MANAGED PREPAID HEALTH CARE
IN LATIN AMERICA AND THE CARIBBEAN:
A CRITICAL ASSESSMENT

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VOLUME II
GUIDE TO THE ASSESSMENT
OF
HEALTH MAINTENANCE
ORGANIZATION
(HMO)
FEASIBILITY

By

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HEALTH MANAGEMENT GROUP, LTD.
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GLOSSARY

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1.0 SUMMARY

Prepaid, comprehensive health care programs have become increasingly popular in recent years, typically evolving as alternatives to the traditional private, fee-for-service system. By common usage, at least in the United States, these programs have come to be known as health maintenance organizations, or simply HMOs. This guide to HMO feasibility assessment while applicable generally, is designed particularly for use in countries other than the United States.

HMOs are defined as formally organized health care delivery systems that combine financing and delivery functions to provide comprehensive health services to a voluntarily enrolled membership for a fixed, prepaid fee. Their popularity comes from their ability to reduce the costs of health care significantly while at the same time providing more comprehensive health services than generally are provided by the traditional fee-for-service system. Emphasizing disease prevention and early treatment of health problems rather than the treatment of advanced illness, HMOs aim at maintaining health, hence their name.

Despite many advantages, HMOs are not always well accepted. They may exert significant competitive pressure on fee-for-service providers and insurers. And they may also threaten the noneconomic interests of fee-for-service physicians because of the HMO's different goals and nontraditional methods of financing and delivering health services.
However, not all private health providers are antagonistic to HMOs. Where hospitals are underutilized, the HMO may provide a source of patients. Further, governmental agencies—social insurance programs and even ministries of health—may find HMOs attractive alternative mechanisms to engage the private sector more efficiently and to reduce duplication of facilities and other health care resources. But it is employers who are obligated by law or by contracts with workers to pay for employee health care who are the major supporters of HMOs. This is because of cost savings and the fact that employers know in advance what the costs of health care will be.

HMOs are business entities which combine the components of health care—the management structure per se, physicians and health facilities—and these may be assembled and related in a variety of ways. To establish the feasibility of a potential HMO it is necessary to demonstrate that:

- The HMO can be legally established and operated.
- A network to provide the health services contracted for can be established.
- There is a supportive climate and market for the HMO and its services.
- Sufficient finances will be available to establish and operate the organization.
- There is an adequate organizational structure to manage the enterprise successfully.

Factors that bear on the feasibility of an HMO are related to the organization and characteristics of a country's health care system, the site of the proposed HMO, as well as legal,
regulatory, institutional and economic considerations. How­
ever, of particular importance is the entity and its needs
and aspirations, that proposes to establish the HMO. These
largely will determine how the HMO is organized and operated.

It is suggested that the feasibility assessment of an
HMO be conducted in phases. These are a preliminary assess­
ment followed by a full feasibility study. Presuming feasi­
bility is established, there then occurs a pre-implementation
phase.

The objectives and activities of the preliminary assess­
ment and feasibility study are:

- **Preliminary Assessment**—Identification and
  analysis of major constraints and opportuni­
ties for developing an HMO considering the
  sponsor's situation and environmental and
  other relevant factors. This phase estab­
  lishes whether to proceed with a full
  feasibility study.

- **Feasibility Study**—To determine whether all
  essential aspects and components of the pro­
  posed HMO are present or can be assembled and
  that identified constraints can be overcome.
  In this phase it is necessary to provide evi­
dence of the following:

  - **Legal/Regulatory Feasibility**—There
    are four aspects of this feasibility
    to be established: first, to show
    that there is a legal authority, or
    at least no prohibition, that allows
    for the formation and operation of
    an HMO; second, to evaluate limita­
    tions that authority might place on
    the HMO; third, to identify any
    other limitations or barriers that
    could hamper or interfer with the
    HMO; and fourth, based on the legal
    assessment to formulate an organiza­
    tional structure of the proposed HMO
    that will comply with various legal
    and regulatory requirements. To
accomplish the above requires identification of relevant laws and insurance codes, restrictions against advertising and the corporate practice of medicine, reviewing opportunities for public-private collaboration, assessing health service requirements, and exploring other relevant statutes and restrictions.

- **Health Services Delivery Feasibility** --It must be shown first that: a package of health services can be established which meet the goals of the HMO are competitive and within cost parameters; next, that a satisfactory health delivery system can be designed; then, that a network of health facilities, physicians and other providers to produce the services can be mobilized; and finally, that acceptable measures to provide quality assurance and utilization control can be developed.

- **Marketing Feasibility**--The establishment of a sufficient market to ensure the HMO's ability to meet financial and other goals is critical to its success. It must be demonstrated that there is, or can be developed, a positive climate for the HMO and that demographic, economic, health status parameters and health care resources are such that the HMO can achieve breakeven within an acceptable period of time. This will require being able to identify specific employers and others willing to pay for an adequate number of enrolled members. Both the packages of services offered and the cost of these services will need to be competitive with health care options offered by insurers and other providers.

- **Financial Feasibility**--To be financially feasible, the HMO must show an ability to secure adequate funding for start-up and operations,
be able to withstand a certain degree of unforeseen financial demands (e.g., related to changes in enrollment and/or costs, etc.) and to achieve breakeven within a reasonable time, say five years. To do this, three activities are essential. First is to analyze the budget and to project costs for the proposed program. Second, financial requirements are projected over time. Finally, financing source(s) and cash management are worked out and these too are projected over time.

Since the financial requirements are related to the characteristics of the health services and to market factors, it is evident that feasibility analyses of various aspects of the proposed HMO are interrelated and that assessments are conducted concurrently and with some shared personnel.

Organization And Management Feasibility--There are a number of ways to combine the components of an HMO and to establish a functioning organization (these are discussed at length in the text). Considerable care should be taken in analyzing various HMO models in the context of their ability to fit the unique characteristics of the situation being assessed. This includes not only how the components are structured and meshed but also how the organization can be managed best to ensure a smooth and harmonious operation as well as one that can accommodate change and growth.

Finally, a word on managing the feasibility assessment itself. HMOs are complex organizations, and assessing their feasibility is a challenging pursuit. The many factors to be considered call for a logical, planned approach to the assessment using skilled, experienced staff. A good way to accom-
plish this is by establishing assessment teams for each of the major assessment areas--legal/regulatory, health services, marketing, financial and organization/management. Specifications for the teams are drawn up before the commencement of work. Each specification states the objectives of the assessment; starting and completion dates; end results or outputs expected; team composition and assignment time; resources required; assumptions and constraints; methodology; and a time schedule of activities and milestones.
2.0 INTRODUCTION

In the past decade the health maintenance organization has assumed increasing prominence in the United States. It also is found with increasing frequency in other countries where the private practice of medicine exists.

There are many problems with the traditional private, fee-for-service health care system. For example, fee-for-service tends to fragment health care and to focus primarily on the treatment of illness. Costs of care are poorly controlled and are escalating at an alarming rate.

To overcome some of these problems, prepayment linked to health services delivery has been developed. This has involved a restructuring of health care with emphasis on disease prevention and health promotion to maintain health, hence these systems are called health maintenance organizations, or simply HMOs.

An HMO is a formally organized health care delivery system that combines financing and delivery functions and provides comprehensive services to a voluntarily enrolled membership for a fixed, prepaid fee.

Because of the rise of health care costs in the United States, the Federal Government is vigorously pushing the adoption of HMOs as an alternative to traditional health services. Early on, some government support was available to develop HMOs. However, since 1981, the private sector has assumed this role. A large body of laws also evolved to regulate and monitor various aspects of HMO establishment and
operation. In addition to dealing with financial and legal requirements, these laws also relate to content of the program of health services, the role of the consumer in the organization including policy formulation and, to some extent, to the marketing practices of the organization.

In other countries, whose health care systems differ from that of the United States and where the legal, regulatory, institutional, socio-cultural and political environments also differ, the requirements to establish and operate an HMO will not be the same as those in the U.S.

In addition to being a health services program, an HMO must be considered as a business enterprise. To be viable, whatever assistance it may receive in its development, the HMO must prove the ability to become self-sufficient in a reasonable time, say five years or less. It must be able to compete with other health care providers and to offer a program of basic health services on a continuing basis which are acceptable to the population it serves.

There are a variety of health services offered in any country. These encompass both public and private entities and various health care options. To assess the feasibility of an HMO in a particular country setting, it is first necessary to understand the health status and health needs of the area to be served, the organization of health services in the area and the manner by which these services are financed. Who pays for what, when and under what circumstances?
Earlier it was noted that the HMO primarily is a private sector activity, notwithstanding that some HMOs care for patients who are the responsibility of the public sector and whose prepayment is provided from public funds. For practical purposes, the HMO falls under the rubric of health insurance which by and large is a mechanism for financing private health care. Thus, to provide a background for HMO feasibility assessment, the next chapter will describe alternative health insurance strategies. This will include a detailed analysis of HMO organizational models, looking into the relationship between three key elements that make up the HMO—hospitals, physicians and the "plan" organization that manages the enterprise and actually enters into contracts with the defined population served.

The focus of this protocol for HMO feasibility assessment is on locations other than the United States. The final chapters will assist HMO planners to analyze the feasibility of a potential HMO from many perspectives: first, by gaining an understanding of the existing health care system; next, looking into the climate for a new organization of health care, identifying and analyzing legal and regulatory factors, the program of health services to be included, marketing and financing the program; and finally, selecting the HMO's structure and its management. To be determined are the degree of risks involved and, based on all of the above, a "go or no go" decision as to whether or not to proceed.
The process of the feasibility assessment is divided into several phases, each following on the successful completion of the prior phase. These phases are described in some detail noting the skills required to carry out the various tasks.
3.0 DESCRIPTION OF ALTERNATIVE HEALTH INSURANCE STRATEGIES

While many readers of this guide will have a good appreciation of health insurance, others may not. To provide for a common basis for understanding and comparison, we will begin with a general discussion of various forms of health insurance and their primary features including alternate financing mechanisms.

A good way to conceptualize health insurance is to think of it in terms of a spectrum or range. At the right end is private sector casualty or indemnity insurance. In between are various arrangements linking prepayment and health services delivery, and health care under social security. On the left is a publicly sponsored system for the delivery of health care such as the British National Health Service. These different types of health insurance are now discussed in detail.

3.1 Casualty or Indemnity Insurance
(Third-Party Reimbursement)

This kind of insurance is basically a mechanism for making an unknown financial risk a known risk. Examples are insurance to pay for financial loss due to fire, theft, or the cost of illness. In the case of health insurance, one buys insurance for which he or she pays a specific amount of money. When health services are required the insurance company pays all or part of the charges for services rendered according to the coverage agreement. In this situation, the
"insurance" is only a means for financing health care. Typically, it has little or nothing to do with the organization, operation and cost of the health care system or whether health care needs are met.

Casualty or indemnity insurance is a means for paying for specific services in a fee-for-service system. Insurance companies that provide this coverage are primarily in the private sector as are the providers of health care. This is the type of health insurance that predominates in the United States, which is primarily served by private health care. Since three parties are involved—the patient, the provider and the insurance company which reimburses for the cost of care—this form of health insurance is also called third-party reimbursement.

An advantage of third-party reimbursement is that it gives those covered the freedom to choose their own doctor and the facility in which they will be treated. Some disadvantages are that it can be an expensive form of coverage and often suffers from abuses of overuse (high cost) and of poor quality of care.

Additionally, it tends to provide for episodic care rather than for comprehensive, continuous care since a planned, organized health care system typically is not involved.

A number of techniques may be used with third-party reimbursement insurance to reduce costs, utilization and risk.

Wherever possible those insured are brought into the program in groups. This provides some cost savings in admin-
istering the program. The chief benefit of group enrollment, however, is that it broadens the mix of the population covered and thereby reduces the chance of getting a sizeable number of sick people who would be apt to make large demands for medical care. In insurance terms, this is spoken of as reducing "adverse selection."

Other measures to reduce cost and utilization are to have the insured share in the cost of care. This may be done in several ways, for example by "deductibles" or by "copayment." The insured may have to pay a specified amount toward any service covered before the insurance company picks up the difference. Or, the cost of care may be split on some pre-agreed upon formula--e.g., the insured pays 20% and the insurance company 80%. Many insurance plans provide for full coverage of charges above a certain amount for specific "catastrophic diseases" such as cancer.

Some health insurance programs set limits on the amount the insurance company will cover, either in monetary terms and/or the number of services allowed. For example, some coverage will pay for up to 365 days of hospital care per year while others may limit this to 50 or 100 days per year. And, not all health insurance covers such services as dental care, eye glasses or psychiatric treatment.

In general, the sponsorship of third-party health insurance is by a commercial insurance firm, a not-for-profit organization or a government agency, and the amount charged for the
insurance determines the health services provided and the degree to which the insured participates in paying for the health services received.

Many third-party programs will cover services provided to a patient who is registered as an inpatient but will deny payment for the same services if provided on an outpatient basis.

Despite this and other disadvantages, third-party is a very popular form of health insurance where the private practice of medicine is encouraged. Although commercial insurance companies usually sell this insurance, there is no reason that a government agency cannot serve as the third party or "financial intermediary" between the consumer and the provider. Further, it is possible for a financial intermediary to become involved in setting standards and monitoring utilization so that some controls on costs, utilization and quality are possible.

Blue Cross in the United States and the health insurance offered, for example, by the American International Life Insurance Company in many countries are examples of casualty or indemnity type health insurance. The relationships between the consumer, the insuring agency or company and the providers are shown graphically in Model 0.
MODEL 0

Characteristics:
- Health insurance organization contracts with clients
- Doctors and hospitals are separate, usually private entities
- Health insurance organization pays clients' medical claims

A common and serious complaint concerning casualty or indemnity (third-party) health insurance is that it fosters a fragmented health care delivery system frequently resulting in over-building of hospitals and over-specialization. Over-specialization results in payments of higher fees for services rendered by specialists, consumption of more hospital services than needed and a tendency to treat symptoms within the confines of a single specialty.
The manner in which health care providers are paid frequently is blamed for these problems. As initially conceived, traditional third-party health insurance was designed to cover the costs of hospital services rather than health care per se. Although coverage has been broadened somewhat over time, most third-party programs still focus on treatment of illness and many will not pay for preventive health services.

The traditional unstructured network of independent physicians presents an inconvenient, confusing, expensive and often inaccessible maze to those requiring health care. Unable to identify or locate a proper entry point into the system, many consumers resort to self-referral and this is often inappropriate.

