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HEALTH PLANNING: SCIENCE, POWER AND POLITICS

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PREFACE

The origins of this essay date to 1963, when Martin Meyerson asked me to edit a work that he, John Dyckman, and Herbert Gans had been engaged on for some years earlier, dealing with an approach to community planning for health, education and recreation. I began with the section on health, by Martin Meyerson. Owing to the changes that have taken place over the years, in health planning and in my own thinking, little of the original approach, and hardly any of the original materials, are reflected in this essay. But I began to think about these issues in response to the stimulation of the approach developed by Martin Meyerson, and my own thinking reflects in some degree the ideas he suggested to me. The original work of Martin Meyerson and his colleagues was supported by the Russell Sage Foundation; my work was supported by a contract from the Public Health Service to the Institute of Urban and Regional Development of the University of California, Berkeley; Allan Blackman did some research for me under this grant; the Joint Center for Urban Studies of the Massachusetts Institute of Technology and Harvard University assisted with some research and typing aid.

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HEALTH PLANNING: SCIENCE, POWER, AND POLITICS

The reasons for health planning are obvious and compelling: people demand better facilities for health care and health services. At some point, the classic system of mixed free enterprise and charity in the provision of services and facilities fails to meet popular demands, while at the same time, in a democratic system, the popular demand becomes a significant political factor. At that point, some level of government must arrange for provision -- there must be sufficient hospital beds, sufficient numbers of doctors, nurses and other personnel, sufficient educational facilities to train them, sophisticated technical equipment in the facilities, etc. The question then comes up of how many hospital beds are sufficient, how much personnel is sufficient, how should they be distributed, what means should be developed for an efficient distribution, how should new services and facilities be related to old ones, how should all this be paid for, and so on.

This simple paradigm -- a need exists, and some general community provision must be made for meeting it -- ensures that some planning will always be necessary, and will always be politically desirable. But, having presented this simple paradigm, we have left behind almost the last comforting and sure assertion in the field of health planning. For, as a matter of fact, it is not clear how much

is needed; how much is lacking; what is the best way of providing for it; what is the effect of various levels of facilities and personnel and forms of provision on health. Thus, the key facts of health planning are in large measure in dispute. The dream will always exist of a handbook which may be consulted -- so many doctors, so many hospitals, so many nurses, related thus and so, and presto, at least for the time, and until medical science makes some radical leap forward, good care will be provided. This should be simple. Yet, the problems in the way of even such simple technical solutions, leaving aside all political difficulties (overwhelming in the United States) and economic limitations (overwhelming in most countries) that might then interfere with the provision of a good system of health facilities and services, are enormous and give way only slowly to all our research.

To all of us committed to the possibility of rational solutions to man's ailments this broad assertion may seem much too sweeping and too pessimistic. However, if the limitations of our knowledge were the only problems in the way of effective health planning, all health planners would rejoice, for these technical and scientific difficulties and complexities in the way of the provision of good medical care pale when we consider the political and economic difficulties. The plan that is best argued and best supported with evidence may, in some rare circumstances, become in some measure reality, but most of us by now have been educated to the many restraints and limitations that make this only one of a number of possible outcomes. The contribution of the United States to the art of planning and the understanding of planning is, indeed, exactly in this area.

Our political scientists, sociologists, planners and other social scientists are almost demonically perverse in demonstrating, not how plans are instituted and finally achieve the ends which they strive to realize, but how various interests affect the formulation of plans and the institution of plans, how partially they become realized in reality, how unexpected and unanticipated are their outcomes. Indeed, if we were to base ourselves in health planning on what is the best work in planning of our academic social scientists -- for example, Charles E. Lindblom and David Braybrooke, Martin Meyerson and Edward Banfield¹ -- we would find so many traps in the way of realizing a desirable end, that we might well despair at the possibility of any rational planning having any good effect.

And yet, there is another possible reaction to the accumulation of data, research, theory on health and health planning that we have piled up in such volume: it is to develop a more sophisticated attitude to planning, to incorporate into our understanding of planning the insights and knowledge and techniques we have accumulated, and, thus, to make planning something different, and hopefully better, than it is. It is to this process that we hope to contribute in this paper.

In the field of health planning -- as in so many other fields in this country -- progress is hardly even. In some states, the most advanced practices may be in use, at some times and on some occasions. In others, even the traditional planning whose inadequacies we will occasionally reveal will appear as a utopian hope. Just as higher education, in David Riesman's image, resembles a snake, with the progressive movements of the head finally transmitted to the

tail at a time when they have died down in the forward parts, so, too, we will find the same image useful in describing health services and health planning in this country.

One of our hopes in this essay on health planning is to distribute ideas and approaches that are current in some quarters of the health field to others.

We find two major sources of weakness in the field of health planning: First, our base in solid knowledge, despite the accumulation of research, seems weak and contradictory when considered as a concrete guide to policy (there are exceptions, and we will give them due prominence in what follows). Second, even when we have a clear direction from research and knowledge as to policy, we are unclear as to how we can translate our findings into real changes in a real world.

The two are related. If we had more confidence in the implications of our research for policy, we would press more vigorously for the indicated changes. On the other hand, the complex political and social structure of this country, which makes it so difficult to institute nationwide policy changes rapidly and efficiently, also means that various contradictory lines of research suggesting different lines of policy will inevitably be followed up and contradictory results will ensue. Perhaps it is only in America that the tobacco industry is able to invest so much in research to try to disprove the relationship between tobacco and cancer. In this case, the experimental facts as to the relationship seem to be standing firm, but if there was any possibility that the relationship was deceptive, the tobacco industry's research would

undoubtedly uncover it. We find, in this country, that many discrete interests can, and do conduct their own research. The government also conducts research, of course, and it theoretically represents all interests -- but even there, some interests are more dominant than others.

In this complex of countervailing powers, the hope that the planners and their research should become the (single) strong right arm of a powerful administration must remain only a hope. The planners, too, and their plans, become one interest in the complex. Our approach to making planning more effective is to see it with all its limitations of knowledge and power, and to, nevertheless, determine how this type of interest might contribute to a more effective and efficient system of health care.

The first assertion we find in all discussions of health planning is that we need more of it. In one sense, this is obvious. We need only look at our deficiencies in achieving a level of health in accord with our enormous expenditures, in comparison with the results achieved in the advanced industrial nations of Northwestern Europe. But a small amount of reflection will get us past this slogan. Thus, it would be easy to demonstrate that just as we in the United States spend far more per capita on health than any other society -- with low middling results -- we also spend far more on health planning -- with similar results. Most metropolitan areas now have their hospital planning organizations -- now receiving federal support. Almost all have health and welfare councils, which, in addition to raising money, also conduct some activities that might be called planning. Almost every city has its community action

program, which engages in some planning -- some of it dealing with health; almost all have city planning agencies, and most have, in addition, urban renewal agencies -- again engaged in planning, some of it related to the placement of hospitals, the need for clinic and other medical facilities, and the like. At the regional level, we also have health and hospital planning councils, general planning agencies, and regional complexes to deal with major diseases of heart, cancer, stroke (but all these different regions have different boundaries). At the state level, we have, in addition to health and welfare departments (now engaged in developing, in accordance with the Medicare revisions of the Social Security Act in 1964, systems of comprehensive care -- New York's Medicaid, California's Medi-Cal -- for their medically indigent population), federal statutory requirements for hospital planning under the Hill-Burton Act, for community mental health planning, for mental retardation facilities planning, for comprehensive health care planning, and for some other types of planning directly related to or bearing on health. At the federal level, we have the supervision and guidance of all these forms of federally supported health planning in cities, metropolitan areas and regions, and states. We have the elaborate statistical services of the Public Health Service. We have a substantial number of commissions and committees making studies and proposals on a variety of health problems, and proposing action and legislation. We have Congressional committees holding lengthy hearings and designing legislation, which, of course, is also planning.

We do not suffer from lack of planning and what goes with it -- standards, minimum requirements, etc. Karl Evang, director

of health services for Norway, makes an interesting point: "In most European countries, ...no standards or minimum requirements for, say, hospital beds, doctors, or nurses in relation to the population were ever defined in the legislature."² And yet, we know that, despite our standards-ridden system of health care, the actual minima that define the level of services available to the whole population in Norway and other Northwestern European countries are higher than in this country. There are a number of explanations for the odd fact that, where the apparatus of planning is most highly elaborated, the actual level of services provided is most variable and shows the most shocking gaps. One explanation is a simple one: most foreign countries are unitary, not federal, and might more appropriately be compared with given American states than with the whole United States. Thus, one administration can do what central federal legislation and fifty states must do here. But, even taking this into account, we find a more highly developed planning apparatus and all its appurtenances (e.g. sets of standards) in this country. The more significant reason, I think, is the weakness of a central and homogeneous power structure in this country; that is, an elite defined socially, politically, and economically, which dominates decision-making. In contrast, we find strong autonomous social groupings -- professional organizations in particular -- in the field of health. In more homogeneous countries, one needs less standards because "everyone" (who counts) knows what the standards should be and it is not easy to dispute the power of a central government reflecting an accepted elite to define them. Here, on the contrary, the power of diverse interests means that we must

define more exactly in public statutes just what the standards are on which we will all agree and which we will try to achieve.

We find the same phenomenon in the field of city planning. In Europe, there is a broader consensus, because of more homogeneous elites, as to the directions of city planning and the decisions to be taken. Since there is more agreement among those who count, there is less need for planning. Here, we have more planning (of less effective plans), and we are rapidly developing something never known in Europe, a situation in which every major interest group has its planners, and in which those who cannot afford them are provided them by the government. There is no "advocacy" planning in those countries in Europe where planning developed earliest and has the greatest power.

The United States does not suffer from lack of health planning, if measured by the sums devoted to it, the numbers engaged in it, the legislation dealing with it; and, as a result, one of the worst shortages we suffer from, among all the shortages that exist in the health field, is that of health planners. Nor even do we suffer from the lack of statistics necessary for health planning -- compared to other countries -- except insofar as one is always short of enough knowledge and decisive knowledge. Our incredible medical system or non-system insures that, for purposes of proper fee-charging alone, we have some of the most elaborate medical record-keeping in the world. Where else, one wonders, are hospital costs so finely broken down? Here, of course, it is essential if hospitals are to properly charge the various third parties -- insurance companies, health departments, federal government -- that cover some

parts of the costs for some part of the patients. (This is not to say that the actual system for keeping records and breaking down costs so the charges to various third parties will be the proper ones is developed as highly as it should be to serve as a correct basis for these charges. However, in Northwestern Europe, where the state or the local community generally maintains the hospital, some of these issues never arise, and the need for a finely detailed accounting of costs is, therefore, less imperative.)

"More planning," a popular cry in health circles, health planning circles, and Congress, is hardly sufficient without more exact analysis of the nature of the planning we have, the degree to which it is effective, and reasons why it is, by various measures, not very successful.

Health Goals

Planning, at least in some simple formulations, begins with the setting of a goal -- and, in health planning, it must be some goal of health. Our problem begins there. Planners have pointed out that the nature of the goal set may be very various, and almost every goal seems to present a certain number of problems.

Various attempts have been made to define the goal of health services. In their largest extension, these goals can be stated so generally as to offer little guidance -- for example, the achievement of a general state of well-being. It is scarcely necessary to point out that the economy, the political system, the mass media and recreations, and even the tobacco and liquor industries are also engaged in an effort to help people achieve a state of well-being.

But, efforts to introduce what appear to be at first blush a greater degree of precision lead to similar difficulties. Thus, we can set a goal such as achieving a certain level of health as measured by mortality and morbidity statistics. The major problem with setting such a goal as a guide to planning is that we are often uncertain as to what instrumentalities help us achieve the goal. If the aim of the goal is to guide us in developing and distributing health resources, and the relation between health and health resources is obscure, the goal is not unambiguously helpful for health planning. The connection between medical care and health, as Victor R. Fuchs has recently reminded us, is somewhat ambiguous. Nations and states with less doctors and nurses and lower expenditures on health care often do better than some nations and states with greater resources and expenditures. In 1959-61, every nation in the OECD but one showed a lower death-rate for males in the ages 45-54 than the United States, all but three showed a lower death rate for females, seven showed lower infant mortality rates, ten showed lower mortality rates overall. The United States spent more, both as a proportion of GNP, and much more absolutely, on health care than any of these countries. In terms of personnel, hospital beds, and other measures, it is equal to or superior to most of them.

One conclusion we come to if we consider the relationship between reaching our goals and the means required to do so is that the increase in the gross quantity of resources devoted to health will not necessarily improve health. This is a very important conclusion indeed -- it is the conclusion of the valuable and insightful report of the President's National Advisory Commission on Health

Manpower in 1967 -- and it would lead us to consider other features of health services that might relate to achieving our goals, and, in particular, the system of organization and delivery of health care. We will have more to say about this later. At the moment, however, in order to explore more fully this problem of health goals as a guide to health planning and policy, let us consider the possibility -- and it is well supported by research -- that even when one holds the system of organization roughly constant, different quantities of health resources do not necessarily lead to differences in health. Consider the differences between states of the United States, all with about the same kind of health system:

The most important differential is race, but even considering the rates for whites only, the age-adjusted death rate (average 1959-61) in the highest state is 33 per cent greater than in the lowest; and the highest infant mortality rate is 55 per cent above the lowest; and the death rate for males 45-54 in the worst state is 60³ per cent higher than in the state with the lowest rate.

And the variation between the states is not to be explained only by the resources they devote to medical care:

In the United States the ratio of physicians to population varies from 188/100,000 in New York to 98/100,000 in Wisconsin, with little difference in the general health status of the two states.... During World War II there was a massive exodus of physicians from the community in 1942, and a sudden return at the end of the war. These shifts did not affect statistical measures of trends in general health.⁴

Thus, one problem of setting a goal such as the reduction of the mortality rate is that we are not really sure just how the provision of means in the form of more and better medical care will affect it, though it may seem obvious that it should. In specialized areas such as infant mortality, in which we do very poorly, we would perhaps find greater agreement as to the medical

measures that will reduce the rate. And yet, it would be a mistake to pretend that we know exactly what should be done. In the Netherlands, which has an excellent rate, most children are born at home; in Sweden, a majority are delivered by midwives; in England and Wales, which again does much better than the United States, a very substantial minority of children are born at home.⁵ We do have a fairly clear -- though not clear enough -- idea of what features in the medical care services of these countries might be responsible for their higher achievement in reducing infant mortality, and they are not the use of the home for delivery or the trained midwife (though who can really tell?), but, rather, their greater effectiveness in searching out and reaching the pregnant mother, in the course of maintaining a high minimal level of care for all, providing continuous care for her, and a higher level of care for the greater risk cases. Knowing this, and facing the difficulty of creating good systems of continuous care for all Americans, we decide on a less adequate and efficient approach. We set up specific programs to reach pregnant mothers -- and, in so doing, we further fragment the system of medical care, and it is probably the integrated system of medical care establishing a minimal standard for all which is the single factor in these other countries that is most relevant for a reduction in infant mortality.

