The Delivery of Medical Care

*Medical care in the US is expensive and poorly distributed, and national health insurance will make things worse. What is needed is an innovative system in which the sick are separated from the well.*

By Sidney R Garfield, MD

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The US system of high-quality but expensive and poorly distributed medical care is in trouble. Dramatic advances in medical knowledge and new techniques, combined with soaring demands created by growing public awareness, by hospital and medical insurance and by Medicare and Medicaid, are swamping the system by which medical care is delivered. As the disparity between the capabilities of medical care and its availability increases, and as costs rise beyond the ability of most Americans to pay them, pressures build up for action. High on the list of suggested remedies are national health insurance and a new medical care delivery system.

The question then becomes: What are the necessary elements of a rational medical care delivery system? Many have proposed that prepaid group practice patterned after the Kaiser Permanente program, a private system centered on the West Coast, may be a solution. We at Kaiser Permanente, who have had more than 30 years' experience working with health care problems, believe that prepaid group practice is a step in the right direction but that it is far from being the entire answer. Lessons we have learned lead us to believe there is a broader solution that is applicable both to the Kaiser Permanente system and to the system of private practice that prevails today.

The heart of the traditional medical care delivery system is the physician. Whether he practices alone or in a group, he is still directly involved in the care of the patient at every important stage, from the initial interview to the final discharge. Any realistic solution to the medical care problem must therefore begin by facing up to the facts about the supply of physicians.

Of the active doctors in the US a great many are engaged in research, teaching and administration. Those actually giving patient care, in practice and on hospital staffs, number about 275,000 (approximately 135 per 100,000 of population), and they are far from evenly distributed throughout the population. A preponderance are in urban areas, and within those areas they tend to be concentrated where people can best afford their services. Increasing specialization accentuates the shortage of doctors. If we were to augment the output of our medical schools from the present level (fewer than 9000 doctors a year) to twice that number (which is scarcely possible), we would barely affect this supply in 20 years, considering the natural attrition in our existing physician complement. The necessity of living with a limited supply of physicians in the face of increasing demand forces us to focus on the need for a medical care delivery system that utilizes scarce and costly medical manpower properly.

The traditional medical care delivery system has evolved over the years with little deliberate planning. At the end of the 19th century medical care was still relatively primitive: there was the doctor and his black bag and there were hospitals—place to die. People generally stayed away...
from the doctor unless they were very ill. In this century expanding medical knowledge soon became too much for any one man to master, and specialties began developing. Laboratories, x-ray facilities and hospitals became important adjuncts to the individual physician in his care of sick people. Since World War II a chain reaction of accelerated research, expanding knowledge, important discoveries and new technology has brought medical care to the level of a sophisticated discipline, offering much hope in the treatment of illness, yet requiring the precise and costly teamwork of specialists operating in expensively equipped and highly organized facilities (see Figures 1a and 1b).

Throughout these years of remarkable medical achievement the delivery system has remained relatively unchanged, as though oblivious to the great need for new forms of organization equal to the task of applying new techniques and knowledge. Physicians have clung to individualism and old traditions. Their individual hospitals have continued on their individual ways, striving to be all things to their doctors and patients, creating their own private domains, largely ignoring the tremendous need to merge their highly specialized services and facilities. It is only in comparatively recent years that group practice by doctors has been considered respectable (and as yet only some 12% of all physicians practice in groups) and that regional facility planning boards have appeared to force some semblance of cooperation on hospital construction.

It is amazing that the traditional delivery system functioned as well as it did for so long, considering the stresses between old methods and new technology. Much of its inefficiency was absorbed by dedicated
physicians working long hours and donating additional hours; much was absorbed by office and hospital personnel working for extremely low pay. Only recently, under the joint impact of soaring demands for service and demands for competitive wages, has the system begun to break down, but it has been faltering for some time. In 1967, the National Advisory Commission on Health Manpower reported that “medical care in the US is more a collection of bits and pieces (with overlapping, duplication, great gaps, high costs and wasted effort) than an integrated system in which need and efforts are closely related.”

Let us look at another medical care delivery system: the Kaiser Permanente history.
Permanente plan. This program had its origin in southern California in the depression years from 1933 to 1938. I was then in private practice, and I became involved in providing medical and hospital services and facilities for several thousand construction workers. Unable to make ends meet by depending for remuneration on the usual fee for service, I finally tried prepayment and thus happened on our basic concepts of health care. Prepayment to a group of physicians in integrated clinic and hospital facilities proved to be a remarkably effective system for providing comprehensive care to workers on a completely self-sustaining basis. At the Grand Coulee Dam from 1938 to 1942, with the warm interest and counsel of Henry

Figure 1b. Since World War II medical technology has proliferated, as indicated by the partial display of treatment components and well people enter, largely because of prepayment, insurance plans, Medicare and Medicaid.
... we consider it a fundamental principle that the physicians must be involved in responsibility for administrative and operational decisions that affect the quality of the care they provide.