In response to these difficulties, the HMO has evolved. An HMO is best thought of as a system rather than an organizational entity. However, unlike fragmented health delivery systems, the HMO's health care system provides comprehensive services with the authority and responsibility for each of its various components clearly specified.

The feature that most clearly differentiates HMOs from existing health delivery and financing systems is the combination of delivery and financing within one organized system. This combination approach places providers of health care at financial risk for the services they render. Under traditional private care programs, the providers are usually reimbursed by third-party payors with whom they have no
organizational relationship. Typically, third-party payors do
not limit the total financial resources available to pay for
health care and, as a result, do not place providers at
financial risk.

3.2.1 The HMO Concept

Organized as a system, HMOs bring together the many ele­
ments of health care delivery in a logical, cohesive and effi­
cient manner. In contrast to the fragmentation of the tradi­
tional fee-for-service system, HMOs provide comprehensive
health services to its members on a 24-hour basis seven days
a week. Access to care in a timely fashion is guaranteed by
contract. Health problems are handled effectively with empha­
sis on primary physicians who guide members through the various
sources and levels of care. With known needs and demands,
required resources can be planned for more appropriately.

HMOs produce their largest economies through reduction
in hospital utilization. By emphasizing the delivery of out­
patient care and appropriate use of hospitals, a saving of 20%
or more is not uncommon as compared to a traditional fee­
for-service system.

The following discussion of alternative HMO models will
show that physicians may be compensated in a variety of ways,
including salaries, capitations, fee-for-service, bonuses,
etc. Hospitals, on the other hand, are nearly always paid
on a traditional basis, i.e., billed charges, discounted fees
for patient volume and prompt payment, set fees per day, etc.
3.2.2 How HMOs Access Current Problems

According to Zelten, "HMOs reunite the flow of services through the health care system. Combining the delivery and financing functions serves to make providers more fiscally accountable. The movement away from fee-for-service reimbursement better aligns the objectives of providers with those of consumers. Limitation to a fixed pool of funds out of which the health care of an entire population must be paid creates a natural incentive for providers to be more concerned over both the costs and the efficiency of their own actions and the actions of their colleagues."\(^1\)

The program of health services of HMOs emphasizes continuous, comprehensive care. Every effort is made to reduce unnecessary hospitalization since hospital care is the chief cost of health care. Under traditional health insurance, hospital charges may consume over 75 percent of all money expended. In a well-run HMO hospital costs are generally under 50% of total expenditures and may be as low as one-third. Many traditional health insurance programs limit coverage for outpatient services. This serves to increase the cost of care as well as to impede access to care. HMOs, on the other hand, encourage the use of outpatient services, thereby enhancing access and reducing costs.

\(^1\)Zelten, Robert A. "Issues Paper No. 3--Alternative HMO Models," University of Pennsylvania, processed, 1979. Zelten's paper has contributed in a major way to this chapter and the use of its material is gratefully acknowledged.
An important requirement of any health insurance system is the ability to provide baseline statistics and cost data. The HMO, as a highly planned and organized system, generally has useful data to measure both performance in meeting its client's health care needs and the efficiency of its operations. With a defined population with known needs and service utilization patterns, the HMO is able to predict the type and level of services to be provided and the resources required with fair accuracy.

One concern that has been voiced with these programs is how to ensure that those covered will receive adequate health care. The doctors and hospitals are paid whether or not care is provided. There could be an incentive for these providers to withhold services so as to increase their own financial gain.

This problem has been approached in several ways. The Kaiser-Permanente Medical Care Program, by far the largest HMO in the world, has always insisted that potential members be offered at least one other health insurance program from which to choose. Furthermore, plan members have the option to change to a competing insurance coverage at least annually should they be dissatisfied with Kaiser. Another technique is to provide a mechanism for consumer participation in certain decisions regarding the delivery of services, facilities, etc. In the United States, limited member participation is now mandatory for an HMO to get federal support and approval.
Linking the HMO to medical schools and physician training programs also is a way to maintain quality of care. Collectively, these measures work to keep the HMO program "honest."

3.2.3 Alternative HMO Models

In the United States, the federal HMO law and related regulations differentiate between three HMO models, depending on the organization of the physicians; the staff model, the group model and the individual (or independent) practice association (IPA) model. However, others differentiate HMOs according to medical service arrangements; for example, by those HMOs that own or control their own hospitals and those that contract for inpatient services.1/

Turning first to physicians, briefly stated, the three arrangements are:

- **Staff Model**: Health professionals, including physicians, are employees of the HMO and generally are paid on a salary basis. To supplement its own staff (e.g., referral to specialists), the HMO may contract with external resources and these are usually paid for on a fee-for-service or hourly basis.

- **Group Model**: Physicians practicing in some type of group arrangement—a corporation, partnership, etc.—are a legal entity, separate from the HMO.

- **Independent Practice Association**: This too is a legal entity separate from the HMO, usually a corporation or partnership. The HMO contracts

1/The discussion of alternative HMO models generally follows the schema suggested by Zelten, op. cit.
with the IPA and the IPA in turn contracts with individual physicians to provide health services to HMO members. Service agreements between the IPA and physicians define the conditions under which the physicians provide services including compensation arrangements, guaranteed accessibility for HMO members, quality assurance, etc.

By taking into account both physician and hospital arrangements, there are eight organizational configurations into which nearly all currently operating HMOs can be placed, whether in the United States, South Korea, Brazil, Argentina or elsewhere.

The discussion is concerned only with the relationship between three key elements of the HMO—hospitals, physicians, and the plan or organization that actually enters into contracts with members, i.e., the population served. While the plan may contract for various administrative services such as data processing, actuarial services, etc., the discussion will not deal with these contractual arrangements. Thus, the eight models presented differentiate HMOs according to medical services arrangements. And, the selection of one model over another will have substantial legal, financial and marketing impacts as will be noted later in this feasibility protocol.

With respect to hospital arrangements, the HMO models can be divided into two groups, those that own or control their own hospitals and those that contract for inpatient services. Although contracts are generally with private (proprietary) or nonprofit hospitals, arrangements may also be
made with publicly owned hospitals. The ability to control hospital accessibility and operations is critical to an HMO, hence many large HMOs insist on owning their own hospitals wherever possible.

In the first two models to be discussed the HMO owns or controls its own hospitals. In Models III through VIII the HMO contracts for hospital services.

Models I through IV differ from the subsequent four models in that physicians, either as staff or in groups, are brought together solely to serve the HMO's clients. Early in these HMOs' life cycle, it will be necessary to purchase additional physician services until the HMO's membership base will support such services (usually specialists) in-house on a full-time basis.

The next two models, V and VI, also make use of physicians working in groups; however, here the physicians are in an already established fee-for-service group practice which contracts with the HMO to provide services.

Finally, Models VII and VIII consider different arrangements of physicians practicing out of their own offices.

3.2.3.1 Models I and II: HMO Owns or Controls Hospital

Model I

In Model I, the HMO is a highly integrated organization owning or controlling its own hospital and employing physicians as staff. Depending on its size and location, there may
be one or more sites where HMO members receive health services. Generally, only HMO members have access to the system.

The relationship of the plan, the hospital and the physicians may be illustrated as follows:

MODEL I

CHARACTERISTICS:
• HMO OWNS OR CONTROLS ITS OWN HOSPITAL(S)
• PHYSICIANS ARE EMPLOYEES OF THE HMO
• PHYSICIANS PRACTICE IN GROUPS

PLAN

HOSPITAL(S)  MEDICAL GROUP
There are many advantages to this model. The HMO directly controls resources and operations including various aspects of patient care. With a known service population and predictable service requirements, accurate estimates of hospital beds and other resources can be made. The model fosters continuity and coordination of care with the same professional staff serving members in hospital and outpatient facilities.

The use of a single medical service number makes it possible to have a composite medical record for each member including both in- and outpatient services.

By sharing diagnostic and treatment services between inpatient and outpatient facilities, efficiencies and cost savings are realized and duplication of services is reduced. In addition, being able to match resource requirements to predictable demand, expensive underused medical technology and overbuilding of facilities is reduced.

Conceptually, in many ways this model is similar to a publicly owned health care facility, but on a private basis. SAMCIL, a large HMO in Sao Paolo, Brazil, is an example of Model I.

In many countries private hospitals employing physicians on salary, in addition to treating individuals on a fee-for-service basis, have contracts with industry to serve employees. Conversion of these facilities to an HMO may be relatively simple.
Model II

Model II HMOs also own or control their hospital facilities. However, whereas in Model I the physicians are employed staff of the facilities, in Model II the physicians are organized as a group with either a partnership or corporate structure. The physician group contracts with the plan to provide all medical services to HMO members. If it is necessary to refer members elsewhere for services, the physician group contracts for these services and pays for them as part of its obligation to the HMO.

In the typical Model II HMO, the physician group negotiates its contract with the HMO on the basis of capitation, i.e., a specific amount per member served.
Kaiser-Permanente Medical Care Plan, the largest HMO in the United States, is an example of Model II. Another example is an HMO established many years ago in Cordoba, Argentina. Parenthetically, the schematic representation of Model II as shown is a bit misleading. In Kaiser-Permanente, the hospitals and other facilities are organizationally separate from the plan. On an annual basis, the plan contracts with the hospital entity to provide services to the HMO members. Since there generally are common boards of directors for both the plan and the hospital organization, for practical purposes the plan and the hospitals may be considered essentially the same entity.

What are the factors that bear on the physician arrangements in these models? First is the size of the HMO. A considerably larger membership is required to support a medical group on a capitation basis than is necessary for a staff plan. Second, other things being equal, physicians generally prefer to manage their own affairs. By organizing in groups they have more voice in health care policy and also have more leverage in negotiating their conditions of service.

While it is generally advantageous for an HMO to own or control its own facilities, there are barriers to this, chief of which is membership size. For example, based on an assumption of 1.6 beds per 1,000 members, and a utilization of 500 inpatient days per 1,000 members, to support a 200-bed hospital would require around 125,000 members.
Models III-VIII: HMO Contracts For Hospital Services

Not owning their own hospitals, these HMOs arrange for their members to receive services from private or public health care facilities. Arrangements may be on the basis of hospital charges, cost reimbursement or a negotiated rate based on some agreed-upon formula.

Many factors bear on the scheme of hospital arrangement. Important among these are the size of the HMO, the needs of the hospital, the structure of the HMO and its relationship to the hospital per se and to the community.

Model III

This model is essentially a staff model where the HMO contracts with available hospitals for inpatient and possibly outpatient services. Relatively easy to organize, Model III is shown graphically below.
Model IV

Models III and IV are similar, except that rather than being physicians employed by the plan as in Model III, in Model IV the physicians are organized as a group which is separate from the plan. Generally, the physician group limits its services to HMO members, except, of course, for emergency care of nonmembers.

The organizational structure of Model IV is shown below.

MODEL IV

CHARACTERISTICS:
- HMO contracts with hospitals
- Physicians are members of a separate, newly-created legal entity
- Physicians practice in a prepaid group

[Diagram of Model IV showing relationships between HOSPITAL(S), CONTRACT, PLAN, and MEDICAL GROUP]
In negotiating for hospital services, the HMO first prepares a list of requirements. For example, these might include specifications regarding maximum charges, agreement not to require admission x-ray and laboratory tests if these have been performed by the HMO shortly before admission, guarantee that qualified physicians associated with the HMO will be granted full staff privileges.

Model V

In Model V, shown below, the HMO contracts with a fee-for-service group practice for professional services.

MODEL V

characteristics:
• HMO contracts with hospitals
• Physicians are members of an existing fee-for-service group practice
• Physician group contracts with HMO
Referring to the illustrations of Models IV and V, it will be seen that they are identical. However, in Model IV, a newly formed physicians' group is created for the purpose of providing prepaid care, while in Model V physicians' services are provided by an existing fee-for-service, generally multispecialty group.

There is a difference in the degree of commitment to prepaid health care among the two physician groups. In Model IV, commitment is total. In Model V, individuals cared for under prepayment usually make up only a small part of the group's practice. Despite the difference in commitment, it may be advantageous for a newly formed HMO to deal with an existing physician group since no organizing work will be required.

Model VI

In situations where an HMO is spread over an area too broad to be served by one physicians' group or where it is desired to make use of single specialty groups, a group practice network is established. This is shown on the following page.

Model VI generally is found in large urban areas where the HMO has an insufficient number of members to care for them at a single delivery point. However, the model could also be used in rural areas making use of smaller physician groups.
This model may be more difficult to organize and operate than some of the others since each medical group is independent and unrelated.

Models VII and VIII: Physicians Practice Out Of Own Offices

Models VII and VIII represent HMO organizations generally referred to as individual practice associations ("IPAs") or "open-panel" programs. In each case, the physicians do not practice in large groups but rather out of their own offices.

The term "individual practice association" is a term used in the United States and strictly speaking refers only to the physician component of an HMO. The IPA is an entity or
professional association legally separate from the HMO. It provides a means for fee-for-service practitioners to participate in a prepaid program, but under controlled conditions. These conditions usually require the physicians to agree to:

- Abide by the policies, rules and regulations of the IPA.
- Comply with the quality assurance procedures established by the IPA.
- Accept as payment in full for services provided, the compensation agreed to under the contract between the IPA and other parties.
- Accept all or part of the financial risk for delivering health services to HMO members within a fixed budget.

The IPA is a rather complicated HMO model requiring individual contracts with each participating physician as well as contracts with hospitals and the HMO members. While the IPA itself has service agreements with professionals and is responsible for delivering services to HMO members, not infrequently the HMO plan management takes over the function of paying providers, monitoring provider performance and utilization of services.

There is considerable variation among IPA plans as to which physicians in a community are eligible to participate. An arrangement where any qualified physician is accepted is known as an "open-panel" program.
Physicians participating under Model VII generally already are in private practice in the community, either as sole practitioners or in small, often single specialty, group practices. Eligibility to participate may range from the broad open-panel to more limited groups such as the medical staff of a single hospital.

Although generally considered in the category of an IPA, in fact there is no individual physicians' association in Model VII. Rather, each physician contracts directly with the HMO. The contract details the responsibilities of the parties to the contract and the manner of physician reimbursement. Typically, physicians are reimbursed on a fee-for-service basis. However, they are at financial risk because a predetermined amount of the money is budgeted to pay for covered services. If that amount is used up, the participating providers are still responsible for providing the contracted for services without additional pay.