Our pattern of response, through specialized centers for treatment of mothers and children, or through well-staffed family-oriented community health centers, is to do what we regularly do -- establish some institutions which are admirable, to raise examples or demonstrations as plateaux above the surrounding plain -- but

the plain itself is not raised. Thus, we may be clear about our goals; in some cases, we may even be clear about some of the means of getting there; but the entire pattern of health care and the political and economic road-blocks in the way of changing it prevent any but fragmentary responses. Yet, the definition of specific goals, such as reducing infant mortality, plays some role in encouraging us to then respond in terms of specific programs for specific goals.

The **major** problems in goal setting include, aside from the political and economic difficulty of instituting the changes indicated, the difficulty, in terms of knowledge, of relating medical and health care means to goals we define. We can point to two additional major sets of factors which help explain why the provision of health care may be only poorly related to the achievement of health goals. The first is the role of still poorly understood cultural factors in affecting health, independently of available health resources and the health care system. Thus, there are remarkable differences between different ethnic and racial groups in health, even when we hold constant the amount of health care available to these groups. This is easy to illustrate, hard to prove definitively. If we consider Negroes and Puerto Ricans in New York City, for example, and we hold constant the socio-economic background of parents, we find startling differences in infant mortality.

Alonzo Yerby has presented the following table of perinatal mortality rates for New York City, 1961-63:

FATHER'S OCCUPATION	WHITE	NEGRO	PUERTO RICAN
Professional, Managerial, and Technical	16.7	24.2	22.5
Clerical and Sales	20.8	31.5	24.4
Craftsmen and Operatives	20.9	32.9	24.3
Laborers and Service Workers	25.9	36.6	27.8

Source: "The Disadvantaged and Health Care." (Paper delivered at the White House Conference on Health, November 4, 1965.)

Lester Breslow has pointed to the surprisingly better health records for Japanese and Chinese in California: Infant mortality rate, 1964: 33.9 for Negroes, 20.8 for Caucasians, 13.6 for other non-whites. And, in the case of the five-year relative survival rate from localized cancer of the breast: 73.4 for Negroes, 81.5 for Caucasians, 90.8 for Japanese.⁶

Minako Kurokawa has studied the remarkably low childhood accident rates of Japanese in California. Odin Anderson has pointed to the evidence that immigrant Jews, despite extreme poverty and overcrowding, showed a remarkably low rate of infant mortality. Comparisons in eight cities in the period 1911-16 showed that while the white rate averaged 108, the native born white 94, and the foreign-born white 127, the foreign-born Jewish rate was 54.⁷ (In view of the common anecdotal position that Jewish mothers evidence maternal overprotection -- and there is, of course, some solid evidence for this -- one may argue, going to a higher level of analysis, whether this gain was not partially offset by crippling psychological ailments, obesity, etc. But the main point is that culture, rather than health care, was determining health.)

Culture, operating through socio-psychological factors, is clearly one element determining the health of a population. To unravel its influence is enormously difficult, and to then go on from that to health care policies that will take these influences into account is even more difficult. Again, in countries of homogeneous population, these effects of culture on health are constant, or near constant -- the health system takes them into account automatically, so to speak. In a country with a population of varied origins and distinct subcultures, the problem is not so simple. The goal of improving health measures may involve taking into account a host of obscure factors. Kurokawa's work on accidents among Oriental children (accidents are by far the largest cause of death among children from one to fourteen) reveal clearly that the issue is not race but culture: the nature of the family, the socialization of the child, parental expectations of the child. The acculturated children show accident rates approximating those of Caucasian children. But, we cannot assume the cultural and socio-psychological factors simply disappear with acculturation. The matter is not so simple; the cultural differences change in character with acculturation and the most obvious characteristics (language, and specifically defined customs) may disappear. But other elements of the cultural heritage interact with other living concerns of American society to produce new kinds of differences. Thus, the acculturated Jew, or Irish American, or Japanese American, or Northern city Negro develops elements of difference that still have profound consequences for health.

One of the reasons these subtle socio-psychological differences between subcultural groups continue to have consequences for health is that, as some major traditional causes of disease and death are conquered, personal and psychological factors become important in determining an individual's capacity to maintain health.

Odin Anderson points out in connection with infant mortality:

Once the [infant mortality] rate drops down to 30, the broad economic and social factors operate with lessening effect, and personal behavior factors of the families in the high impact mortality groups involved, particularly the mothers, begin to exercise an increasingly dominant influence.⁸

This is a rather disturbing matter. If improving health means to apply the proper remedy at the proper time, then one can think of approaches that increase the number of remedies (research), the number of those who apply them (doctors), the settings in which they can be applied (hospitals). But, if health is a matter of personal, psychological factors, themselves depending to some degree on class and culture, then the matter becomes more complicated. If health and health planning is too solidly dominated by those who think in terms of specific remedy, specifically trained personnel, highly specialized health settings, then a good deal that may be relevant to health -- and perhaps more relevant than a 10 per cent increase in the number of doctors or hospital beds -- may go by the board. The situation may then be similar to that described by Kingsley Davis in his critique of population control, which, to his mind, has been dominated by research in specific techniques and mechanisms and their distribution to populations, while critical factors of motivation and social structure remain untouched.⁹ The problem with

taking the broad view, as critics of Kinglsey Davis pointed out, is that we do know how to go about inventing more effective birth control mechanisms, and we don't know how to go about changing family structure, social structure, and motivations, nor if we did, could it ever be as simple a matter as inserting loops. (Not, of course, that that is a simple matter, either -- it is only simple when we contrast it with a serious attempt to change culture and society so that the number of children desired falls.)

There is a second line of argument and investigation which weakens the connection between health goals and specific health measures. This is the growing weight of evidence that general environmental conditions, which seem to have played a large but undetermined role in reducing the death rate in the nineteenth and early twentieth centuries,¹⁰ may now be playing a substantial role in increasing it in the latter third of the twentieth century.¹¹ If this is so, setting a goal such as the reduction of the death rate should logically lead us to examine all the gross environmental conditions -- air pollution, noise, crowding, stress, diet -- under which increasing numbers live, and indeed, the whole complex of modern civilization and increasing affluence -- changes which may be more important in affecting general health in the next few decades than improvements in medical science or medical care. From one perspective, this shows the great value of setting such a general goal as lowering the mortality rate; from another, it increases the difficulty in using such a general goal as a guide to health planning.

The goal we set, then, desirable as it may be, may be, in effect, a measure of what is being achieved by a host of realities -- from the state of the society and its environment, at one end, to specific types of medical care, at the other -- rather than any concrete guide to planning.

Goals can, thus, be a desired state one tries to achieve: a decent home in a decent neighborhood for every American family; a job for everyone willing to work; good medical care for every American; in which case it says less than we would like about the instrumentalities by which one tries to achieve it. Under such circumstances, it is easy to get general agreement, but meaningless to do so. Or, goals can directly assert the instrumentalities or means by which the presumed end state is to be achieved (so many slum houses a year to be replaced by urban renewal; so many billion for a government work program; so many hospital beds and doctors), in which case they are no longer goals but also means, and many problems arise in setting them, of which one is: will this lower-level type of goal, one indicating the means, reach the end expressed by the higher-level goal?

The same issue arises in discussions of standards. The field of health planning is rife with standards -- for the accreditation of hospitals, nursing homes, extended care facilities, for the licensing of doctors, nurses, aides, technicians. Even for the qualification of health planning agencies themselves, which presumably apply standards, there are, if not a formal set of standards, certainly various proposals for standards. One can speak of ends and means, judging a hospital either by the quality of care it

provides, or by the means and mechanisms whereby it provides care -- does it have doctors of such a standard, full-time chiefs of service, laboratories of various kinds, professional review committees, utilizations committees, etc., etc.? The fact is that, for practical purposes, standards, it seems, can only be of the means kind. More common current usage refers to these two kinds of goals or standards as "output" and "input" goals or standards. It seems odd that medical health systems, health practitioners, and health facilities are judged largely in terms of inputs -- the proper facilities, education, training, supervision. But it is clear why we are so limited -- the "output", health, is dependent on so many other factors that it alone would scarcely serve as a guide to planning. Thus, no hospital and health planning council, as far as I know, has ever judged itself in terms of success in increasing health or decreasing illness -- its measures of success are generally in terms of how much unneeded construction it has prevented, and less commonly, how many new clinics and facilities it has established in previously unserved areas. For the most part, evaluation scarcely proceeds even that far. Health and hospital planning councils generally applaud themselves principally for staying alive, and, following in the path laid out by social workers -- who also have a hard time proving their intervention valuable -- give themselves marks for "process" (the "process of planning"), rather than results, whatever they may be.¹²

Whose Goals?

In the case of health, as in the case of many other social goals, the relationship between end-goals and the institutionalized

means whereby they are achieved, inputs and outputs, are assumed partly on the basis of faith, as we have indicated. Actually, health is in a much better position than education or welfare dependency. In the latter two cases, many experts hold the position that there is not only often no relationship between schooling and education and the welfare system and overcoming dependency, but rather argue that there is an inverse relationship, that present schooling does much to hamper and limit education, and present welfare practices do much to encourage and stimulate dependency. It is even argued that public housing creates slums. Now it is not generally argued that the system of health care actively promotes ill-health. (There is evidence though that there is a good deal of unnecessary surgery.) It is, rather, argued, as we have seen earlier that measures outside the formal health system may be more efficient and more effective in promoting good health. Thus, cultural factors or environmental factors may be seen as being more strategic in promoting good health at this point in our history than the expansion of health services.

I believe that these arguments can be well supported; that, indeed, a serious effort to begin the process of health planning by looking at its ultimate goal may well lead us to areas of possible action that will be more productive than the specific area of medical care. This is perhaps one of the strongest virtues of beginning a consideration of health problems with considering goals. However, it would be perverse to deny the significance of the realm of health care for health, a perversity for which we may have had some justification when George Bernard Shaw wrote "The Doctor's Dilemma," but which has little justification today. The

system of health care does contribute to improving health, even if in a somewhat indeterminate fashion. How, then, do we proceed to determine our lower-level goals for health planning -- our needs in the way of hospital beds, doctors, nurses, research, new health-care systems, and the like?

The fact is that elaborate considerations of the relationship between health services and health have played little role in determination of the scale and character of health services. Various factors have historically determined the numbers of doctors, hospitals, other health personnel, and other physical facilities, the services they provide, and the compensation they get for them.

One major one is nothing more or less than the market place. Traditionally, the doctor is an independent professional, going through a long and expensive training and apprenticeship, and then entering practice as an individual. His numbers are determined in part by culture and tradition, and by governmental determinations as to need, but, more significantly, by a variety of factors -- individual decisions to enter medical school, decisions to establish medical schools, in all of which the economic factors of the free market play an important role. The numbers of nurses and other para-medical personnel respond to the same market forces. Hospitals are less closely related to the market. Originally, they were established by churches and governments as places for the indigent sick poor, then in this country by voluntary associations to serve specific populations and to give opportunities for training and practice to specific groups of doctors, and, finally, some have been established strictly in response to market needs by individual proprietors

in response to demand. The drug industry is almost entirely private -- it operates in the free market as does any other great industry, subject to the special considerations that affect the market when individual firms become very large. Old age homes, nursing homes, convalescent homes again have their roots in governmental action and in the actions of voluntary groups, but also in the action of individual entrepreneurs, responding to market forces. Only in the case of medical research do we have an area in which the market plays a very small role, for, in this area, the overwhelming share of activity is initiated by government, or, earlier, by foundations.

Alongside the market place and some limited traditional areas of governmental involvement (hospitals for the indigent established by local and state government, public health services, care for some special groups such as the military), the professional organizations have played an important role in determining the scope and character of health services, in particular, the American Medical Association, the American Association of Medical Colleges, and the American Hospital Association. The AMA and other professional organizations set standards. These standards often had a substantial economic motivation. Thus, the AMA and the AAMC for many years radically limited the number of doctors under the impact of declining earnings in the depression. But, undoubtedly, a major part of the work of the professional associations is devoted not only to protection of the interests of those they represented but to the advancement and safeguarding of standards.

This system, which existed roughly in this form at the end of World War II, has been subject to many radical changes; in particular, the role of government has expanded enormously. The market place is now in process of transition to a regulated market place. And, since central governmental actions play leading roles in determining the supply and demand for health services, questions of rational allocation become more prominent. Government supplies funds for hospitals, for research, for the training of doctors, nurses, and other health care personnel, for covering the costs of health care for the aged and the poor, for new systems of relationship between medical schools, hospitals, and individual practitioners, for new medical schools, for the direct provision of health care for the poor, and for many other specific purposes. All this inevitably means that the market place makes fewer and fewer decisions as to costs, supply, and demand, and that government must make more and more decisions. Of course, "government" is a misnomer -- we have four crucial levels of government in health services (we must include now the regional or metropolitan level, since, in most of the country, it is now specially organized in publicly recognized agencies with personnel, budgets, and powers), and within each level, we have many conflicting and independent agencies of government.

The "decisions" of which we speak in the sphere of health services are inevitably incredibly complex. A "decision" as to any part of the health care system involves such things as professional organizations' demands or opposition, public demand or resistance for services -- and with different parts of the public taking different positions -- technical studies by uncommitted (and committed)

specialists coming up with various determinations of needs as proposals for action, action by civil servants, at various levels of government, actions by elected officials, actions by elected legislatures -- out of all this, a decision emerges, and the system is changed in some way.

As we have said, ours is not a society of hierarchical and centralized power in which a "scientific" determination of need is translated into action, facilities, personnel, and systems. Admittedly, in our naivete we have in the past often been obscure and unclear as to the relationship between the planning process and the political decision-making process. We have been happy to set up planning agencies and groups without any clear notion of how their plans might come into being. But the health care system has not actually been as delinquent in this respect as city planning, where, as an official of the Department of Housing and Urban Development recently remarked, we have discovered that for the past fifteen years we have been in the business of buying plans, and naturally if you go into the market for plans, you create a plan-producing industry. But now we want to see how we can put our plans into effect. Health planning has generally been in somewhat better shape. Some of the early planning agencies (such as regional hospital planning agencies), were themselves the creations of those who wielded considerable power in the making of decisions as to where and when to build hospitals. (In this respect, the recent flowering of regional hospital agencies under the fruitful rain of federal dollars may have negative consequences: it probably has led to the creation of agencies out of less urgency and possessing a smaller share of the local power

and resource wielders.) Similarly, state planning for Hill-Burton hospital construction funds may have been poor and inadequate -- but it was related to real decisions affecting real resources. And, in the same way, Federal Commissions in the health field have often led to some federal action -- in the fields of mental health and mental retardation, manpower shortages, provision for new medical schools, creation of the regional medical complex for heart, cancer, stroke, etc. Health planning has not been as abstract an exercise as city planning.

