 1976, P.L. 94-484). One corollary was the congressional directive to the Departments of State and Justice to reduce radically the inflow of foreign medical graduates (FMGs) into the United States.

In the last five years, the administrations of Presidents Ford, Carter, and Reagan have repeatedly recommended that Congress, in the face of an adequate if not excessive supply of physicians, cut back its funding for health professions education, something that legislators have been willing to do but at a considerably slower rate than the administrations have recommended.

Early in 1976 the secretary of HEW chartered an advisory committee to review graduate medical education. After some recasting when Joseph Califano took office, the committee under the chairmanship of Dr. Alvin Tarlov carried out a major effort. The final report of the Graduate Medical Education National Advisory Committee (GMENAC), released in September 1980, concluded that in 1990 the United States would have 70,000 physicians in excess of the number required to meet its needs. These projections were developed by the use of current modeling techniques informed by professional judgment. GMENAC further reported that, in the absence of early and strong interventions, the excess for the year 2000 would be 145,000.

About a year and a half before the final GMENAC report was released, the Conservation of Human Resources, Columbia University (CHR), because of its long-term interest in manpower policy research in general and health manpower in particular, developed a proposal, supported by the Robert Wood Johnson Foundation, to monitor the expanding supply of physicians. Such an expansion was likely to have wide-ranging effects on the structure and functioning of health care in the United States during the remaining years of this century, and CHR saw an opportunity to contribute to public understanding of the issues and to develop a framework within which the concerned groups might find common ground leading to constructive policies.

The present article sets out the range of effects that an expanding physicians' supply is likely to have on three major dimensions of the health care system—costs, education, and practice. It then delineates the forces that will influence the development of a consensus among the principal interest groups, and concludes with a brief assessment of policies that might alter the number of future physicians in a dynamic economy and society in which technology, tastes, and politics continue to be potent determinants of the demand for health care.

Although our analysis will center around the direct or first-order effects resulting from rapid increases in the supply of physicians, it will take note on occasion of possible secondary or indirect consequences that may prove even more important. To illustrate: the AMA in the early 1950s, while opposing direct federal support for medical schools, did not object to indirect support through research grants. For the next fifteen years or so, medical schools received substantial assistance from the National Institutes of Health (NIH) and other

federal agencies. The nature of the funding had major, though unforeseen consequences including: the rapid build-up of faculty; the shift in the relative positions of laboratory researchers and clinicians; the loss of effective institutional control by the dean as department heads and principal investigators became responsible for their own funding; the further impetus to specialization effected by training grants and fellowships; the reinforced stimulus to high technology; the limited cost-consciousness of faculty and administration resulting from access to continuing large federal grants; and the substantial rise in the cost of education.

This review of some of the correlates of medical school funding by way of federal research and development grants is not to be read as a criticism of the NIH mechanism, much less as disapproval of what the federal dollars bought. Rather, it focuses attention on major structural changes in the nation's health science centers that no one had sought or planned, some of which turned out to be dysfunctional. Accordingly, while we will concentrate on first-order effects we will also remain alert to possible indirect consequences that may result from the prospective rapid increases in number of physicians and from the alternative policies designed to cope with such increases.

Costs and Practice

Significant increases in the supply of physicians are likely to influence where physicians practice, how they practice, and how much they earn. The consequences of such increases will also be affected by changes in the composition of the supply as well as by changes in related sources of professional manpower.

Physician Distribution

The recently released Rand study of physician location trends indicated that the years between 1960 and 1977 witnessed a substantial diffusion of board-certified specialists from the large metropolitan centers into communities as small as 20,000 to 30,000, more than 70 percent of which now have a full complement of basic specialists (Schwartz et al., 1980). The earlier diffusion is being followed by additional specialists who provide secondary and tertiary care. The increased

number of new graduates will presumptively reinforce these trends, at least until most small communities are able to attract all the primary care physicians and specialists that can be supported by the local and neighboring populations. Paradoxically, this large-scale diffusion of physicians into the hinterland occurred at the same time that the issue of maldistribution preoccupied the medical and political leadership.

Two pieces of evidence have been at hand for some time that have reflected the widespread diffusion of specialists into outlying areas. Major university hospitals have become increasingly aware of a reduced flow of patients requiring secondary and frequently even tertiary care, coming from small and medium-sized communities that used to provide many referrals. And those university hospitals located in metropolitan areas recognize that they have been admitting progressively fewer suburban patients. In both cases, the diffusion of specialists is the direct cause of the reduced transfer of patients into major medical centers.

A second clue as to what has been going on is the behavior of for-profit hospital chains that have been active recruiters of key specialists—orthopedic surgeons, anesthesiologists, radiologists, etc.—to ensure that the medical staffs in their outlying hospitals have sufficient breadth and depth to maintain high utilization rates.

In light of these trends, the question must be raised of the implications and consequences of an ever-larger number of specialists taking up practice in smaller and smaller communities. How will family practitioners who are currently disproportionately concentrated in such communities fare in the face of such a continuing invasion? Underworked general practitioners will be disinclined to refer their patients readily to specialists. What other turf wars are likely to arise? How does one reconcile the diffusion of specialists with the desirability of regionalization of hospitals, a long-accepted goal of good medical planning, quality care, and cost control?

Physician Recruitment

Moving the telescope a few degrees shows that the much enlarged supply of physicians will make it easier for various employer groups—health maintenance organizations (HMOs), hospitals, governmental facilities, the armed services—to recruit and retain physicians. An-

ecdotal evidence supports this view: major HMOs on the West Coast, hospital chains in the South and Southwest, and hospitals in the East report an improved recruiting environment during the last few years. Rumor has it that one can hire a physician in San Francisco more easily and for only a little more money than a nurse.

There are additional reasons why the growth of HMOs (as well as other forms of salaried practice) may be accelerated by a rapid increase in the supply of physicians. Many young graduates will complete their residency training with sizable indebtedness, as high as \$50,000 or more, and if all, or most, of the currently proposed federal economy measures are enacted, the amount to be paid back by those most heavily in debt may even exceed \$150,000. A newly minted specialist burdened with a heavy debt may hesitate to assume the additional expenses involved in opening an office for private practice, paying malpractice insurance premiums, which in the case of an orthopedic surgeon or neurosurgeon located on Long Island (New York) are scheduled to rise to \$40,000, and sweating out the years building up his patient load. True, most prepayment plans will not provide him the level of income required for a speedy repayment of his debts, but he may be better off with a regular salary, moonlighting on the side.