As with Models V and VI, in Model VII physicians in private fee-for-service practice agree to incorporate some prepaid patients into their practice. Usually these HMO patients are but a small fraction of the physicians' total clientele. Model VII is generally a loosely structured organization and one where good communications between plan management and participating physicians may be difficult to achieve. However, for the model to be successful, there must be adequate monitoring to control quality of care and utilization of services.
Both IPA models have several advantages over other models. First, they permit physicians to participate in the HMO program while at the same time pursuing their normal practice arrangements. Second, since prospective HMO members do not need to change physicians, the market acceptance may be broader than with other HMO models.
Shown below, Model VIII differs from Model VII in that the physicians belong to an independent organization, the individual practice association. The HMO contracts with the IPA and the IPA with each physician participant, rather than each physician directly with the HMO as in Model VII. Although organizationally different, Models VII and VIII operationally are very similar.

**MODEL VIII**

**CHARACTERISTICS:**
- HMO contracts with hospitals
- Physicians practice out of traditional settings
- IPA contracts with HMO
- Individual physicians contract with IPA
3.3 Health Care Under Social Security

At least half of the countries of the world have some type of sickness and/or maternity benefit programs under social security. These primarily are cash benefit programs. Cash benefits for work-related illness or injury are also frequent.

Direct provision of health care by medical facilities owned by government or social security is commonly found in Latin America as well as in other parts of the world, e.g., Greece, Turkey and Burma. The amount of health care provided under social security and the percentages of the cost for that care which are borne by the insured worker and by social security vary considerably in different countries.

In Latin America social security health programs come in a variety of configurations and arrangements. Eligibility for participation varies, as does the coverage or scope of services provided.

Some countries have integrated social security health services with those provided by the ministry of health. And in a single country, e.g., Panama, there may be more than one pattern of integration between social security and other public health care providers.

To provide more flexibility in health-related programs, many social security agencies are set up as quasi-governmental or "parastatal" organizations. These establishments may operate under different regulations and personnel practices than
apply to a ministry of health or other governmental entity. Professional salaries may exceed those paid in the ministry of health and there may be greater willingness to collaborate with private sector resources—physicians, health facilities and HMOs—in the provision of health services.

3.4 Publicly Sponsored National Health Service

In many countries, particularly those with socialist political philosophy, the government policy is to ensure citizens access to all facets of the country's health services with little or no charge at the point of delivery. There are a number of models of care under this system and these are determined largely by the degree to which private health care is tolerated. The models fall into two general concepts:

- A completely nationalized health care system
- A "mixed" health care system

3.4.1 Completely Nationalized Health Care System

The characteristics of a completely nationalized system are: health care is a right made available to all; government owns and operates essentially all health facilities (as in China and Russia); government employs health care providers and support staff on a salary basis; fee-for-service payments for care are not permitted and health services are funded by the government.

This concept has the advantage of being an organized, coordinated health care system with universal entitlement. However, a major disadvantage is its conflict with the socio-
political philosophy of those countries that also have a private sector. The government of these countries would have difficulty implementing this alternative because only one sector of the economy is nationalized. Clearly, this would be vigorously resisted by local medical practitioners, other segments of the health care establishment, and those citizens opposed to a totally socialized economy.

3.4.2 "Mixed" Health Care System

The characteristics of a "mixed health care system" are: health care is a right made available to all, i.e., universal entitlement to care; health services are funded by a special tax with or without a contribution from general revenues; primary care is provided by panels of general practitioners (GPs) and people select the GP panel to serve them (the people register to obtain their care from the panel of their choice); general practitioners on panels provide services on a contractual basis (they are not employees of the government); GPs are paid on a capitation basis according to the number of persons registered to obtain care from them; hospital care is provided by government-owned medical facilities; and fee-for-service private practice is not excluded, nor is private ownership of hospitals or pharmacies.

A key feature of this "mixed" system is the freedom it provides to restructure health care and significantly expand the productivity of the health system, without the socialization of medical care. Specifically, this "mixed" system has
the advantage of providing universal entitlement of care within a health care system organized to provide appropriate, integrated services that are designed to achieve the goal of continuity of care. There is accountability for the provision of services and costs are predictable. Further, physicians retain their independent status with the privilege of engaging in private practice.

For the mixed system to be implemented successfully, it must be acceptable to the majority of consumers and providers, manageable to operate, and accessible to the broadest range of users. The health care system must be organized, not just to provide increased access to primary care, but to ensure that all levels of care are integrated and mesh appropriately.

Great Britain is an example of a country with a mixed national health service system. HMOs can fit nicely in these systems and, in fact, they are currently being established in Great Britain.
4.0 APPROACH TO FEASIBILITY ASSESSMENT--THE PROCESS AND ITS PHASES

The reasons for establishing an HMO and the client or group(s) sponsoring the proposed program will differ in various countries. Factors that bear on this include the organization of the health care system, the socio-political philosophy of the country and specific site of the proposed HMO, as well as legal, regulatory, institutional and economic considerations. These factors notwithstanding, of paramount importance is the client.

This client may be a business enterprise, one or more physicians, a hospital, or even a government-related entity. The characteristics of the client and its needs and aspirations largely will determine how the HMO is organized and operated.

Whoever the client, several phases are involved in the development of an HMO, each following on the successful completion of the previous phase. These phases and the principal tasks involved are outlined below.

Phase I--Preliminary Assessment To:

. Determine the client's interests and needs with respect to establishing an HMO.

. Provide the client with an overview of HMOs including:
   - A general orientation;
   - Essential components required--hospitals and other medical facilities, physicians, the "health plan" or entity that organizes and manages the program, and necessary financial and other resources;
- Alternative relationships between the components including various arrangements for securing physicians' services;

- An order of magnitude estimate of the service population required and the scope and characteristics of the health services to be provided;

- Legal, regulatory and institutional considerations and obvious constraints; and

- The marketing challenge.

To decide, on the basis of a preliminary assessment of the major constraints to and opportunities for developing an HMO, considering the client's situation and the environmental factors, whether to proceed with a full feasibility study.

This assessment ordinarily takes from one to three weeks, including preparation of a report of findings, conclusions and recommendations. The time required will vary with the complexity of the situation and the ease with which needed information can be obtained. The task, for this phase of an HMO assessment outside of the U.S., generally is carried out by a team composed of a physician and a health care financial specialist, each with both HMO and international health experience.

Phase II--Feasibility Study To:

- Determine if all of the essential aspects and components of the proposed health program are present or can be assembled, and that any identified constraints can be overcome:

  - Establish that prepaid health care per se is legal, identify the authority that allows establishment and operation of an HMO, if any, and ascertain the legal structure of the proposed HMO;
- Ascertain whether a suitable group practice exists or can be established in this social milieu and situation and if not whether some alternative arrangements can be made to provide physicians' services without compromising the integrity of the system;

- Establish that suitable hospital arrangements can be made;

- Determine the level of expertise existing among management, medical and other personnel; and

- Determine the level of commitment existing or that can be generated to support the proposed program.

Conduct a preliminary survey in which the following are estimated:

- The population base potentially to be served including assessment of its health status and scope and amount of health services or other activities required to meet health care needs, including specification of basic services to be provided;

- The size of the membership (the population actually to be served), the costs to serve that population, and the required membership premiums to be charged in order for the program to reach a breakeven point;

- The expected membership premium rates that can be levied or collected from the various possible sources of funding (e.g., employee health benefits, the population itself, levels of government, social insurance);

- Other sources of funds to make up any shortfall; and

- Probable market penetration and under what circumstances (e.g., differing levels of cost versus alternate packages of services).
. Establish the scope of services to be provided and design of the HMO's health care delivery system.

. Design the marketing plan and provide the criteria for determining whether the HMO has market feasibility.

. Determine the ability of the HMO to reach breakeven in a reasonable period of time and achieve financial self-sufficiency.

Phase II consists of collecting and analyzing essential data and estimating the potential success of the proposed program. Assuming a "go" decision, the output of this phase will be a preliminary design of the HMO and its health care system consistent with the HMO's goals and objectives and any legal requirements; a schedule of benefits (scope of services) to be offered; a forecasted per person, a per family, per month cost and projected source(s) of funds to cover the forecasted cost, based on the estimated size of the population to be served as derived from the market survey; a marketing strategy and plan; and a financial plan.

This phase usually requires up to three months on site plus an additional month to report the findings. To carry out the various tasks, the following professional personnel, all with HMO experience, generally will be necessary: a physician clinician/administrator, a statistically oriented health care financial specialist, a prepaid health plan marketing specialist, a health plan specialist and a health facilities administrator. It is possible that one individual may be able to cover more than one specialty area, thereby reducing personnel needs. Also, not all of the specialists will be required on site for the full assessment period.

Phase III--Pre-Implementation

Presuming on the basis of the Phase II study the program appears feasible, Phase III, the pre-implementation phase, will follow and will take an estimated four to six months to complete. In Phase III, the program components are delineated and assembled and legal and other constraints must be overcome. To accomplish this it is necessary to:

. Establish the agreed upon HMO structure as a legal entity;
Identify an initial enrollment group, develop an enrollment strategy and initiate an enrollment program;

Establish a medical group or other physician arrangement and develop a timetable for commencement of operations;

Establish a financial group to bring together the required funds;

Identify facilities to be used and establish a facilities and operations management group;

Develop an operational plan and a budget for the first twelve months of operation;

Develop management and support systems, such as accounting, management control, operating and reporting systems, medical records, etc.;

Select and recruit employees and establish training programs; and

Coordinate the enrollment, medical, financial and management groups to assure commencement of operations on the target date.

Phase IV--Implementation

Twelve to eighteen months required.

Phase V--Evaluation and Revision as Necessary
ANALYSIS OF EXISTING HEALTH CARE SYSTEM

To determine whether and how an HMO program might fit into a country's health care system, first it is necessary to understand that system. The analysis of the system begins with a general description, noting issues and problems, the country's health care policy, how various components of health care are financed, and the role of the many public, private, and international entities involved in providing health services.

Although an HMO is concerned with disease prevention and health promotion, its primary focus is on treating illness. This is where the bulk of its efforts and resources go. Therefore, in analyzing the existing health care system, particular attention is paid to the providers of medical care or curative services, noting which population segments have access to what services and under what conditions.

The World Health Organization, the United States Agency for International Development and other health-related agencies all have protocols for health sector assessment. It is beyond the scope of this document to outline the process. Suffice it to say, an organized approach must be used to detail and assess the health care activities of all categories of providers so that a mosaic or pattern of coverage of services can be pieced together. This then becomes a key element in defining what population groups might be served by an HMO. The most likely group in a country will be those who are
eligible to receive health care largely financed by employers directly or through traditional health insurance and predominately provided by the private sector. For practical purposes this is the industrial population in the urban areas. And, in fact, this group forms the bulk of the HMO memberships, worldwide.

Returning to the analysis of the existing system, the following is a list of headings or main topics to be considered:

- General description, system characteristics--issues and problems
- Health policy--explicit and implicit
- Health care financing
- Public sector providers
  - Ministry of health
  - Provincial and regional health services
  - Municipality health services
  - Categorical agencies, e.g., water and sewerage
  - Other
- Social security
- Private
  - Health care facilities, proprietary and nonprofit
  - Medical practitioners
  - Dental services
  - Pharmaceuticals and drugs
- Professional syndicates and associations
- Industrial organizations
- Commercial health insurance
- Charitable entities, e.g., missionary-related services foundations, etc.

. Other health-related organizations

- International agencies, e.g., WHO, UNICEF, UNFPA, USAID
- University-related
- Red Cross
- Community sponsored, nongovernmental services
6.0 CLIMATE FOR A NEW ORGANIZATION OF HEALTH CARE

Rapidly proliferating technical and scientific developments in the medical field have advanced health care to a degree of effectiveness that has created wide and increasing demand for its benefits. However, accompanying these technical and scientific advances has been a phenomenal rise in the cost of health services. Many people are concerned that they are—or may be—unable to pay for the services they require. Even in those countries where health services are nominally provided through public sector or social insurance programs, the level and quality of these services may not meet desired standards. To fill the gap, where permitted, private health services appear and often flourish.

Overwhelmingly, worldwide, it has been organized labor that has pushed for better wages, pensions and medical care. Through labor-management bargaining, unions have negotiated health insurance benefits covering a wide spectrum of coverage. Early on, benefits were limited to the employee and were narrow in scope. Over the years, benefits have been extended to cover employees' dependents and the range of services has been broadened. However, the scope of services per se has not been a major issue. Rather the search has been for new ways to meet the costs of services already available in the community. Parenthetically, the concern over the cost of health care has also been shared by many middle class citizens, not necessarily union members, who might be excluded from certain services because they are priced out of reach.
Prepaid health care, generally provided by a group practice both in the U.S. and essentially on all continents, has evolved as one answer to these concerns. Industrial organizations find these programs satisfactory because the costs of health benefits for their employees are constrained and are known in advance. Provided that access and quality are maintained, the consumer is also satisfied since there are no cost surprises.

However, there are segments of the community that may resist, and vociferously at that, the establishment of prepaid health care. Frequently, organized medicine is against the concept. The chief concern is competition, i.e., a direct financial threat to the status quo of the private physician, whether in private practice or a fee-for-service group.

Control of patient care is another concern of organized medicine. Many physicians fear that prepaid medicine will limit treatment options and that measures aimed at cost savings, perhaps under the direction of the nonphysician, will deny the patient appropriate care.

Freedom of choice of the patient to select his or her own physician in some prepaid health programs is another bone of contention. Even the practice of physicians joining together in groups either may be not allowed or may be discouraged.

As a result of these and other constraints, the climate for a new organization of health care may be difficult in some circumstances.
For an HMO to be feasible, there must be the awareness of an unsatisfactory situation or a problem with the status quo that requires resolution. Group practice and prepaid health care must be legal. There must be a sufficient degree of approval by organized medicine to permit the program to function, possibly constrained, however, by various restrictions and limitations. Physicians have political influence and they may be able to force acceptance of conditions, such as the requirement that a prepaid health program designed to cover a dues paying membership must allow its members free choice of licensed physicians who participate in the program; that some minimum percentage of physicians in the area must agree to participate in the program; that the program be under the control of physicians; that those eligible to be served by the program have incomes below a certain maximum.

The posture of government is also a critical factor. This may range from tacit acceptance, with or without conditions, to active financial and other support including the sponsorship of enabling legislation and/or the willingness to collaborate with the private sector in establishing an HMO program. Where support is offered, there are also legal and other requirements to be met (these may cover the package of services, membership premiums charged, level of consumer participation, marketing practices, etc.) and these may or may not be acceptable to those proposing to develop the program.
Besides organized medicine and government, other groups play decisive roles in the potential for establishing an HMO. These are industry which pays the majority of the costs of the program and organized labor which must accept the program, either as the sole source of health care for its members or at least as an option to be offered those eligible for health benefits.