And yet, one kind of proposal is never implemented: the kind that involves strong government intervention to change the central pattern for the delivery of health services. Thus, government commissions and committees now, for some years, have been insisting that prepaid comprehensive care delivered by groups can be one of the major, if perhaps the major, instrument for the delivery of better care at lower costs. They have for years -- it would be futile to extract the often repeated recommendations -- asked that restrictive legislations in various states, adopted at the behest of the AMA, which hampers and limits the development of this kind of health care, be repealed. The demands become ever more urgent as both the costs of health care and the frustrations in getting care, under the present fragmented fee-for-service system, become ever more outrageous. But, hardly anything is done by Executive and Congress.* Thus, on the one hand, some kinds of proposals presented by commissions studded with distinguished physicians -- for example, the proposals of the President's Commission on Heart Disease, Cancer and Stroke -- are turned into

*Since this was written, there has been Federal action to encourage prepaid comprehensive care groups. -- June, 1972.

functioning legislation in fairly short order, as the American system operates. Other proposals by equally distinguished groups -- the ill-fated proposals for support of prepaid, comprehensive care practiced in groups -- are, for the most part, ignored. There is no great mystery as to the reasons: some proposals implement what powerful professionals want, and hurt no particular interest, except the interest of a better system for better health care, which is too general and too unclear to find powerful and well-organized interests to defend it; the other kinds of proposals do offend powerful and well-organized interests.

Our problem is how public and private action may be guided by rational and scientific considerations -- "planned." We can divide the action into two parts: one part is subject to some "scientific" or "professional" determination, and another is subject to political or group interest considerations. We assume it is possible to find a decision as to provision of some part of health care that responds to an objective and professional determination of need -- and we then have the complex problem of fighting through the political effort of making that determination a reality. The matter is, unfortunately, more complex than this. While we can abstractly make such a distinction -- and in order to find out how research and rational analysis can make an independent contribution to the determination of health needs we must do so -- the fact is that the professional and scientific component in the determination of need is itself in part political -- that is, specific group interests are represented in the decision that is being made. For example, health planning agencies' composition is often determined

by law, and they must include doctors, representatives of hospitals, representatives of consumers, and so on. Thus, their very composition means that at the beginning of the process of health planning the political conflicts between different groups are built in. This is a desirable approach -- it is perhaps one of the reasons health plans have had somewhat more effect than physical city plans. But it does make the problem of differentiating an area for scientific and professional judgment and determination a difficult one.

One of the problems in determining health needs (or, as we called them earlier, the "means" or "lower-level goals") is that we can differentiate different goals for people who use the services from goals for people who supply the services -- user-goals and supplier-goals. One can, making this distinction, point to the inevitable conflict between those who must supply a service, and hope to do so at the highest price, and those who are purchasing it, and hope to purchase it at the lowest price. On the general goals -- better health care, better education, or what one will -- users and suppliers are in full agreement. On the specific means to achieve these general goals, there is inevitably disagreement. But the simple divergency of interest between supplier and user is only one source of this disagreement and perhaps not the most important. As potent perhaps is the fact that a profession providing a service develops inevitably a distinctive view of its value and the way its services should be used, and these views may be in conflict with those of users (and in conflict, too, with some larger community view as to how their service should fit into the health system). The disagreement may be over how often this service should be resorted

to, what other means may exist for reaching the same end, how effective the service is, how many practitioners should be trained and at what cost to the public, as well as, of course, what their remuneration for service should be, and by what mechanisms it should be provided.

There are solutions to the conflict between user goals and supplier goals. Perhaps the best solution that has in general been found is that of the free market -- but, for a variety of very good reasons, it is inconceivable that we could today allow the free market in health care to govern more than a part of the adjustment between user and supplier goals. When such goods as health, education, recreation are involved, we set community goals and realize them through the political process. In the setting of community goals, however, we come back to the beginning of our problem -- the professionals have the largest and most powerful voice in the setting of community goals. They know the most; they are the best organized; in the case of health, the leading professional, the doctor, possesses an authority that only the nuclear physicist can match. But, just as the nuclear physicist may know little of politics or economics, so, too, may the health professional -- the doctor -- who is often most potent in setting community goals that we must all pay for.

To the professional, it often seems simple enough to indicate what is needed. Consider the formulation of one of the very best of the professionals, Karl Evang, M.D., Director of the Public Health Service of Norway. He outlines the task for health planning as follows:

A logical task for the public health services at present would be an attempt to define a reasonable standard of health services for the population of any given country. The

needs should be spelled out as far as possible in concrete terms, giving the number of medical and auxiliary personnel, the type and size of institutions and equipment, etc. Is it...possible at a technical level to define such reasonable requirements of health services? For any given city at a given time the answer would, in my opinion, be 'yes.' For the world as a whole it would be no. Figures of general applicability cannot yet be produced.

For a group of countries, say those of Western Europe, it is not impossible, within a certain margin, to define reasonable requirements. We know approximately the need for the number of hospital beds for, say, cancer, chronic psychoses, feeble mindedness, gynecological and pediatric diseases, etc. As far as surgery is concerned, we are already in a position to split the requirements by sub-specialities, like thoracic surgery, orthopedic surgery, plastic surgery, etc. We also know approximately when the saturation point is approaching in regard to number of doctors, dentists, midwives, nurses, etc., in relation to population. For some types of services we are still in the dark as to need at present, and planning would also have to take into consideration the possibility of switching over from one to another.¹³

In effect, then, we would set a goal of good medical care, related in some way to the capacities and expectations of society; we determine what resources in facilities and personnel are necessary to achieve this goal; we then, through various measures, see that these goals are reached. This vision, obvious as its virtues appear, is only partially relevant to our situation.

There are some key logical and practical contradictions to such an approach. For example, wherever we look in the field of health, we discover that the professionals can and do assert a level of need which theoretically requires enormous resources to be met -- resources which, added together, logically exhaust the pool of available and potential manpower and reduce us to a reductio ad absurdum.

Thus, one Congressional committee in 1966 points out:

The Public Health Service reports that we have approximately 10,000 trained home health aids as compared to 200,000 that are needed....

Or,

As long ago as 1953, it was concluded that adequate sanitation program staffing called for at least one sanitary engineer or sanitarian for each 15,000 persons....A host of new areas of responsibility have been added since, but some local communities, counties and states do not meet the standards for environmental control set thirteen years ago. Over 13,000 sanitary engineers and sanitarians would be needed to meet those 1953 minimum staffing requirements....Of this number, a 1962 survey concluded that between one-third and one-half are actually employed....

Or,

The public spends 2.4 billion a year to maintain a standard of dental health in which only 40% of the people visit a dentist even once a year.

And thus, logically, we would need at least a doubling of the 106,000 dentists and dental hygienists and technicians.¹⁴

Or, as Dr. Howard Rusk points out:

President Johnson in his health message pointed out that last year we broke the record and rehabilitated 120,000 disabled persons....It was 40,000 in 1945. The President's 1966 budget called for funds to rehabilitate an additional 25,000. But when you realize there is a backlog of 2,000,000 and when we get 250,000 new cases a year...¹⁵

Once again we have a prima facie case for doubling expenses and personnel, and this in one of the most rapidly growing programs of the government.

Another shortage:

Unfortunately, this medicare benefit [home health visits and extended care facilities] will not be realized by many of the elderly sick. Only two states report that home nursing services are available to all their residents; for the country as a whole, only 55 per cent of the population has access to total or partial home nursing care services.¹⁶

Thus, in many personnel areas, it would seem that immediate needs call for doubling the numbers engaged, or more.

If we look at needs from another perspective, the shortages are even greater. If we consider those areas of the country that are best served with personnel, and those that are worst served, the differences are of the order of magnitude of two or three to one.

In 1957, three states in the Northeast averaged 176 doctors per 100,000 population; three states in the Southeast averaged 71 per 100,000. In metropolitan counties, the ratio was 173 per 100,000; in counties neither metropolitan nor adjacent to metropolitan counties, the ratio was 74 per 100,000. In isolated rural parts of these counties, the ratio was 50 per 100,000. There has been no substantial change in this pattern in recent years, although it has been pointed to regularly for at least forty years. In 1965, New York State had 133 physicians per 100,000 population in private practice, Georgia 70, Mississippi 60. Isolated rural counties had less than half as many physicians as their share of the population (3.2 per cent of the population, 1.5 per cent of the doctors). Low-income sections of cities did even worse. In Watts before the start of the OEO-funded community health center, there were eight physicians for 35,000 people. One might argue against these crude estimates of different levels of service that transportation facilities nevertheless permit patients in the underserved areas to get to doctors anyway. And, yet, there is no question of the drastic effects of doctor shortages. Harris has estimated that, in the Southeast, the doctor makes twice as much as in the Northeast, when

allowance is made for the difference in per capita income.¹⁷ And the newspapers often report the plight of towns that are ready to provide doctors a house, a car, and a clinic, and get no takers. In New York State, with the best doctor-patient ratio in the country, fifty-six municipalities with populations of more than 2,000 have no doctor.¹⁸

In 1957, Connecticut had 599 professional nurses per 100,000 population; Arkansas only 123. The Northeast states, as a group, had 416 per 100,000; the East South Central had 144 per 100,000. In 1963, it was estimated by the Surgeon General Consultant Group on Nursing that 850,000 more nurses would be needed by 1970 -- which was 100,000 more than were being used in all hospitals in 1963. And, in order to indicate that these estimates were not simple professional hyperbole, it could be pointed out that, in 1961, one-half of the positions for professional nurses in public hospitals in New York City were vacant, and in hospitals in general throughout the country, twenty per cent.¹⁹ (In 1967, three-quarters of the positions for professional nurses in New York City's municipal hospitals were vacant.)²⁰

We may take other approaches to the determination of need. One is to consider the range of health in different parts of the population -- if health in some part of the population is inadequate, we may then legitimately conclude that an increase in resources is necessary. From this perspective, too, enormous increases in health personnel and facilities may be necessary.

Thus, Public Health Services studies of morbidity show that those in families with income of under \$2,000 a year have

twenty-nine restricted activity days a year, while those with family income over \$4,000 a year have less than half that, thirteen restricted activity days a year. Admittedly, a good deal of this difference may be unaffected by medical care. But, when we know how wide a range of quality exists in kind of care provided, we will be cautious in assuming that this difference cannot be affected by more and better medical care. And, indeed, the poorer group does at present receive less care -- only fifty-nine per cent have consulted a physician in the previous year, only thirteen per cent a specialist, compared with seventy-three per cent and twenty-eight per cent of the better-off income groups which have seen a physician or consulted a specialist.²¹

The differences in infant mortality -- and again one assumes a greater provision in medical care is needed -- are equally striking. Thus, in 1954-1957, Utah and Iowa had infant mortality rates of 21.2 per thousand, while Arizona showed a rate of 35.6 and New Mexico a rate of 40.1. The range in white-non-white differences is even greater: 23.3 to 43.7 in 1957. Maternal mortality shows a difference of five to one, between whites and non-whites. Within the single city of New York, the infant mortality rate ranged from 32.5 in the Borough of Manhattan, to 20.8 in the Borough of Queens, in 1956-1958. In Central Harlem, it was 42.4 per thousand.²²

If, then, the white and the well-off are not misusing medical facilities, it would appear once again some increase of medical facilities and services would be needed.

The same is true in all areas of health need. It is hardly necessary to point out what great shortages exist in the numbers

of health planners -- shortages that must increase with new government aid provided for health planning in 1966. Thus, Wilbur Cohen, when asked at a Senate hearing on a bill for comprehensive health services planning about the present state of such planning, answered that "...only a few states have this broad approach, trying to relate personnel, facilities and all the programs," and referred to New York, California and Michigan as composing this progressive group. Clearly, even in these states, as those involved know, there is more that can be done than is being done in the field of health planning. If this is the case there, then the shortage of health planning personnel must be extreme indeed.²³

The demands for new doctors are, in manpower terms, somewhat less than for ancillary personnel, but the costs of increasing the number of physicians is enormous, owing to their very expensive and very long education. A figure of 50,000 more physicians is commonly proposed.²⁴ The National Advisory Commission on Health Manpower in 1967 refused to come up with a fixed figure, but its estimates of future need added up to considerably more than this. It estimates that, to meet the needs of the presently economically disadvantaged, would require an eight per cent increase in the total number of physicians' services. To meet all the demand for full-time hospital staffs would require an additional 3,500 graduates a year -- almost a fifty per cent increase in the present number of graduates. Further demand would have to be added because of bio-medical advances, offering new types of treatment. If one were to meet the present "inadequate ratio of medical school spaces to bachelor degrees," the number of spaces for new medical students in 1975 would have to

be 16,500, "50 per cent above the projected 1975 capacities of medical schools." Continuing education for physicians, a pressing need, would reduce physicians' time available four per cent if each devoted two weeks a year to it. Finally, to fully replace Foreign medical graduates, the brain drain of doctors from other countries which the Commission feels the United States should not draw from an underdoctored world, would require an eventual expansion of twenty per cent above present enrollment in United States medical schools. These different estimates of present shortage cannot, of course, be added together, and yet, it is clear they involve a huge increase in the numbers of doctors we either need or should have.²⁵

When we turn to health facilities, we will find a similar heavy demand on the basis of professional estimates.

The estimation of required number of hospital beds is one of the tools of hospital and health planning with the longest history and the greatest use. It has not, however, escaped criticism: indeed, the beginning of all wisdom in health planning seems to be to attack the prevailing ratios as to bed needs. How to substitute other ratios is no simple matter, however.

Gerald D. Rosenthal has summarized the lengthy history of the effort to set up a standard population-bed ratio standard, a need which Dr. Evang takes for granted, and which became particularly critical in this country when the Hill-Burton program of Federal assistance to areas with insufficient numbers of beds was established in 1946. Most studies, it seems, came to the conclusion that 4.5 hospital beds (in short-term hospitals, that is) per 1,000 population was necessary, and this became the Federal standard.

