DELIVERY OF PRIMARY MEDICAL CARE THROUGH A HEALTH TEAM APPROACH: PHILOSOPHY, STRATEGY, AND METHODS

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Prepaid medical care systems throughout the Hemisphere face a number of special problems. This article describes basic concepts, a strategic approach, and an existing experimental model that may help deal with the problems such systems encounter in providing services to predefined groups of people.

Introduction

After many years of medical specialization and superspecialization there is, again, a strong movement for the development of primary medical care around the world. One interesting point about this trend is that it cuts across economic barriers; i.e., it appears not only in developing but also in developed countries. This particular fact reinforces the idea that this trend may be one more outgrowth of the gap between the accumulation and application of knowledge. It is clear that the public's medical care needs will not be met merely by training more people for the traditional medical specialties. But it is not so clear whether new kinds of specialists are needed or whether more emphasis on generalists will provide the answer. There are many who think that professionals other than medical doctors will be needed, and that the only way to solve the problem is to relegate doctors to the backseat and put these new professionals behind the wheel.

The fact is that no one seems to know the answer; we are at a stage of regrouping forces, of reanalyzing situations. It may very well be that there is no one answer to this complex problem; instead there may be several answers linked by common principles. "Right" answers may vary not only from one country to the next but within countries as well. So the best thing may be to evaluate how alternative models operate in several different situations. Answers may come better from experimentation in specific situations than from armchair analysis seeking general solutions.

This article deals with particular problems of medical care delivery in prepaid systems (i.e., systems like those used by the compulsory social security institutions in Latin America and by the voluntary prepaid "health maintenance organization" programs in the United States. These systems try to deliver medical care to large groups of people who have already made fixed financial arrangements for their care. In contrast to what happens in private practice, there is no direct cash flow from patient to doctor. The systems are supposed to provide quality medical care more cheaply than the private sector because they emphasize ambulatory over hospital care, and because they are supposed to emphasize maintenance and disease prevention over episodic or "crisis" care.

Conceptually, it makes good economic sense for prepaid systems to invest in health promotion activities, because having predetermined incomes they profit from well-being rather than from disease. Nevertheless, it is well-known that reality is very different and that, in practice, many of the institutions involved function as if they were oper.
ating in the private sector; i.e., they are crisis or disease oriented.

Besides undermining the basic justification for prepaid systems, this situation tends to create serious dissatisfaction among the system's essential participants—including both consumers and providers of medical care. The consumers feel unhappy because they do not receive the care offered. The providers feel uneasy because their training, always disease and hospital oriented, makes them quite comfortable giving episodic care but ill at ease giving the continuous, comprehensive care they are supposed to provide. So far as they are concerned, continuous care, health maintenance, and disease prevention are new activities—even though these activities are the key to delivering quality medical care for groups of people in systems of this kind.

Our purpose here is to explore how some issues involving the philosophy, strategy, and methods of delivering primary medical care may be at the root of these problems. In addition, certain tentative solutions are suggested—with the qualification that although these solutions may work under some circumstances, they may require modification to work in others.

Philosophical Considerations

Social security institutions in Latin American and health maintenance organizations in the United States must serve defined groups of consumers. Consumer demands may be satisfied by using either of two basic approaches. These approaches are outlined in Figure 1, which utilizes the epidemiologist's "iceberg of morbidity" concept and relates it to the organization of medical care delivery. The undulating line represents "sea level," below which there is "silent" morbidity, i.e.,

Figure 1. Two medical care delivery approaches to the "iceberg of morbidity."
pathology that is not expressed as demand for health care. Risk factors, waiting to be detected by disease prevention activities, exist in this area. The pyramid-shaped area above sea level shows symptoms and signs appearing in the group served—the signs and symptoms that underlie the consumer demand for health care.

One approach, known as the "prevalence" approach, organizes the delivery of medical care according to the frequency with which different conditions are encountered. It depends on the idea that approximately 70 per cent of all signs and symptoms (at the base of the pyramid) are so common that they should be within the realm of the general or family practitioner, who is at the center of the primary level of medical care. The next stage of the pyramid represents that share of morbid conditions (shown as 20 per cent of overall morbidity) that are less common and that should be referred to the second level of care—provided in this plan by the four basic specialties (internal medicine, pediatrics, surgery, and obstetrics and gynecology). The top part of the pyramid is reserved for conditions so rare (shown as 10 per cent of overall morbidity) that they require the attention of "super-specialists,—i.e., cardiologists, neonatologists, and so forth.

Another approach, which might be called the "fragmented" approach, takes a different view of how to meet consumer demands. It divides these demands not in terms of their frequency and appropriate care levels but in terms of medical specialties and super-specialties, utilizing a triage (screening) system to help people reach the appropriate specialist.

It should be clear from what has just been said that using the "fragmented" approach would seem to be against the best economic interest of prepaid systems. That is because the "fragmented" approach is costly and lends itself to episodic care. What is more, the fact that it characteristically does not provide continuity of care makes it very difficult to im-

Figure 2. Two primary care approaches to the "iceberg of morbidity."

THE "GENERALIST" APPROACH

70% (PRIMARY)

GP OR FP

GENERAL R.N.

NURSE ASSISTANT

RECEPTIONIST

RISK FACTORS

SUPPORTING SERVICES
(SOCIAL WORK, NUTRITION, PSYCHOLOGY, ETC.)