Growing awareness of unmet needs in many nations has helped to stimulate various arrangements of the private components of health care as well as limited relationships between the private and the public sectors. For there to be a positive climate for an HMO program, there must be mobilization of the diverse elements that go into such a program as well as education of the public regarding the program's nature, advantages and feasibility. Judging from the history of the HMO movement in the U.S., this may require a process lasting many years.
7.0 **LEGAL/REGULATORY FEASIBILITY**

The assessment of the legal feasibility of a proposed HMO may be facilitated by establishing specific criteria and the requisite tasks involved. (See Birch and Davis Associates, Inc., for legal issues related to HMO feasibility in the United States.1/)

There are four main objectives of the legal feasibility study. First, to establish the legal authority(s) that allow the establishment and operation of an HMO. Second, to evaluate the limitations that authority might place on the proposed HMO. Third, to identify any other limitations or barriers that may negatively impact the proposed HMO. Fourth, based on the legal assessment, to develop an organizational structure that will comply with various legal requirements.

In the United States there have been a series of changes in the legal climate for the development and operation of prepaid group practice and other types of HMOs. Some of the important and landmark decisions are noted below since the issues involved are similar to those that may be found in other countries.

Going back some fifty years, medical associations in the U.S. were violently opposed to prepaid health care and employed a variety of tactics aimed at prohibiting or at

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least limiting the programs. For example, physicians working in group practice, prepaid care were denied membership in local medical associations as well as the American Medical Association. This effectively restricted some physicians from qualifying to take specialty board examinations or from staff privileges in certain community hospitals where medical association membership was required. And it was alleged by some local medical associations that incorporated organizations engaged in prepaid health care violated the law against the corporate practice of medicine. The complaint here was the potential for a lay-controlled corporation to interfere with the doctor-patient relationship and the concern that the physician's primary allegiance should be to the patient and not to a corporate entity.

The initial strategy of organized medicine in the 1930s and 1940s was to contest HMOs as a form of unethical medical practice. Three lines of attack were employed: to attempt to restrict professional practices, to establish and use of physician sponsored health insurance plans (Blue Shield) to deter or discipline HMOs and by the restrictive use of state laws. However, these tactics were unsuccessful as a result of legal decisions.

There are many cases in the U.S. that revolve around the common law rule against the corporate practice of medicine. The rule generally followed is based on consideration of
public policy, medical licensing laws or professional standards. Early on, a distinction was made between group health plans engaged in selling doctors' services to the public for a profit in contrast to plans rendering doctors' services to their members on a nonprofit basis. In recent years, most states have included in their HMO enabling legislation language that specifically states that an authorized health plan shall not be considered to be engaged in the practice of medicine, whether nonprofit or profit.

In addition to the areas noted above, there are other topics requiring legal analysis. These include laws relating to the establishment and operation of an HMO, its organizational structure, the relationship of HMOs to insurance regulations or codes, medical advertising, etc. The analysis of these topics may be structured around the tasks shown graphically in Exhibit 7-I. This structure also facilitates the documentation and reporting of legal feasibility. Although shown as a sequence of steps, some tasks may be accomplished concurrently.
MAJOR TASKS REQUIRED TO CONDUCT AN HMO LEGAL FEASIBILITY STUDY

1. Identify Relevant Laws Governing Development and Operations of HMOs
2. Review Relevant Insurance Codes
3. Review Prohibition Against Advertising
4. Review Restrictions Against Corporate Practice of Medicine
5. Review Opportunities for Public-Private Collaboration
6. Assess Health Services/Planning Requirements
7. Explore Other Statutes and Restrictions
8. Explore Legal Facets of the Proposed HMO Structure
7.1 Identify Relevant Laws Governing Development And Operation Of HMOs

Having first identified any statutes under which the HMO would operate, any limitations or constraints are analyzed. The statutes generally cover enabling legislation, medical and hospital service corporation laws and other legal mechanisms.

In the U.S., where the policy of government is to foster HMO development, legislation to enable and support HMOs has appeared both at national and state levels. These laws specify the conditions under which financial and other support may be obtained. They also may specify services to be provided by the HMO and operational and organizational requirements.

Aside from the United States, few if any countries have enabling legislation for HMOs. Many, however, will have regulations that pertain to medical and service corporations or other entities that in essence allow the establishment of prepaid health care. These laws should be specified and evaluated.

In the absence of other enabling statutes, the next step is to identify and assess other legal mechanisms that might be used to justify an HMO's development. These might include various precedents—legal, operational or administrative. Alternatively, letters from competent and relevant authorities stating that the proposed HMO is not disallowed might suffice. This is a less secure authorization to proceed, however.
7.2 Review Relevant Insurance Code

There are various ways insurance codes may impact an HMO. However, the first consideration is whether and in what way the codes are even applicable.

Prohibitions may be against the entire program (this was the case in South Korea until recently) or some of its components. A specific level of financial reserves may be specified and this could prevent a small HMO from getting started. Regulations relating to unfair trade, advertising, marketing practices or the kinds of financial involvement permitted by the insurers may all be covered by an insurance code and require analysis.

7.3 Review Prohibitions Against Advertising

In most western countries advertising of medical services has been frowned upon, if not prohibited by medical practice acts. Parenthetically, recently this prohibition has been relaxed in the United States, England and other countries. Nonetheless, medical advertising is not permitted in some countries. The degree of prohibition varies from being absolute to allowing advertising by medical service organizations but not by individual health professionals. It is imperative that the prospective HMO consider regulations concerning advertising before developing a marketing strategy.
7.4. Review Restrictions Against the Corporate Practice of Medicine

This has been touched on previously. The pertinent point is that there be a clear understanding of what the various types of HMO structures can and cannot do with respect to contractual or employment relationships with physicians (and other professionals) so that the HMO operates within the law. This may mean that some HMO models are not possible in a given setting, thus limiting organizational options.

7.5. Review Opportunities for Public-Private Collaboration

Particularly in Latin America, there may be opportunities for a hospital-based HMO, e.g., Models I and II, to serve clients paid for by a ministry of health or social security system. This can achieve cost savings in the public sector by obviating the need to construct facilities where suitable public institutions do not exist, and it can benefit a private hospital by assuring a given level of occupancy. This system presently may be seen in Panama and undoubtedly exists elsewhere.

A variety of enabling laws and regulations may be required permitting the public-private relationship as well as those related to contracts, operational standards, etc.

7.6 Assess Health Services/Planning Requirements

Most countries require permits to build and operate a private hospital. These usually relate to zoning, evidence of financial responsibility of the sponsors, and assurance
that the hospital will be staffed by licensed professionals. Additionally, there are design and construction codes, possibly equipment and staffing requirements, not to mention a variety of inspections by government before and after commissioning. For government hospitals, the process is simpler but still may be arduous.

To contain costs or to adjust the balance in the way resources are used, e.g., reduce facility expenditures in favor of increasing support for primary health care, there may be regulations relating both to new facility development, or to expansion or improvement of existing facilities. The need for the facility must be demonstrated, and a "Certificate of Need" must be obtained. This practice, applicable to the U.S. and its possessions, is found also in such diverse nations as New Zealand and Israel. Interestingly, in the U.S., in an effort to expand the coverage of HMOs, the government has made Certificate of Need legislation for HMO-related facilities less limiting than for many other categories of facilities.

Another category of regulations that could affect the feasibility of an HMO is that which has to do with licensure of professionals and their privileges. Specifically at issue in some countries is the role of the nurse practitioner or other allied health professionals who carry out certain activities generally reserved for physicians. Where the HMO intends to use allied health professionals to deliver physician assistant services, it will be important to identify precedents as
well as regulations governing the use of these allied health professionals, including necessary physician supervision. Use of nurse practitioners by HMOs is widespread in the U.S. and has resulted in cost savings. To develop an appropriate staffing pattern, the prospective HMO must identify the legal requirements regulating the use of various categories of health personnel.

7.7. Explore Other Statutes and Restrictions

Most issues that will affect the legal feasibility of an HMO have been discussed. However, there are other concerns. One that may prove a real problem is that of acquiring work permits for expatriate personnel. While the majority of an HMO's employees may come from the country in which the HMO is to be established, it may be desirable to obtain the services of certain key specialists from elsewhere, hence the need for a work permit.

Another requirement may be that the HMO carry a given level of malpractice or personal liability insurance for personal injury lawsuits.

By recognizing these statutes and restrictions, the HMO will be able to successfully complete the legal aspects of the feasibility study and plan appropriately for the project's development and operation.
7.8. **Explore Legal Facets of the Proposed HMO Structure**

Section 3.2 has detailed the various relationships that may exist among the components of an HMO and the different organizational structures that may result. These relationships and the organizational characteristics that ensue have a variety of legal and contractual consequences. For example, if physicians are employed, corporate practice of medicine prohibitions may apply whereas this might not be the case with an IPA or group practice arrangement. The HMO's malpractice liability also may vary in degree and in the cost of insurance, depending on the medical staff relationship. Depending on the structure of an IPA and the rules it establishes regarding eligibility for membership, conceivably there could be antitrust and noncompetition implications. Further, the arrangement of the physicians in the HMO may have substantial impact on the posture of the medical association toward the project and the action it takes to support or impede the development of the project.

Whereas in the U.S. there is a sharp separation between those physicians in government health services and those in the private sector, in many countries this is not the case. A very common situation is for physicians to work for ministry of health or social security services and to engage in private practice as well. The degree to which private practice is tolerated will vary. And usually the physician sees only ambulatory patients in his private clinic, hospital care being provided in government facilities.
This mixing of public and private medical practice has some undesirable aspects. Not infrequently the physician works for the government in the morning and early afternoon and leaves as soon as possible to rush to his private clinic. This tends to short-change the public services. At least in theory, an HMO serving both public and private sector patients may make the most effective use of the physician.

The above discussion points out the need to review the legal requirements and limitations of each organizational model to see which are or are not feasible in a given circumstance. This will facilitate the design of an organization that has the desired structure consistent with meeting legal requirements and satisfactory contractual arrangements.

So far we have approached the legal feasibility assessment as though the proposed HMO was in the conceptual or developmental phase. More often than not, a specific entity, already engaged in health care, possibly providing some prepaid services, will be considering redirection of its organizational structure and operations. The focus of the legal analysis here should first be to review the existing operations to see whether they are consistent with legal (or whatever) requirements that would permit operation as an HMO. Second, to note potential conflicts or problems between the existing situation and that required to meet the legal, organizational, health services and operational requirements of an HMO. And, third, to prepare a plan of actions to be
taken to resolve these conflicts and problems in a specified period of time.

7.9. Checklist for Assessing Legal Feasibility

The following is a checklist of topics to be considered in assessing the legal feasibility of an HMO.

- If required, has a legal means been identified under national or other relevant law that will allow the establishment and operation of an HMO;

- Is there an organizational structure for the proposed HMO that is consistent with relevant laws;

- Will the HMO be able to promote (advertise) its services under existing laws; if not, how will the HMO market its services;

- Will it be necessary to obtain a certificate of need to construct, expand or revise any health facilities required for the operation of the HMO and, if so, can the HMO secure such a certificate;

- Are there limitations to the HMO's practicing medicine as a corporation and, if so, what will be the impact on the HMO's structure and operation;

- Are there any taxes applicable to an HMO, or its component parts, that could be harmful to the financial feasibility of the HMO; and

- Are there other laws, regulations, administrative decisions or applicable judicial precedents that could adversely impact the feasibility of the proposed HMO.
8.0 ASSESSING AND PLANNING THE HEALTH CARE SERVICES

There are two major activities that must be undertaken to assess the health services delivery feasibility of a prospective HMO. These are to design the health services and delivery system and then to determine if it is possible to develop a provider network to produce the services as specified.

Most HMOs divide their services into a core or basic group provided to all subscribers/enrollees/members and a supplemental group available to those covered under various conditions. Exhibit 8-1 on the following page is a listing of basic and optional supplementary benefits (services) required to meet federal qualification in the U.S. While not necessarily relevant or totally applicable to non-U.S. settings, the list can be considered a good model and a desired program of services to be achieved.

To design health services and a delivery system requires a logical and comprehensive planning process. Many such processes have been devised. The approach described here is suggested as one model that has proved useful.

In reality, establishing an HMO involves planning for the four subsystems that make up the organization--marketing, production, human resources and finance.

In a health maintenance organization the functions included in the marketing concept are:
To achieve federal qualifications, an HMO must provide a core of basic services to all enrollees:

- Physicians' services (including consulting and referral services by a physician)
- Inpatient hospital
- Outpatient and other ambulatory services
- Medically necessary emergency health services
- Short-term outpatient evaluative and crisis-intervention mental health services (20 visits minimum)
- Medical treatment and referral services for alcohol and drug abuse or addiction
- Diagnostic laboratory services; diagnostic and therapeutic radiologic services
- Home health services
- Preventive health services (including eye and ear examinations for children through age 17)

In addition, the HMO may provide supplemental services to some or all enrollees:

- Services for facilities for intermediate and long-term care
- Vision care not included as a basic health service
- Dental service not included as a basic health service
- Mental health services not included as a basic health service
- Long-term physical medicine and rehabilitative services (including physical therapy)
- Prescription drugs prescribed and provided by the HMO in the course of providing a basic or supplemental service
- Corrective appliances and artificial aids
- Durable medical equipment

Assessing health status, health care needs and demands, and services mandated by various authorities (basic and supplemental services).

Deciding on the services, facilities and programs that will meet these needs and demands in a practical, affordable, acceptable and cost-effective manner.

Designing activities to promote the use of the health program per se and its services.

Considering the effect of price (charges for services) on the use of the program and its services (effective demand), taking competition into account.

The production subsystem includes all those activities that eventually produce the health services to meet the HMO's membership requirements. Production, in this case, means the sequence of activities that have to occur at the right time, place, rate and force to produce the desired results. For an HMO, production includes design, location and operation of facilities; maintenance programs for buildings and equipment; transport, communications and other infrastructure; stores and supplies; the various services of professional and nonprofessional staff—in short, all that needs to be done to provide for the health care of the population to be served. In essence this is the HMO health care delivery system.

The human resources subsystem focuses on personnel—needs assessment and staffing as derived from the production subsystem. It includes projections of skill needs; training and staff development; assessment and evaluation of performance; rewards and incentive systems; conditions of service; etc. In the case of an HMO, the organization and relationship of
the medical staff to the enterprise is a key determinant of how the organization is set up and operates.