In 1965, the number of short-term hospital beds (non-Federal) per 1,000 population was still, after twenty years of Hill-Burton, only 3.86 per thousand, which would have meant an increase of 128,000 beds, or a seventeen per cent increase in the number of beds. Actually, however, by this time, no one was taking the hospital bed ratio seriously. As Rosenthal's and many other studies demonstrated, the factors affecting the use of hospital beds were far more complex than the simple size of the population.²⁶ The main professional emphasis had now shifted to the need for new capital for the replacement of obsolescent hospital beds. In late 1965, HEW officials estimated the United States would have to spend ten billion dollars over ten years to modernize its hospitals, one-seventh of which were obsolescent and more of which were becoming obsolescent each year.²⁷ In New York City alone, the United Hospital fund put needs for modernization and replacement at \$705 million.²⁸ Far more serious, of course, was the shortage of nursing homes and Extended Care Facilities whose use was encouraged by Medicare as a means of reducing hospitalization costs. A New York State Senator, opening a hearing on the Shortage of Nursing Homes in September, 1967, reported an immediate need of 35,000 in the state, and a need for perhaps 100,000 by 1970.²⁹

Admittedly, the need for greater facilities is not at all frightening in itself. The one thing this country or any advanced industrial country can do is turn out physical facilities. The issue with these and other estimates of need is, rather, their implications for the need for skilled and unskilled manpower -- their implied commitment to maintain new and higher levels of costs.

Perhaps the only area of physical facilities where there is not a crying demand for new physical facilities is in the case of mental hospitals where, as a result of drug therapy, censuses are declining rather than rising. However, even if we are now oversupplied with mental hospital beds, they are overwhelmingly located in the wrong places from the point of view of modern conceptions of therapy -- they are in huge hospitals far from cities and in these environments of great masses of the mentally ill, it is difficult to treat them, to relate them in the course of treatment to their families and communities, and to recruit good staff for them. Under the circumstances, just as the great need in this country in the area of hospital beds is replacement and modernization, the same need is present in the case of facilities for the mentally ill, except that here we have an even more pressing need to relocate them into small facilities in cities and towns.

The issue, in effect, is that the professional judgment as to need comes up with figures which, when added together, show a demand that it is hardly likely that society can meet. But we try, and, in trying, an ever-larger proportion of the Gross National Product is devoted to health care. The National Advisory Commission on Health Manpower made, in 1967, the most authoritative estimate of what our health care expenses are likely to be in 1975. Their approach was not to sum up the judgments of professionals in all areas (of which we have given a brief selection in the preceding pages), but to make a sober extrapolation of the trends of 1955-65.

We have assumed that medical care will continue to evolve in the future approximately as it has in the recent past; that medical care outside the hospital will continue to be provided primarily by sole practitioners; that specialization and hospital-based practice will further increase; that health insurance (public and private) will expand until nearly all the population will be covered for at least hospital-related expenses. In predicting the general economic environment, we have assumed that continued growth in economic activity and price levels will push the GNP in 1975 to a level 85 percent above that in 1965 -- a total of nearly \$1,300 billion.

On this basis, the NACHM calculates a 140 per cent increase in costs of health care (vs. an eighty-five per cent increase in GNP), and a rise in health services from five and one-half per cent of GNP (already higher than any other country in the world) to seven and one-half per cent.³⁰ Now, in the ideal world of the future, it is perhaps reasonable that people will opt for even higher proportions of GNP for health care, but these projections for total percentages of GNP for health care do not assume any particular change in our ways of providing health care -- and do not assume, therefore, that we will be particularly better off in terms of health as larger and larger proportions of GNP go into health care.

Obviously, if the extrapolation of present trends leads to ever-greater proportions of resources devoted to health care (with no guarantee of any improvement in health), extrapolation based on a serious national effort to meet the optimum (or even minimum) needs as projected by the major professional interests and experts would lead to considerably higher figures. And, as we have seen from some of the quoted figures (e.g., distribution of doctors and nurses in various states), one could go quite far in trying to meet professional standards without achieving any marked increase in health.

And yet, how does one argue with professional determinations? One way is to take a larger view, one that takes its stance outside the health care system. The system and its supporters inevitably look at their own needs and this is quite justifiable and inevitable. The hospital administrator who sees that he desperately needs more nurses; the state hospital administrator who sees he has only one-third the staff professional standards of treatment require; the public health agency which sees that it desperately needs more clinics in the poor areas of the city; the professional association which sees that according to its minimal standards half of the population is not served -- all are justified, and more than that, required to demand more resources to meet needs which the public itself finds necessary. There is one common response to this kind of situation -- to add up the needs and to say we are rich enough to afford it. We may be rich enough to build almost everything we might possibly want and need. But, in the case of health care, as we know, the real bottleneck is personnel -- not only the skilled personnel which is so difficult and time-consuming to train, but the less-skilled personnel which has been increasing so rapidly that it is inconceivable that the recent rate of increase can continue much longer. (Between 1955 and 1965, while population increased seventeen per cent, medical auxiliary personnel increased sixty-three per cent, non-professional nurses increased sixty-three per cent, professional nurses increased forty-four per cent.)³¹ This is why the NACHM came to the conclusion that a change in the system of health care is necessary. It is the kind of conclusion we come to when we look at education and see its monumental demand for more manpower and

facilities on the basis of the present organization. It is the conclusion we come to when we look at welfare costs. It is a conclusion that we come to when we look at the increasing costs of local and state governments, which largely are made up of such costs. We are in the odd situation of having a population that increases less than two per cent a year, a GNP that increases four or five per cent a year, and social needs which increase at a rate of seven to fifteen per cent a year. Obviously, this can't go on forever. The issue then comes up: what is to be done?

The Indeterminacy of Needs

We have been playing a game that is easy but that does not get us far in solving our problem. We have pointed out that the professional determination of need is often affected by a professional limitation -- the definition of the problem in such a way that, in order to solve the problem, we need more -- more personnel, but, also, of course, more money (to train personnel and to encourage personnel to move into a personnel-short field), and more physical facilities (for their own sake, and to attract more and better personnel).³² One could perform the same exercise in many fields. It is clear that some larger or more holistic view is needed in the definition of need. If we stick to the professional approach, all we can do is consistently cut back the professional's estimates of need, encouraging him to raise his demands further in the expectation that they will be cut back by those who have the authority to fulfill them. There is no rule, one assumes, which asserts that all professionals will exaggerate needs in the same proportion, or

that all professional requirements and needs are equally composed of a necessary and a less-necessary proportion. Certainly, a more scientific approach is possible. But, it is hard to say as yet that it provides us with definite answers as to our needs in the field of health.

But, the problem is more serious than that of professional inflation -- or professional restriction, as in the case of the AMA. The problem is also one of scientific determination. Here, we know more than we did twenty years ago -- but what we know has only made the problem of determination of needs more complex. As we pointed out in the discussion of health goals, we can determine in some gross way the differences in health between different countries. Presumably those that show the best achievements have something to teach us. But, when we begin to examine the ways in which different countries achieve different levels of health care, we are at a loss as to what we should ascribe the achievement of varying levels. A number of studies are now going on comparing the health and health systems of different countries, particularly those with different systems and different levels of health. The initial results certainly make it extremely difficult to determine just how we should improve health in this country to, let us say, the Swedish or English level.

Thus, even if the AMA is now convinced, along with almost everyone else, that we need more doctors, the fact is that we already have considerably more than England, and far more than Sweden. The United States, in 1958, had 140 doctors per 100,000 population, England and Wales 111, Sweden only 83. Perhaps the Swedish doctor works very hard and gets to see many patients?

Not so, for if we estimate workload by number of patients seen, the Swedish doctor works no harder than the English or American if we consider visits to the doctor as a measure. In Sweden, the average number of visits to the doctor per person per year is 2.5, compared to 4.7 in England and Wales and 5.3 in the United States. On the other hand, the Swede goes to the hospital much more often than the Englishman, slightly more often than the American. The range in hospital use in the three countries is given in the following table:

Hospital Admission Rates Per 100 Population

	Beds Per 100 Population	All	Short-Stay Hospitals	Short-Stay Hospitals Excluding Deliveries
England and Wales	10.5	86	77	68
Sweden	15.0	136	126	113
United States	9.1	134	125	105

If we think that the Swede is going to the hospital more often for minor ailments, and getting better care for them, the fact is that his hospital stay is much longer than the American's -- fifteen days (as is also true in England), compared to eight here.

So the Swedes see doctors less, use hospitals more. If our interest in pursuing these international comparisons is to get some better notion of need, we have yet more confusing results. There are remarkable differences in the use of hospital personnel:

Personnel Per 100 Days of Patient-Care

	All Hospitals	Short-Stay Hospitals
England and Wales	96.6	191
Sweden	68.0	130
United States	114.0	218

And only moderate differences in the rate of bed occupancy (a common measure of hospital efficiency):

	All Hospitals	Short-Stay Hospitals
England and Wales	87.4	82.6
Sweden	87.7	78.2
United States	84.2	73.9

The difference in the number of employees required to produce what (on the basis of gross health measurements) is a considerably higher degree of health in Sweden is fantastic. Odin Anderson estimates that, while Sweden has one employee per hospital bed, the United States has two and one-half.³³

We all know we will have to spend more for medical care -- every study so assures us. Yet, Sweden spends 3.5 per cent of GNP, compared with 5.3 per cent in the United States; but its infant mortality rate is sixty-three per cent of that of the United States, its mortality rate for males 45-54 is only fifty-two per cent of

that of the United States. (England spends a higher proportion of GNP -- 4.5 per cent -- than Sweden, though still less than the United States, and does better than the United States, though not as well as Sweden; its infant mortality rate is eighty-seven per cent of ours, its male mortality rate -- 45 to 54 -- seventy-six per cent of ours.) What does one conclude from such a comparison? That we need less doctors, less nurses, and more hospitals? Certainly, that would be one cheap way of making the United States, in some respects, more like Sweden.³⁴

Obviously, Dr. Evang's hope for a set of standards for advanced countries would be difficult to implement -- scarcely any expert would argue that one approach to improving health in this country is to increase the number of hospital beds by fifty per cent and to decrease the number of doctors by forty per cent.

Of course, the reasonable conclusion is that the critical issue is not the quantity of health facilities or of health manpower, but the system of organization. We will speak somewhat later of the system of organization. Here, it is enough to point out that this may be very true and, yet, it is not necessarily clear just why the system -- and what aspects of the system -- produce better health care with less manpower and more beds.

Perhaps the aspect of health planning that has been studied most fully is that of hospital bed utilization and bed needs. It is easier to keep records on whether a bed is filled or not than on whether a doctor uses his time well or not. In addition, the costs of adding more beds are determinate and high, and the costs of staffing them determinate and high. Thus, the history of health planning

in this country is largely a history of the effort to get a better distribution of beds, but, in particular, a history of the effort to control the number of beds. Just as we have seen that international comparisons with countries that do better do not give us clear answers as to our needs, we will find that the studies of bed utilization, too, do not give us clear answers as to our needs.

A study of the experience of Blue Cross hospital plans in the United States shows a remarkable range in the degree of hospitalization within the country. Five plans showed admission rates of over 200 per thousand enrolled a year, nine showed under 130. The average length of days for each stay ranged from over nine, to under six. There was no relationship between admission rates and average length of stay.³⁵ Another study compares stays in Michigan with stays in Ontario, Canada. In Canada, there is a six-weeks stay for acute myocardial infarction; in Michigan, nineteen days. The average obstetrical stay in England is ten days; in Michigan, 4.8 days.³⁶ Is the United States, because of the pressure of high hospitalization costs, using hospitals too little, Canada and England using them too much? Interestingly enough, good studies both in England and the United States suggest roughly the same degree of overutilization. In a Michigan study, it was estimated that twenty-eight per cent of the patients in the hospital need not be treated there. In an English study, it was estimated that twenty-five to forty per cent of the patients need not be there.³⁷ This, despite the enormous difference in patterns of practice: the ease of getting into a hospital here and the difficulty of getting into one in the English system, the encouragement of overutilization here

through insurance and the discouragement of overutilization there by long waiting lists. Obviously, there are still unsettled mysteries in the determination of need. One begins to suspect that, just as undetermined cultural factors play important roles in the health of the population, so do they play important roles in the practices of doctors and the consequent degree of need under varying considerations of supply and morbidity. Two of the leading experts on this question of determining the need for hospital beds have come to a similar skeptical conclusion in England and in the United States. Milton I. Roemer, the American, has concluded: "Hospital utilization... corresponds to supply." And R. F. Logan, the Englishman: "The number of beds used is the number available."³⁸

Our present knowledge -- and every year we know more, or at least learn on the basis of excellent studies how little we know, and how much more there is to know -- is sufficient, however, to support a conservative view as to the need for more hospital beds in most situations. Indeed, hospital planning, which involves many things, in the end very often comes down to the power to prevent the addition of more hospital beds, which, in addition to their initial capital needs, add continuing needs for support in money and personnel for the future. Yet, even this, the best-supported perhaps of the pillars on which we try to erect a system of health planning, must be used with caution. The complex system of health care under which we operate means that we must take into account in decision-making not only the most sophisticated current knowledge as to needs for facilities and personnel, but, also, such considerations as to how decisions as to needs affect various parts of the health care system and the population.

We know, in general, that a good area hospital planning organization will save money. Thus, in their study of the first effective area hospital planning organization, in Rochester, Rosenfeld and Makover point out:

The consensus among administrators and trustees concerning the Council and hospital planning and construction is that the Council's activities in planning have been of substantial aid to hospitals in determining their needs and in planning appropriate facilities. At a number of hospitals, as a result of the Council's advice, fewer beds were built than had been thought necessary by boards of trustees, resulting in greater economy and financial stability.

(In addition, the decline of the number of physicians in the rural and less urban areas of the Rochester region was less than in the adjacent control area and the average age of physicians practicing was lower.)³⁹

Yet, there is no magic formula for the work of hospital planning councils. Thus, one of the best of the councils in terms of professional leadership and staff is the Hospital Review and Planning Council of Southern New York. Yet, the Somers comment on a recent decision:

While the Hospital Review and Planning Council was probably correct in deciding that the present second-rate [St. Francis] 245-bed hospital would not be needed when the proposed 850-bed Lincoln Hospital is completed just three blocks away, the Council's failure to take into account the inevitable time lag between closing one institution and completing the other -- approximately six years -- and its failure to communicate the rationale of its decision to a substantial portion of the hospital's staff and the Puerto Rican community that looked to St. Francis as a family doctor, resulted in a series of unfortunate and unnecessary episodes placing the Council in the role of Scrooge vis-a-vis the underprivileged community.⁴⁰

A failure in communication and a failure in planning (a six-year time lag ignored) led to a good deal of community trouble. Another

study points to the failure of a hospital planning council to take into account, in considering the desire of the Kaiser Health Plan to build a hospital in the Day Area, the fact that its service area was not the immediate area around the hospital but the Kaiser membership.⁴¹

One of the most commonly mentioned areas of waste that could be avoided by good planning is the duplication of expensive types of facilities when a few could serve an area. To quote the Somers:

For example, Dr. Martin Cherkasky, Director, Montefiore Hospital, New York City, has pointed out that New York has twice as many centers of cardiac surgery as it needs with the result that the costs are 'astronomical' and the quality 'miserable'. According to the President's Commission on Heart Disease, Cancer and Stroke, 30 percent of the 777 hospitals equipped to do closed-heart⁴² surgery had no such cases in the year under study....

