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HEALTH OFFICERS' CONFERENCE

PROCEEDINGS

BUREAU FOR LATIN AMERICA AND THE CARIBBEAN

CONDUCTED BY

THE GROUP HEALTH ASSOCIATION OF AMERICA

UNDER CONTRACT # LAC-000-A-00-4049-00

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AGENDA

Health Officers' Conference

Bureau for Latin America and the Caribbean

Sheraton Inn, Gettysburg, Pennsylvania

November 25-30, 1984

Sunday, November 25

Evening	Arrival and Registration

Monday, November 26

8:30 - 9:30 a.m.	Welcome and Opening Remarks LAC/DR
9:30 - 10:15 a.m.	Overview Linda Morse, LAC/DR/HN
10:15 - 10:30 a.m.	Coffee Break
10:30 - 11:30 a.m.	Need vs. Demand for Medical Care in Latin America Phillip Musgrove, PAHO
11:30 - 12:30 a.m.	Honduras Case Study Group Meetings
1:00 - 2:00 p.m.	Lunch
2:00 - 3:30 p.m.	Honduras Case Plenary Discussion James Austin, Harvard Business School
3:30 - 4:00 p.m.	Financing Issues: an AID Perspective Bill Goldman, ASIA/TR
4:15 - 5:30 p.m.	Financing Issues and the Role of Government in the Health Sector David deFerranti, the World Bank
5:30 - 6:00 p.m.	Working Group Discussion Wrap-up

Tuesday, November 27

8:30 - 9:30 a.m	Social Security Systems and Medical Care in Latin America Dieter Zschock, SUNY
9:30 - 10:45 a.m.	Expert Panel Response and Discussion Dr. Jorge Castellanos, PAHO Dr. Antonio Ordonez, Javeriana University Colombia William McGreevey, The World Bank
10:45 - 11:00 a.m.	Coffee Break
11:00 - 1:00 a.m.	Management Improvements Projects: What are the Results? AID Panel Sue Gibson, USAID Haiti John Massey, USAID, El Salvador Tom Park, USAID, Honduras Allen Randlov, USAID, S&T/Health
1:00 - 2:15 p.m.	Lunch
2:15 - 3:75 p.m.	Management Improvement Projects: Where do We Go From Here? Catherine Crone, Management Sciences for Health
3:15 - 3:30 p.m.	Dr. Nyles Brady, Assistant Administrator, S&T
3:30 - 5:30 p.m.	Project Updates PRICOR PRITECH WASH
5:30 - 6:00 p.m.	Working Group Discussion Wrap-up
6:00 - 8:00 p.m.	Reception

Wednesday, November 28

8:30 - 9:15 a.m.	An Overview of Prepaid Systems of Health Care Delivery Dr. Harris Berman, Matthew Thornton Health Plan, Inc.
9:15 - 10:45 a.m.	Development of Prepaid Systems of Health Care Delivery in Latin America Dr. Alfredo Solari, Ministry of Health, Uruguay
10:45 - 11:00 a.m.	Coffee Break
11:00 - 1:00 p.m.	HMO Panel Presentations Tom Ramey, Health Central International Robert Saldana, Hospital Corporation of America Theodore Weinberg, Office of HMOs, US HHS
1:00 - 2:15 p.m.	Lunch
2:15 - 4:00 p.m.	AID Private Sector Concept Papers Paul Cohn, USAID Guatemala Christopher McDermott, USAID Haiti Ken Farr, USAID Ecuador Lee Hougen, USAID Bolivia Working Group Discussions
4:00 - 5:30 p.m.	HMO Feasibility Protocol Dr. Paul Zukin, Health Management Group, Ltd.
5:30 - 6:00 p.m.	Working Group Discussion Wrap-up

Thursday, November 29

8:30 - 9:30 a.m.	The Pharmaceutical Industry and Its Impact in Latin America Gary Gereffi, Duke University
9:30 - 10:45 a.m.	Haiti Drug Case Study Group Meetings
10:45 - 11:00 a.m.	Coffee Break
11:00 - 1:00 p.m.	Haiti Drug Case Plenary Discussion David Young, Harvard School of Public Health
1:00 - 2:15 p.m.	Lunch
2:15 - 2:45 p.m.	Public Sector Management of Pharmaceuticals in the Commonwealth Caribbean Paula Feeney, LAC/DR/HN
2:45 - 3:45 p.m.	Regional Drug Programs: Problems and Prospects Enrique Feffer, PAHO Holly Wise, AID RDO/C
3:45 - 5:30 p.m.	Expert Panel Response and Discussion Kwyn Abrahams, AID/SER/COM Enrique Feffer, PAHO Peg Hume, Management Sciences for Aida LeRoy, Health Information De Lee Morse, Health Information Des
5:30 - 8:00 p.m.	Working Group Preparation of Recomme