Financial, the fourth subsystem, is concerned with the sources of funds, both capital and operating, and their interrelationship; the use of funds including cost expenditure controls; and the costing of facilities and services.

In sum, one subsystem, marketing, determines the needs to be met and how to satisfy those needs, and three subsystems actually fulfill these needs. Planning then becomes the process of integrating the four subsystems so that they come together in a common focus or "operative mission." Exhibit 8-2 gives a graphic representation of this concept, i.e., the "planning pyramid."

The four subsystems rarely mesh neatly in any organization. In an HMO, what needs to be done is always more than the organization can respond to. Even if an HMO had the facilities to satisfy all the needs and demands of its clients, it probably would not have enough qualified staff. And if all the human resources were available, sufficient finances very likely would be lacking.

In the process of planning for health care an HMO must adjust its goals to reality. This means setting priorities. The organization may be able to satisfy some client needs, but it must ignore others because it does not have the production capability, or because human and/or financial resources are inadequate.
The Operative Mission—What the organization can actually do—the products and services to be provided to whom and under what circumstances, after a series of accommodations to the realities of the market, production, human resources, financial and environmental factors.

In determining the feasibility of health services delivery for an HMO, the study team begins with the marketing subsystem at the bottom of the figure in Exhibit 8-2, on the left, and moves to the right, through production, then to human resources and finance, upward, back and forth, narrowing the gaps between the needs to be met, the services required or desired, and what is realistically feasible. In this process, the feasibility study team sets and revises priorities for health services and their production, taking into account human and financial resources and environmental factors as well as the organizational structure of the proposed HMO.

Presuming a feasible operative mission is arrived at, the analytical process sets the stage for definitive planning of the components of the HMO.

From the above discussion it is clear that health services delivery feasibility really involves all four of the organization's subsystems. However, the primary focus is on the production function.

In deciding on a benefit package to be provided the HMO must be able to provide services that will be able to compete with those already available in the area on the basis of scope of services, patient satisfaction and cost. Thus, to demonstrate health services feasibility, it is necessary to show the ability to produce the required services and at an affordable cost. This means that suitable facilities are available or can be developed and that some acceptable
arrangement can be made to secure physicians' and other professionals' services. In those countries where quality assurance measures are required, it may be necessary to give evidence that the proposed HMO can provide acceptable programs to assess the quality and utilization of its health services and that there is a mechanism to make necessary adjustments to correct shortcomings. Even where there is no requirement for quality assurance and utilization review, these measures must be initiated to maintain consumer satisfaction and cost containment.

Previous chapters of this document have discussed the analysis of the existing health care system and the assessment of the climate for a new organization of health care.

The analysis of the existing system should include an inventory of all health care resources that could bear on the proposed HMO. To accomplish this, the use of various forms noting categories of professionals and health facilities and their characteristics will be useful. For example, with respect to physicians one would be interested in the number of physicians in various specialties, whether they are in solo practice or in some type of group practice, whether they are employed full or part time in government services, their age and their attitude toward prepaid health care. The inventory of service area facilities should note type and location of institutions, number of beds by medical specialty, occupancy rates, lengths of stay by service, relationship to an HMO.
if any, and other information pertinent to the specific setting.

The attitudes of the various segments within the population that bear on acceptance and support of an HMO need to be assessed. Clearly these attitudes will relate to the perceptions of the specific population segment. For the consumer, the concern will be the scope of health services offered, their cost and their acceptability. For those paying most of the costs of care the concern will be the "bottom line." Physicians will be most interested in the impact of the HMO on their practice style and income. For facilities, the HMO may be seen as a threat or as a source of patients and income.

The organizational model of the HMO will have a direct bearing on the scope of services to be provided, how they are provided and their ultimate cost. In most instances, the prospective HMO will begin with a preference for a particular HMO model. This choice will be related to those sponsoring the HMO or at least to those sponsoring the feasibility assessment. Whatever the reason for selecting one model or another, the staff and group models are apt to have more comprehensive services than are the IPA models since in IPAs these services are less centralized and less highly organized.

As noted earlier, organizational arrangements with physicians involve different mechanisms for reimbursement—salary, fee-for-time, capitation and fee-for-service. Except for
fee-for-service, each reimbursement method provides the HMO reasonable ability to control costs.

Important aspects of cost control related to physicians are risk sharing and incentive arrangements. These are noted here since they affect the choice and delivery of health services.

In some HMOs, Kaiser-Permanente for example, the "plan" contracts independently with the physician group and with the hospital(s) on an annual basis. In each case, for a negotiated lump sum, the hospital and medical group agrees to provide all required health services to the specified HMO members for one year. The physician group collaborates with the hospital in establishing the annual hospital budget which serves as the basis for the hospital lump sum payment. If the hospital spends less than its budgeted amount, that difference is divided between the physician group and the hospital according to an agreed-upon formula. Since physicians largely control hospital utilization and therefore costs, by restricting services and hospital utilization, physicians effectively ensure that the hospital stays within budget, and usually below budget. In Kaiser-Permanente, while the physicians have a financial incentive to reduce hospital costs, they do not share the risk of costs which exceed the hospital's annual lump sum payment. In other HMOs the physicians may be at risk for hospital cost over-runs.

However, essentially in all HMOs, physicians are at risk for cost over-runs with respect to providing professional
services. Which professional services are considered the responsibility of the hospital and which belong to the physicians varies among different HMOs. For outpatient services physicians are almost always at financial risk. For radiology, pathology including the clinical laboratory, physical medicine and other specialized therapeutic and diagnostic services in hospital, depending on the arrangement, either the hospital or the physicians or possibly both may be at financial risk.

Risk sharing and incentives may be handled differently in IPA models and others where the physicians also are in fee-for-service practice. In these instances, the physicians must agree to accept HMO payments as full compensation for services provided to HMO members, except where copayments are authorized. Physician group and staff model HMOs normally set aside funds as an offset for cost over-runs. IPAs often withhold a certain percentage of fees or capitation compensation due member physicians which are placed in an escrow account to cover excess costs. When professional costs are less than contracted for, physicians generally receive bonuses in staff and group HMO models.

Whatever the organizational model, there must be the ability to secure needed staff. In most settings staff will be available, assuming satisfactory arrangements can be negotiated. However, in some countries that restrict expatriates this may not be the case. For example, one oil-rich country in the Middle East demands that at least 50 percent of each
category of professional staff be a country national. Since trained local health workers are in short supply this effectively limits the expansion of private health services as well as regulating the influx of foreign workers. But even in this situation it may be possible to circumvent the restriction by obtaining a waiver from the ministry of health or other competent authority.

The discussion to this point suggests that developing a satisfactory provider network can be a formidable task. However, this may not necessarily be the case. Where a health establishment providing services to employees and dependents of a basic industrial enterprise already is in place, those health services can be used to develop an HMO.

At Tema, Ghana, the Valco Aluminum Company (90 percent owned by Kaiser Aluminum) has a hospital and outpatient facilities and serves up to 10,000 Valco-related staff and dependents. Tema, as Ghana's primary port, has shipping-related enterprises as well as an industrial zone. Some years ago an effort was made to establish an HMO at Tema centered on Valco's health services. Despite considerable interest on the part of many employers, the HMO failed to materialize because of Ghana's political instability and disastrous economic decline. An example of the successful development of an HMO evolving from an in-company health service is found in Cordoba, Argentina. There, a major automobile manufacturing plant served to stimulate the development of an HMO both
to contain its own health care costs and as a community service.

To summarize, using an organized approach to planning, such as the planning pyramid discussed, it is possible to assess health services feasibility for a proposed HMO and at the same time provide a framework for definitive planning for the development of the organization and its components. The approach focuses on the four subsystems that make up any organization that produces a product or service, i.e., marketing, production, human resources and finance. It defines needs and services to meet these needs and details the process to produce the services. Taking into account resources that are available or that can be developed and identifying and evaluating various factors and influences that may constrain or support the proposed HMO, the health services delivery feasibility may be established. Parenthetically, when the proposed HMO is based on an already existing hospital with some salaried medical staff, the task to develop a satisfactory scope of services is easier than when starting fresh with an undefined system.
9.0 MARKETING FEASIBILITY

Assuming that there are no obvious legal restrictions to establishing a proposed HMO, the most critical task facing the developer is to analyze the potential market and ascertain its feasibility. During this activity the framework for a marketing plan also is prepared.

HMO marketing is a complex activity requiring the delineation of suitable packages of services to meet the needs and demands of various potential consumers, selecting the place where these services will be provided, designing the strategy to promote or "sell" the HMO program and establishing prices for the services that will compete favorably with other health services in the area to be served.

The marketing feasibility study requires formulating a set of objectives and a strategy to achieve them. A schematic of the steps involved in conducting the marketing feasibility study and preliminary marketing plans is shown in Exhibit 9-1. Basically three major activities are involved in the feasibility assessment. These, discussed below, are to: Define and Analyze the Service Area, Develop Objectives and Strategic Options and Develop a Marketing Plan. The outcome of these steps, presuming that feasibility has been established, is a marketing plan leading to contracts with payors and the enrollment of HMO subscribers or members.
EXHIBIT 9-1
MAJOR ACTIVITIES HMO MARKETING FEASIBILITY/PLAN
SCHEMATIC OF STEPS

Begin Marketing Feasibility/Planning

Define And Analyze Service Area

- Assess Environmental Factors
- Identify Market Segments
- Prepare Market Member Profiles
- Identify Constraint Parameters
- Analyze Competition

Develop Objectives And Strategic Options

- Develop Key Assumptions
- Establish Hierarchy Of Objectives
- Identify Strategy Alternatives

Develop Marketing Plan

- Overall And By Market Segments Establish

Activity What To Be Done

- Responsibility By Whom
- Timing When
- Standards/ Criteria How To Measure
- Investment Money-Time
- Determine Organization
- Forecast Enrollment

Assess Market Feasibility

Acquire/ Train Staff Functions Tasks

Enroll Subscribers

Negotiate Contracts

Contact Employers/ Payors

Develop Employer/Payor Contact Plan

- Preparation/Contact/Analysis/Proposal/Enrollment Plan

Develop Enrollment And Support Plan

Public Relations And Promotional Activities

MARKETING FEASIBILITY

MARKETING PLAN
9.1 Define and Analyze the Service Area

The market feasibility/planning begins with analysis of the proposed service and market areas. The major activities are to:

- Define and analyze the area where services are to be provided, including the surrounding area where HMO services also will be marketed.

- Assess environmental factors—demographic (including health status), geographic and economic (Section 8.0 provides details of this activity).

- Identify market segments—groups (employer supported, union members, etc.), public sector beneficiaries, and individuals; noting who are the "customers."

- Prepare market member profiles. Specific market segments consist of potential clients (actual consumers or those paying for consumers) with similar or related characteristics who have common needs and wants, who will respond to like motivations and who can be expected to buy a service or product that fulfills common needs and wants. With respect to HMO members, possible criteria for market segmentation include geographical area, age groups, education, occupation and employment affiliation, income, family size, union membership, social status and others. The types of employers, the number of their employees, employer concern about employee health and the legal requirements to provide or pay for employee health services are important aspects of the market profile. Focusing on the employee, the degree of union membership, union power and union and employee understanding of HMOs and their desirability as a source of health care are characteristics to be explored and specified. With regard to the public sector, the profile should note health care responsibilities and obligations and to whom, eligibility, scope of services, accessibility, level of funding, cost sharing, etc.

- Identify constraint parameters—categories are discussed in various sections of this protocol addressing specific aspects of HMO feasibility.
Analyze competition—including the private sector per se, competing HMOs, the public sector, according to:

- Relative market shares,
- Pattern of consumption of health benefits (services), and
- Services available, conditions of access (distance to point of service, waiting times), client satisfaction, costs to user overall and at point of service).

Complete situational analysis and preliminary market mix. Summarize the key factors, significant trends and major forces influencing prospective HMO membership. To prepare the preliminary market mix requires establishing benefit packages for each market segment (these may or may not be the same for all), designing the promotional strategy for each market segment and establishing charges to be made (price) based on market segment and services provided.

Delineate and specify problems and opportunities.

9.2 Develop Objectives and Strategic Options

This activity begins with the development of key assumptions. These assumptions may cover a wide range of subjects pertaining to the existing system of health care, unmet needs and demands, issues and problems, in relation to a proposed HMO. A typical assumption might be that the cost of employee health care is rising at such a rate as to be a serious burden to employers and consumers and that some alternative organization of health care would be welcomed by them. Other assumptions might relate to existing inadequacy of health care that could be ameliorated with a more comprehensive and less
fragmented organization of health services.

Based on the assumptions, a set of objectives is established and these are ranked in order of priority. In general, there are three primary marketing objectives. First is to enlarge the market by innovation of product (service) or of the market per se; e.g., as with a new organization of health care such as an HMO. Second is to increase the market share. This may be accomplished by emphasizing product development and improvement, by sales promotion and by emphasizing customer service activities. The third objective is to improve profitability. The measures that might accomplish this are to increase sales, to eliminate unprofitable activities and to reduce costs.

Analysis of the above will facilitate the formulation of specific objectives and related strategies. A key strategic decision is to define the market to be served and to formulate strategy and tactics for each market segment. This strategy will determine the allocation of resources for, as well as the emphasis to be placed on, benefit (service) focus, price appeal, promotion/persuasion effort and convenience/accessibility/customer service.

For each of these basic-emphasis strategies there are many implementing alternatives. In any case the emphasis is to provide a competitive advantage, either by offering more appealing services, acceptable services at a lower price than competitors' equivalent offerings, more effective promotional
activities and/or superior services. And in evaluating these strategies it is necessary to establish both the direction of effort and the rate and force of effort.

9.3 Establish Marketing Feasibility and Develop Marketing Plan Framework

The primary purpose of the steps and activities so far discussed in this chapter is to provide a forecast of enrollment for the proposed HMO under specified conditions of service provision, price, etc. Assuming that there is an adequate level of enrollment and at a price that will achieve breakeven in a satisfactory period of time, the proposed HMO project is feasible, at least as far as marketing is concerned.

To arrive at the point where enrollment may be forecast it is necessary to plan the required activities; develop time-tables; establish standards and criteria for measuring performance; determine and secure the resources required; design and establish the organizational structure to carry out the marketing activities; and assign tasks and responsibilities.

Having achieved the above, the framework to proceed with actual marketing is in place. Additional resources will be required and more staff will need to be acquired and trained, however.

It is beyond the scope of this protocol to detail all the activities that will take place when marketing gets under way. Exhibit 9-1, however, points out the major steps. These primarily relate to contacts with employers (or others with
whom contracts for service to HMO members will be negotiated) and developing enrollment support.

