

Group Practice Recommendations of the Committee on the Costs of Medical Care

A New Look at an Old Issue

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IN 1932, THE COMMITTEE ON THE COSTS OF MEDICAL CARE (CCMC) published its final report, *Medical Care for the American People*. Since its publication 46 years ago, the report has served as a landmark document for students of health policy in the United States. The report contained five specific recommendations for "providing satisfactory medical services to the people of the United States at costs within their means." These recommendations were titled: 1) the organization of medical services; 2) the strengthening of public health services; 3) group payment for medical service; 4) coordination of medical services; and 5) basic educational improvements for health professionals.

Falk (1970) has summarized the first and most controversial recommendation in his preface to the reprinted final report:

The committee recommended that, in the future, medical service should be furnished largely by organized medical groups, hospital based and regionally organized. The principal minority group differed with the majority on many points but—in light of subsequent developments—most importantly on the recommendations for organized group practice, for group payment, and for the strengthening of community (as against professional) leadership and control.

Although many changes have occurred in the practice of medicine in the United States in the past 46 years, the desired organization of medical care continues to be debated. It is therefore appropriate to reexamine the CCMC recommendations on the organization of medical services in terms of their appropriateness to the medical care and medical politics of today, and to consider why these recommendations have not been adopted. The process of this reexamination may permit us to understand better future efforts at medical reform.

The CCMC Group Practice Recommendations

The Committee concluded that many of the difficulties in medical practice could be overcome by restructuring medical care into group practices. These difficulties included: a lack of coordination between generalists and specialists; the isolation of some practitioners; a lack of adequate supervision and control over the quality of medical care, particularly when provided by specialists; the enforced idleness of many physicians because of lack of patients; the difficulty experienced by patients in choosing qualified physicians; the high overhead costs borne by practitioners; and the rising complexity of medical services.

The group practice recommendation (CCMC, 1932) stated that:

... medical service, both preventive and therapeutic, should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel. Such groups should be organized, preferably around a hospital, for rendering complete home, office, and hospital care. The form of organization should encourage the maintenance of high standards and the development or preservation of a personal relation between patient and physician.

In essence, the CCMC group practice recommendations call for medical care to be furnished by groups that would be hospital-based, regionally organized, and able to provide a comprehensive range of prepaid medical services. Using the public school system as an example of desired regional planning, the Committee advocated creation of nonprofit community medical centers with the following

characteristics: comprehensive services featuring all health professionals; a community board for determining policies and financing; an emphasis on preventive medicine; and a dominant, coordinating role of family physicians. The CCMC vision was a group practice that provided care that was continuous over time (as opposed to episodic), comprehensive in coverage, and provided by a team of providers, 80% of whom would be generalists, who would share in the care of each patient (as contrasted with noncoordinated specialty care) (Andrus and Mitchell, 1977). Although the method of physician reimbursement was not specified, there were broad hints as to the desirability of a salaried arrangement.

The prophetic CCMC minority report noted that the majority had not discussed how these changes were to come about. It further cautioned that, in the realm of personal services, size is not synonymous with efficiency but often brings impersonal care. It looked with distaste on fixing physician incomes, and found the threat of "destructive competition" from group practices to be wasteful and unwarranted. Finally, it warned that generalists would not be accepted by specialists as coordinators of patient care, and that it is more efficient to practice in an office than in hospitals or clinics.

Some Changes in Medical Care Since 1932

Most of the problems of medical practice identified by the CCMC in 1932 are still with us today. Lack of coordination between generalists and specialists, isolation of some physicians, difficulty in knowing how to choose a qualified physician, and increasing complexity of medical care are still as current as they were in 1932. By contrast, the specter of enforced idleness of physicians is outdated, although prophecies of impending physician surpluses are now being heard for the first time since the Depression. And the issue of supervision and quality control over specialists has taken on a different focus.