The accelerated growth of HMOs, if it were to occur, would add to the potential imbalance between supply of and demand for physicians, since HMOs employ about 100 physicians per 100,000 against a prospective national ratio of physicians to population of 250 per 100,000 in 1990. Even if one adjusts the HMO figure to compensate for the skewed age distribution of their enrollment (fewer older persons who use more services), a rapid growth of HMOs must inevitably lower the requirements for physicians in 1990 and 2000.

In a recent article, A.S. Relman (1980a) noted that hospitals that find difficulty in staffing their increasingly utilized emergency rooms are resorting to for-profit entrepreneurs to provide physician coverage. Such entrepreneurs also provide house staff for suburban hospitals that do not have residency training programs. A substantial easing of the supply will probably encourage other for-profit organizations to enter or expand their activities in the provision of health care services. In the past, state medical societies succeeded in placing legal impediments in the path of entrepreneurs who sought to hire physicians, but the state of California, for one, removed such restraints several

years ago. In the future an underemployed pool of physicians might encourage other states to remove these restrictions, particularly if their legislators believed that such action would contribute to cost containment. Another development for which there is some supporting evidence is an expanded interest on the part of some large employers to offer a wider range of preventive services to members of their work force (from hypertension control to obesity clinics). Some insurers believe that such benefits can pay for themselves in reduced absenteeism and disability. The pattern followed by the Reynolds Company of North Carolina, which provides health care services to its employees through a physicians' group that it sponsors and pays, may also attract imitators at a time when the physician supply eases.

Public sector staffing problems should moderate. During the past several decades public institutions, from the military to state mental hospitals, have encountered serious and often continuing difficulties in attracting and retaining essential medical staff. In San Francisco and in Denver the respective heads of the public health clinics report that staffing patterns have taken a radical turn for the better in recent years. Will more and more physicians be willing to accept part-time positions that pay as little as \$25 to \$35 an hour?

Congress, in its 1976 health manpower legislation, took note that one of the positive results of the favorable turnaround in the supply of physicians was the opportunity for the United States to reduce its dependence on foreign medical graduates. Scattered information points to a mixed result: the number of FMGs is definitely down but the ability of unattractive medical institutions and communities to attract American trained physicians to replace them has not yet been clearly established. The municipal hospitals in New York City, long dependent on FMGs, to continue to operate have had to seek repeated exceptions to the legislation. More time must pass before a reliable assessment can be made on how much the easing of the supply will obviate the difficulties of the weaker sectors of the market in attracting American trained physicians.

Women Physicians

No attention has been paid up to this point to the fact that hidden beneath the total figures that indicate a large-scale increase in number of physicians is the shifting proportions of men and women graduates.

From less than 10 percent in the 1960s, women now account for 25 percent of new admissions to medical school, and by the decade's end they could conceivably be even several percentage points higher, with respect to both admissions and graduates. To oversimplify, the tilting of the supply in the direction of a much enlarged proportion of women should have significant consequences: a greater demand for salaried positions, which women have historically preferred; lessened pressure from graduates to enter residencies such as neurosurgery with extended training periods; a brake on the further diffusion of physicians into smaller communities because of the fact that so many women physicians are married to physicians, other professionals, or managers and therefore require a market that can provide opportunities for both spouses.

Costs of Medical Care

It is not clear how a rapidly increasing supply of physicians will affect costs. More physicians could lead to higher overall medical care costs as physicians make extra efforts to keep themselves busy, even if the average physician experiences, as appears likely, a decline in relative income. These efforts could include more surgery, more follow-up office visits, more tests and procedures, and more involvement in marginal medical areas such as cosmetic surgery and exercise therapy. To the extent that increases in the physician supply will lead to still more specialization and a still wider dispersion, costs will increase, since specialists usually charge more for the same service than do generalists. In addition, an expanded supply of physicians may lead to the substitution of physicians for less costly nonphysician manpower, such as in the case of nurse anesthetists.

Alternatively, increased availability of specialists could result in lower overall costs. Specialists, by virtue of their superior training, are less likely to perform questionable procedures, tend to make use of fewer tests, feel more secure in treating their patients on an ambulatory basis, and are more expeditious in arriving at the correct diagnosis and in selecting the most appropriate treatment. This superior skill could save money. Whether this putative gain in efficiency would compensate for a 30 percent increase in the supply of physicians determined to maintain high incomes is uncertain. The anticipated employment of increasing numbers of physicians in salaried positions

by HMOs and similar large institutions might also contribute to lower costs by economizing on overhead expenses, reducing individual risk, and removing incentives to overbill.

One of the more interesting speculations is the extent to which a much enlarged supply of physicians is likely to encourage a radical shift in the locus of care from inpatient facilities to ambulatory care settings. Currently hospitals and nursing homes account for approximately half of all health care expenditures, physicians accounting for an additional 20 percent. Clearly a greatly increased number of physicians will be better positioned to maintain high average incomes, in a period when total outlays are likely to be constrained, if they can reduce the hospitals' share in favor of a larger share for themselves.

Conventional wisdom holds that physicians are directly and indirectly responsible for about 70 percent of the total outlays for health (Relman, 1980b). An increase of about one-third in the number of practicing physicians in the 1980s could lead, other things being equal, to as much as a 21 percent (70 percent of 30 percent) increase in the real dollar outlay for health costs. The 70 percent figure, however, must be treated as a rough estimate, nothing more. It would be important in the years ahead to refine the estimate and to take periodic readings as to its stability, but there is no basis at present for guessing in which direction it will shift.