Selection of employers to contact and the process of contact may involve complex analyses and many activities. The use of charts and tables to organize and guide the work and detail the findings greatly facilitates the work. Exhibits 9-2 and 9-3 are examples of approaches adapted from Kaiser-Permanente Advisory Services to select HMO sites and prospective employers and others who will "join up" and pay for HMO members.1/

In the final analysis, assuring an adequate economic base of the service area and a sufficient number of paid-for members are the most critical elements in establishing the feasibility of an HMO.

1/ Slayman, W.O., Kaiser-Permanente Advisory Services, personal communication.
EXHIBIT 9-2

SUGGESTED STEP SEQUENCE
HMO SITE SELECTION
CORPORATION/ORGANIZATION

STEP 1: MAJOR HEADQUARTER LISTING
Develop lists of cities and corporation/organization headquarters as possible candidates. Information required at this stage is limited.

STEP 2: FIRST SCREEN
Apply basic criteria of grid selection, i.e., HMO area suitability (shortage of primary care physicians, etc.), narrow down to major cities and employers and (b) secondary cities and employers. (See Exhibit 9-3).

STEP 3: INFORMATION GATHERING--PROSPECTS--CITIES
Develop names of prospective "account" contacts as well as pertinent factual information about employer(s) and the city to be able to classify according to the selection grid.

STEP 4: DEVELOP CONTACT PLAN
Determine best approach to account, e.g., chairman/president contact versus employee benefits manager. Who should make contact and how and when. Individual versus letter versus visit versus seminar type of approach.

STEP 5: CONTACT PRESENTATION
Hold initial meeting and present HMO concept. Develop interest and commitment for following steps.

STEP 6: PRE-FEASIBILITY STUDY
Conduct a study for the employer(s) and other prospective organization concerning the marketing and financial dynamics of a possible HMO in this area.

STEP 7: DETAILED FEASIBILITY STUDY
Develop specific information about the size, type and operational feasibility of an HMO--financial, legal, professional and marketing.
The purpose of a prospect priority grid is to enable an HMO marketer to select the prospective accounts to whom to give highest priority, and conversely to identify accounts with lowest priority. This is intended to be applied when there is little or no first-hand information about an account. It can also be used on a progressive basis with active accounts as contacts and interest is being determined.

The first step is to identify the variables (criteria or conditions) associated with the "most attractive" accounts. The second step is then to identify criteria or conditions that describe accounts who are "most likely" to accept or buy. Subsequent steps can be used to identify independent variables associated with "least likely" and "least desirable," although these states are often the opposite side of the "most likely," etc., criteria.

Some pertinent criteria or conditions to be considered in selecting prospects to approach as possible supporters of an HMO are noted in the following tables and charts.
TABLE I
CRITERIA FOR PROSPECT SELECTION

ATTRACTION--HIGHEST

Employer

1. Growing company (or other organization) in a growing industry or service.

2. Headquarters location in a city with good area HMO potential.

3. Company has concentration of employees in the headquarters city (at least 2,000).

4. There are several companies with headquarters in the city.

5. The potential sponsor company has several supplier companies in the area.

6. The employee benefits manager (or person responsible for health benefits activity) is dynamic, well respected and inclined toward HMOs.

7. Senior level corporate officials are concerned about health care costs.

8. The company is active in health benefits organization cost studies, projects, committees, etc.

9. The company is concerned and an active supporter of civic and community affairs.

10. Current health care costs are high.

11. Health care costs have been increasing at an alarming rate.

12. Health benefits plan costs shared by employer and employee (i.e., there is a payroll deduction).
**Table I . . .**

**ATTRACTION--HIGHEST**

**Area--Population/Economy/Health Services**

1. The service area is part of a geographic area in which there is a population concentration.

2. The population is growing:
   a. In migration exceeds out migration and births exceed deaths.
   b. High percentage of new arrivals.

3. There is a shortage (or low ratio) of primary care physicians.

4. There is a surplus of hospital beds.

5. There is a good automotive freeway transportation system (access into, out of, and around the city).

6. The tax structure and political climate are attractive to new employer growth and expansion of existing employers' facilities.

7. Major local, state and federal offices are located in the service area also.

8. There is not an HMO in the area now.
### TABLE II

**MOST LIKELY TO BE INTERESTED IN AN HMO STUDY**

<table>
<thead>
<tr>
<th>Employer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Health care costs are high and increasing at an alarming rate.</td>
</tr>
<tr>
<td>2.</td>
<td>Company has appointed a special task force, committee or project team to look at health care cost containment alternatives.</td>
</tr>
<tr>
<td>3.</td>
<td>Headquarters city.</td>
</tr>
<tr>
<td>4.</td>
<td>Concentration of employees in the area.</td>
</tr>
<tr>
<td>5.</td>
<td>Company is active in civic and community affairs.</td>
</tr>
<tr>
<td>6.</td>
<td>Employer has a comprehensive health benefits plan and pays all the costs.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Medical care costs are high.</td>
</tr>
<tr>
<td>2.</td>
<td>Surplus of hospital beds.</td>
</tr>
<tr>
<td>3.</td>
<td>Shortage of primary care physicians.</td>
</tr>
<tr>
<td>4.</td>
<td>Many major corporations have headquarters in the city.</td>
</tr>
<tr>
<td>5.</td>
<td>There is strong employer, civic and community cooperation and spirit.</td>
</tr>
<tr>
<td>6.</td>
<td>Access to, and availability of, medical care is perceived as a problem by community.</td>
</tr>
<tr>
<td>Most Attractive</td>
<td>Employer(s)</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>1. No major private sector employer with headquarters</td>
<td>1. Company is concerned with health care costs (high, rapid increase)</td>
</tr>
<tr>
<td>2. Employers have low level benefits</td>
<td>2. Company has headquarters and substantial number of employees (2,000 plus)</td>
</tr>
<tr>
<td>3. Low wage scales (low discretionary income)</td>
<td>3. Employee benefits manager strong and influential</td>
</tr>
<tr>
<td>4. Health care costs not a major concern</td>
<td>4. Company active and involved in the community</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Least Attractive</th>
<th>Employer(s)</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Company is concerned with health care costs (high, rapid increase)</td>
<td>1. Population relatively new and growing</td>
<td></td>
</tr>
<tr>
<td>2. Company has headquarters and substantial number of employees (2,000 plus)</td>
<td>2. Good transportation system</td>
<td></td>
</tr>
<tr>
<td>3. Employee benefits manager strong and influential</td>
<td>3. Primary physician care ratio</td>
<td></td>
</tr>
<tr>
<td>4. Company active and involved in the community</td>
<td>4. Surplus of hospital beds (low occupancy rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. No HMO in area now</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Most Likely</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Old, established, declining population</td>
<td>1. Population relatively new and growing</td>
</tr>
<tr>
<td>2. Old plant and facilities</td>
<td>2. Good transportation system</td>
</tr>
<tr>
<td>3. Problems with tax structure and new business incentives</td>
<td>3. Primary physician care ratio</td>
</tr>
<tr>
<td>4. Several HMOs already in existence</td>
<td>4. Surplus of hospital beds (low occupancy rate</td>
</tr>
</tbody>
</table>

Least Likely | Most Likely |
|-------------|-------------|

9-13
10.0 **FINANCIAL FEASIBILITY**

At the outset it should be emphasized that assessing the financial feasibility of a proposed HMO is a complex activity requiring the skills of experienced health care financial specialists. However, the task must be done if one is to assess the ability of the HMO to achieve breakeven and become financially self-sufficient in a specified period of time.

For the purposes of this general analysis, readily available information has been used such as that contained in Chapter V of Birch and Davis Associates, Inc., "A Guide to Health Maintenance Organization Feasibility." Several of the Birch and Davis Associates, Inc., exhibits are reproduced to illustrate the financial feasibility process including the major steps.

The financial feasibility involves three main phases. These are to establish the proposed program's anticipated costs, i.e., the actuarial and budget analysis phase; next, the financial requirements projection phase; and finally, the financing and cash management phase.

Exhibit 10-1 shows the major tasks required to develop an HMO financial plan and to assess financial feasibility. Since the plan is geared to a five-year breakeven period, it is probable that at least part of the funding will need to be provided by a loan or a supporting agent. Many factors will bear on this requirement, for example, whether or not the HMO has to pay the capital costs of all or a part of a
EXHIBIT 10-1

MAJOR TASKS REQUIRED TO DEVELOP AN HMO FINANCIAL FEASIBILITY PLAN

Source: Birch and Davis Associates, Inc.
hospital and other facilities. Or whether the HMO is starting as a new entity or expanding from ongoing operations to a new service area. Another consideration is the profit or nonprofit status of the organization. The fact that an HMO operates on a nonprofit basis has little effect on the physicians' earning in most cases. The principal difference is what happens to financial surpluses when revenues exceed costs. In a for-profit HMO, surpluses are paid to stockholders or partners or retained for expansion or other uses. However, these surpluses generally are taxed. HMOs operating on a nonprofit basis also hope to show financial surpluses. However, these are not given to investors and the surpluses usually are not taxed. The funds are plowed back into operations or used to pay for facilities. And professional staff may get bonuses. Also, at least in theory, a nonprofit HMO may charge less for health care than do profit-making organizations since there are tax savings and no payouts to investors.

In the discussion that follows, it should be emphasized that there will be great diversity among prospective HMOs and that there will be considerable difference in the way programs are funded, both for capital and operating expenditures. Each situation will be unique and may require a good deal of creativity in financial planning.

The typical HMO financial feasibility study begins by developing a detailed start-up and five-year operating budget, accrual based. For the first year, expenditures are estimated
monthly and for the remaining four years on a quarterly basis. Considerable care and ability are required to make these projections. A series of assumptions concerning the costs of medical care must be made. To do this it is necessary to estimate the rate of hospital utilization, the average charges for hospital care and the costs of referring HMO members outside the system for specialized services not available "in-house." The larger the HMO and the more centralized, the easier it will be to estimate these costs. Based on cost of care projections and taking into account the costs of administration, the HMO is able to calculate a capitation or premium rate expressed by most HMOs as a per-member, per-month cost.

The marketing analysis bears both on the budget analysis and financial requirements projection phases. The scope of health services and their delivery stem largely from the market study and these services directly relate to the costs to provide care. In the case of financial requirements, the pricing level as determined by the market study feeds directly into the revenue projections expected from membership payments.

To determine the HMO's ability to meet financial needs on a daily basis (cash flow), the financing and cash management phase considers the anticipated timing of revenues and expenditures. This provides the prospective HMO with a basis for estimating loan size and timing as well as developing balance sheets.

Exhibit 10-2 shows the major outputs of the financial feasibility study phases in graphic form. Although many tasks
EXHIBIT 10-2

MAJOR OUTPUTS OF THE
FINANCIAL FEASIBILITY STUDY

Source: Adapted From Birch and Davis Associates, Inc.
are shown, and some are sequential in nature, in fact a number of the activities may be carried out at the same time. Further, since the financial study and studies of other aspects of the HMO's feasibility are interrelated and mutually dependent, there must be continual collaboration among the various members of the feasibility study team.

The main aspects of the phases of the financial feasibility are discussed below.

10.1 Establish Proposed HMO's Anticipated Costs

To estimate the costs of start-up and operations over a five-year period, it is necessary to define the population to be served, the package of health services to be provided and the human and other resources required, taking into account competing health care providers. A set of cost categories or cost centers are specified and these are used to build an operating budget. Exhibit 10-3 shows some typical cost centers with respect to an HMO.

It is important to differentiate between those costs that are fixed and those costs that vary depending on the type and number of services provided. Fixed costs in general do not change as a function of the size of the HMO membership while variable costs are directly related to membership size. There also are some costs that are relatively fixed but that do vary with sizeable changes in demand. These are referred to as semivariable costs. Examples of fixed costs are salaries of key staff and costs of some facilities. Semivariable
Source: Adapted from Birch and Davis Associates, Inc.
costs include utilities such as telephone where there is a monthly service charge to which are added charges based on utilization. Typical variable costs would be drugs and costs of referring members of the HMO for specialized services.

Hospital costs, as the largest component of the HMO budget, require particular care in estimation. Bed day utilization per 1,000 members and hospital per diem rates are the most important factors in hospital costs.

Bed days per 1,000 members are related to many factors. Naturally these include the health status of the membership served and the medical practice style of the community. Patient management by the HMO is a critical determinant. By limiting hospital care only to the seriously ill and by maximizing care in ambulatory settings, an HMO can reduce hospital utilization. Discharging patients early in recovery, to convalesce at home or elsewhere, also reduces hospital utilization. An HMO that owns or has significant control over its hospital is in a far better position to limit hospital utilization than is an HMO that must use community facilities where inefficiencies in processing patients may increase the length of stay. Said in another way, the more that an HMO is self contained and centralized, the less is hospital utilization.

Hospital charges are typically divided into two categories—the daily charge for hospital room and board including general nursing care, and ancillary charges which cover other services such as drugs, diagnostic studies, use of special
facilities, e.g., the operating room, special nursing or critical care units, etc. In those HMOs not operated on a fee-for-service basis, hospital per diem rates may be considered as a single category, rather than being divided as above.

In estimating hospital costs it is necessary to formulate actuarial assumptions. Depending on the availability of data and the complexity of the situation, it may or may not be necessary to employ the services of a professional actuary.

The basic data required are: hospital admissions per 1,000 members, average length of stay (ALOS) and inpatient days per 1,000 members. These statistics will need to be obtained by service (pediatrics, surgery, etc.) and possibly by other variables such as age, ethnic group, etc. Each situation will vary and those conducting the feasibility study will have to decide on the data required.

To calculate the average per diem rate, the study team must consolidate the hospital costs by each service type, for all the hospitals in which the HMO will place its patients. In a multihospital system, this may prove to be a formidable task.

Using the average hospital per diem rate, the next step is to calculate the cost of hospitalization per member per month. Taking into account anticipated inflation rates and any other factors that may affect hospital utilization or costs, e.g., changing technology, hospitalization costs are estimated monthly for the first year and quarterly thereafter.
The second most costly aspect of an HMO's operations after hospitalization are physicians' services. These include not only salaries, but fringe benefits, pensions and bonuses. To estimate the costs of physicians' services it is necessary to take into account the characteristics of the HMO model under consideration including the specific programmatic components which are the responsibility of the doctors. As pointed out earlier, in addition to physicians' compensation this also may encompass all outpatient services and certain diagnostic and therapeutic departments in hospital.