Of the many changes that have occurred in our society and its medical system since 1932, five developments in the practice of medicine have particularly important implications for the organization of medical care. Perhaps the most dramatic change in the last 46 years has occurred in the acute care hospital. Fueled by the growth

of third-party insurance, with only 8% of hospital care now financed by direct payments (Mueller and Gibson, 1976), overstimulated by the Hill-Burton Act, with estimates of an excess of over 100,000 acute care beds cited by the Institute of Medicine (1976), and festooned with such high cost technologies as CAT scanners, specialty intensive care units, and hemodialysis facilities, the modern acute care hospital is a highly complex organization devoted to the delivery of technological medical services (Schroeder and Showstack, 1977).¹ The combination of expensive, highly technological care of severely ill patients tends to overwhelm the less acute components of comprehensive medical care. It is difficult to imagine a more unlikely nucleus for a system of medical care emphasizing prevention and the preservation of personal relations between patients and physicians. Even Anne Somers (1972), who at one time saw the hospital as the one institution in the voluntary sector that can "integrate our expensive and fragmented health services," is now apparently silent on that subject.

The second change in medical practice relates to specialization of physicians. Although many of the old tensions between specialists and generalists still exist, a major increase in specialty certification has occurred since 1932. At that time, 14 medical specialties were recognized and awarded specialty certificates. By 1976, 65 different types of general and special certificates were conferred by 22 medical specialty boards. Robert Chase (1976), former president of the National Board of Medical Examiners, has predicted an additional 20 areas of specialty that are likely to qualify for certification within the next several years. A major incentive toward increased specialization has been the identification of specialty areas with specific technologies and the pro-technology bias in our reimbursement system (Schroeder and Showstack, 1978; Seldin, 1976). Whether the trend toward identification and certification of specialty areas has been translated into increased quality of care is not clear. The current debate in this area concentrates on quality of medical care in general, and possible overutilization of physicians' services,

¹While this description does not fit all acute care hospitals, it is increasingly becoming the dominant portrait. For example, Blumberg (1976) has determined that fully one-third of all hospitalized patients in 1974 were in hospitals with major medical school affiliations.

especially surgery (Bunker, Barnes, and Mosteller, 1977). Thus, the modern version of the CCMC's concern about specialty practice includes both the frequency and justification of procedures as well as the competence with which they are performed.

Other aspects of the current generalist-specialist debate are almost unchanged from 1932, except for substitution of the phrase, "primary care," for "generalist." The Health Professions Educational Assistance Act of 1976 (PL 94-484) is aimed at approaching the kind of generalist-specialist balance advocated by the Committee, although it aims for 50% generalists rather than 80%. The Committee apparently did not foresee how intimately the distribution of physicians by specialty depends on the graduate medical education system. The concern about acceptance of generalists voiced in the minority report is as pertinent today as it was then; it pertains to acceptance of generalists by the public as well as by specialists. For instance, while on the faculty of the George Washington University Medical Center, I was sometimes contacted by congressional health staff members. Although these staff members were working on health manpower legislation to increase the number and purview of generalists, their calls to me were to request names of specialty physicians to care for personal health problems of their staff or family. No matter how apparently minor the illness or injury, they were desirous of obtaining direct referral to a specialist. Thus, even these very sophisticated people who were intimately aware of the theoretical advantages of generalists operated on a kind of personal double standard.

The third area of change is the current suggestion that medical care itself is relatively unimportant as a determinant of health status. McKeown (1976), Lalonde (1974), Belloc (1973), and Belloc and Breslow (1972), among others, hold that marginal improvements in nutrition, income, and personal behavior can contribute more to personal health status than comparable increases in medical care. This point of view, when coupled with the accusation by Illich (1976) that health is being expropriated by the medical profession, and the realization of the enormous iatrogenic potential of modern medicine, has caused some to deemphasize the importance of medical care today, as compared to 1932.