Yet, Herbert E. Klarman, the economist, points out that there are gains from the maintenance of expensive facilities which, in one perspective, are wasteful -- the hospital may need to be able to advertise a wide range of facilities to get good (or any) internes and residents; there are staff morale factors; there is the fact that trustees may be able to raise money for a fashionable modern facility, but not for some other need. Of course, in a rationally-ordered system, some of these considerations should not weigh heavily or even exist; but, even in the most rationally ordered system, one can see that the level of facilities in a hospital, wasteful in one context, may be valuable for attracting and keeping good staff and raising their morale.

Thus, even in the area where we have the best research, and know the most, planning remains a subtle and complex matter,

involving intimate knowledge of local communities, variations in patterns of health care and service, the impact of decisions on doctors and donors, and the like.

One may conclude from the literature on hospital costs and utilization, which grows ever more complex and sophisticated, that we now know enough so that we must be skeptical of such standard rules of thumb in hospital planning (the best established branch of health planning) as so many beds for a given population, or even that hospitals, to be efficient, should be of such and such a size.⁴³ These are not unimportant results, confusing as they may be to hospital planners, because they do justify, in the absence of strong countervailing evidence, the stance of professional hospital planners that we might as well build less and control the number of beds. As we have indicated, these countervailing pressures may be strong, and they cannot all easily be tarred as belonging to the powers of ignorance and darkness. The Kaiser Foundation Health Plan, which emerges more and more strongly as by far the most efficient model we have for the delivery of health services, opposes greater powers to health planning councils -- which indicates how mixed the situation is. It opposes such powers because they have been used to attempt to deny the power to Kaiser to expand its facilities, on the grounds, presumably, that scientific determinations by the community planning staff say there are "enough" hospital beds, and because, in fact, the power in these councils lies with the health establishment of big hospitals and leading practitioners, who tend to have a bias in favor of fee-for-service, and against the integrated system that Kaiser conducts. Nevertheless, at least one conclusion of our

oddly contradictory and uncertain studies is that, on the whole, since building and staffing hospitals is expensive, we should do with less.

There is no evidence that health suffers when one does with less. There is evidence that whatever one does build will be used and will, in various ways, stimulate the services that are needed to fill it. In this country, how this might happen is easy to understand -- the more beds filled and the longer the stay, the better return from Blue Cross and other insurers, the easier it is for fee-for-service doctors to visit their patients daily in a convenient setting and without great expense of time. Oddly enough, where the system is entirely different, in England, with no fee-for-service and fulltime staffs of hospital consultants, Martin Feldstein claims the same results. Thus, he argues against the adequacy of

...any planning method that seeks to provide facilities to meet observed or forecast 'demand'. All such 'manifest demand' methods ignore the effect of available bed supply on the demand for hospital admissions and on the average duration of stay per case. This emerged from an analysis of the substantial interregional variation in hospital bed availability and use. The demand for bed days rises proportionately with the exogenous supply; there is no indication of a level of supply at which demand would be satisfied...the data...suggests no ceiling on demand.⁴⁴

This is one of the conclusions that makes one despair of health planning. Yet, uncertain as we are as to how to determine some optimum ratio of beds to population (within, one assumes, certain outlandish limits that would be ridiculously low or high), we at least have some scientific support for holding the number down.

Unpopular as it would be to do so, one could make a similar argument for the quantities of health personnel. We have

already suggested the outline of such an argument by pointing to the wide variation of personnel available in states such as Wisconsin and New York, and in times of war and peace, without any effect on health. Let us listen to one expert health planner, the director of a leading health planning council (his views are not, I believe, extreme among health planners).

During the past year I have been conducting an informal, unscientific, unstructured, confidential survey. I have presented dozens and dozens of practicing physicians with the following hypothetical suppositions and questions:

Suppose this country faced a national emergency like a long world war that required your region to contribute as many physicians, nurses and other health workers as possible. Suppose further that you were placed in charge of the health services in your region and were assured of the complete trust and cooperation of everyone. Would you be able to contribute any of the region's physicians, surgeons, nurses and other health workers for national emergency service, without impairing the quality of the health service provided in your region?

Every single individual whom I questioned believed that if he could achieve complete cooperation and commitment, health manpower in the region could be substantially reduced without impairing quality of care and without adverse effect on the people's health. The unanimity of response was striking.

Even more striking were these physicians' responses with respect to the amount of reduction in health manpower that could be achieved without reducing the quality or effectiveness of service. When asked to estimate the proportion of the region's health manpower that could be released for national emergency service, the answers varied from about 10 to 40 per cent, with an average of about 20 per cent.

Equally as striking was the conviction of most of these doctors that the greatest proportion of health manpower could be spared among the most highly trained health personnel -- physicians and nurses, for example, as contrasted with aides, orderlies, and kitchen workers.

How would manpower reductions be achieved?...There was a surprising consistency of basic themes.

1. grouping physicians (and other practitioners) in organized settings and centralized locations so that they

can make full use of lesser skilled but specially trained workers in their 'office practices' and thus provide more service per physician;

2. locating more physicians' offices at hospitals and removing the distinction between 'office' and 'clinic' to reduce physician travel time and permit full use of the hospitals' manpower and technical resources without having to admit patients as bed patients;

3. redefining many health service tasks so that lesser trained personnel can take them on....;

4. permitting nurses to make house calls in medically supervised home health programs;

5. creating closer linkages between related hospitals to permit grouping of maternity, open heart surgery, and other specialized low use services at fewer larger hospitals;

6. encouraging all families to develop more efficient medical care habits by identifying with one nearby physician group for provision and supervision of all needed health services.

Other ideas were mentioned less frequently: automation and computation, self-help units in hospitals, intensified health education, multiphasic screening, etc. No one in the group suggested any lengthening of the work week...

Interestingly enough, many of the doctors whom I asked felt that the process of reorganizing to reduce manpower could produce improved quality with fewer health personnel...

I...asked one last question: suppose the great national crisis was not a long world war, but the spiralling cost of medical and hospital services and the many unmet health needs right in your own region, the deaths and suffering that could be avoided by expanded and improved health service....Could you deliver? I wish I didn't have to report that most of my group doubted that it would be possible, under present circumstances, to achieve the degree of commitment and cooperation that would produce results. At least, as a number said, 'not in my lifetime.'⁴⁵

It is clear that Mr. Sigmond and his friends are not about to rush into combat to try to restrict the flow of federal funds into the medical schools, nursing schools, and other institutions which try to increase the quantity of personnel. Quite the contrary; when new legislation is proposed, they will come forward to support

it, by pointing to the shortages of personnel, and request increased funds. And they would have a sufficient argument. The reorganization of health services that might justify a reduction of personnel is not forthcoming, and in its absence we do face the reality of concrete shortages.

But in the light of such a statement, what "goals" for health personnel are reasonable? A few years ago, one health specialist went back over the regularly predicted shortage of doctors that was to overwhelm us in this country. He concluded that even though we never seemed to undertake action on the scale that each study of shortage demanded for the expansion of medical schools, the shortage did not overwhelm us. Indeed, the extraordinary increase in doctors' fees in the last few years has not occurred, one could argue, because, finally, the shortage caught up with us -- though this might be one part of the explanation -- but because the government, through Medicare and Medicaid, guaranteed the payment of "customary" fees, and because, as a result of these guarantees, those doctors who charged less to the aged and the poor no longer found it necessary to do so. If there had been ten or twenty per cent more doctors, one wonders -- I have no evidence for this point -- whether the increase would have been in any marked way moderated. Perhaps, just as people may be found to fill whatever beds there are, people will be found, if there is a guarantee of payment, to patronize whatever doctors there are -- again, one must make the qualification, excluding some truly extravagant expansion.

Whereas the health specialists regularly demand more personnel (as they demand more beds), skeptical economists will point out that, for example, there are enough trained nurses not working to overcome or mitigate the calculated shortages, and that salary increases would bring them back. Interestingly enough, in this case, owing to the organization of nurses in many areas, and increases in wages, it was possible to test the analysis. The National Advisory Commission on Health Manpower was the first report in the whole series of postwar government reports to be satisfied that the projected number of nurses would not fall too short of need or demand in 1975. (It was also rather moderate on the need for an increase in the number of physicians.) Perhaps health planning was having an impact -- but largely through the input of skilled economic analysts.⁴⁶

One area in which there seems to be universal agreement that expansion is needed is in serving the health needs of the poor. The evidence that the poor are sicker is overwhelming. Thus, there are differences between rich and poor in mortality. Unfortunately, there are no nationwide mortality statistics by income. One of the best studies has been a recent comparison of poverty and non-poverty areas in Chicago. This does not permit really fine analysis, because of the limitations of area comparisons. Crude mortality in poverty areas was only three per cent higher than in non-poverty areas. But the people in poverty areas are younger, and if it had been possible to compute age-specific rates, the differences would be much greater. Differentials in infant mortality were very large -- seventy-five per cent higher in poverty than in non-poverty areas.

In both cases, the differences by race were even more substantial than by poverty-non-poverty areas. The clearest and best evidence of poorer health among the poor is to be found in studies of days of disability per person per year, where differences of the order of two to one are found.⁴⁷ The poor are uniformly sicker, but it is not clear how much their poverty induces illness, as against the other way around. One study of chronic illness demonstrates that

Socio-economic status is a factor, but only of slight importance, in the chances of contracting a chronic illness in this population. Chronic disease is a more significant factor in causing reduced socio-economic status.⁴⁸

In Butler City, Pennsylvania, a 1954 study showed more illness at the top socio-economic level than at the bottom -- and more of the top level consulted doctors.⁴⁹

One complicating factor in these complicated relationships is that we now have the development of diseases of affluence, such that while the well-off may be as sick or sicker, they suffer from different ailments, reflecting less physical activity, richer food, more stress. The poor may show an excess of deaths from accidents and infectious diseases. Under the apparent convergence of trends, there is inequality.

But when we use these differences between the health of the poor and the sick as a means of setting goals for health services, we find out that there is not much difference in the utilization of health services, in sheer quantity (and, as a result, in the cost of health services for rich and poor). And these differences, which were once extreme, are now declining. Indeed, in some settings, they are now reversed.

In 1928-31, families with an income of more than \$5,000 spent eleven times as much on medical care as families with incomes under \$1,200. In 1962, families with incomes of more than \$7,000 spent only thirty-seven per cent more on medical care than families with incomes under \$2,000. (Between 1928 and 1962, the proportion of the population of families with more than \$7,000 in income rose from six to thirty-one per cent; the proportion of families with under \$2,000 fell from fifty-five to twelve per cent.) The cutting points in the two years are quite different, but, undoubtedly, they record a great equalization of expenditure. The relation between income and hospital admission has also fallen. In the 1928 study, the admission rate for those over \$10,000 a year was more than twice that for those in families between \$1,200 and \$2,000. A 1952-53 study showed almost no association between income and hospital admissions. This result came about because, in the insured portion of the population, there is a negative association between income and hospital admission (210 admissions per 1,000 for those in families with incomes under \$2,000, 120 for those in families with incomes over \$7,500). The National Health Survey of 1957-63 shows again almost no association, with a slight bulge for middle-income groups between \$3,000 and \$6,000. But, when one makes an adjustment for the fact that the poorer families are older, there is an association between income and hospital admission -- 117 for those below \$2,000, 123.5 for those above \$7,000. The association is nothing as large as it was in 1928-31.⁵⁰

The steady narrowing in expenditure on and usage of health care facilities between rich and poor goes on. And yet, it is

scarcely accompanied by a decreasing difference between the health of the poor and the better-off. New York City, which in so many respects seems to project the course that the rest of the country will follow in a few years, gives striking evidence of the equalization in many respects of health resources by different income groups, owing to the elimination of income barriers to the use of health resources among the poor (that is, those on welfare, who number one-eighth of the population of the city, and an even larger number who are eligible for a substantial range of free medical services under Medicare). Indeed, economic barriers are now either non-existent or minor for the poor, who thus may face fewer economic barriers to health care than most of the non-poor, whose insurance generally only covers part of their health needs. Two recent studies demonstrate the substantial use of health care services by the poor.⁵¹ Thus, a 1966 study of a sample of New York women and children on welfare shows the mean number of physician contacts (visits to physicians, home visits, emergency clinic and other clinic visits) is 5.0 per year for the mothers, 7.7 for the children, which the authors of the study point out is comparable to national norms. The authors compare their sample with an NORC survey in 1955, which shows the following number of physician visits by women, by income:

under \$2,000.....	5.0
\$2,000 - \$3,999.....	4.3
\$4,000 - \$6,999.....	4.5
\$7,000 and over.....	4.9
all incomes.....	4.5

A 1964 study shows an average of 4.8 physician visits for the civilian, non-institutional population of New York City. Differences by income were reported only for those with family incomes under and over \$4,000. Those under \$4,000 had 6.6 physician visits per year, those over \$4,000, 4.2. The comparable figures for the Northeastern United States in 1963-64 still ran the other way: 4.3 for those under \$4,000, 4.7 for those over \$4,000. The differences by income in New York -- with the poorer showing more visits -- showed up for each of the major groups in the population (white, non-white, and Puerto Rican). The poorer remained sicker -- the number of acute conditions was greater for those under \$4,000.⁵²

Nationally, the statistics collected by the National Center for Health Statistics shows increasing convergence in utilization of health services -- measured quantitatively -- between 1958 and 1966. Income differences in utilization still exist, but they are declining. One analyst concludes: "Income level of family seems to play little part in the utilization of physician services when race, sex, age and education are considered." Similarly, "Less and less difference continued to be the case among educational groups and whites and non-whites, although the differences remain quite significant in both instances."⁵³

But more significant than the scale of remaining differences in utilization between income and racial groups are two other elements. One is the quality of medical care. We pointed earlier to the fact that the poor see specialists less often than the better-off. Another difference is found in the reasons for which care is sought. The better-off have more preventive and diagnostic visits; the poorer have visits for acute condition.⁵⁴

These are clear differences, to be found in the data. Other differences are harder to quantify but are certainly equally important. We know the poor go more often to clinics and emergency wards, but is the care better or worse than for those who go to private physicians? Whether better or worse, it has certainly been different. Perhaps one way of suggesting the difference is to reprint Oscar Lewis's description of a visit by a poor Puerto Rican mother to a New York clinic:

Finally Soledad's turn came. A tall Negro woman in a navy-blue uniform handed her paper jackets, saying, "Here, put these on the children." Then she began to fill out a form for Soledad, beginning with her name and address.