J Kaiser and his son Edgar, these basic concepts were further developed, tested and broadened into a complete family plan for the entire temporary community built around that construction job.

World War II expanded our Health Plan concept into care for 90,000 workers of the Kaiser wartime shipyards in the San Francisco Bay area and a similar number of workers in the Portland and Vancouver area. At the end of the war these workers returned to their homes, leaving us with facilities and medical and hospital organizations. We decided to make our services available to the community at large. Since 1945 the plan has grown of its own impetus, without advertising, to its present size: more than two million subscribers served by outpatient centers, 51 clinics and 22 hospitals in California, Oregon, Washington and Hawaii and in Cleveland and Denver. The plan provides comprehensive care at an annual cost of $100 per capita, which is approximately two-thirds the cost of comparable care in most parts of the country.

The plan is completely self sustaining. Physical facilities and equipment worth $267 million have been financed by Health Plan income and bank loans (except for gifts and loans to the extent of about 2%). The plan income provides funds for teaching, training and research, and pays competitive incomes to 2000 physicians and 13,000 non-physician employees.

The Health Plan and the hospitals are organized as nonprofit operations and the medical groups in each area are autonomous partnerships. This organization gives our physicians essentially the same incentives as physicians in private practice have; they are motivated, in addition, by their belief in the rightness of this way of practicing medicine.

In addition to prepayment, group practice and the integration of hospital and clinic facilities, we can identify three other principles that are essential to the plan’s success. One is the institution of what is in effect a new medical economics, which flows simply from the fact that the total Health Plan income is turned over to the physicians and hospitals not as a fee for specific services but as a total sum. This reverses the usual economics of medicine: our doctors are better off if our subscribers stay well and our hospitals better off if their beds are empty. Another principle is freedom of choice. We require any group that wants to enroll its members in our group to offer them at least one alternative choice of medical plan, be it Blue Cross or a medical society plan or something else. Finally, we consider it a fundamental principle that the physicians must be involved in responsibility for administrative and operational decisions that affect the quality of the care they provide.

We believe any group of physicians, or a foundation working with physicians, can easily duplicate the Kaiser Permanente success. It only requires a dedicated group of physicians with reasonably well-organized facilities, a membership desiring their services on a prepaid basis and strict adherence to all these principles.

All of this is not to say that US medicine should change over to the Kaiser Permanente pattern. On the contrary, freedom of choice is important; we believe that the choice of alternate systems, including solo practice, is preferable for both the public and physicians. Any change to prepaid group practice should be evolutionary, not revolutionary. Physicians in general have too much time and effort vested in their practice to discard them overnight. It will probably be the younger men, starting out in practice, who will innovate. Medical school faculties should point out the advantages and disadvantages of all methods of practice to these young men so that they can choose wisely.

Let us examine the functioning of these two systems—the traditional system and the Kaiser Permanente one. In the language of systems analysis, the traditional medical care system has an input (the patient), a processing unit of discrete medical resources (individual doctors and individual hospitals) and an output (one hopes the cured or improved patient). Customarily the patient decides when he needs care. This more or less educated decision by the patient creates a variable entry mix into medical care consisting of 1) the well, 2) the “worried well,” 3) the “early sick” and 4) the sick. This entry mix has markedly increased in quantity and changed in character over the years as medical care resources have grown in complexity and specialization. One constant throughout this evolution has been the point of entry into the system, which is and always has been the appointment with the doctor. Moreover, in traditional practice the patient engages in practice in integrated clinic and hos-
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ried-well people are a considerable system and, since the well and worried-well, early-sick and sick is an uncontrolled flood of well, put nothing in its place. The result is a less obvious but very significant side effect: it is a potent regulator of flow into the delivery system. Since nobody wants to pay for unnecessary medical care, one tends to put off seeing the doctor until one is really sick. This limits the number of people seeking entry, particularly the number of well and early-sick people. Conversely, the sicker a person is, the earlier he seeks help—regardless of fee. Thus, the fee-for-service regulator tends to limit overall quantity, to decrease the number of the healthy and early sick and to increase the number of the really sick in the entry mix.

Elimination of the fee has always been a must in our thinking, since it is a barrier to early entry into sick care. Early entry is essential for early treatment and for preventing serious illness and complications. Only after years of costly experience did we discover that the elimination of the fee is practically as much of a barrier to early sick care as the fee itself. The reason is that when we removed the fee, we removed the regulator of flow into the system and put nothing in its place. The result is an uncontrolled flood of well, worried-well, early-sick and sick people into our point of entry—the doctor's appointment—on a first-come, first-served basis that has little relation to priority of need. The impact of this demand overloads the system and, since the well and worried-well people are a considerable proportion of our entry mix, the usurping of available doctors' time by healthy people actually interferes with the care of the sick.