The fourth change relates to the Committee's unquestioned acceptance that economies of scale constitute an economic advantage of group practice. Although in theory the opportunity for group

purchase of equipment, joint employment of personnel, etc., should at least translate into increased productivity, data to support this theory are scarce. What is clear is that the group practice setting increases the opportunity to perform in-office ancillary services such as laboratory tests, X-rays, and EKGs. Bailey (1968) alleges that profit opportunities arising out of ancillary sales constitute the major appeal of group practice. Ernst (1976) studied data obtained from a 1971 national survey of physicians by the American Medical Association (AMA). His analysis showed that ancillary production is subject to increasing return to scale, particularly for medical specialists. Schroeder and Showstack (1978) have shown that, because the current fee-for-service medical reimbursement system differentially values technical over personal services, it is theoretically possible for a physician to generate a threefold increase in net income by merely increasing the intensity of technical services (while allowing for a small *decrease* in number of patient visits). Whether a group practice that provides a wider range of immediate services is more or less productive depends on how much one values ancillary service production and convenience to the patient. However, the data do not support any national economic benefits from fee-for-service medical group practices; that is, increased formation of fee-for-service group practices could not be expected to result in decreased levels of national health expenditures.

The final and perhaps most important change in medical practice since 1932 is economic. The two main financial concerns of the CCMC report were the inability of patients to pay for medical care and insufficient physician income. The growth of medical insurance, including programs designed for the poor, the elderly, and those with special conditions such as end-stage renal disease, has improved the ability of most members of our society to obtain medical care (Aday et al., 1978). The concern over physician income has shifted to one of perceived excesses, and the dominant health policy problem today is how to contain medical costs while preserving access and quality. In 1929, we spent \$3.6 billion for health care, comprising 3.6% of the gross national product. A CCMC graph shows medical expenses ranking behind expenditures for food, rent, savings, clothing, automobile, and household furnishings, and about equal to recreation. Estimates for fiscal year 1977 are \$163 billion, representing 8.89% of the gross national product. The recent escalation in medical expenditures has been a dominant concern of health policy makers

(Iglehart, 1977), many of whom now question the marginal utility of increasing the budget for medical care. Perhaps, as Gaus and Cooper (1976) have argued, we can better improve the nation's health by diverting extra funds into housing, nutrition, dental, and optical care. Although a full discussion of efforts to control medical costs is beyond the scope of this paper, it should be recalled that most federal efforts have emphasized the regulatory approach (Schultze, 1977).

Yet, while the debate about medical care costs continues, there is an explosion of medical technology and an almost infinitely expandable opportunity for its use. The Karen Ann Quinlan case is unusual only for its legal aspects. The ability to prolong and sometimes save the life of a severely ill patient has been a major accomplishment of the last decade. For example, in fiscal year 1975-76, 60% of the inpatient medical charges of the University of California Hospitals, San Francisco, were for patients with hospital bills in excess of \$5,000 (Schroeder and Showstack, unpublished data). While the return to society is often minimal, as shown by a recent review by Cullen et al. (1976) of cases from the recovery room-acute care unit of the Massachusetts General Hospital, the ethics and politics of rationing this type of care are exceedingly difficult.

Although the problem of insufficient physician income does not dominate current medical policy discussions, Reinhardt (1975), Starr (1977), and Ginsberg (1977) predict that we may be coming full circle to another physician surplus. However, Reinhardt (1975) claims that this surplus will not be associated with a decline in physician income, because physician-determined demand for medical care leads to targeting of income irrespective of physician density. Although it is possible that, at some level of physician density, price competition would drive aggregate medical expenses down, the experiment does not appear likely. Thus, the new development of extensive third-party insurance coverage has combined with the traditional concept of fee-for-service reimbursement to cushion physician income from market competition.

Important changes in medical practice since 1932 are by no means limited to the five areas just discussed. Some might focus, for example, on the expanding role of the courts, as shown in the Quinlan case (Curran, 1976), the Saikewicz decision (Curran, 1978), and the increase in malpractice litigation. Others might even stress the impact on medical practice of such societal changes as increased wealth and mobility and decreased family stability.