"And how many children have you?"

"Four"

"Names?"

Soledad gave the children's names, explaining that her son, Quiquo, was in Puerto Rico with his father.

"How come this little girl's name is Alvarado?"

"Because she isn't my own daughter, I adopted her," Soledad answered.

"Well, I'd better put them all down as Rios," the woman said.

"What is your husband's name?"

"My husband is dead."

"What did he die of?"

"In an accident." Soledad answered the woman's questions rather sullenly. "What busybodies these people are!" she said in an aside to Rosa. "You'd think I was being jailed for murder."

The attendant asked if Soledad was getting welfare aid. Soledad replied that she was not. "Don't you know you qualify for it?"

"Forget it," Soledad said shortly. "As long as I can work to support my children, I don't want welfare. Not the way they treat you."

"Have the children been in contact with anyone who had tuberculosis?" the woman asked.

"Well, yes, with a cousin of mine in Puerto Rico a long time ago. But it was the school doctor who told me to bring the children here." The attendant went out and a doctor came to give the children the tuberculin test. He then sent them to an adjoining room for chest X-rays, telling them to come back for the results a week later, on Friday.

Before they left the Health Bureau, Soledad spoke to the attendant who had filled out their forms. "Could you take care of my nephew? All he needs is to have these stitches cut."

"No, not here," the woman answered. "You'll have to take him to a hospital for that."

"But we can pay," Soledad said.

"No, we can't do it here," the woman repeated impatiently, waving them out.

"What sons of the great where they are, all of them! They should have a bomb dropped on them," Soledad exclaimed. "Look," she said when they were outside, "I'm going to cut Gabi's stitches myself. I know they won't do it at the⁵⁵ hospital either. They don't want to take care of him."

This is not a particularly horrendous example of the treatment of the poor, but suggests its disjointed and often indifferent character. Another hypothetical description is perhaps even more vivid:

Consider the case of a young woman whose family is receiving Aid to Families with Dependent Children. The most likely medical event in the life of such a woman is pregnancy. Assuming that she is a highly intelligent and well-motivated woman, she will seek prenatal care as soon as she finds that she may be pregnant. She seeks this care from her local health department clinic. When the time comes for her to deliver the baby, she is transferred (theoretically with her records but in actuality most likely not) to a public hospital. There she encounters a new set of documents and personnel for delivery of the baby. Before discharge, the baby will be examined by a pediatrician who will never see the child again. Now this highly intelligent, well-motivated young woman will take her baby to a well-child clinic operated again by her health department but at a different place from where she received her prenatal care

and at a different time. After several such visits to the well-child clinic, the baby may become ill. When the mother takes the baby to the clinic where the doctors and the nurses have been providing care, she is informed that she cannot obtain care there any longer because the child is sick. She is advised to take the child to a physician near her home who is paid by the welfare department. This new physician establishes still another record for the baby and provides care in his office. If the child becomes sick enough to require hospitalization, the physician tells the mother that he is not able to admit her child to the hospital where he practices because she is on welfare and she must take the baby back to the public hospital. She turns again to the public hospital for hospital care for her sick child, but after a few days is informed that the child has a special condition making the baby eligible for crippled children's services, which must be provided in still another resource...⁵⁶

What goals, then, for the poor? Still more services, so the gap between the poor and the better-off widens still further, and the New York pattern, extended, becomes the national pattern? To the health professionals, the answer is clear: more high-quality care, in better integrated, comprehensive systems of care. (To the poor themselves the answer is less clear. Health does not show up as a major priority, along with good jobs, good housing, better education.) But the newer professionals, in the health field as in every other, have been eager to urge the significance of their service to the poor, and, through their intervention, one of the major innovations in American medicine has been launched in the last few years: the OEO-supported Community Health Center, with comprehensive, family-centered and community-centered care, with the involvement of the poor themselves in the process of policy formation and health-care delivery, and with elaborate services of case finding and follow-up. We have finally seen some movement toward the innovation that almost all experts urge: comprehensive, integrated,

pre-paid care. The model that the sociologist Anselm Strauss proposed a few years ago as a means of reaching the poor is now to be found in operation in some measure in perhaps fifty centers around the country:

Increased efforts are needed for early detection of disease among the poor. Existing methods should be increased and improved, and others should be added -- for instance, mobile detection units of all kinds, public drives with large-scale educational campaigns against common specific disorders, and so on. The poor themselves should help in planning, and their ideas should be welcomed...

The schools could and should become major detection units with large-scale programs of health inspection. The school nurse, left to her own initiative, is not enough. The poor have more children and are less efficient at noting illness; those children do go to school, where they could be examined. Teachers should also be given elementary training and used more effectively in detection.

Train more sub-professionals, drawn from the poor themselves. They can easily learn to recognize the symptoms of the more common disorders and be especially useful in large concentrations, such as housing projects. They can teach the poor to look for health problems in their own families.

The large central facilities make for greater administrative and medical efficiency. But fewer people will come to them than to smaller neighborhood dispensaries. Imperfect treatment may be better than little or no treatment; and the total effectiveness for the poor may actually be better with many small facilities than the big ones.

Neighborhood centers can not only treat routine cases and act to follow up hospital outpatients, but they can also discover those needing the more difficult procedures and refer them to the large centers -- for example, prenatal diagnosis and treatment in the neighborhoods, with high-risk pregnancies sent to the central facilities. (The Children's Bureau has experimented with this type of organization.)

There must be better methods to get the sick to the clinics. As noted, the poor tend to stick to their own neighborhoods and be fearful outside them, to lack bus fare and domestic help. Even when dental or eye defects are discovered in schools, often children still do not get treatment. Sub-professionals and volunteers could follow up, provide transportation, bus fare, information, or baby-sitting and

housecare. Block or church organizations could help. The special drives for particular illnesses could also include transportation. (Recent studies show that different ethnic groups respond differently to different pressures and appeals; sub-professionals from the same group could, therefore, be especially effective.)

Hours should be made more flexible; there should be more evening and night clinics. Working people work, when they have jobs, and cannot afford to lose jobs in order to sit around waiting to be called at a clinic. In short, clinics should adapt to people, not expect the opposite. (A related benefit: Evening clinics should lift the load on emergency services in municipal hospitals, since the poor often use them just that way.)

Neighborhood pharmacists should be explicitly recognized as part of the medical team, and every effort be made to bring them in. The poor are much more apt to consult their neighborhood pharmacist first -- and he could play a real role in minor treatment and in referral. He should be rewarded, and given such training as necessary -- perhaps by schools of pharmacy. Other 'health healers' might also be encouraged to help get the seriously ill to the clinics and hospitals, instead of being considered rivals or quacks.

Lower-income patients who enter treatment early can be rewarded for it. This may sound strange, rewarding people for benefiting themselves -- but it might bring patients in earlier as well as bring them back, and actually save money for insurance companies and government and public agencies...⁵⁷

It is too early yet to know what such elaborately staffed community health centers have done for health, but we know that they have done a good deal to increase health utilization, and more strikingly, to substitute for expensive hospital care cheaper ambulatory care in the clinics. The number of hospital days for a sample of residents of Columbia Point was reduced eighty per cent in two years.⁵⁸ The sample is small, but the reduction is phenomenal.

It is also too early to know just how expensive such services will have to be. The OEO-funded centers are indeed expensive; the Columbia Point center costs about \$350 for each of the persons

in the community it serves, which does not take account of costs of the health care it does not provide, such as hospitalization. But to what extent these high costs are based on organizational problems yet to be ironed out; on an over-estimate of the need for medical care in poor areas; on the attempt to train and use paramedical aides from the community; on social service functions that might well be considered non-medical; or on some other factors, it is hard to say. Meanwhile, a striking model of medical care has been launched which seems to meet most of the general criteria that have endlessly been repeated for medical care -- comprehensive, family-centered, continuous, integrated with hospital and other medical services.

But now let us stand back and ask: what has this to do with planning? What comprehensive health and hospital council proposed such an approach or launched it?

We might ask the same question about that other model of health care that more and more experts now turn to when they consider how the enormous and soaring costs of medical care may be constrained -- the Kaiser Foundation Health Plan. It had long been known that those persons enrolled in comprehensive prepaid hospital health plans used hospitals much less than equivalent groups enrolled in Blue Cross or hospital insurance plans. Once again, since hospital care is the largest and most rapidly growing share of health costs, this is considered a saving. The National Advisory Commission on Health Manpower carried out a careful analysis of Kaiser costs and the costs of health care for other Californians, and concluded that Kaiser was remarkably more economical, largely because of a

serious incentive to its doctors, in the way the plan operated, to keep people healthy and out of the hospital, an incentive which led to a lesser use of hospital facilities.

The most striking relative economy of Kaiser is in its requirements for hospital beds and its per member cost of hospitalization. On an age-adjusted basis, Kaiser required only 59 per cent as many hospital beds per person as did the State of California....The average Kaiser member spent only 69 per cent as many days in the hospital as did the average Californian....

The Commission Survey team reported this was accomplished at no loss of quality.⁵⁹

Once again, not only has the elaborate and proliferating network of community, regional and state health and hospital planning done nothing to establish and expand what all studies demonstrate is the most economical model of health care, these agencies have often hampered the growth of such prepaid, comprehensive plans. We find a contradiction between the hopes for planning in the abstract, and the reality of planning in the concrete, one that must give us pause and lead us to consider what we may legitimately hope for from planning.

Our survey of health goals that might be set for planning, brief as it is, suggests that our science is insufficiently advanced to set comprehensive goals, in terms of a level of health that we should aim for, and a level of facilities provision and staffing that we have some assurance will lead us to that level of health. What it has taught us, however, is that, in the light of these uncertainties, which will hopefully be reduced by further research, certainly the first criterion of planning should be to encourage, among a variety of health models and systems, those which are economical at no apparent sacrifice of quality, those with incentives that

reduce the use of health care facilities and personnel, as against those which encourage their use. By this test, our system of planning fails, and certainly we must be skeptical in the face of the demand for more planning, as such. We must even be skeptical of the chief desideratum proposed for health planning -- that it be ever more comprehensive. For comprehensive health planning, as it now operates, may well inhibit efforts toward comprehensive health care.

"Make no little plans...."

All planners are excited by Daniel Burnham's message:

"Make no little plans -- they have no power to stir men." Burnham was arguing for the big plan because it has power to stir men's hearts and minds and, thus, it will be more "practical," will be politically more effective, than the small plan. Another argument for the big plan has been that the small plan cannot achieve major environment-changing objectives -- if one is to eliminate the slums, then the rate of new construction must be greater than the rate of slum formation; if one is to create new environments, such as new towns, then one must begin on a big enough scale to convince the first movers that a whole balanced community will exist around them.

These are strong arguments for the big plan -- and, indeed, in many cases only the big plan will work. Health planning begins with the area hospital planning council -- and perhaps this remains its most effective arm, weak as it is. The argument against planning limited to hospital planning is that the hospital is only a part of health costs (though the largest part -- about a quarter); that the major effectiveness of hospital planning is to prevent waste in the construction of new and unneeded hospital beds and

to encourage the placement of new facilities where they are most needed; but that it does nothing to link up hospital care with other elements of health care (treatment and diagnosis in doctors' offices and other health facilities, which are often established quite independently of hospitals). Nor does hospital planning by itself necessarily do anything directly to improve the quality of health care, though hospital care is, by its nature, more amenable to quality controls.

Thus, there are strong arguments for the large general plan, in health as in city planning, or in education, or in any other area. But whereas the area hospital council may prevent beds from being added, its larger plans for comprehensive care tend to remain simply hortatory. There are even stronger arguments, as we have pointed out, for the planning perspective that goes beyond the goal area defined by some large general need such as health, or education, or housing, because all these are interrelated and in subtle ways. If one of the chief causes of death for the young and active is automobile accidents, it is at least worth considering whether an investment in changing transportation facilities may have a side-benefit in health for the extra expenditure that is greater than anything that can be done in the field of health itself. It should be one of the most important principles of planning in any area that it looks outside its given functional field to consider how its effectiveness for its general ends could be improved by changes in other institutions. But this must be a matter for general or national policy rather than for health planning alone.

But, modifying this doctrine of the large plan, of the larger view, must be another doctrine which says, no matter how large the view, the issue of political effectiveness will only be met when the plan is seen by politicians and the people they represent as meeting immediate and pressing needs that they feel. Conceivably, distant crises can be made immediate -- if they can, then the plan can respond to these distant crises with a chance for political effectiveness. Thus, in recent years, the relatively distant crisis of overpopulation has become more immediate in public consciousness. But the key issue is not the large and holistic plan versus the small and partial plan -- it is the plan, whether large or small, which is seen as responding to the immediate and pressing needs that people feel now, or that they can be argued or educated into feeling, even though they are not immediate, as against the plan for needs they do not feel. Thus, the issue of the overwhelming costs of the medical care of the future (if we continue along present lines of organization of medical care) is effective not only because of the projections to periods as immediate as seven years ahead -- it is effective because people today and, more significantly, the third-party institutions that meet health care needs, i.e., governments, insurance agencies, corporations and business and labor unions, now feel the enormous pressure to increase outlays for hospitals, doctors, drugs, and the like; and they do not see the sources of new revenues to meet these needs nor any improvements in health care that these increasing costs are making possible.

On the whole, those plans, large or small, that respond to present pressing needs or those that can be made present, will be

much more politically effective than those that respond to distantly projected needs. On occasion, a theory may become so powerful that a country can be convinced that it should devote itself to implementing plans that respond to distant needs. Thus in England people were convinced of the virtue of the small city surrounded by permanent countryside so that considerable resources were invested in new towns even though one could not identify an immediate and pressing need that they met. But this is more likely to happen in a country with elites that are homogeneous and that have great power, respect, and influence.

And yet, even if the dilemmas of the projected future fail to move the public and its leaders, they should be in the minds of planners. Their art must be to propose measures that meet the present and felt needs and inhibit movement in directions which will make it more difficult to meet the emerging needs of the future.