In estimating physician costs, whether based on capitation or fee-for-service, assumptions are made about three principal factors. These are the prevailing fee-for-service rates in the community, service load (utilization level) and the specific services to be provided. The fee-for-service rate is obviously important in calculating the cost of those physicians who are paid on this basis. But it is equally important in estimating the costs of physicians' services in medical group model HMOs where the group is paid by the HMO on the basis of capitation and the individual physician member is compensated a negotiated amount. Since-fee-for-service predominates in almost all communities where private medical practice is allowed, the compensation standard that the HMO must meet to attract physician staff, whether as direct employees or as members of a group, must be roughly comparable to that of the fee-for-service system.
As in the case of estimating hospitalization costs, the desired calculation with respect to physicians' services is the overall per-member, per-month cost. To derive this sum various physician-related activities must be broken down into categories, e.g., by service type, by location of service (hospital, ambulatory facility, home or out-of-HMO referral) and by staff category. Note that the cost of physician services may include nurses, technicians, other support personnel, various types of insurance, as well as expenses related to occupancy of facilities and buying and maintaining equipment.

As in the case of hospitalization costs, actuarial services may be required to develop the data base on which to establish the costs of physician services. A manpower plan will need to be prepared. This should take into account full-time and part-time staff, by medical specialty and other skill category. Typically, staffing patterns are made on the basis of ratios—so many physicians, or fractions thereof, per 1,000 HMO members.

Early in the life of a group or staff model HMO, it probably will be necessary to secure certain specialized physician services on a referral basis. This will cost more per service than it would were those physicians available in-house. As the HMO matures and its enrollment grows, the level of out-referrals should decrease, as the breadth of medical staff increases. Anticipated changes in staff pattern over time,
projected membership growth, inflation and other relevant considerations will all be factored into the estimated physician costs. These costs will be expressed as a per capita per month number, monthly the first year and quarterly for subsequent years.

Where certain care-related services are not included in physician or hospital costs, their costs will need to be calculated separately. The process involved is as described. Each service is costed out, based on specific assumptions concerning utilization and resource use.

The last category of costs to be considered in the financial feasibility study are those related to administration and marketing. Exhibit 10-4 lists the categories of administrative and marketing expenses. Specific assumptions are made for each category and these are translated into cost schedules and cost estimates.

The final step in the HMO cost estimation phase is to take the various categories of expense, adjusted for inflation and other factors, to come up with a composite capitation rate on which to base membership premiums. Note that, in general, the start of operations will be several years after the initiation of the feasibility study. To the extent possible, member-generated income must cover all the costs of operations, including administrative and facility costs, by the time of breakeven.
EXHIBIT 10-4

CATEGORIES OF ADMINISTRATIVE/MARKETING EXPENSES

- Salaries and Fringe Benefits
- Professional Services (Accounting, Actuary, Legal)
- Facilities/Occupancy (Lease plus Depreciation)
- Data Processing Costs
- Claims Processing Costs
- Reinsurance and Risk-Sharing Expenses
- Bad Debt Expenses
- Recruitment
- Insurance (Bonding, Board Coverage, and Malpractice)
- Telephone/Telex
- Postage
- Travel/Per Diem
- Advertising/Promotion
- Printing and Reproduction
- Materials and Supplies
- Dues and Fees
- Others/Miscellaneous

Having developed an expense budget and projected this over time, the next task facing the prospective HMO is to estimate expected revenues and their source. To do this will require developing a pricing structure taking into account both anticipated costs to provide services (on a per capita basis) and what the competition charges, over the timeframe covered by the analysis. Based on these determinations, a pro-forma statement is prepared and a breakeven analysis is carried out. If a shortfall is found, it will be necessary to estimate its size and the source of funds to cover the
deficit. This may be either by a loan or grant, if such is available.

In setting membership payments (monthly premiums) a number of decisions need to be made. Several are particularly important. The first is the amount, if any, the consumer (member) must pay at the point of service (i.e., the copayment). Second is how the rates will be split among single persons, persons with only a spouse or single dependent and those with more than one dependent. These various groupings or levels are called "tiers." This mix of premium rates based on a tier structure will need to be responsive to the pressures of competition and any government rules concerning rate setting. The situation may be further complicated by there being several premium rates, depending on type of contract and source of members. For example, government paid for members may be charged differently from those who receive health coverage as a fringe benefit of employment. The major steps required to construct premium rates are shown in Exhibit 10-5.

Setting premium rates can become a tedious affair. It is common that a series of negotiations take place between the major payors of premiums, usually employers, and the HMO management. This frequently requires reducing the rates of some tiers and increasing the rates of others. Generally, for marketing purposes, the family premium rate is kept as low as possible, and this is compensated for by increasing the rate for a single individual.
EXHIBIT 10-5

STEPS REQUIRED TO CONSTRUCT THE PREMIUM RATES

1. DEVELOP STRAIGHT CAPITATION RATE
2. DEVELOP PREMIUM RATE FOR EACH CONTRACT TYPE
3. COMPARE RESULTING RATES TO COMPETITION AND ASSESS FEASIBILITY OF RATE DIFFERENTIALS
4. COMPUTE CONTRACT MIX AND AVERAGE FAMILY SIZE
5. RECOMPUTE PREMIUMS BASED ON NEW ASSUMPTIONS
6. IDENTIFY SOURCES OF OFFSETTING REVENUE TO REDUCE PREMIUM REQUIREMENTS
7. RATES IN LINE WITH COMPETITION
   - NO
   - YES
   - PROJECT REVENUE FROM ALL SOURCES

Source: Adapted from Birch and Davis Associates, Inc.
Presuming that the total costs of care, reduced to a per capita rate, exceed the per capita premium rate, additional sources of revenue will be required. These may come from several sources. Charging members small fees for certain services such as prescription drugs and outpatient visits is often resorted to, both to generate revenue and to reduce utilization. A third effect, with respect to drugs, is to increase the compliance of individuals in taking the medication for which they have paid.

Those HMOs that have a fee-for-service component may raise some funds from direct charges for services. Similarly, charging non-HMO members who use the HMO services—usually on an emergency basis—also contributes some revenue, albeit a minor source.

In those situations where members of a family may be covered by more than one health insurance benefit, it may be that the non-HMO coverage can be paid to the HMO. This is called "coordination of benefits" (COB). While relatively common in the U.S., this situation will not occur with any frequency in countries where third-party health insurance is uncommon.

Finally, where revenues do not meet costs, loans or grants will be necessary. Parenthetically, loans made on concessional terms, i.e., at low interest, may be sources of revenue by relending the money at higher interest.
To graphically show the projected overall financial status of the HMO over, say, the first five years of operations, a pro-forma statement is prepared. Accounting methods vary in the manner they prepare this statement. To be most useful it is suggested that the statement cover a period long enough before the commencement of operations to show both preoperational and start-up expenses.

Exhibit 10-6 shows a pro-forma projected operating statement for an HMO in the U.S. In the example a government loan was obtained, the lump sum being deposited in an escrow account at interest and withdrawals made ("draw downs") as needed. Note in the statement that all essential information is provided: member months, major sources of revenues as separate line items and major expenses also by line item. Also shown are amounts of revenue and expenses expressed on a per capita basis, and deficit or surplus amounts for each period.

The next two exhibits, also taken from Birch and Davis Associates, Inc., show a breakeven chart and an example of a hypothetical HMO approaching and achieving breakeven. Exhibit 10-7 clearly indicates that when the total of fixed plus variable costs equals total revenues, the breakeven point has been reached.

Calculating the size of the loan and analyzing cash flow require special care.

The factors that bear on the loan requirement are the cumulative operating deficit to the point of breakeven, any
## EXHIBIT 10-6

### PRO FORMA OPERATING STATEMENTS

**YEAR 2, MONTH 13-18**

<table>
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<th>(13)</th>
<th>(14)</th>
<th>(15)</th>
<th>(16)</th>
<th>(17)</th>
<th>(18)</th>
<th>Total</th>
<th>Per Capita</th>
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### REVENUES

| | (13) | (14) | (15) | (16) | (17) | (18) | Total | Per Capita |
| | Premium | 243,049 | 257,939 | 271,865 | 316,847 | 319,763 | 339,416 | 1,750,879 | 40.28 |
| | Copayments | 8,200 | 8,328 | 8,732 | 9,960 | 10,049 | 10,630 | 55,899 | 1.28 |
| | Reinsurance Claims | 7,047 | 7,157 | 7,506 | 8,559 | 8,636 | 9,135 | 48,038 | 1.10 |
| | C.O.B. | 13,645 | 13,858 | 14,531 | 16,574 | 16,723 | 17,690 | 93,019 | 2.13 |
| | Interest | 4,598 | 4,012 | 3,555 | 3,128 | 2,717 | 2,306 | 20,295 | .46 |
| **TOTAL - REVENUE** | 286,538 | 291,293 | 306,167 | 355,067 | 357,888 | 379,178 | 1,976,131 | 45.25 |

### EXPENSES

| | (13) | (14) | (15) | (16) | (17) | (18) | Total | Per Capita |
| | Hospitalization | 123,572 | 125,501 | 131,596 | 150,095 | 151,446 | 160,203 | 842,414 | 19.29 |
| | Physician Service | 116,525 | 118,344 | 124,092 | 141,536 | 142,810 | 151,068 | 794,375 | 18.19 |
| | Lab and X-Ray | 32,991 | 33,506 | 35,133 | 40,072 | 40,433 | 42,771 | 224,906 | 5.15 |
| | Medical Contingencies | 29,404 | 29,863 | 9,569 | -- | -- | -- | 68,835 | 1.58 |
| | Administration | 49,600 | 49,600 | 49,600 | 49,600 | 49,600 | 49,600 | 297,600 | 6.81 |
| | Claim Processing | 11,220 | 11,220 | 11,826 | 13,783 | 13,910 | 14,765 | 76,511 | 1.75 |
| | Data Processing | 3,253 | 3,253 | 3,411 | 3,891 | 3,926 | 4,153 | 21,836 | .50 |
| | Reinsurance | 15,054 | 15,289 | 16,023 | 18,265 | 18,450 | 19,517 | 102,627 | 2.35 |
| | Bad Debt | 253 | 253 | 272 | 317 | 320 | 330 | 1,759 | .04 |
| | Debt Service | 12,938 | 12,938 | 12,938 | 12,938 | 12,938 | 12,938 | 77,625 | 1.78 |
| **TOTAL - EXPENSES** | 394,547 | 399,771 | 394,469 | 430,517 | 433,830 | 455,353 | 2,508,487 | 57.44 |

### SURPLUS (Deficit)

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<th>(16)</th>
<th>(17)</th>
<th>(18)</th>
<th>Total</th>
<th>Per Capita</th>
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</thead>
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<td>(108,478)</td>
<td>(88,302)</td>
<td>(75,450)</td>
<td>(75,942)</td>
<td>(76,175)</td>
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### LOAN

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<th>Total</th>
<th>Per Capita</th>
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<td>--</td>
<td>--</td>
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<td>1,725,000</td>
<td>1,725,000</td>
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### Draw Down

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<th>Per Capita</th>
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<td>75,942</td>
<td>76,175</td>
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<tr>
<td><strong>Cumulative</strong></td>
<td>873,596</td>
<td>982,075</td>
<td>1,070,376</td>
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### Escrow Account

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1/ Source: Adapted from Birch and Davis Associates, Inc.
EXHIBIT 10-7
BREAKEVEN CHART

EXHIBIT 10-8
APPROACHING BREAKEVEN

<table>
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<tr>
<th>END OF MONTH</th>
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<th>PER CAPITA EXPENSE</th>
<th>SURPLUS (DEFICIT) PER CAPITA</th>
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<tr>
<td>60</td>
<td>61.83</td>
<td>57.60</td>
<td>$4.23</td>
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Source for both exhibits: Birch and Davis Associates, Inc.
financial reserves required by government and funds set aside for contingencies.

Every business requires cash to operate effectively. An HMO is no exception and must have adequate cash flow to meet its running costs. Once the enterprise has reached a steady state and is showing surpluses, achieving a positive cash flow should not prove to be a problem. However, in the pre-break-even period this is a different matter. Assumptions about expenses and revenues have to be made and documented. The sources and uses of cash need to be spelled out and projected over time, analyzing each line item, monthly for the first year and quarterly thereafter.

The final steps in the financial analysis are to prepare pro-forma balance sheets and to conduct sensitivity analyses. The pro-forma balance sheet links the pro forma operating statements, previously described, and the cash flow statements. This provides a means of determining the financial status of the HMO at any specific point in time.

The sensitivity analysis indicates the effect of changing various factors on financial performance; for example, increasing or decreasing utilization rates of services or the number of members, or the effect of inflation. Conducting sensitivity analysis generally involves manipulating several variables at the same time and is greatly facilitated by the use of a computer.
Having discussed various costs and sources of revenue for an HMO, it may be of interest to examine these from the most macro perspective for the world's largest HMO, the Kaiser-Permanente Medical Care Program. The program, with revenues of over $4 billion annually, serves a population in excess of four million. The program includes three components: Kaiser Foundation Hospitals, Kaiser Foundation Health Plan and a number of independent medical groups. Hospitals and Health Plan operate on a nonprofit basis (the organizational structure of the program is detailed in the next chapter).

As shown in Exhibit 10-9, the Health Plan collects membership premiums and other funds from many sources. Approximately 50 percent of these funds are paid to the medical group, 3 percent goes for Health Plan administration, 43 percent to operate the hospitals and outpatient facilities and for other services, and 4 percent is retained as earnings.

Kaiser-Permanente now has some fifty years of experience and has achieved a very sophisticated financial management structure and capability. However, the structure of the program and relationship of the components is one that has evolved over time and is not representative of HMOs in general. Each HMO is unique. The interrelationship between components and the ratio of their costs to total costs will thus vary, as will their sources of revenue.
EXHIBIT 10-9

KAISER-PERMANENTE MEDICAL CARE PROGRAM
REVENUES AND EXPENDITURES

Government $ 
Employers $ 
Unions $ 
Individuals $ 
Investments $ 

Revenues: $4 Billion

KAISER FOUNDATION HOSPITALS $ 
KAISER FOUNDATION HEALTH PLAN $ 
MEDICAL GROUPS $

Budgets For
- Facility operating costs
- Capital improvements
- Depreciation
- Referrals out of program

Earnings Provide
- Used to fund
- Improvements
- Expansion
- Retirement program for all components
- Purchase of supplies and equipment for facilities and medical groups

Budgets For
- Physician salaries for outpatient and inpatient care
- Inpatient lab, x-ray and physiotherapy, and ancillary staff
- Other salaries and costs to provide ambulatory care (but not facility costs)
- Operating supplies and equipment purchased directly and through Health Plan

10-22
In summary, the purpose of this chapter has been to present an overview of the financial aspects of developing and operating an HMO. In no sense does the chapter fully detail the "how to." The complexity and the importance of the subject should make it evident that competent and experienced financial specialists must be involved in an HMO feasibility study and financial plan.
For an HMO to succeed, the organizational arrangements and the management policies and practices that are established must facilitate the organization's development and nurture and sustain its operations.