Organized Group Practice — A Closer Look

Let us now turn from general trends in medical practice to a closer look at group practice itself. Whereas group practice was rare in 1932, it now encompasses more practicing physicians than does solo practice (Pollack, 1976). At first glance this might be taken as an indication that the CCMC group practice recommendations have been adopted. However, the dominant version of group practice today (single or multispecialty, fee-for-service) is not the CCMC concept of comprehensive group practice. In fact, the marked growth in group practice since World War II has been accompanied by a steady reduction in comprehensiveness of medical groups, as shown, for example, by the total exclusion of dentists from current group practices. Andrus and Mitchell (1977) argue that fee-for-service group practice represents a marriage of convenience that produces a very specialized and fragmented form of care:

What emerges is a picture of group practice that has shifted strongly toward: single-specialty groups; reduced responsibility for coordinated ambulatory and hospital care; and a more limiting viewpoint of the range of professionals to be included in a group. In summary, a more specialized, fragmented, and special purpose activity. In essence, the very service conditions that concerned the CCMC in 1932 are now worse in 1977.

Pollack (1976), although not as critical of modern group practices, admits that they have not produced expected reductions of health care costs, stimulated innovative medical practices, or increased consumer benefits. As reasons for the increasing popularity of fee-for-service group practice, Pollack lists the opportunity for collegial association and stimulation, an increased ability to control working hours and thereby to enhance personal lifestyle and leisure activities, a more convenient way to foster the growth of specialty practices, and increased financial opportunities.

The form of group practice that most closely resembles the CCMC concept is the prepaid group practice form of Health Maintenance Organization (HMO). Indeed, McLeod and Prussin (1973) explicitly compare HMOs to the CCMC model. Their definition of an HMO is one "providing access to high quality comprehensive medical and health care services at the most reasonable cost possible, with equal emphasis on preventive services, early disease detection, diagnosis, and treatment of injury."

Let us take a closer look at the contributions and performances to date of prepaid group practices. Perhaps their most important lesson has been to show the relationship between frequency of hospitalization and the organization and payment for medical care. Despite isolated reports to the contrary, such as that by Broida (1975), I have no doubt that hospitalization is markedly less in established prepaid group practices than in group or solo fee-for-service practice, thus affording the opportunity for cost savings as well as for provision of a broader range of ambulatory services (Roemer and Shonick, 1973). Prepaid group practice-type HMOs appear to have lower hospitalization rates than foundation-type HMOs, but this effect may be due more to the incentives stemming from methods of physician reimbursement than to the group practice itself (Holohan, 1977).

The relation between prepaid group practice and quality of care is less clear. Earlier studies by Shapiro, Weiner, and Densen (1958, 1960), from the Health Insurance Plan of Greater New York suggested that HIP members might be receiving better quality of care. More recently, allegations of unscrupulous conduct by newly emergent HMOs, particularly in Southern California (Starr, 1976), have cast an undeserved shadow over the performance of HMOs in general. The relationship between HMOs and quality of care has been summarized in an exhaustive review by Luft (1977a), who concludes:

As expected, the specific financial incentives of an HMO seem to have little direct effect on quality. However, the organization of practice in an HMO setting does seem to confer an advantage in that it can select its practitioners. Thus, if the organization *wants* to provide better quality care, it can choose physicians, use better hospitals, etc. Furthermore, an *organization* can be identified as providing better or worse than average quality care, thus conferring a substantial amount of information to the potential consumer. Finally, while it is apparent that substantial variation in quality exists among HMOs, it is likely that even more variation is present in conventional practice.

In short, the character and products of each group practice are unique and probably depend more on characteristics of the group members than on specific structural or financial variables.

It is frequently stated that prepaid group practices have an incentive to "maintain health" and therefore will provide more preventive services. Setting aside for a moment the current debate about the

efficacy and effectiveness of specific preventive measures, let us consider the use of those services in HMO settings. Luft (1977b) has reviewed the use of preventive services in HMOs and has found two sets of data. One set supports the hypothesis that HMO enrollees receive more preventive services of various types. The other set of studies suggests no difference or that HMO enrollees actually received fewer services. Luft's explanation for this apparent conflict is that comparisons between HMO enrollees and people with traditional insurance coverage are in fact testing two variables: 1) an HMO effect (health maintenance), and 2) the different financial coverage for preventive care. In those few instances where preventive care is covered by traditional insurance coverage, receipt of preventive services appears to be greater than in comparable groups of HMO enrollees. Luft concludes that greater use of preventive services in HMOs is a function of the insurance effect rather than the group practice effect.