THE "SPECIALIST" APPROACH

INTERNIST

PEDIATRICIAN

ADULT NURSE PRACTITIONER

PEDIATRIC NURSE PRACTITIONER

TRIAGE PERSONNEL

RISK FACTORS
plement health maintenance and disease prevention activities. Hence the "prevalence" approach would seem to be a much more logical choice.

It is important to note, however, that several different approaches can be used to organize the services provided at the primary care level. The two basic approaches that are used most often are sometimes known as the "generalist" and "specialist" approaches. As Figure 2 indicates, the former employs a basic team composed of generalists; the latter divides the consumers into adults and children and utilizes internists and pediatricians working with registered nurses or nurse practitioners.

Our inclination is to favor the "generalist" approach. It is felt that this model provides for better focus on the family as a unit of care, permitting health maintenance and disease prevention activities to be conducted more efficiently in terms of both cost and consumer compliance. However, that is a matter of opinion at this point. To our knowledge no comprehensive evaluation of this subject has been performed, and it would appear that further work in this area is needed.

Strategy Alternatives

Consumer and provider dissatisfaction may decrease if consumers are separated into those who desire episodic care and those who want continuous, comprehensive care. This is just a matter of meeting the specific type of consumer demand with the corresponding type of service. As Figure 3 indicates, consumers whose community role is unstable tend to demand episodic care, while consumers with stable positions tend to demand continuous, comprehensive care.

Consumers can be separated into "unstable" and "stable" groups on the basis of practical criteria not requiring special health team efforts. These criteria can be fixed in accord with local community characteristics. For example, in our clinic we ask how many years the patient has lived at the same address and whether he or she has a telephone. We have also found that the patient's degree of compliance after the initial clinic visits helps in making the final classification.

When the type of service desired is provided, as shown in Figure 3, satisfaction usually follows. That is because a great deal of

![Figure 3. Typical relationships between the stability of consumers' community positions, the services demanded, and the types of services that should be provided to procure both consumer and provider satisfaction.](image)
consumer dissatisfaction comes from getting episodic care when the patient expects continuous, comprehensive care—and because much provider frustration arises when continuous, comprehensive care is given but episodic care is desired.

**A Methodological Model**

An experimental model being developed at the Department of Preventive Medicine and Community Health of the Texas Tech University School of Medicine takes the family as the basic unit of care. This model follows the "prevalence" philosophy and the "generalist" approach to primary medical services.

The model's basic health care team consists of two general or family practitioners assisted by two nurse assistants, one general registered nurse or family nurse practitioner and one receptionist. All members of the team provide continuous, comprehensive care for registered families demanding such care and episodic care for non-registered individuals. The continuous, comprehensive care duties are shared by the two general practitioner/nurse assistant subunits and the general registered nurse.

The general practitioner/nurse assistant subunits develop the initial data base, compile the problem list, make initial plans, and provide initial follow-up services for the individual registered family members. These initial activities together provide the basis for drawing up a health maintenance and disease prevention plan for each individual. Besides carrying out these activities, the subunits attend to the episodic problems of registered family members.

The registered nurse or family nurse practitioner performs the same kind of initial tasks for the family that the subunits perform for individuals. That is, she collects the family data base, develops the family problem list and plan, and provides the family follow-up. She also implements family and individual health maintenance and disease prevention plans, and indeed her main activities are in these areas of health maintenance and disease prevention. Because she works directly with patients in performing these activities, in effect, three subunits may be operating simultaneously at any given time.

The receptionist assists all three subunits with initial classification of patients according to the type of health care to be provided (episodic or continuous) and is responsible for implementing the follow-up procedures that are so vital for success of the health maintenance program.

It is important to emphasize that this unit is not designed to stand alone; it is designed to be part of a larger health system providing
hospital services, back-up specialist consultations, and emergency consultations at times when the clinic is not open. With regard to specialist consultations, however, one small group of specialist consultants can support several primary care units of this kind.

Overall, it is estimated that a unit such as this may provide continuous and comprehensive primary care for between 400 and 600 families, depending on the families' degree of medical risk. It is felt that this kind of integrated approach has the potential for satisfying both providers and consumers of medical care while establishing a performance record that is efficient and cost-effective.

SUMMARY

Prepaid medical care systems, such as the compulsory social security systems in Latin America and voluntary health maintenance organizations in the United States, confront a variety of problems. The purpose of this presentation is to point out some of the philosophical issues that should be resolved in planning prepaid primary medical care services for defined groups of people; to outline one kind of strategy for matching different kinds of consumer demand with appropriate services; and to describe an experimental model employing that strategy at the Texas Tech University School of Medicine.

SEXUALLY TRANSMITTED DISEASES*

The control of venereal disease has become a matter of international as well as national concern as the result of global changes in the human environment and the rapid development of intercountry communications.

The sexually transmitted diseases (STD), which used to be called "venereal" diseases, are caused by infective agents such as viruses, chlamydiae, bacteria, yeasts, and parasites.

The prevalence (total number of detected cases) of STD has been on the increase for the last 20 years in all age-groups. Some countries are disturbed by the marked upward trend shown by the rates for young people, often 15 to 19 year-old adolescents.

An education action program has been proposed by the World Health Organization to all its Member States. Its purpose is to: (i) make the general public aware of the community problem represented by STD, (ii) ensure that the control program receives active collaboration from groups and individuals, (iii) inform groups at risk of the curative and preventive measures available and encourage them to use them, (iv) teach young people to pay attention to the health aspects of their sexual life, (v) prepare health and other personnel for their role as educators in STD control programs and alert dispensaries to the needs of their patients.