There are many ways to link the components that make up an HMO, not to mention numerous variations in how the components themselves are structured. Therefore, a first step in assessing the organizational and management feasibility of a potential HMO is to evaluate alternative organizational models and ways to manage them.

The factors that go into deciding which model is most appropriate in a given situation have been discussed in previous chapters. These include legal, financial, marketing, health service considerations, and others. The model that is selected will largely determine the management requirements and these requirements will reflect the activities and how they are carried out by the various components of the HMO. For example, if the HMO comes under the physician group model, contracts must be made between the HMO "plan" and the physician group. In this instance the HMO plan and the physician group are separate organizational and legal entities. Although managed separately, a mechanism must be established to link closely these and other independent components (e.g., hospitals) in order for the composite whole to achieve health service and other objectives. Contrast this arrangement with
a staff model in which the HMO plan employs the physicians and owns its own hospitals. Here a single organization controls, manages and integrates all components and decides on policy and operations for the organization as a whole.

The following description of the Kaiser-Permanente Medical Care Program will illustrate the functional and organizational arrangements of a major successful HMO composed of separate but highly integrated components. Kaiser Foundation Health Plan contracts with defined groups of users (members), Kaiser Foundation Hospitals and with medical groups. This is shown graphically in Exhibit 11-1.
Kaiser Foundation Health Plan is a nonprofit contracting and administering organization. It enrolls members, maintains membership records, collects membership dues, provides health care facilities primarily by contracting with hospitals, and arranges health care services through contracts with medical personnel. In short, Health Plan does not provide but arranges health care and other services, in and out of facilities, to meet obligations set forth in membership contracts. Kaiser Foundation Hospitals, a second nonprofit organization, provides in- and outpatient facilities. And physicians, either in partnership or professional corporations, provide the medical services. (Recently, for tax and legal purposes, ownership of free-standing outpatient facilities was transferred from Hospitals to Health Plan, but this did not affect their overall operations.)

The general features of Kaiser-Permanente are:

- **Group practice**—Multispecialty groups to provide more efficient use of physicians' time, facilities and equipment. Physician responsibility is for total health care;

- **Integrated facilities**—Combining inpatient and outpatient facilities is key to optimal utilization of space and equipment;

- **Prepayment**—Based on capitation, money collected goes directly to providers, not a third-party. Comprehensive health services are provided on an all-inclusive basis rather than on fee-for-service;

- **Voluntary enrollment** with the option to leave the plan—an alternative source of health care is always offered;
Involvement of physicians in the management of the total package as partners in the program. Major decisions are made jointly after consultation and mutual consent between all parties to the program.

The interrelationships of the components of Kaiser-Permanente are shown in Exhibit 11-2. Although Health Plan and Hospitals are separate organizations, it will be seen that they have the same board of directors as well as the same president. Kaiser-Permanente Committee, made up of key staff of Health Plan and senior representatives of medical groups, serves to set overall program policy and to resolve issues.

A corporate planning group is closely related to the medical economics section. Working in collaboration, these units gather and analyze detailed information on the defined service population. They then make accurate actuarial forecasts based on projected membership; forecast of resources—beds, physicians, supplies and equipment; hospital utilization rates; hospital occupancy rates; changes in staffing patterns for hospitals, medical offices, auxiliary services and administrative services; changes in technology, health care processes, consumer interest and health-related habits, as these affect the scope of health services and utilization patterns. These forecasts become the basis for short and long range plans including the establishment of financial needs and identification of sources of funds (setting rate structures, etc.).

Kaiser-Permanente is a multiregion system and each region
is made up of medical centers. The regions, which are autonomous, are headed by a regional manager, a nonphysician administrator, and the medical centers are managed by a team composed of the center's chief hospital administrator and the chief physician of the center's medical staff. Operating under general Kaiser-Permanente and regional policies and guidelines, each medical center is allowed some degree of autonomy.

The Kaiser-Permanente model, though not typical of most HMOs, is useful to this discussion of organizational and management feasibility since it points out the many areas where competency must be demonstrated. These include laying the foundation for building a strong board of directors; developing supportive community relations; designing and establishing management and health information systems; assessing staffing needs and developing plans for staff selection, recruitment, training, reward packages, etc.; designing an operations plan and operations management; establishing a financial plan; and initiating a long range planning process to accommodate change and growth.
To develop and operate an HMO presents a significant challenge. And to assess the feasibility of undertaking such a venture requires a logical and organized approach, carefully planned and managed and carried out by experienced personnel.

The assessment can be facilitated and made more cost-effective by conducting the work in phases, each with definite objectives, benchmarks and outputs that will serve as decision points to determine whether to go forward or to abandon, at least for the present, further consideration of the venture. Three phases, discussed earlier in this report, are suggested. These are: preliminary assessment, feasibility study and pre-implementation.

The first task in the assessment is for the sponsors of the proposed HMO to specify the objectives of the assessment including short and long range goals for the project. A director for the assessment must be selected. Unless the sponsor has relevant health experience, the director will probably come from outside of the sponsoring organization. If the sponsor is not knowledgeable about HMOs, an orientation will be necessary to provide an overview of prepaid health care and what is involved in developing and operating such a program.

The next step is to establish a work plan and required resources for the feasibility assessment. The aspects of each major HMO-related area to be assessed—legal, marketing, health
services, etc.—and the necessary activities to be undertaken are made explicit. The activities for the assessment of each area may be shown in individual network charts (e.g., see Exhibit 9-1) and a summary chart can be used to indicate interrelationships and sequencing of activities for all areas, coming together into the completion of the assessment.

The assessment generally can best be carried out by teams of specialists. An Assessment Team Specification is prepared in advance of conducting the assessment for each major category of investigation. Each specification should contain the definition of the why, what, who, when and where of the assessment team. It states the objectives of the assessment; the starting and completion dates; the end results or outputs expected; the team composition and period of involvement for assigned staff, seconded personnel and consultants; the resources required in addition to personnel; assumptions and constraints; the methodology to be used; and a time schedule showing activities and milestones. The assessment teams of several areas of investigation may work concurrently and undoubtedly there will be some cross over of personnel. Further, some activities, e.g., assessing the climate for the proposed HMO, may be carried out by several teams but with different focuses. Exhibit 12-1 provides an example of an Assessment Team Specification pertaining to health care services feasibility.
EXHIBIT 12-1

ASSESSMENT TEAM SPECIFICATION
HEALTH CARE SERVICES FEASIBILITY

1. ASSIGNMENT

Establish the basic and supplemental health services to be provided; design the health services delivery system and determine whether it is possible to develop a provider network to produce the services specified.

2. STARTING DATE

3. COMPLETION DATE

4. PURPOSE

To conduct an analysis of the health care needs of the population to be served by the proposed HMO and establish the feasibility of providing the required services within the constraints of available financial, human and facility resources, taking into account client satisfaction, competing health services and various environmental considerations.

5. END RESULTS EXPECTED

- An estimate of the health status and health care needs of the population to be served.

- Establish preliminary scope of services to be provided the HMO members, basic and supplemental.

- An inventory of health care facilities that might be used to provide services to the HMO members. For each facility include:
  - Facility ownership
  - Number and type of beds and specific diagnostic and therapeutic services offered
  - Medical staff--numbers, specialties, staff organization
  - Detailed list of hospital charges
Exhibit 12-1 ...

- Occupancy rates and lengths of stay by diagnosis

- Estimate of availability to serve HMO patients, and the anticipated arrangements that might be negotiated

- A ranking of each facility in terms of its desirability as a component of the proposed HMO

- An inventory of physicians in the proposed HMO service area, noting for each specialty:
  - Number of practicing physicians, by age groupings
  - Number in solo practice
  - Number in groups and number of groups, both single specialty and multispecialty
  - Number of physicians per 1,000 population and future trends expected

- A sample survey of physicians' and health facility managers' attitudes toward HMOs.

- Rapport established with government and private health agencies and with institutional and other providers.

- A preliminary design of provider network for the HMO (assumes HMO believed feasible).

- A preliminary selection of the HMO model type and arrangements with physicians, health facilities and ancillary services.

- Preliminary suggestions for utilization control and quality assurance programs.
6. RESOURCES REQUIRED

- Personnel: Assessment team members as specified plus consultants. (A breakdown of personnel will depend on the specifics of the assessment).

- Support services, transportation, communications, data processing capability, funds, etc., as per the specifics of the assessment.

7. ASSUMPTIONS AND CONSTRAINTS

- Team members and other resources required will be available when needed.

- Required data sources will be available to team members.

- Time delays and lack of cooperation of some individuals may handicap orderly process of the assessment and limit some proposed activities.

8. TEAM COMPOSITION (representative disciplines)

<table>
<thead>
<tr>
<th>Total</th>
<th>Elapsed Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physician, HMO Planner</td>
</tr>
<tr>
<td></td>
<td>Health Information Specialist</td>
</tr>
<tr>
<td></td>
<td>Hospital/Facility Administrator</td>
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<tr>
<td></td>
<td>HMO Manager</td>
</tr>
<tr>
<td></td>
<td>Survey Specialist</td>
</tr>
<tr>
<td></td>
<td>HMO Sponsor Representative</td>
</tr>
</tbody>
</table>
9. **LINKAGES**
- Local medical association
- Local hospital association
- Individual physicians, health facilities, physicians' groups, other HMOs
- Relevant government agencies
- Consumer representatives
- Payor representatives—employers, insurance companies, unions, etc.

10. **METHODOLOGY**
Data will be gathered from relevant available sources to establish health care needs and to assess the feasibility of designing an appropriate scope of services, an acceptable provider network and an organizational structure to deliver the services.

Using survey samples and interviews, the assessment team will determine the climate of support for the proposed HMO.

11. **ACTIVITIES AND TIME SCHEDULE**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organize Assessment Team</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Catalog Data Sources</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Determine Health Status And Service Needs</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Inventory Provider Resources (Facilities/Physicians)</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Meet Providers And Consumers</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Meet Government Representatives</td>
<td>X—X</td>
<td>X—X</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Month 1</td>
<td>Month 2</td>
<td>Month 3</td>
</tr>
<tr>
<td>----------------------------------</td>
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<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Assess Health Services Feasibility</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Design Health Services Plan</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Decide On HMO Model</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Design Recommended Provider Network</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
GLOSSARY

Capitation

A mechanism of payment where the physician or medical group is reimbursed a specific rate per member enrolled in a prepaid health plan per month.

Casualty (Indemnity) Insurance

Insurance against the economic hazards of sickness, surgery, maternity, etc., in which risks and resources are pooled to pay all or part of the costs of health care. Since three parties are involved, the insured, the provider and the insurance company, this type of health insurance is also called third-party reimbursement.

Certificate of Need

A requirement of most states limiting the expansion of existing health facilities or the development of new health services only to those for which "need" can be demonstrated to the satisfaction of a specified reviewing authority.

Community Rating

A system of fixing rates of payment for health services in which such rates must be equivalent for all individuals and for all families or communities of similar composition. This is contrasted with experience rating where rates vary as a function of past utilization on an individual or family basis.

Cost Sharing By Patients

The payment of funds directly by recipients of services for a portion of the costs of such services. The major approaches are: a fixed co-payment (e.g., $1.50 per prescription), a fixed co-insurance (e.g., 20 percent of the cost of specified hospital charges) and an annual deductible (e.g., the insured must pay the first $100 annually of health care charges before the individual's health insurance covers part or all of the costs of care).

Fee-For-Service

A mechanism of reimbursing providers on the basis of each service rendered. Reimbursement is typically on a normal or negotiated charge schedule.
Glossary ...

Health Maintenance Organization (HMO)

A formally organized health care system that combines financing and delivery functions and provides comprehensive services to an enrolled membership for a fixed, prepaid fee.

Individual Practice Association (IPA)

A partnership, corporation, association or other legal entity that has entered into a services arrangement with licensed practitioners of medicine, osteopathy, dentistry or other health professionals. Such practitioners shall provide their services in accordance with a compensation arrangement established by the entity and to the extent feasible there will be sharing of medical and other records, equipment and professional, technical and administrative staff.

Market/Service Areas

The market area comprises the geographic area from which an HMO hopes to draw its members. The service area is the actual area within which the HMO provides or arranges for basic and supplemental services that are available and accessible to its members with reasonable promptness and in a manner that assures continuity of care on a twenty-four hour and seven days a week basis.

Member/Enrollee

As used in connection with an HMO means an individual who has entered into a contractual agreement, or on whose behalf an agreement has been entered into, with an organization that provides, or assumes the responsibility to provide, to such individual, basic and supplemental health services as may be contracted for.

Provider Network

The combination of health facilities, services and health care workers (physicians, etc.) that will provide the basic and supplemental health services for which the HMO is responsible.
Services, Basic/Supplemental

As defined in the requirements for Health Maintenance Organizations, Title XIII, Sec. 1302 [300e-1], basic health services means:

- Physician services (including consultant and referral services by a physician)
- Medically necessary emergency services
- Short-term (not to exceed twenty visits) outpatient evaluative and crisis intervention mental health services
- Medical treatment and referral services (including referral services to appropriate ancillary services) for the abuse of or addiction to alcohol and drugs
- Diagnostic laboratory and diagnostic and therapeutic radiologic services
- Home health services
- Preventive health services (including immunizations, well child care from birth, periodic health evaluations for adults, voluntary family planning services, infertility services, and children's eye and ear examinations to determine need for vision and hearing correction.

Supplemental health services means any health services not included as a basic service but which are specified in the contract between the HMO and its members. Supplemental services might include services provided by dentists, optometrists, podiatrists, prescription drugs, etc.

Subscriber

An individual who executes, i.e., signs or "subscribes" the application for membership in an HMO for him or herself and dependents or other eligibles, if any, to receive health care benefits from the HMO.
REFERENCES


Enright SB. I.P.A. The Initials That May Mean Your Future. Medical Economics 1979; 124-137.


Yedidia A. Planning the Implementation of the Community Health Foundation of Cleveland, Ohio. Studies in Medical Care Administration, Public Health Service Publication No. 1664-3 1968.