The Demand Side

If real per capita income of the American people remains stable, and more particularly if it were to decline in the period ahead, there would be less likelihood that total health expenditures would increase proportionately to the increased number of physicians. And if inflation continues apace and the prices of other necessities continue to advance, there would be even less likelihood of a proportional increase. Although it would be an error to argue by analogy from dentistry to medicine, one should not be unmindful of recent trends in the field of dental care. With a faltering economy, demand for dental services has weakened perceptibly at the same time that there has been a rapid increase in the number of dentists per capita. Recent dental graduates confront serious difficulties in entering practice and in realizing even a modest income. Many have been forced by economic necessity to hire themselves out to profit-seeking dental chains.

The concept of an insatiable demand for medical care no longer holds sway. Some well-informed observers of the medical scene believe that in many specialties demand is nearing satiation. Only in primary care specialties, radiology, and psychiatry does there appear to be substantial unmet demand. Psychiatry represents a special case in which demand is more clearly linked to financing than in other specialties. If insurance coverage for psychiatry deteriorates, demand will fall dramatically.

Future demand for medical care is also linked to changes in technology as new procedures and therapies evolve and old ones are made obsolete; but it is difficult, some would say impossible, to assess the impact of future technological changes either on the overall demand for medical personnel or the total costs of medical care. The trends of the recent past will not necessarily continue.

New Sources of Demand

Faced with a much enlarged supply, physicians are likely to press for improved standards of medical practice as a means of expanding opportunities for employment and earning. But it is unclear whether the funding necessary for such quality improvement will be forthcoming. There is widespread agreement about the serious neglect of many nursing home patients (Vladeck, 1980). But the public is not likely to agree to new or improved services if these require, as they would, much larger expenditures. However, new demands in the private market with money to back them up is a distinct possibility. Recent reports from Great Britain call attention to physicians in for-profit practices who have agreed to make house calls during regular hours as well as on nights and weekends. When the United States confronts pools of underemployed physicians, many will offer similar types of "new" services. Physicians will be more willing to treat geriatric patients, especially the very old, whose numbers will increase faster, and whose needs are substantially greater than those in the lower age brackets. Some physicians will prove more responsive to meeting the needs of patients who were previously ignored, by opening practices on the edge of the ghetto and accepting Medicaid patients. Moreover, others will seek to fill out their time by undertaking more "optional" procedures, from hair transplants to breast-lifting. Two questions follow. Will the affluent sectors of the public pay for such

extras? And will third-party payers succeed in excluding such services from their contracts?

It has long been recognized that many patients who visit a physician have both emotional and somatic difficulties and that many physicians pressed for time tend to concentrate on the somatic and give the emotional facets short shrift. Although the question of payment enters here, physicians with more time at their disposal may become more responsive to the emotional aspects of patients' complaints and devote more effort to providing support.

Ginzberg (1966) advanced the argument many years ago that physicians are able, within limits, to influence the demand for their services by such a simple device as encouraging return visits by their patients to check on the effectiveness of their recommended therapy. If the physician is busy he will suggest that the patient call him up to report. Fuchs (Fuchs and Kramer, 1972), Reinhardt (1975), and others have reached much the same conclusion. However, other analysts have questioned this generalization (Hixon and Mocniak, 1980). To the extent that there is some scope for physician-induced demand, the existence of an increasing number of not fully occupied physicians can generate additional services. In a struggle between the public's desire and need to control total costs and the physicians' desire to protect their earnings, it is likely that in the short term, at least, the advantage lies with the latter.

Physician-Hospital Relations

Professor Mark Pauly (1980) of Northwestern University has been emphasizing for some time that access to hospitals is a major factor contributing to physicians' incomes by enabling them to optimize their use of time, by providing them with a support structure (from residents to nurses), and by permitting them to charge higher fees for inpatient services. Recent studies by the AMA staff tend to confirm the positive influence of hospital privileges on physicians' incomes.

A significant increase in the supply of physicians is likely to have important consequences for physician-hospital relations. It is likely to increase the professional and economic advantages of physicians who hold appointments on the closed staffs of prestigious hospitals. This group of insiders with admitting privileges may well act to bar newcomers in order to protect their volume of work and income.

Moreover, as more physicians seek hospital appointments, the early halting efforts to reduce bed capacity may encounter still another source of opposition.

Physician Extenders

Faced with clear warning signs of the large-scale increases in the supply of physicians, and recognizing the potentially adverse effects of such increases on their earnings, more and more physician groups are likely to adopt increasingly restrictive stances with respect both to the number of physician extenders being trained and to their approved scope for practice. Despite occasional successes in a few states, nurses have experienced considerable resistance of late as they have sought to broaden the scope of nurse practice acts (Trandel-Korunchuck and Trandel-Korunchuck, 1980). GMENAC recommended that, with minor exceptions, extenders must work under the supervision of a physician and that the training of physician extenders should not be expanded. The Academy of Orthopaedic Surgery long ago eliminated the orthopedic assistant, on the ground that there was no appropriate role for such personnel. If such a prospectively hostile stance of physicians toward increasing the numbers and broadening the scope of practice of extenders were to succeed it could increase expenditures. However, since the use of extenders is frequently additive rather than substitutive, this conclusion that costs would increase remains uncertain. There are also good reasons to expect that efforts to restrict the growth of physician extenders will be only partly successful, not only because of aggressive opposition by those groups, but also because of continued federal and state government subventions for training of extenders, and the continuing need of special groups (the isolated and the poor) for coverage for which physicians will not be available.

Physician Income

A one-third increase in the supply of physicians during a period of effectively constrained public and private expenditures for health care is likely to lead to a decline in the average earnings of physicians. Only the speed and scale of the decline remain in doubt. Recent evidence suggests that physicians' incomes have not kept up either

with those of other professional workers (Katz et al., 1977), or with the inflation rate (Glandon and Werner, 1980). However, it is important to place this recent decline in context. Between 1951 and 1965, physicians' incomes grew by an average 1.6 percent per year more than incomes of other workers (Dyckman, 1978:76). In the 1930s, in some of the nation's large cities, young newly graduated physicians were unable to start a practice and had to find alternative employment as clerks in the post office, as taxi drivers, or in other nonprofessional work. If one compares the situation in 1939 with that in 1975, one finds that the ratio of physicians' earnings to those of a broad group of professional and technical workers rose from 2 to 4 (Dyckman, 1978:i). This ratio is almost certain to narrow in the 1980s.