Finally, although the CCMC envisioned that group practice would be organized by and responsive to local community control, this has rarely occurred with operational prepaid group practices.

In short, except for the large reduction in hospital days among HMO enrollees, there is little consensus that prepaid group practice differs, on the whole, from fee-for-service solo or group practice with regard to quality, scope of services, or community control. If we consider that prepaid group practices must exist and compete in the traditional fee-for-service medical marketplace, these findings should not be surprising. Indeed, we are indebted to the prepaid group practice movement for demonstrating so vividly that a well-run HMO can reduce substantially hospital and total expenditures for a given population without adversely affecting quality. It is important to note, however, how far the group practice rhetoric outstripped the reality. In retrospect, the reason for the bipartisan support for HMOs in the early 1970s is that the prepaid group practice concept was seen on the one hand as a national strategy for cost containment, and on the other hand as a first step toward national health insurance. These financial reasons for HMO support contrast with the CCMC motives, which were intended to improve the quality of medical care.

It is ironic that a Republican president with a long history of political support from the AMA proposed legislation similar in intent to the CCMC recommendations on group practice that the

AMA had so bitterly opposed 40 years earlier. Nonetheless, when seen as a response to the spiraling costs of medical care and as an alternative to more radical programs such as national health insurance, the Nixon Administration's support of HMOs is understandable. However, the eventual legislation that emerged as PL 93-222 contained sufficient compromises and mixtures of special agendas to cripple its intended impact (Starr, 1976).

Dorsey (1975) has summarized the history and content of the HMO Act from the perspective of prepaid group practice. He explains how special interest groups (optometrists, dentists, etc.), which had limited interest in HMOs *per se*, pressed for inclusion of their field in the mandatory benefit package. In addition, many of the strongest HMO supporters in Congress had a broader agenda and saw HMO development as a precursor to universal national health insurance. Finally, there was concern that the legislation be able to protect against fraud and excess profit-making.

This analysis contains an inherent paradox. The closer that HMO requirements approach the CCMC recommendations, the more individual HMOs are put at a competitive disadvantage against Blue Cross-Blue Shield and private plans in the medical insurance market. A double standard is created whereby HMOs are saddled with extra requirements such as more comprehensive benefit packages, open enrollment, community rating, cumbersome co-payment provisions, mandatory quality assurance systems, and restrictions on the degree to which participating physicians can participate in fee-for-service practice (Starr, 1976).

Heyssel and Seidel (1976) have summarized the dilemma of the modern prepaid group practice that attempts to ration services under a fixed budget while competing in the medical marketplace:

... to survive financially, the prepaid group practice cannot serve the objectives of Health Maintenance Organization rhetoric in terms of outreach to the patient and of the implementation of plans that presume to maintain the health and prevent illness in every patient. Even minimum efforts are financial problems.

In effect, a closed-end budget, a major constraint on the style of the prepaid group practice, can be constructed and met only if an appreciable number of the people joining the prepaid group practice do not claim their due. In the long run, then, the net effect is not unlike the fee-for-service system in that the inarticulate, the poor and those who do not understand the system well enough to exploit it are disenfranchised

Thus, a prepayment Health Maintenance Organization is thrice constrained in terms of economics, accountability and the possible invalidity of many health-maintenance measures. In reality, the concept was introduced with a rhetoric that is impossible of achievement unless there is a revolutionary change in financing mechanisms in American medicine. Thus, the promise must be changed, and the public must be differently educated. The expectation must be that of an insurance plan, not necessarily that of a "health" plan. However, in a system in which fee-for-service is predominant there is no particular advantage to the provider in this kind of education, and, in a secular society in which there is a quasi-religious aura to medicine, there may be no advantage to the patient.

What has happened to national HMO enrollment? While prepaid group practices date back to 1927, an explicit national policy to stimulate their growth did not occur until the HMO Act of 1973. By mid-1976, according to Strumpf (1977), 175 prepaid health plans were identified by the Division of Health Maintenance Organizations, Department of Health, Education, and Welfare, accounting for an enrollment of six million persons. Seventy percent of the total membership was in plans with 100,000 or more members, three-quarters of the membership was in plans that had been in operation for at least 10 years, and over half the enrollees belonged to one organization, the Kaiser Permanente Health Plans. While the rate of growth of HMOs and HMO enrollment has clearly accelerated since 1973, enrollees still constitute less than 3% of the population, a far cry from original projections by HMO proponents in the Nixon Administration.