The same thing has happened at the broad national level. The traditional medical care delivery system, which has evolved rather loosely over the years subject to the checks and balances of the open market, is being overwhelmed because of the elimination of personally paid fees through the spread of health insurance, Medicare and Medicaid. This floods the system not only with increased numbers of people but also with a changed entry mix characterized by an increasing proportion of relatively well people. For this considerable segment of patients the old methods of examining and diagnosing used by the doctor become very inefficient. He spends a large portion of his time trying to find something wrong with healthy people by applying the techniques he was taught for diagnosing illness. This reverse use of sick-care technology for healthy and comparatively symptomless people is wasteful of the doctor's time and boring and frustrating for him.

The obvious solution is to find a new regulator to replace the eliminated fee at the point of entry, one that is more sensitive to real medical need than to ability to pay and that can help to separate the well from the sick and establish entry priorities for the sick. We believe we have developed just such a regulator. Our Medical Methods Research Department, headed by Morris F Collen, who is an electrical engineer as well as a physician, has successfully developed and tested techniques for evaluating the health of our members. The system that has been developed, which is variously called multiphasic screening, has been developed, which is variously called multiphasic screening.
Dr Garfield in His Own Words

Obviously, blind faith has very definite limitations and it should be backed up with a balance of power—at least in business. Blind faith may work in religion, but it has limitations.

— Speech to TPMG partners, August 15th, 1974.

"Health education should not only be available, it should be unavoidable.“


We are striving to prove 1) that high-quality medical and hospital services can be rendered to the people at a cost they can afford; 2) that this can be done to the benefit of all concerned—the people, the physicians, and the hospitals; last and not least that it can be done by private enterprise without necessity for government intervention. There is nothing sacred or secret in the idea. This cannot help but become more evident in the coming years.”


“Our dream was to create by incorporating the principles of group practice, prepayment, and integrated facilities, so stimulating a form of practice that our doctors would be inspired to outperform ‘private’ practice in service and do so without the incentive of fees.”


You can fight among yourselves, but as far as the outside is concerned have one common face and purpose just as you would in your own family. I think that if you would have a federation with the doctors in Southern California and the other regions, if possible, you would have all the power you need to control your destiny in the future.

— Speech to TPMG partners, August 15th, 1974.

“(Frontline staff) are the ones who first meet the members, and it is upon the manner in which they serve that our entire organization and service will be judged.”

— First Health Plan Manual for Employees, 1942.

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entry mix of well and sick and thus are unable to provide adequate care for either.

The clear definition of a health care service, made possible by health testing, is a basic first step toward a positive program for keeping people well. It should be housed in a new type of health facility where in pleasant surroundings lectures, health exhibits, audio-visual tapes and films, counseling and other services would be available. Whether or not one believes in the possibility of actually keeping people well, however, is now beside the point; this new health care service is absolutely essential in order to meet the increasing demand for just this kind of service and to keep people from overloading sick care resources.

Preventive maintenance service, like health care service, has been submerged in sick care. Essentially it is a service for high-incidence chronic illness that requires routine treatment, monitoring and follow-up; its object is to improve the patient’s condition or prevent progression of the illness, if possible, and to guard against complications. This type of care, performed by paramedical personnel reporting to the patient’s doctor, can save a great deal of the doctor’s time and (because it allows more frequent visits) provide closer and better surveillance.

The use of paramedical personnel with limited knowledge and limited but precise skills to relieve the physician of minor routine and repetitious tasks requires that such tasks be clearly defined and well supervised. Procedures are automatically defined and structured in the new system by the clear separation of services. Three of the four divisions of the proposed system—health testing services, health care services and preventive maintenance service—are primarily areas of paramedical personnel. Supervising physicians will be involved in varying degrees: least in health testing and most in preventive maintenance. This leaves sick care, with its judgments on diagnosis and treatment, clearly in the physician’s realm. Even here, however, he will be
aided by the three other services: in diagnosis, by health testing; in follow-up care, by preventive maintenance; in repetitive explanations and instructions to patients and relatives, by the audio-visual library of the health care service. We believe, incidentally, that the doctor-patient relationship, which is suffering from the pressure of crowded schedules today, would gain under this system. Giving the doctor more time for care of the sick can help to preserve the relationship at the stage where it counts most.