Prospects for Fee Control

The existence of a much larger and more flexible supply should make it easier for third-party payers—governmental and nongovernmental—to establish systems of fee control aimed at slowing the rise in total expenditures. Government may insist, in the case of Medicare, that physicians agree to accept the established fee and relinquish their current privilege of choosing between direct billing of some Medicare patients while accepting assignment from others.

Hours of Work

Lower incomes and fee control are likely to alter the work patterns of practicing physicians. Some may try to turn additional hours of work into additional income. Others may decide to adjust their hours to the greater convenience of their patients (office hours at night and/or weekends). It is not clear how a balance will be struck between extended hours leading to more income and the clear preference, especially among younger physicians, for a shorter work week. Overall, the likelihood is that physicians will work closer to forty than to fifty hours per week. This trend will be strengthened by the increasing numbers who will practice in groups, associations, or in salaried positions. The fact that many physicians have spouses who earn their own respectable income will also affect the physician's income-time balance.

Absence of pension plans adjusted to cost-of-living and continuing inflation will seriously erode the retirement income of older physicians. This may cause many to work well beyond age 65 and to work full time rather than part time, thus reducing the attrition rate from the active physician supply.

The growing proportion of women physicians will have a noticeable effect both on hours worked and on the average earnings of the profession. Historically, women physicians have worked considerably fewer hours than their male counterparts; together with differences in specialization and mode of practice this has been reflected in considerably lower average earnings. Some of these differences between men and women physicians in hours worked and in annual earnings have narrowed of late (Bobula, 1980), but a conservative estimate suggests that the possible prospective excess of physicians and the resultant higher total expenditures for health care must be adjusted downward because of the growing proportion of women physicians.

Academically Based Practice

With the financial circumstances of medical schools likely to deteriorate further in a decade of fiscal constraint, there probably will be additional growth in the number of practice plans involving faculty personnel, plans that accounted for about 15 percent of all medical school revenues in 1978-1979 (American Medical Association, 1981:2824). The recent disclosures in the New York City newspapers of the multiple sources of earnings of many faculty members at the State University of New York, Downstate Medical Center, may be a harbinger of events to come, especially when public funds loom large in the compensation of physicians. The federal Department of Health and Human Services (HHS) may finally take definitive action to curtail the payment of physicians in teaching hospitals under Medicare, permitting payment only under Part A or Part B, not both, and only when the physician attests that he has personally rendered the service.

Group Practice and Salaried Employment

Prepaid group practice arrangements have begun to grow. Although the vast majority of Americans express broad satisfaction with their

regular source of medical care (Aday et al., 1980:148), the continuing steep increases in costs, the growing availability of HMOs, employer encouragement, and still other supportive forces are likely to result in greater use of prepayment plans. Their rate of increase will be determined in considerable measure by the availability of entrepreneurial talent required to organize and manage effective HMOs. The recent entrance and expansion of large commercial insurance companies into the field—Prudential, Insurance Company of North America, etc.—may hasten their growth. On the other hand, one must weigh the significance of recent HMO failures and near-failures even where they had strong corporate backing.

More physicians are joining together in various arrangements such as individual practice associations (IPAs) that hold promise of providing them with a satisfactory level of earnings and also have some potential to contain costs to patients and third-party payers. But the IPAs have as yet not unequivocally demonstrated their capacity to contain costs. One informed observer holds that effective cost containment is likely to result only when IPAs are organized in a location that brings together a limited number of physicians who jointly agree on how specific changes in their practice behavior can be beneficial both to their patients and to themselves.

In an illuminating article, Anne Scitovsky (Scitovsky and McCall, 1980) recently presented data that emphasized that most of the presumed advantages of HMOs over other forms of financing were not a function of prepayment per se but rather of the attitudes and behavior of physicians who practiced together as a group. If a group attracts physicians committed to practicing “quality medicine,” including avoidance of unnecessary hospital admissions, their record of controlling inpatient costs can match and even exceed that of an HMO. On the other hand, physicians with desirable hospital appointments may be less interested in holding down hospital admissions if and when their incomes begin to slip.

Changing Provider-Reimbursing Arrangements

Robert Ball of the Institute of Medicine (IOM), formerly social security administrator, has been proposing for some time that the federal government shift from paying the costs of services for Medicare recipients to becoming a direct purchaser of such care as they require.

He believes that the federal government could get more for its dollars if it operated as a purchaser rather than as reimbursor. But if the weapons acquisition experience of the Pentagon provides a clue, one should not hurry to spend the savings. Moreover, it is unlikely that Ball's suggestion will be adopted in the next few years. We should, however, expect more aggressive roles to be played by large underwriters of care such as those in effect between the automobile companies and Ford Hospital in Detroit. Recent reports by the U.S. Chamber of Commerce (National Chamber Foundation, 1978) and the Business Round Table (1978) provide illustrations of several new departures and there have been others since these publications were issued. Significant problems may arise if large purchasers of care seek to obtain better prices, and large providers such as hospitals and other medical organizations (including physicians) seek to attract and hold volume consumers. What will happen to the excluded parties, physicians and hospitals, that are not part of the deal?

National Health Insurance

National health insurance (NHI) appears dead in the near term for many reasons, including severe fiscal constraints. But Senator Dole, the Republican chairman of the Senate Finance Committee, may still try to move ahead with a bill for catastrophic insurance. Cost estimates for such a bill run as high as \$20 billion or 8 percent of current total public and private health outlays. One of the barriers to a more comprehensive NHI has been viewed by Newhouse and his colleagues (Newhouse et al., 1974) as the inability of the present system to meet the expanded demands for ambulatory care. It has been estimated that under a full-coverage plan, demand for physician services for ambulatory care will rise by as much as 75 percent, and for ancillary services by 35 to 40 percent. The marked increase in the supply of physicians, particularly by the latter half of the decade, could help to remove this barrier, if indeed such a barrier exists.

A more interesting speculation relates to the possible effect of a growing number of underemployed, debt-ridden young physicians on future support for NHI. Up to now the medical profession, with few exceptions, has been adamantly opposed to NHI, especially to such proposals as the Health Security Act of 1975, known as Kennedy-Corman, that placed the federal government in a controlling role. But

a significant group of underemployed and disaffected physicians might see NHI in a more favorable light. One should recall the large number of hospitals that, a few years past, supported NHI in the belief that it would solve their financial problems.