Friday, November 30

10:00 - 12:30 p.m.	Plenary: Recommendations and Wrap-up Polly Harrison, Management Sciences for Health
12:30 - 2:00 p.m.	Check-out and Lunch
2:00 p.m.	Bus Departs for Washington

HEALTH OFFICERS' CONFERENCE
PARTICIPANTS LIST

FIELD HEALTH OFFICERS

Elena Brineman - ROCAP
Jerry Bowers - Bolivia
Magdalena Cantu - Mexico
Marvin Cernik - Panama
Paul Cohn - Guatemala
John Coury - Jamaica
Leticia Diaz - Grenada
Mary Ellen Duffy Tanamly - El Salvador
Ken Farr - Ecuador
Sue Gibson - Haiti
Lee Hougen - Dominican Republic
Joan La Rosa - Peru
Chris McDermott - Haiti
Betsy Murray - Costa Rica
Tom Park - Honduras
Holly Wise - RDO/C

AID WASHINGTON

Al Bisset LAC/DR
Ben Severn LAC/DR
Linda Morse LAC/DR/HN
Carol Dabbs LAC/DR/HN
Paula Feeney LAC/DR/HN
Calista Downey LAC/DR/HN
Kevin Armstrong LAC/DR/POP
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Brenda Doe IDI
Debra Kreutzer IDI
Rosita McKee IDI
Anita Siegel IDI
Dr. Nyle Brady S&T
Jim Sarn S&T/HEA
Allen Randlov S&T/HEA
Ann Tinker S&T/HEA
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Harry Cross S&T/POP
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Maureen Lewis PPC/PDPR
Bill Goldman ASIA/TR
Pam Johnson NE/TECH/HPN
Gail Garringer PRE
Bob Dodson PRE
Kwyn Abrahms AID/SER/COM

NON-AID PARTICIPANTS

Jim Austin - Harvard Business School
Harris Berman - Matthew Thornton Health Plan, Inc.
Catherine Crone-Coburn - MSH
Gail-Marie Crowley - GHAA
John Doherty - GHAA
Dave de Ferranti - The World Bank
Lynn Ellingson - Social Security Administration
Enrique Feffer - PAHO
Beryl Frank
Gary Gerreffi - Duke University
Polly Harrison - MSH
Peg Hume - MSH
Jim Jeffers - Westinghouse
Marlyn Kefauver - HHS/OIH
Aida Leroy - Health Information Designs
Jack Le Sar - MSH/PRITECH
William McGreevy - The World Bank
Lee Morse - Health Information Designs
Phil Musgrove - PAHO
Antonio Ordonez - Javeriana University, Colombia
Catherine Overholt - MSH
Tom Ramey - HCI
Jack Reynolds - URC/PRICOR
Robert Saldana - HCA
Alfredo Solari - MOH, Uruguay
George Strumpf - GHAA
Theodore Weinberg - HHS/HMO
David Young - Harvard School of Public Health
Dieter Zschock - SUNY
Paul Zukin

OPENING REMARKS

Linda Morse
Chief, Office of Health and Nutrition
Bureau for Latin America and the Caribbean

Nearly 3 years ago we held our last Health Officers' Conference at Coolfont, West Virginia. At that Conference we dealt with AID's newly articulated health policy and how that policy would relate to the concerns of health officers for planning and programming. In 1982, AID reaffirmed its commitment to and support for primary health care. The new health policy and strategy also included some new elements: biomedical research; self-financing; and private sector initiatives for health care. Since then, AID's health policy and strategy have been well articulated and programming and projects generated in the interim have been consistent with the policy.

However, there have been dramatic changes in the economic and political environments of the countries in which AID operates in this hemishpere. These changes have altered the magnitude and composition of resources that countries allocate to their health sectors. Changes have also occurred in our own staff resources and in the magnitude and composition of the LAC health portfolio. Since 1982, our LAC health budget has increased by 25-30 percent per year. There has been an increase in the number of countries where AID supports malaria control (from 2 to 7 countries), an increase in the number of bilateral programs, and an increase in the number of activities in health financing and the private sector (30 activities in 10 countries). There also have been several special initiatives on AID's agenda: the Caribbean Basin; Central America; Disaster Relief in the Andean countries; and Child Survival. Finally, over 50 percent of the health field staff of the LAC Bureau has changed. It seems both appropriate and timely, therefore, to draw together for the purpose of identifying and discussing the specific issues and concerns that we should be addressing regarding the future of the health sector in LAC countries and in LAC AID Missions.

FINANCING AND RESOURCE ALLOCATION ISSUES: WHY THIS FOCUS?

The theme of this Conference evolved from several interrelated factors.