Summary and Conclusions

In 1932, the CCMC proposed a broad and visionary concept of prepaid group practice by physicians in association with other health professionals. In contrast, the prevailing form of group practice today is distinguished by a limited scope of services provided by medical specialists under fee-for-service financing. A number of changes in medical care have contributed to its current organization and to discussions concerning its reorganization. Among these changes are the increasing degree of medical technology use associated with hospital practice and the increasing specialization of physicians. Each of these is promoted by characteristics of the

medical reimbursement system — extensive hospital insurance in the first case and differential reimbursement of specialized procedures in the case of medical specialties. In addition, increasing skepticism about benefits from marginal expenditures for health care, the lack of visible economies occurring to patients as a result of fee-for-service group practice, and the escalating costs of health care have caused recent national health policy discussions to revolve around ways of limiting costs.

One of these efforts resulted in a federal program to promote the growth of HMOs, whose prepaid group practice form is probably the closest current embodiment of the CCMC group practice concept. Federal support for group practice, which was seen as a vehicle for cost containment rather than improving the quality of care, ran afoul of special interest lobbying, unrealistic expectations, and excessively stringent regulations.

It would be useful to speculate why the group practice recommendations of the CCMC have not been adopted. Historical analyses by Andrus and Mitchell (1977) and Falk (1970) stress the role of the AMA in preventing the growth of comprehensive group practices. The question arising from their analyses is why there have been no effective counterforces to AMA efforts. Some have attributed this to preoccupation of the American public with the Depression of the 1930s, but the effect widespread health insurance coverage has had on public attitudes should also be emphasized. For, in spite of the spiraling cost of medical care, real out-of-pocket payments for hospital care at the time of use have actually declined over the past 20 years. Thus, insurance availability serves to blunt full public appreciation of the costs of medical care. Nevertheless, these historical analyses force us to ask some fundamental questions, such as: Do we really want to change the organization of medical practice? What new form(s) would we suggest and what differences would result?

It is important to remember that almost 90% of the population claim they are satisfied with their medical care (Aday et al., 1978). Given the lack of public mandate regarding fundamental changes in the organization of medical care and the increasing recognition that federal regulatory efforts can result in cumbersome and unwieldy bureaucratic processes, we must acknowledge that a real danger of major reform is that it may undermine public trust in government. Thus, it is not enough for reformers to highlight goals. To be effec-

tive, they must also consider how the political, legislative, and regulatory processes may reshape those goals.

Perhaps the major issue facing health care policy makers/reformers who would change the organization of medical care is the process of change. For what is missing in idealistic descriptions of what the health care system should look like is how we are to get there. The difficulties in getting there are substantial; a broad political mandate for major change in the health care system just does not exist. Thus, attempts at fundamental change in the organization of medical care will undoubtedly be met by severe resistance from organized special interest groups, such as physicians, hospitals, and health insurers, unless they perceive the changes to be greatly in their favor. In the tradition of American partisan politics, therefore, these largely unopposed groups will predictably weaken, if not cripple, any intended reforms. The history of the HMO Act should serve as an example here. Yet, incremental reforms aimed at improving specific issues, but ignoring the major problems in our system, are also dangerous. An example is the issue of catastrophic health insurance. This program would appear to be an equitable approach to protecting the entire population against the costs of catastrophic illness. Yet, given the current reimbursement system and economic incentives, it might provide additional stimulus to the acute care hospital, thus diverting limited resources away from comprehensive ambulatory and preventive services, as well as forestalling more meaningful health insurance programs.