Quality of Care

With physicians' incomes subject to intensified competitive pressures, the integrity of professional behavior may be compromised. In a largely self-policing profession, where quality assurance is heavily dependent upon the integrity of the individual physician, perceptions of the patient's welfare should be kept at arms length from the practitioner's self-interest.

Recent discussions with a number of medical school professors and leaders of specialty societies reveal widespread concerns on their part about the potential influence of a rapidly expanding supply on the future structure of health care, and more particularly on the quality of future care. Many believe that an increased supply of physicians will lead to overdoctoring, excessive surgery, unnecessary diagnostic procedures, and dubious therapies. Others, active in their respective specialties, feel that the increased supply will make specialization even more imperative for the young physician, and contend that better training will result in better care at lower cost.

The Medical Profession

Many leaders emphasize, however, the potential dangers to the profession and the general public, stemming not only from the rapid increase in the supply but also from the opportunity that such a development offers to groups not identified with the profession and that do not share its point of view, opportunities to increase their power to influence and alter the structure of the medical marketplace through administrative and judicial determinations.

Many leaders feel a general sense of unease that important changes are approaching and that the way medicine has been practiced for the last forty years will not be the way it will be practiced twenty years from now. Turf wars will heat up among specialties and between specialists and generalists. Specialists are more likely to prevail and younger physicians, recognizing this eventuality, are likely to pursue

ever greater specialization. Younger physicians are likely to experience a great deal more competitive pressure than established physicians. If older colleagues see little possibility of expanding their practices and feel underoccupied professionally, they may not continue to offer associate positions in their practices to new graduates of residency programs. Efforts to restrict specialty care to certified specialists and to deny hospital privileges to newcomers are likely to have the judiciary as the final arbiter. State licensing boards may also become more restrictive, using the issues of FMGs and the American graduates of foreign medical schools (USFMGs) as justification. To the extent that young physicians, many faced with family responsibilities and large educational debts, accept salaried positions, they will in many cases be excluding themselves from possible high prestige practices and large incomes.

The most pessimistic observers, primarily associated with medical schools, see a black day coming for medicine. They see increasing friction developing between older fee-for-service and younger salaried physicians, which would be a major step in the emergence of a two-class physician population. And some see the day not far off when the whole value system of the profession will change, when marketing skills will take precedence over medical skills. In such a situation, professional ethics will increasingly be disregarded and medicine will increasingly become a trade with control passing to governmental bodies.

Education

Medical School Capacity

In addition to 115 fully accredited American medical schools, 10 are currently operating with provisional accreditation. These are all new schools and they probably plan substantial increases in class size as they become better established. Six graduated their first class in 1981: East Carolina, Northeastern Ohio, University of South Carolina, Texas A & M, Marshall, and Ponce (Puerto Rico). Three will graduate their first class in 1982: Oral Roberts, Universidad Central del Caribe (Puerto Rico), and East Tennessee State. Morehouse (Georgia), a new two-year school, has plans to convert to a four-year school. Although

not yet reviewed for accreditation by the Liaison Committee on Medical Education (LCME), the University of Medical Science, San Juan Bautista, P.R., has been admitting students since 1979 with the approval of the Council on Higher Education of Puerto Rico. Finally, Mercer University is planning to open a medical school in 1981 (American Medical Association, 1981:2810–2811).

In addition to the above M.D.-granting institutions, there are also five osteopathic schools that have opened since 1976: New Jersey, New York, Pacific (California), New England (Maine), and Ohio (American Osteopathic Association, 1980).

Although the high and the low estimates differ, these schools when fully operational will provide a significant increase over the 1980–1981 enrollment of 65,189 (which excludes approximately 4,900 in osteopathic schools). The 1980–1981 entrance class was also the largest on record—17,186 (1,500 additional at osteopathic schools), with women accounting for 26.5 percent of M.D. and 16 percent of D.O. entrants. Medical school enrollment has jumped by some 10,000 in the last five years. What is the likelihood that the concern with a potential oversupply of physicians will alter current plans for the construction and operations of any of the aforementioned schools? The new medical school planned by Mercer University, Georgia, has recently failed to be allocated the necessary funds by the state. Time will tell whether other schools still on the drawing board will be delayed, reassessed, or shelved in light of the large increases in the physician supply.

One must not rule out the possibility of a cutback or elimination of satellite schools, such as in the state of Illinois, that were established to accomplish the multiple objectives of increasing training capacity, providing clinical experience for medical students in nonmetropolitan community hospitals, and contributing to upgrading the quality of care in smaller communities. A common interest may develop between state officials concerned with cutting back their budgets and physicians in teaching hospitals who favor a reduction in the number of prospective competitors. But, on the other hand, these newer teaching hospitals are likely to fight the loss of prestige and staff that their medical school affiliation has provided, and citizens of states that are contemplating cutbacks will balk at reductions in the opportunities for their children to enter medical careers.

The press reported that in 1979 Loma Linda, acting on its own,

reduced its entrance class. A review of the admissions data for 1979 reveals a few other small reductions in class size. Federal and state governments have not yet begun to use financial inducements to encourage smaller entrance classes but this is an idea whose time may come. The question of how much inducement will be needed for how much reduction in class size remains to be explored.

The Applicant Pool

Recent developments with respect to tuition and prospective changes in federal loans and grants to medical students are likely to affect the quality of the applicant pool and the future supply of physicians. With annual tuition in many private schools at or above the \$10,000 mark, with some at \$15,000 and going higher, one must expect an eventual and possibly early reduction in the number of applicants willing to make such heavy outlays in the face of what is likely to be reduced career earnings. If the federal government cuts back its grant and loan funds severely, or, worse still, eliminates most, if not all of them, the effect on the flow of future applicants will be substantial. There already has been a major decline in the number of applicants to dental schools (43 percent since 1975) and osteopathic schools (26 percent since 1976) and a modest decline in applicants to medical schools (15 percent since 1974). Finally, anecdotal evidence points to a reduced number of applicants in some state-supported schools despite low tuition levels. In light of the current reduction in the size of the 18–22-year-old age cohort by about 15 percent (for whites), and the declining proportion of men who have been electing to attend four-year colleges, a continued slow or possibly even rapid reduction in the pool of applicants must be anticipated. Since many medical school applicants come from the same pool as those who pursue work in engineering and the sciences, a shifting of many of the better qualified students away from medicine is that much more likely if the current strong demand arising from the computer revolution, energy, aerospace, and biogenetic technology continues. In addition to the prospect of lower lifetime earnings, the growth of governmental constraints on practice probably constitutes a major deterrent to able undergraduates who are considering a medical career.