In the tremendous argument that has raged in this country for the past twenty years or more between the AMA and the supporters of national health insurance -- an argument which is still not settled -- there has been only one decent argument on the side of the AMA. What was wrong with their arguments was perfectly clear: they insisted on the maintenance of the chaotic system or non-system of health care that existed, and in large measure still exists in this country, which meant doing nothing to control costs and built-in inflationary pressures (derived from the structure of hospitals with their independent medical staffs, the structure of individual solo practice, the structure of the privately owned and scarcely controlled drug industry, the system of insurance).

Nor did this approach do anything to improve quality, owing to its exaggerated insistence on the total independence of every doctor, the freedom of all private enterprises -- laboratories, drug companies, proprietary hospitals, etc. -- and the suspicion of efforts to introduce higher quality control by public agencies in hospitals. Nor, finally, could it meet what was the most essential need in health care: continuity of care -- continuity defined as a system that integrates the generally independent centers of diagnosis and care in public clinics, doctors' offices, laboratories, hospitals, and after-care institutions. What was wrong with the AMA position was obvious. What was right was only that the multifarious and varied types of health care in this country did not totally foreclose for the future any system of health care that might be shown to have considerable advantages in economy, in quality, and in continuity. Even in giving this much to the AMA's position, one must point out that, despite its devotion to the free market, it did not hesitate -- as so many others philosophically devoted to the free market do not hesitate -- to resort to political power to hobble in the systems of health care it opposed (e.g., group practice), through state laws preventing or inhibiting the development of group practice or, as it dubbed it, "corporate medicine."

Health care, having suffered so much from a narrow outlook and blindness, now has an opportunity to benefit from a certain degree of openness in the present situation -- from the fact that there is a certain competition between kinds of medical practice and health care. Thus, we can compare the costs of group practice in New York's Health Insurance Plan and Kaiser in California with

the more typical costs of solo practice and hospitalization as covered by insurance -- and find remarkable savings for the first. We can compare government hospitals with private hospitals. We can compare different kinds of group practice, and different kinds of insurance systems to see their effects on costs and quality of care. We can compare different kinds of hospitals. Having done this, we then have, of course, the enormously difficult problem of first determining what is truly better, and then instituting the political measures that give an advantage to the better and cheaper systems of health care.

If we want to exercise this art of moving from the pressing, felt needs, to measures which in some degree meet them and yet do not foreclose the future, we have to begin with these pressing, felt needs. We have already indicated one: the need for economy, owing to the enormous increases in costs, and the even greater increases in costs that will follow if we try to implement the best professional judgment as to our needs.

There is a need to improve quality, too. We have referred to some of the facts that suggest that the United States is falling behind in terms of quality. Best known is our lagging behind in the rate of infant mortality. In 1963, against a United States rate of 26.0, Sweden showed a rate of only 16.6, and Australia, Denmark, England, and Wales, Finland, the Netherlands, New Zealand, Norway, and Switzerland, all showed lower rates.⁶⁰ This position has since worsened; at the American Public Health Society meetings in November, 1966, Osler Peterson reported that the United States now stood twenty-fourth in international comparisons -- most of the

industrially developed nations of the world now did better than this nation. And, as we have seen, we also fall behind in the area of adult mortality. However, as we know from our earlier discussion on goals, a difference in mortality rates cannot simply be attributed to a deficiency in quality -- we have pointed to the significance of environmental conditions and cultural differences probably expressed in attitudes toward health, health care, and the like. More significant as an index of poor quality are those careful and very difficult studies of quality by researchers with medical competence applying some general tests of good care. Such studies have shown a shocking variation in the quality of care given by hospitals and individual practitioners that demonstrates a huge area for improvement in quality of medical care.⁶¹

For a time, it seemed to some observers that quality would inevitably increase as the Federal government and local government moved massively into the provision of personal health care through Medicare and Medicaid. Since it now covered so much of the bills, it presumably had the power to set standards -- standards of quality control as well as of utilization. While there is much criticism of the ways these standards for hospitals, extended care facilities, nursing homes, laboratories and, in particular, physicians' service have been set and enforced, the fact is the beginning of a system for improving quality, at least as far as professionals understand it, is in being. The major turning-point in the establishment of standards will probably turn out to be governmental intervention, stiffening professionally set standards, rather than comprehensive health planning as such.

Alongside cost control in our planning efforts should be quality control. We do know that it is possible to reduce costs without loss of quality -- there is no necessary contradiction between the two objectives.

But above all there is a need to improve access to a system of health care that gives some assurance of minimal quality and reasonable cost, to the individual and to the community.

We have suggested that delivery systems such as Kaiser and other group health institutions and the OEO-sponsored Community Health Centers do this (I am assuming that, after the initial try-out periods, these latter institutions can be made as economical as the former). Health planning, if it responds to felt needs, must find ways to expand the role that these and similar systems of delivery play in the overall pattern of health care.

Toward New Systems of Delivery

That a lower level of health resources in other countries is consistent with a high level of health, while greater health resources here co-exist with a lower level of health, must always be troubling, and should lead us to some sharp self-examination. The kind of systems we find in England or Sweden (there are important differences between the system of health care in both countries, but they are closer to each other than they are to the United States) seem to do the following.

First, they establish a better geographical and social distribution of health resources.

Second, they establish a higher minimal floor for health care, which is established nationally. Services are provided under a system which guarantees a common minimal level available to all.

Third, they establish for all some degree of continuity in health care -- easy transfer from one type of health care to another, depending on need, with medical records transferable, available, and comparable between the different kinds of care. While in many respects there is better continuity in the British and Swedish systems (e.g., the relationship between hospital care and post-hospital care for many patients),⁶² we also find that, in one key aspect, there is a break of continuity in the British and the Swedish systems; that is, the general practitioner does not take care of his patient in the hospital, which is staffed by permanent, full-time doctors. But the poor patient in this country does not benefit from the fact that doctors may follow their patients into hospitals -- the poor patient has generally no personal physician.

In England, there is the widespread feeling that the exclusion of the general practitioner, the family doctor, from the hospital reduces his exposure to newer developments in medicine, and reduces his potential effectiveness as a doctor. On the other hand, in countries where medicine in hospitals is exclusively conducted by full-time staffs engaged in hospital medicine, every hospital acquires some of the virtues of a teaching hospital, and thus the level of medical practice in the hospital rises above that in the average voluntary American hospital, where general hospital standards may have little influence on the individual doctor who uses its facilities for his patients. One might guess -- though it is enormously difficult to make such cross-national comparisons -- that average quality in hospitals in England and Sweden, with their carefully selected full-time staffs and considering that

there are no proprietary hospitals, would be higher than in this country; average quality in the primary doctor's office, particularly in view of the fact that there is less group practice and less hospital-connected general practice than in this country, may often be lower. And yet, this lower level of the primary physician exists in a system in which access is easy, cost is no bar, and in which there is no incentive to hold on to the patient, no disincentive to refer him to more competent specialists if he requires anything out of the ordinary. Since the British doctor is reimbursed on the basis of capitation, he rather has an incentive to make an early referral to a more skilled doctor, so he can get on to the next patient.

A recent study suggests indeed that these variable incentives in the two systems not only encourage a much more expensive form of care in the United States -- excessive surgery -- but also perhaps lead to a good number of unnecessary operations and thus to a reduction in the quality of medical care.

The United States has more than twice as many surgeons in full-time practice as England, and many other physicians who do some surgery. It is thus no surprise that twice as many operations are performed in the United States as in England. Obviously, there are many possible interpretations for this phenomenon, but Dr. Bunker suggests that we cannot ignore the fact that British surgeons operate on hospital salary, American surgeons on fee-for-service; British surgeons can only take patients referred to them by general practitioners, American surgeons often have primacy contact with potential patients and refer them to themselves.⁶³

The system of health care in England, then, leads to a better distribution of health services, but one probably not strikingly different from that in this country (there, too, after all, the middle classes and the better educated avail themselves more rapidly and more effectively of the services of the national health system, and it is not easy to get doctors to practice in the more isolated parts of the country); it leads to some improvements of quality, as well as some lowering; but it does lead to easier access and better continuity. It is a system.

From the strictly economic point of view, we do know why health care which is as good or better than that in this country is produced and provided much more cheaply in England, owing to the analysis by Seymour Harris. The three chief savings in England, according to Harris's analysis, are, first, that doctors' salaries have been held down -- they are lower in relation to the salaries of other professionals, compared to the United States; price of drugs is kept down -- it is remarkable that drugs make up twenty-five per cent of American health costs, but only ten per cent of British health costs; and there is less hospitalization.⁶⁴

Could we possibly move in the direction of Northwest Europe, where quality health care co-exists with moderate cost? It seems hardly likely we will get there the way Northwest Europe got there. Three different kinds of policies would be required. First, that all, or almost all, medical costs are paid for by third-party agencies. Second, that hospitals be rigidly separated from general practice, and staffed by teams of full-time

specialists, organized hierarchically. But perhaps most significant for the reduction of cost without reduction of quality is a stronger position held by the central government in determining the standards, the distribution, the quality, and, in particular, the quantity of medical care.

If this is true, it raises sobering questions as to our ability to follow in the path of Northwest Europe. The first is the easiest to achieve: the covering of medical costs by third-party payments through a system of insurance and government appropriation. We have already gone a considerable part of the way along this path, and the pressure for national health insurance suggests we will go all the way. But as we know from our experience to date, this alone does little to improve health care, and a great deal to inflate costs, under the predominant fee-for-service system.

The second difference would be far more difficult to achieve, and it is hardly likely there would be much support for it in this country. The American hospital is the workshop of the doctor. He operates as a private entrepreneur in its facilities, which are paid for by the local community, by philanthropists, by the Federal government, by the patients -- directly or in the form of insurance. In many other countries, and in particular the two which we have contrasted with the United States on some dimensions, the hospital has a full-time staff of specialists, organized in some hierarchical pattern -- there is a sharp division between the general practitioner or the family doctor and the hospital doctor, and the hospital is fully supported out of public funds. This probably leads to more efficient management. Here we will have to

achieve greater efficiency in the hospital through far more complex means, and in particular through reimbursement formulas that reward efficiency.

The third area of difference -- a greater central role for government, making decisions that would serve to reduce the cost and maintain or improve the quality of health care -- raises the most difficult issue of all. Government already plays a steadily larger role in health care. It has been instrumental in establishing one of the major innovations that suggests a new pattern of care, the community health center. But government in the United States is as fragmented as health care itself. At every level, it forms an almost indissoluble compound with the very elements that themselves maintain expensive and costly systems. It is for this very reason that we must turn to the arts of politics more than to the arts of planning to achieve substantial improvement in the American health care system. The arts of planning will suggest to us the opportunities that must be seized; but the process of planning itself, exercised by well-funded agencies for community and regional health care planning, cannot provide the tools with which to seize them, for they are themselves organizations composed of all the existing interests, with the greatest weight going to the more conservative interests, the ones least willing to consider change.⁶⁵

And yet, the situation is not hopeless. First, governments, at every level, under the pressures of rising costs, are continuing to reexamine the patterns of health care. Unfortunately, the power of traditional interests is so strong that they

receive little guidance and support in their efforts to encourage new systems. Nevertheless, financial pressures mean that there is the possibility of a creative response. Second, the mere fact that we have so many diverse systems gives us a number of opportunities. Since no one system is prescribed, we have, as I have suggested, the opportunity for experiment and, more significantly, the opportunity for choice -- we can encourage among the various systems that exist, through government funds, incentives, loans, and the like, the kind of systems that do provide more economic and yet adequate care. This variety -- and our wealth -- gives us perhaps our only advantage over England. Thus, just as many state governments impose hobbles at present on group practice and prepaid practice, under political pressure from unions, hard-pressed public officials, consumer interests, the poor, and planners, governments could be pushed to not only lift the hobbles but to replace them with encouragement to group and prepaid practice. When they do, we may have more well-developed models to build on in this country than Northwest Europe has.

For example, if group practice -- as all advanced medical opinion agrees -- is the most efficient, then the United States has at least some advantage, for it has a variety of well-developed models of such practice. It is striking that Karl Evang, Director-General of Health Services in Norway, is impressed by the efficiency of American group health practice:

In the USA, for example, observers of group practise or hospitals working in relation to commercial health insurance or pre-paid medical care programmes will be struck by the fact that this system no doubt encourages attempts to use

every individual doctor, nurse, etc., to the utmost, and to use any costly apparatus or laboratory during the largest possible number of hours of the working day.⁶⁶

This observation, by a man who runs one of those health services that should be a model to us, suggests that there are models to build on in this country, too.

But whether our government will ever move with the self-confidence and power with which it does in Northwest Europe is doubtful. Thus, there is no question that one leading area of inefficiency is in the cost of the drugs. There is Seymour Harris's startling figure that in the United States medical care dollar, twenty-five per cent goes for drugs, while in the United Kingdom it is only ten per cent. There is the enormous number of similar or identical and competing drugs, which adds greatly to the cost. Dr. Evang points out that good, modern medical care can be provided with only a fraction of the drugs that are produced, marketed, and -- worse -- heavily advertised in this country. In France,

...following the introduction of new legislation, manufacturers have been obliged to register their products, and to pay a fee for such registration, with the result that the 20,000 marketed proprietary medicines were reduced overnight to 8,000.

In Norway, there are only 1,500!⁶⁷

Our doctors, along with our drug companies, take much more, and it is hard to see how their return can be reduced, now that it has been so grossly expanded. In the end, our wealth, along with our tolerance for powerful special interests which operate against government and any common interest, must lead to greater waste. There will always be much more room for individual taste, regional

variation. We are certainly paying -- if crude observation is any guide -- for more expensive doctors' offices, and more expensive and elaborate equipment. We are undoubtedly paying for many things that have nothing to do with health. And this, one suspects, will continue, because of variations of taste, of interest group power, of national style.

Our mechanism of change will not be through the institution of a new all-embracing national system, except perhaps for payment. Even that must be incredibly more diverse than we find in other countries, owing to the fact we have already built up enormously strong private insurance interests that will have to be incorporated into a national insurance system. Certainly, there will be no national model of health care. But if the comprehensive prepaid health systems, for the poor and for the insured (and, hopefully, new ones for both, along the line of the plan sponsored by the Harvard Medical School), can be expanded to cover a substantial percentage of the population, so they move from covering a few per cent, as they do now, to twenty or thirty per cent, to the point where they become a viable alternative not for certain sections of the population in a few sections of the country, but for the entire population, everywhere, we will have made a major break in the American system. A real and meaningful competition between systems of health care will have been established, and one that we know from the limited experience we now possess can reduce costs and maintain quality. Our hope must be to build, within the old chaotic system, new systems that compete with the old, and reduce its scope and reach.