This is not to say efforts at improving our health care system are futile or ill-advised. Rather, it is a call for reformers to recognize that involvement in the political process is as essential as defining optimal goals. If a fundamental change in the organization of medical practice is desired, then a broad political constituency must first be developed. Calls for leadership will fall on deaf ears without such a political base. How to develop such a constituency would seem to be a proper focus for health care reformers. Given current concerns about medical expenditures, the best place to start might be the financing rather than the organization of medical care. As the public becomes more directly aware of medical costs and the alternative ways our resources can be used, our current reimbursement schemes for physicians and hospitals will undergo closer scrutiny. This in turn might at least create a climate more conducive to providing a broader range of medical practice options for a substantial portion of the American population (Wildavsky, 1977).

If and when that constituency is developed, answers must be available for such questions as, "Is there a single form of medical practice that best promotes comprehensive medical care and at the same time emphasizes prevention, or do we wish to encourage a diversity of practice models?" And, "How can we stimulate people to take more responsibility for their own health and medical care?"

Perhaps the most important lesson of the CCMC is that social planners must deal with the process of change as well as define desired outcomes. For to describe a utopia without providing a map showing how to get there is likely to be a continuing exercise in futility.

References

- Aday, L. A., Andersen, R., Fleming, G. V. et al. 1978. *A New Survey on Access to Medical Care*. Princeton, New Jersey: Robert Wood Johnson Foundation Special Report.
- Andrus, L., and Mitchell, F. H. 1977. *Health Care for the American People: Unfinished Agenda—Group Practice*. Prepared for conference, "Health Care for the American People: Unfinished Agenda," at Airlie House, Virginia, May 19, 1977, sponsored by the Department of Community Medicine and International Health, Georgetown University School of Medicine, Washington, D.C.
- Bailey, R. M. 1968. Economies of Scale in Outpatient Medical Practice. *Group Practice* 17:24-33.
- Belloc, N. B. 1973. Relationship of Health Practices and Mortality. *Preventive Medicine* 2:67-81.
- , and Breslow, L. 1972. Relationship of Physical Health Status and Health Practices. *Preventive Medicine* 1:409-421.
- Blumberg M. S. 1976. Hospital Bed Size, Medical School Affiliation, and Costs. Working Paper.
- Broida, J. H., Lerner, M., Lohrenz, R. N. et al. 1975. Impact of Membership in an Enrolled Prepaid Population on Utilization of Health Services in a Group Practice. *The New England Journal of Medicine* 292:780-783.
- Bunker, J.P., Barnes, B. A., and Mosteller, F. 1977. *Costs, Risks, and Benefits of Surgery*. New York: Oxford University Press.
- Chase, R. A. 1976. Sounding Board: Proliferation of Certification in Medical Specialties: Productive or Counterproductive? *The New England Journal of Medicine* 294:497-499.

- Committee on the Costs of Medical Care. 1932. *Medical Care for the American People*. Chicago: University of Chicago Press.
- Cullen, D. J., Ferrara, L. C., Briggs, B. A. et al. 1976. Survival, Hospitalization Charges and Follow-up Results in Critically Ill Patients. *The New England Journal of Medicine* 294:982-987.
- Curran, W. J. 1976. The Proper and Improper Concerns of Medical Law and Ethics. *The New England Journal of Medicine* 295:1057-1058.
- . 1978. The Saikewicz Decision. *The New England Journal of Medicine* 298:499-500.
- Dorsey, J. S. 1975. The Health Maintenance Organization Act of 1973 (P.L. 93-222) and Prepaid Group Practice Plans. *Medical Care* 13:1-9.
- Ernst, R. 1976. Ancillary Production in the Size of Physicians' Practice. *Inquiry* 13:371-381.
- Falk, I. S. 1970. Preface to the reprinted Final Report of the Committee on the Costs of Medical Care. U.S. Department of Health, Education, and Welfare, Public Health Services, Health Services and Mental Health Administration, Community Health Service.
- Gaus, C. R., and Cooper, B. S. 1976. *Technology and Medicine: Alternative for Change*. Presented at the Conference on Health Care Technology and Quality of Care, Boston, Mass., November 19-20, 1976.
- Ginsberg, E. 1977. Paradoxes and Trends: An Economist Looks at Health Care. *The New England Journal of Medicine* 296:814-816, 1977.
- Heyssel, R. M. and Seidel, H. M. 1976. The Johns Hopkins Experience in Columbia, Maryland. *The New England Journal of Medicine* 295:1225-1231.
- Holohan, J. 1977. Foundations of Medical Care: An Empirical Investigation of the Delivery of Health Services to a Medicaid Population. *Inquiry* 14:352-368.
- Iglehart, J. K. 1977. The Cost and Regulation of Medical Technology: Future Policy Directions. *Milbank Memorial Fund Quarterly/Health and Society* 55 (Winter):25-59.
- Illich, I. 1976. *Medical Nemesis*. New York: Pantheon Books.
- Institute of Medicine. 1976. *Controlling the Supply of Hospital Beds*. Washington, D.C.: National Academy of Sciences.
- LaLonde, M. 1974. *A New Perspective on the Health of Canadians*. Ottawa, Canada: Government of Canada.
- Luft, H. S. 1977a. Dimensions of HMO Performance: Quality. Manuscript in preparation.
- . 1977b. Dimensions of HMO Performance: Preventive Care.