Ethnic Representation

The last years have witnessed a rapid increase in the number of Hispanics enrolled in medical school. Accounting now for 4.2 percent of the total, Hispanics have a proportionately higher representation than blacks. However, much of the recent increase is due to inclusion of medical schools in Puerto Rico in the American totals. Relatively, the largest minority group by far are Asian Americans, who account for 3 percent of the student body. American Indians and Alaskan natives account for 0.3 percent (*New York Times*, 1980). In 1975 the black population in medical schools stood at 3,456 or 6.2 percent of the total. Although by 1980 there was a small absolute increase in the total number to 3,708, the proportion of blacks declined from a high of 6.3 percent in 1974 to 5.7 percent. There is little likelihood that the percentage of black students will rise to its former peak. The weak academic background (particularly in the sciences) of so many blacks, the severe cutback in governmental and nongovernmental remedial education and training programs, the lessened attractiveness of medicine as a career, the growing opportunities for well-educated blacks in other prestigious occupations, particularly management, the increasing costs of securing a medical degree, and the long indenture if one accepts governmental aid, all militate against any increase in the proportion of blacks in medical school. A major challenge will be to avoid further losses in their representation if public policy moves to cut back total enrollments.

American Graduates of Foreign Medical Schools (USFMGs)

Even in the face of a doubling in the number of places in American medical schools during the past fifteen years, a considerable number of young people with varying qualifications, primarily from New York, New Jersey, and California, but also from several other states, have had to go abroad if they were determined to obtain a medical degree. Over 10,000 individuals are reported to be studying medicine outside the United States at the present time (Comptroller General, 1980). The prospective easing of the market for physicians in the United States should over time reduce the number of such students.

The proposed plan of the New York State Board of Regents to accredit "offshore" medical schools is particularly unsettling to medical educators. The impetus behind the regents' move is said to come from three sources: wealthy parents of students at these schools, members of the board of regents who believe that there can never be enough physicians, and community hospitals that look to these schools to provide house officers and ultimately attending staff. Vehement opposition from medical leaders has been expressed, although the opinion of the profession has to date had little influence. A widespread fear is that this move by the regents may be the first step in rescinding the authority of the profession to accredit and approve schools of medicine. It could also encourage a decrease in governmental support for public schools and hasten the decline of the role of the university. A long-term concern involves the quality of the offshore schools and of their graduates, and the drain on teaching hospitals that would ultimately be responsible for the residency training of their graduates. Efforts to restrict the entry to practice of USFMGs will doubtless be challenged, and conceivably overturned by the courts. Pressures of demand and legal precedent could lead to the establishment of a new wave of proprietary medical schools within the continental borders of the United States. Should the New York State regent's plan be fully implemented, other states may in self-protection decide to restrict or terminate reciprocal licensing with New York, thus seriously threatening the graduates of New York schools.

Residency Training

The last decades have seen a marriage of convenience between many community hospitals and their neighboring medical schools, in which the hospitals instituted residency training programs in order to improve the quantity and quality of their staffing and to gain the prestige that accompanies such linkages. The easing of the physician supply will affect these relationships. For instance, at Montefiore Hospital and Medical Center in New York, the administration has for some time been substituting technicians for residents. If, as stipulated earlier, more physicians will be open to salaried offers, a considerable number of community hospitals may choose to reduce or even close out their residency programs. Such hospitals are likely to come under the combined pressures of their own staff, who will seek to limit

prospective competition, and of third-party payers, who will seek to minimize their reimbursement outlays.

Reducing medical school admissions and sharply limiting the entrance of FMGs will diminish—after a brief period—the number of residents available to teaching hospitals in poor neighborhoods, such as in the borough of the Bronx in New York City, which depends on residents for almost 50 percent of its total physician manpower. It will not be easy to reconcile restrictive graduate medical education policies with the political pressures that will be generated by neighborhoods and hospitals if they are unable to hire salaried staff to replace residents.

During the past years several of the specialty societies, such as the neurosurgeons, have acted to curtail the number of residencies, in part as a response to the expectation that a smaller number of trainees would be adequate to meet both national and regional needs. The recently issued GMENAC report challenges the leaders of American medicine to move more aggressively to reduce the numbers being trained for many specialties and particularly in subspecialty fields. The highly critical initial response from many specialty societies suggests that, even if government were to exert pressure in this direction, the response as of now is unclear.

Up to the present, most specialty societies have been concerned primarily with the quality of their training programs and have sought to use their powers of accreditation to ensure that the programs meet acceptable standards. In the future, some or all may experiment with introducing manpower considerations into their accreditation process but they may not be able to resolve various conflicts involving regional, educational, hospital, and interspecialty competitive goals.

Research Physicians

There is widespread concern among many leaders in academic medicine with the shrinking number of American physicians who are pursuing research training (Broad, 1979). This, however, may be eased by the forthcoming substantial increase in the supply of physicians. A life of laboratory or clinical research may become relatively more attractive; alternatively, continuing shortages of supporting funds and academic positions may thwart such a development.

The Future of Medical Centers

A special focus that warrants attention is the possible effect of increased physician manpower on medical centers and medical education. Any broad perception by legislators that there might soon develop a surplus of physicians could serve as the rationale for budget cuts. Added to this potential difficulty is the reduced number of patient referrals from community hospitals that are increasingly well staffed and well equipped. Not only will such reduced referrals create problems in filling medical center beds (and consequently in financing), but they may also result in insufficient clinical material for training large numbers of students, particularly specialists.