One model for this type of change has been developed in an article by Burton R. Clark, who examines how a system without hierarchical central control can nevertheless change. His examples are drawn from education. I believe they suggest a path for health. He writes, viewing change in education:

But much of the change taking place is in arrangements that lie in part outside the hierarchy of public offices. Indirect and subtle means of influence are being developed by many groups. The emerging patterns depend on voluntary relations among public agencies and private groups. In some degree, these arrangements serve as substitutes for or as alternatives to formal internal administration, that is, to the national-state-local line of ministerial authority found in many countries. The patterns represent ways of influencing the grass-roots level of operations in a field where no authority can impose co-operation.

One pattern is that of the private committee serving as a connector between public authorities, notably between federal agencies and local authorities, as in the curriculum reform movement. The prototype was the work of the Physical Science Study Committee,...under Professor Zacharias of M.I.T. ... The effect of such attempts at change can be impressive, though never total.... The new materials did not hit the field until after 1958. In 1963-4, 40 to 45% of the students taking high school physics were studying the new materials. Given the educational backwardness of some of these states, some of the rural areas, and some of the slums, it is doubtful if a national ministry with full authority over a national curriculum could have changed the study of physics more in the same period. The voluntaristic pattern has a major dysfunction in its present form, however, in that it undoubtedly increases the inequalities of education between the rich and the poor, and the progressive and the backward school districts. ... The weakness suggests the remedy, a compensatory distribution of incentives to encourage and help the backward districts to catch up.⁶⁸

This is clearly the mechanism by which we have had some progress in health in this country, and by which we may expect progress in the future. But there are a number of contrasts between education and medicine that make this model somewhat more difficult to apply.

The chief difference is the greater authority and power of doctors and thus the difficulty of assembling "semi-commanding prestige" resources (to use Clark's term) to influence them. This was not always so. When the Flexner report on medical schools came out, the prestige of the medical profession and everything associated with it was not so great. Flexner influenced medical education in the same way that the Zacharias group influenced physics instruction -- and even more so.

Since the 1940's, the power of doctors and doctor organizations has been so great that they have been able to resist innovation in organization except where it has been absolutely dictated by scientific and technological change. In England, doctors never had this great power and authority. They resisted National Health Insurance in 1912-1913, and lost; they resisted National Health Service in 1948, and lost.

American doctors might have been overcome in the early thirties, perhaps, if enough political energy had been put into the organization of a national health system; thereafter, they were too strong, and their organization was dominated by men furthest from contemporary medical frontiers. But with Medicare they suffered their first defeat. They are one interest now among many and not the one overwhelmingly powerful one. There are new interests in the health field itself -- the medical schools, the hospitals, the insurance companies. Sometimes their interests conflict -- and in such a way as to enhance the possibility of public policies that encourage new and superior alternatives to grow. And there are increasingly powerful interests outside the health field --

the budget-makers, the systems analysts, the rationalizers of government expenditure. They move warily, but their power is growing and it will have to be exercised in the end for the more cost-conscious and effective alternatives.

A Larger View

We suggested at the beginning of this essay that much that contributes to health is out of the reach of the health care system, no matter how efficient or effective it becomes. Health is a product of environment and culture. Parts of this health or ill-health producing complex may be immune to public intervention. If there are differences in the ways ethnic groups respond to environments so that wide differences result in health, it is not easy to know how to intervene -- or whether we should. Is the low accident rate of the Japanese family something we should try to emulate? If its cost is a more than acceptable (to us) dependency of the child on its mother, many of us might decide we would take our chances with a higher accident rate.

But the fact is many of the great determinants of health and ill-health are accessible to public intervention, and not by doctors. In the middle 1960's, this country established, in the course of the explosion of health programs, a program for better training and utilization of resources for the treatment of heart disease, cancer and stroke. This was perhaps the last major expression of an approach to health care that an increasing number of analysts have found increasingly inadequate -- the build-up of enormous resources to deal with individual diseases which could more effectively be dealt with earlier, and perhaps through

non-medical means. A larger approach would have suggested that these resources might be better applied elsewhere, and that the diseases themselves should be treated in larger measure by environmental changes which might limit their incidence rather than by direct frontal medical attack alone.

One of the most impressive critiques of the original plan for this program (it was eventually modified but much of the original critique still maintains its force) pointed out,

We are doing as well in cancer and stroke as the other countries -- for heart disease prevention is the important issue, but current understanding of how to accomplish this is primitive and confused, and may well require changes in national habits of diet and exercise.

Certain other causes of death predominate at the time of life when international differences suggest possible gains. Cirrhosis and accidents, both vehicular and other, are examples, and infant mortality is of particular importance.⁶⁹

The subtle analysis of Drs. Burgess, Colton, and Peterson suggested that alcoholism and the automobile accident rate might be better targets for a national offensive than heart disease, cancer, and stroke. They would save more lives, at less cost, and at younger ages which promised considerable productive living. We do not misuse a too fashionable word when we say this is a "systems" approach -- one considers a larger range of factors affecting health, and tries to find the points of most effective intervention. Jean Mayer has made this argument innumerable times -- thus, he has pointed out that American young men, at the most impressionable ages of life, are taken into the armed forces, and taught to enjoy a diet that is almost designed to increase their chances of heart attack. Consider the educational potential in the food practices of the armed forces!

Programs to control environmental pollution, food quality, the quality of drugs, that in effect change styles of life -- perhaps public transportation which encourages all those to use it to walk a few hundred yards more a day -- all may have pay-offs to health considerably greater than direct attacks on disease. They are difficult programs -- but anyone who has studied a hospital planning council may well conclude they are no more difficult than keeping hospitals from adding unneeded and underused facilities.

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I have tried to suggest in this essay not that we should dispense with health planning but that we must supplement it. It must be supplemented, on the one hand, with political interventions that attempt to encourage the forms of medical care that experience and research (much of which we owe to the push for health planning itself) shows to be economical and effective. It must be supplemented with larger public measures that affect the environment and the culture, that influence health and ill-health. We do not abandon health planning. But neither do we count on it, in our kind of society, as the chief arm in the effort to improve health care services and health.

NOTES

1. Charles E. Lindblom and David Braybrooke, A Strategy of Decision, New York, Free Press of Glencoe, 1963. Martin Meyerson and Edward Banfield, Politics, Planning and the Public Interest, New York, Free Press of Glencoe.
2. Karl Evang, Health Service, Society, and Medicine, Oxford University Press, 1960, p. 24.
3. Victor R. Fuchs, "The Contribution of Health Services to the American Economy," Milbank Memorial Fund Quarterly, October 1966, 44:4, Pt. 2, pp. 75, 76.
4. William N. Hubbard, paper delivered at the White House Conference on Health, November 3, 1965.
5. Ruth and Edward Brecher, "The Disgraceful Facts about Infant Deaths in the United States," McCall's, February 1966.
6. "New Partnerships in the Delivery of Services -- A Public Health View of the Need," paper delivered at the American Public Health Association meetings, November 1, 1966.
7. Minako Kurokawa, "Family Solidarity, Social Change, and Childhood Accidents," Journal of Marriage and the Family, 28:4, 1966, pp. 498-506. Odin W. Anderson, "Infant Mortality and Social and Economic Factors," in E. Gartley Jaco, ed., Patients, Physicians and Illness, 1958, pp. 20-21. See, too, Nathan Glazer, "Social and Economic Characteristics of American Jews," American Jewish Year Book, 1955, p. 14.
8. Anderson, op. cit. See, along the same lines, Victor Fuchs, in a paper delivered at the National Conference on Medical Costs, held in Washington, D.C., June 27-28, 1967: "My final suggestion -- almost plea -- is for us to remember that what we are really concerned with is health -- not costs as such, and not medical care as such. My reading of the health literature leaves me with the impression that the greatest potential for improving the health of the American people is not to be found in increasing the number of physicians, or in forcing them into groups, or even in increasing hospital productivity, but is to be found in what people do and don't do, to and for themselves. With so much attention given to medical care, and so little to health education and individual responsibility for personal health, we run the

danger of pandering to the understandable urge to buy a quick solution to a difficult problem." (As quoted in AMA News, July 17, 1967, p. 5.)

9. Kingsley Davis, "Population Policy: Will Current Programs Succeed?," Science, Vol. 158, November 10, 1967, pp. 730-739, and discussion in correspondence columns in subsequent issues.
10. Rene Dubos, Mirage of Health, New York, Harper, 1959.
11. Fuchs, "The Contribution of Health Services to the American Economy," op. cit. "One of the factors contributing to the difficulty of reaching firm conclusions about the relationship between health services and health is the importance of environmental factors. Some...are biological, involving the appearance and disappearance of bacteria, viruses, and other sources of disease. Some are tied to the production process, e.g., the factors associated with occupation. Others are part of consumption, e.g., diet, recreation. Major attention has been given to income, partly because many other environmental factors tend to be highly correlated with real income, both over time and cross-sectionally. Examples include housing, education, urbanization, drinking and the use of automobiles.
 "The prevailing assumption, in some cases with good evidence, has indicated that an increase in real per capita income has favorable assumptions for health, apart from the fact that it permits an increase in health services. This assumption for the United States at present, except for infant mortality, may reasonably be questioned. This country may have passed the peak with respect to the favorable impact of a rising level of living on health." pp. 80-81.
12. One problem in setting an "end" goal arises from the question: has one set the proper goal? In health issues, we often assume that the goal is to reduce mortality. But if death rates are as low as they are in some countries of Northwestern Europe, concentration on the death rate will perhaps lead to those rather morbid exercises in keeping people alive long past the time when they can possibly enjoy life or have any desire to continue it. Thus, there is increasing interest in developing an index of general health that takes into account sickness (morbidity) as well as death. Ffrangcon Roberts, in The Cost of Health, London, Turnstile Press, 1952, raised this problem. Fuchs, op. cit., refers to two such efforts: D. F. Sullivan, "Conceptual Problems in Developing an Index of Health," in Vital and Health Statistics, Data Evaluation and Methods Research, Public Health Service Publication Number 1000, Series 2, Number 17, Washington, United States Government Printing Office, May 1966; B.S. Sanders, "Measuring Community Health Levels," American Journal of Public Health, 54, 1063-70, July 1964. Note the argument in England, September 1967, as to who should be resuscitated.

For the process of developing standards for health planning organizations, see "Selected Papers on Health Planning -- Its Purpose; -- Evaluating Outcomes," University of Chicago, Center for Health Administration Studies, 1968.

13. Evang, op. cit., pp. 164-165.
14. Comprehensive Health Planning and Public Health Services Amendments of 1966. U.S. Senate, 89th Congress, 2nd Session, Report Number 1665. September 29, 1966, pp. 7, 8, 9.
15. Combating Heart Disease, Cancer, Stroke and Other Diseases. Hearings before the Subcommittee on Health of the Committee on Labor and Public Welfare, U.S. Senate, 89:1, 1965.
16. Comprehensive Health Planning and Public Health Services Amendments of 1966, Senate Report, op. cit.
17. For 1957, Seymour Harris, The Economics of Medicine, pp. 13, 117; for 1965, see Report of the National Advisory Commission on Manpower, 1967, Volume II, pp. 49, 64-67; for Watts, Dr. Roger O. Egeberg, in Report of the National Conference on Medical Costs, 1967, p. 187.
18. New York Times, May 6, 1966, p. 49. Consider what the situation must be in the rest of the country. (But as we have seen earlier, despite the fact that New York State is so well provided with doctors, its health statistics do not reflect any particular preeminence.)
19. "Toward Quality in Nursing," Report of the Surgeon General's Consultant Group on Nursing, Public Health Service Publication 992, 1963, pp. 7, 8, 15.
20. "Comprehensive Community Health Services for New York City," Report of the Commission on the Delivery of Personal Health Services, 1967, p. 41.
21. Forrest E. Linder, "The Health of the American People," Scientific American, June 1966.
22. Eleanor P. Hunt and Alice D. Chenoweth, "Recent Trends in Infant Mortality in the United States," American Journal of Public Health, 51:2, February 1961; Rashi Fein, "An Economic and Social Profile of the Negro American," Daedalus, Fall, 1965; Monroe Lerner and Odin W. Anderson, Health Progress in the United States, 1950-1960, University of Chicago Press, 1963, p. 28.
23. Subcommittee on Health of the Committee on Labor and Public Welfare, U.S. Senate, 89:2, Hearings on S. 3008, March 16, 17, 1966, pp. 49-50.
24. New York Times, "Doctor Shortage Nears a Crisis," September 28, 1967.
25. Report of NACHM, pp. 15-18.
26. Gerald D. Rosenthal, The Demand for General Hospital Facilities, American Hospital Association, Chicago, 1964.
27. Wall Street Journal, December 20, 1965, "Program to Modernize Hospitals in Big Cities Sought by U.S. Agency."

28. New York Times, "Governor Will Seek Loans to Hospitals; Johnson May Help," February 25, 1966.
29. New York Times, "State Nursing Home Shortage To Be Topic of Hearings Today," September 27, 1967.
30. Report of the NACHM, p. 34.
31. Ibid., p. 10.
32. While it is true that professionals almost always ask for more, one should point out that this is not universally so. The American Medical Association has been willing to support more research and more hospital beds, but has consistently opposed more doctors. Conceivably, other professionals support more of their own kind not only because, viewing the matter professionally, they see clearly the need for their own kind, but because they are organized hierarchically, and consequently see that more of their own kind means more authority, income, and power for some. Doctors, however, at least in their own view and indeed still in large measure, are independent professionals -- more doctors mean more competition, rather than greater prestige and income for some. On the other hand, when it came to Federal money for research and general hospital beds, there was no possible conflict. It was all gain and no possible loss. It was only in 1967 that the AMA bowed to the views of all the other professionals, or most of them, in the health field, that there was indeed a shortage of doctors. On the AMA view on the need for doctors, as well as their consistent support for research and hospitals, see Elton Rayack, The Professional Power of American Medicine: The Economics of the American Medical Association, World, 1967.
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34. Peterson, op. cit., and Fuchs, op. cit.
35. Walter J. McNerney, "Where is Hospital Use Headed?," Proceedings of the 5th Annual Symposium on Hospital Affairs, p. 13.
36. Beverly C. Payne, ibid., pp. 20, 22.
37. Odin W. Anderson, "Can Voluntary Controls Do the Job?," p. 6.
38. Walter J. McNerney, "Where Is Hospital Use Headed?," p. 69; and Logan, Studies in the Spectrum of Hospital Care, quoted in Richard M. Magraw, Ferment in Medicine, W.B. Saunders, 1966, p. 101.

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