- Milbank Memorial Fund Quarterly/Health and Society* (in press).
- McKeown, T. 1976. *The Role of Medicine*. London: Nuffield Provincial Hospitals Trust.
- McLeod, G. K., and Prussin, J. A. 1973. The Continuing Evolution of Health Maintenance Organizations. *The New England Journal of Medicine* 288:439-443.
- Mueller, M. S., and Gibson, R. M. 1976. National Health Expenditures Fiscal Year 1975. *Social Security Bulletin* 39:3-20.
- Pollack, J. 1976. Changing Practice Modes: The Grouping of Medical Practice. In *Community Hospitals and Primary Care*, ed. J. H. Bryant, et al., pp. 27-49. Cambridge, Mass.: Ballinger.
- Reinhardt, U. E. 1975. Physician Productivity and the Demand for Health Manpower: An economic analysis. Cambridge, Mass.: Ballinger.
- Roemer, M. J., and Shonick, W. 1973. HMO Performance: The Recent Evidence. *Milbank Memorial Fund Quarterly/Health and Society* 51 (Summer): 271-317.
- Schroeder, S. A., and Showstack, J. A. 1977. *The Dynamics of Medical Technology Use: Analysis and Policy Options*. Discussion paper. Health Policy Program, University of California, San Francisco, (to be published in proceedings of 1977 Sun Valley Forum: Medical Technologies: The Culprit Behind Health Care Costs? eds S. Altman and R. Blendon).
- . 1978. Financial Incentives to Perform Medical Procedures and Laboratory Tests: Illustrative Models of Office Practice. *Medical Care* 16 (April):289-298.
- Schultze, C. C. 1977. The Public Use of Private Interest. *Harper's*, May, pp. 43-62.
- Seldin, D. 1976. Specialization as Scientific Advancement and Over-specialization as Social Distortion. *Clinical Research* 24:245-248.
- Shapiro, S., Weiner, L., and Densen, P. 1958. Comparison of Prematurity and Perinatal Mortality in a General Population and in a Population of a Prepaid Group Practice, Medical Care Plan. *American Journal of Public Health* 48:170-185.
- . 1960. Further Observations on Prematurity and Perinatal Mortality in a General Population and in a Population of a Prepaid Group Practice, Medical Care Plan. *American Journal of Public Health* 50:1304-1317.
- Somers, A. R. 1972. The Hospital in the Evolving Health Care System. First Mark Berg Memorial Lecture, Mount Zion Hospital and Medical Center, San Francisco, November 21, 1972.

- Starr, P. 1976. The Undelivered Health Care System. *The Public Interest* 42:66-85.
- . 1977. Too Many Doctors? *The Washington Post*, March 13, 1977.
- Strumpf, F. G. 1976. Health Maintenance Organizations, 1971-1976: Issues and Answers. Presented at the 104th American Public Health Association Annual Meeting, Medical Care Section, October 19, 1976.
- Wildavsky, A. 1977. Doing Better and Feeling Worse: The Political Pathology of Health Policy. *Daedalus* 106:105-123.

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