Still other financial problems are likely to arise. Direct government support (both federal and state) of medical schools is certain to fall (at least after adjustment for inflation). Some of this loss, such as the elimination of capitation payments, is linked directly to the federal government's perception that there is no longer a physician shortage. In addition, indirect support, such as NIH grants, will probably not keep pace with inflation. An increasing number of congressmen are no longer persuaded by the argument that medical centers are a national resource.

Even more worrisome is the prospective restriction of both federal and state governments on the extent of coverage of medical entitlement programs. As cutbacks occur, medical centers (and municipal hospitals) will inevitably become the places of last resort for poor people and the percentage of their noncollectible bills will rise.

One possible effect of these and other financial pressures will be that medical schools will maintain class size in order not to lose tuition income. Residency training may be affected in ways not yet clear, and the ability of faculty to supplement their salaries through practice plans may be limited.

Nonphysician Health Manpower

Physicians do not operate in a vacuum; there are millions of other employees in the health field ranging from those with doctorates to hospital kitchen helpers. Through their professional societies and unions these groups exercise considerable influence on the medical market place. Many of these groups—optometrists, physician's as-

sistants, nurse practitioners, surgical technicians, midwives, psychologists, clinical nurse specialists, physical therapists, podiatrists, chiropractors—are seeking to acquire or enlarge their share of what has been physicians' preserve. As these groups expand their ranks, their potential power increases. Physicians are only now becoming aware of a possible future "surplus" and are only beginning seriously to address potential competition from nonphysicians. Admittedly, applications for training in these other health professions will be influenced by prospective students' estimates of a future physician surplus.

Consensus and Policy

Is Consensus Possible?

Two basic considerations set the framework for this concluding section, which addresses the prospect of developing a consensus, and the further prospects for implementing one if it is achieved. The first relates to the multiple number of decision-making centers in health care, and more particularly those capable of influencing the numbers of physicians and how they practice. At a minimum, these centers include the medical profession as represented by the AMA; the medical education establishment including the American Association of Medical Colleges (AAMC); the specialty societies; teaching hospitals; third-party payers (public, nonprofit, and for-profit); large employers of physicians such as HMOs and hospital chains, both governmental and nongovernmental; the National Institutes of Health; the state licensing authorities; the universities; the foundations; and still other specialized groups. To complicate matters, each of the aforementioned organizations, and especially the larger ones such as the federal government or the AMA, does not represent a monolithic structure but rather different centers of power that compete as often as they cooperate.

The second overarching consideration relates to the inertia of the different institutions that play a role in the education and utilization of physician manpower. Much of what is now occurring, as well as much that will occur, has been determined by actions taken in the past that, in the absence of new and potent interventions, will inevitably go far to shape the future. We are dealing with a dynamic

system that moves in considerable measure in response to a multitude of different decision-making centers, in which much of the current momentum has been determined by past actions or nonaction.

To illustrate the last point: with respect to FMGs, current information suggests that the annual addition to the American physician stock is now considerably smaller than it was eight or nine years ago, even though the exact size of the annual increment remains somewhat uncertain. The number of USFMGs is also uncertain, although the best estimates suggest that 10,000 students are currently enrolled abroad. It is not known how many of these will complete their medical education and will ultimately be licensed to practice in the United States.

Medicine will probably become less attractive to students in the future, but it is difficult to assess what this means for enrollments and graduations in the near and middle term. The applicant pool could shrink considerably before the schools would be hurting for candidates, since there are currently at least two applicants for each available place.

The supply of physicians must greatly increase by 1990. Because of the small size of graduating classes forty years ago, relatively few physicians will be reaching retirement age. Hence, there will continue to be a net annual addition to the physician stock even if the annual number of entrants to medical schools declines considerably. It is unlikely that any significant number of physicians will change occupations. Since the pipeline for physician production is a long one, between seven and ten years, there is only a limited opportunity to affect the supply by 1990. New policies today or tomorrow, however, could affect the supply in the year 2000.

Medical school faculties have not yet begun to think in manpower terms, that is, to explore the various actions they might take with respect to future enrollments in the face of budgetary pressures, a tightening market for their graduates, declining research funding, and a host of other variables. Things would have to get much worse before the typical faculty member was shaken out of his long-time preferences for a high teacher-student ratio, a light teaching program, and a cautionary attitude to contributing to school revenue through practice income.

Not counting those substandard slots that are seldom if ever filled

by American graduates, there are now only 1.1 residency positions for each graduating physician. Since almost all physicians now start residency training and all but a few finish, there is little room for cutting the total number of residency positions without abandoning the commitment to residency training for every graduate. There is, however, room to juggle the number of positions in certain subspecialties. Such juggling goes on all the time as young physicians select among competing programs within the total number available. What remains unclear at this point is whether one or another sector of specialized medicine will attempt radically to reduce or restructure its residency training programs.

Hospitals do not like to cut back on their residency programs because of the loss of prestige and loss of inexpensive physician labor. Residency reviewing bodies in the past have rarely withdrawn accreditation and then only from the most marginal programs when hospitals were unwilling or unable to allocate the additional resources required to improve them. Review has been aimed at ensuring quality; in general, manpower needs have not been an explicit criterion. Some surgical specialties have recently made modest reductions in the number of positions offered and others have held their number constant in the face of increasingly large graduating classes. No specialty will engage in "unilateral disarmament"; in turf wars, there is strength in numbers. Numbers have played a minor or nonexistent role in the approach of specialty societies and residency accrediting authorities in the past, but this situation could begin to change, especially if increasing numbers of physicians suffer from a lack of "busyness." It is possible that the leadership of the professional societies is lagging behind its constituents in awareness of the numbers problem. Even if broad agreement were achieved concerning a potential or actual surplus in a particular specialty, it is not clear how the forces would resolve themselves. There are always vested interests that will be hurt by cutbacks; there is no central authority for determining the annual output by specialty; and there is always the threat of Federal Trade Commission (FTC) antitrust action if a specialty society moves to limit its numbers.