Implementing the new delivery system should be relatively simple in the Kaiser Permanente program, since there are no basic conflicts: The subscribers will benefit from better and prompter service to both the well and the sick; the doctors will have more time for their sick patients and their work will be more interesting and stimulating. Although the complete system remains to be tested and evaluated at each step, our hypothesis, on the basis of our research to date, is that we can save at least 50% of our general practitioners’, internists’ and pediatricians’ time. This should greatly enhance our service for the sick and improve our services for the well.

Implementing this new medical care delivery system in the world of traditional medical practice will be more difficult, but it still makes sense. Many forward-looking physicians will see in these new methods an opportunity to improve their services to patients. Most doctors these days have more work than they can handle and begrudge the time they must spend on well people. The assistance they could get from health testing and health care services will be welcome to many of them if such services are carefully designed and planned to help them. The sponsor-ship of health testing and health care services for private practice logically falls to the local medical societies. Some have already moved in the direction of health evaluation. A few local medical societies in northern California have for several years been operating a mobile unit evaluating the health of cannery workers. Some leaders of other medical societies have expressed interest in health testing as an entry into medical care. They realize that improvement of the delivery system is essential for the preservation of the private enterprise of medicine in this country.

The proposed delivery system may offer a solution to the hitherto insoluble problem of poverty medical care in many areas. The need is to make health services accessible to poor people. To this end neighborhood clinics are established, but staffing these clinics with physicians has proved virtually impossible. Physicians in general want to be in a stimulating medical environment; they like to associate with well-trained colleagues in good medical centers and tend to avoid isolated clinics.

In the system being proposed a central medical center, well staffed and equipped, would provide sick care. It could have four or five “outreach” neighborhood clinics, each providing the three primarily paramedical services: health testing, health care and preventive maintenance. Staffing these services with paramedical personnel should be much less difficult than staffing clinics with doctors; many of the workers could be recruited from the neighborhood itself. Such outreach clinics, coordinated with the sick-care center, could provide high-quality, personal service—better service, perhaps, than is available to the affluent today—at a cost probably lower than the cost of the inferior service poor people now receive.

The concept of medical care as a right is an excellent principle that both the public and the medical world have now accepted. Yet the words mean very little, since we have no system capable of delivering quality medical care as a right. This is hardly surprising. Picture what would happen to, say, transportation service if fares were suddenly eliminated and travel became a right. What would happen to our already overtaxed airports and what chance would anyone have of getting anywhere if he really needed to? National health insurance, if it were legislated today, would have the same effect. It would create turmoil. Even if sick care were superbly organized today, with group practice in well-integrated facilities, the change from “fee” to “free” would stagger the system.

Quality medical care as a right cannot be achieved unless we can establish need, separate the well from the sick and do that without wasting physicians’ time. The Delivery of Medical Care
solution, a new method of entry through health testing, serves as the heart of a new medical care delivery system for the future.

The entry of healthy people into the medical care system should not be considered undesirable. It opens the door to a great opportunity for American medicine. If these well people are guided away from sick care into a new, meaningful health care service, there is hope that we can develop an effective preventive-care program for the future. The concomitant release of misused doctors’ time can significantly slow the trend toward the inflation of costs and mal-distribution and unavailability of service. There should be little shortage of manpower if manpower is utilized properly.

Medical care stands at a critical point. One choice would be to adopt rash legislation that can only deprecate the quality of care for both the sick and the well. The better choice is to create a rational new medical care delivery system that will make it genuinely possible to achieve the principle of quality medical care as a right. Matching the superb technology of present-day medicine with an effective delivery system can raise US medical care to a level unparalleled in the world.

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**Dr Garfield in His Own Words**

“We consider it a fundamental principle that the physicians must be involved in responsibility for administration and operational decisions that affect the quality of the care they provide.”


“For the majority of our fellow citizens, medicine is prohibitively expensive. Health on the other hand is something almost anyone can afford. In this statement of economic fact there is contained a solution to the problem that is now uppermost in the minds of physicians, legislators, and public-spirited laymen.”


“Hospital design is sort of a hobby of mine.”


“How shall we achieve a wider and fairer distribution of the blessings of modern medical science? It is clear that no satisfactory answer will be found as long as doctors and hospitals derive their income from ill health, sickness and accident.”


“Instead of an intermittent sickness and accident service, doctors and hospitals should constitute themselves to render a continuous health service.”


**A Poor Salesman**

“Sid’s a genius at the organization of this pre-paid group medical care, but he’s the poorest salesman in the world. He knows how to do it, but when he gets up to tell it, what comes out of Sid’s mouth ain’t music” said the big builder laughing.

— Henry J Kaiser in Life Among the Doctors, Paul de Kruif, author; Harcourt, Brace & Co, 1949

This “Moment in History” quote collected by Steve Gilford, KP Historian