Those who have their fingers on the pulse of the profession report growing anxiety over the increased supply of physicians, an anxiety shared by medical students, younger physicians (as opposed to the

older, established members), and community practitioners, but less by academically based physicians. The leaders of the medical establishment until very recently have favored an expansionary posture. Since further expansion in the physician supply is all but guaranteed for the remainder of this decade, it is reasonable to assume that the leadership will reconsider its position.

The Role of Government

The influence of government on the supply of physicians has grown perceptibly over the last decades as both state and federal governments have poured resources into the medical schools to expand their enrollments and have further picked up more of the bill for medical care, thereby ensuring a stronger demand for physician services.

Government, especially at the federal level, is now primarily concerned with constraining costs, a concern that is likely to continue for some time. However, it is unlikely to hold center stage indefinitely. Competition is the catchword of the day, but its future is likewise unclear. Even if a "procompetition" health bill were to be passed it is difficult to foresee its effect, especially in an area once removed, such as physician manpower.

Governments respond to many signals, most of which are not grounded in data. Right now the popular press is publishing stories that emphasize the end to the physician shortage, and point to the possible emergence of a physician surplus. Legislators and bureaucrats read these stories and tend to act on them. In their search for ways to cut government costs, they are beginning to focus upon health science centers as major budget drains. In the face of a prospective physician surplus, these budgets invite trimming. This process has already begun at the state level and, since many state governments put money into private as well as state schools, the long-term consequences could be substantial.

The planned radical cutbacks of the Reagan administration in the National Health Service Corps and in the scale of grant and loan support for students gain reinforcement from the growing belief that the long-term physician shortage is about to turn into a physician surplus and that government should not seek to influence the career decisions of young people.

Which Way Policy?

Concern is necessary to achieve consensus but it is no more than a precondition. Even if events should lead to the unanimous view that the large-scale expansion in the physician supply warrants intervention, the question arises of who would be able and willing to act? What has been said above indicates that neither the faculties of medical schools nor the leaders of most specialty societies have demonstrated any inclination or capacity to step out front. It may turn out that the most potent influences on the future supply of physicians are embedded in other values and goals, such as the retrenchment of the federal government's expenditures and the changing career assessments of talented college students. These may lead to a substantial decline in desirable applicants, which in turn could over time lead to reduced admissions and graduates. But such a forecast is far from firm, especially in an environment where FMGs and USFMGs together equal 25 percent or more of the current American graduating class.

The implementation of a consensus that a restrictive policy on future enrollments would be in the public interest would have hard sledding. In recent years the courts and administrative agencies have looked askance at professional groups acting in concert to affect their numbers, because such action can increase their market power and hence their income, actions viewed as monopolistic and against the public interest. It is hard to exaggerate the impediment that the antitrust environment places in the path of the medical profession's assuming a leadership role with respect to controlling its future numbers.

Other Societal Forces

But medicine does not operate in a social vacuum, surely not when it has reached a point where it consumes about 10 percent of the nation's disposable income and provides employment for one out of every fourteen members of the labor force. In the remaining years of this century, when the physician supply will be expanding rapidly, many other factors influencing the practice of medicine will be changing. To note a few: it is hard to predict whether the public will alter the structure of its demand for care, placing more emphasis on prevention, rehabilitation, and emotional support and somewhat less on

major therapeutic interventions, especially when the outlook for recovery and longevity is unfavorable, as in the case of the chronically ill and feeble aged.

Closely related to the foregoing is the future of malpractice insurance and the consequences that ever higher rates are likely to have for the selection of medicine as a career by future students and their choices among particular specialties. Further, as a result of its growing awareness of the pervasiveness of iatrogenesis, the public may reassess, in a fundamental way that affects demand, the risks that attach to medical care. The public may choose more caring and less curing. But it is just as likely, perhaps more so, that the domain of medicine will be broadened and third-party payers will be under increasing pressures to include within the scope of covered services many that are today viewed as only distantly linked to classic therapeutics.

All of the foregoing and many other changes in determinants will affect the requirement side of the physician manpower equation. It would be helpful if foreign experience could contribute some clues, if not answers, to the numbers of physicians that an advanced industrial economy can usefully train and employ. But those who have looked closely at experience abroad know that this is a wistful expectation. Each major country must find its own way within its own resources and goals.

The outlook in the United States is the more cloudy because the Reagan administration is not only proceeding energetically to constrain the federal budget but has the further aim and objective of reducing the role of the federal government in our state-federal structure. No one can be sure whether and to what degree it will succeed but its continuing efforts and even partial success will have an impact.

Summary

Our conclusions about consensus and policy follow:

- The interested parties from the citizenry to the leaders of specialty societies are definitely not of one mind whether the increasing number of physicians is to be viewed as boon or bane.
- If over the next few years the much enlarged supply of physicians is seen as creating more problems than it is solving, the step from consensus to policy will still prove difficult.

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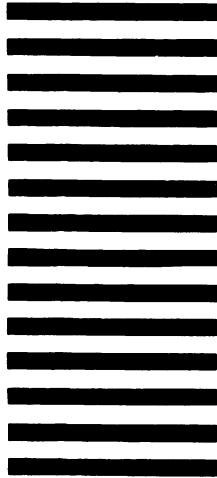
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- The absence of early consensus or specific action does not imply that the future supply of physicians is not being influenced. The cutbacks in federal support for medical students are certain to have a dampening effect sooner or later on the numbers that will seek admission to medical school.
- The market signals that physicians' incomes are lagging behind other professionals and that government is increasing its control over medical practice will also have an effect on many premedical students, some of whom will choose other careers.
- The changes in payment mechanisms and the delivery of health care will have important long-term consequences for the effective demand for physician services, which in turn will influence future medical school enrollments.

One final comment: the ways of a democracy are never clear-cut and direct but, if the past is any guide to the future, reassurance can be derived from the fact that consensus is difficult to achieve and policy even more difficult to implement. But medicine, like every other major social institution, will adapt and change. Whether it does so for better or for worse depends on the quality of information and analysis, open discussion, and give and take among the interested parties. This method of conflict resolution may not be very efficient or economical but, as Churchill said, it is better than any known alternative.

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Address correspondence to: Mrs. Miriam Ostow, Conservation of Human Resources, Columbia University, 2880 Broadway, New York, NY 10025.