AID's health programming in the mid-seventies focused on rural primary health care (PHC). The rationale for the PHC approach was, in part, a need to emphasize basic human needs and rural services, consistent with the Foreign Assictance Act, and in part economic. Conventional wisdom at the time, reinforced by Alma Atta, recognized primary health care services as the most effective and efficient means for achieving substantial reductions in mortality and morbidity. As we gained experience with the implementation of PHC projects, we realized that improvements in management support systems were necessary if PHC services were to remain functional over the long term. This recognition led us to a series of institution building and management system improvement projects. In the late 1970s, just as the commitment to primary health care and extension of rural health delivery systems began to be institutionalized, the financial underpinnings of the entire public sector health delivery system began to crumble.

As we approach the mid-eighties, we are confronted with the reality of deteriorating economic conditions for most of the countries in which we work. Declining economic growth, burgeoning deficits and debt have placed enormous pressures on public sector budgets. Economic stabilization policies have restricted financial allocations to Ministries of Health and the real growth of MOH budgets has been severely curtailed. The reality is that expanded resources for PHC services do not exist now, and will not in the forseeable future, due to the competition with investment priorities in other sectors. Furthermore, resources already committed to PHC are in jeopardy because these programs have to compete with the priorities of heavily entrenched MOH bureaucracies. Shifts in funds to PHC clash with the demands of long established, curatively focused programs and with the demands of vertical programs, Social Security, etc. While PHC programs have achieved significant reductions in mortality and mobidity in many countries, we find that the programs most responsible for these reductions are externally financed--by AID and other donors--and governments are not in the position to assume these financial obligations.

Parallelling the focus and evolution of the PHC emphasis are other important factors. The first is the resurgence of malaria. Malaria control presents perhaps the most difficult technical problem we face in the next five years. We also face, in this hemisphere, a resurgence of emphasis on basic human needs deriving from the political situation. Given the political aspects and the cost implications of basic human needs, how do we balance this push with the equally valid health interventions which emphasize cost savings/containment and revenue generation.

We also are recognizing that the MOH is not the only actor in the supply of health services. We are realizing the need to develop a broader perspective on the health sector, and to think more wholistically about its components. While total health expenditures are estimated at between 2 to 6 percent of GNP, public sector health budgets account for not more than half of that expenditure. We have relatively little information regarding the composition of the remaining expenditures, but their magnitude forces us to take into serious consideration the health activities taking place in the private sector. Both public and private subcomponents of the health sector have aspects which help or hinder the achievement of national health goals. Three years ago, at the last LAC Health Officers Conference, we looked at private sector initiatives in health as rhetoric. Now many of you have latched onto ideas and concepts which you believe have real merit and which reflect thinking about ways to deliver and finance health that are complementary to public sector approaches.

That brings me to my final point on why this focus. We--the field and Washington--have had an ongoing dialogue on issues in this area since the last health officers conference. You--in the field--have continued to identify new problem areas for ongoing programs and new projects, and many of these areas have fallen into the general category of financing and resource allocation issues. We--in Washington--have tried to respond to your requests for new types of materials, information, and human resources. We have also tried to keep you informed of each others experiences and of new developments

elsewhere. In synthesizing our collective experience over the last two years, we suggested to you that there seemed to be a need to focus specifically on these issues, at a conference and you resoundingly agreed. The specific conference objectives are:

1. to identify and prioritize the key issues in financing and resource allocation that confront the health sectors in the region;

2. to identify and develop policy objectives, intervention strategies, and courses of action which address these issues:

3. to determine what responses are most appropriate for AID assistance and what type of resources are needed;

4. to recommend what next steps should be taken.

We will consider this conference a success if we come away with the perspective of evaluating the health sector as a whole, not public sector plus something else, and if we identify those key areas where AID resources can play a useful role to achieve the mortality/morbidity reductions within the political and economic constraints we will discuss here.

To accomplish these objectives we have selected specific areas for technical presentations and structured disucssions.

WHY THESE TOPICS/ACTIVITIES?

Need vs. Demand

Demand for health and medical services has been systematically neglected and/or misunderstood by those who are responsible for the public supply of health care services. We, and those with whom we work, tend to ignore demand and think only within the context of health care needs. We must recognize that need and demand are different concepts and a supply system that responds to one may be unsatisfactory in meeting the other. To begin this conference we will have a technical presentation on this concept. What I hope will follow this presentation is an open discussion of the relevance and importance of the demand concept for a broadened perspective on health sector programming and project development.

Case Study/Honduras

We will use the case study method to identify collectively the critical financing resource allocation issues facing the health sectors in the countries in which we work, and to develop strategic future alternative responses to these issues. The purpose of the case study format is to focus and guide our discussions rather than to specifically address the issues of a particular country. Therefore, the case you have received is based on Honduras because that country generally reflects the constellation of problems facing the health sectors of other countries. Following our large group

discussion we will have responses from the Asia Bureau and the World Bank regarding their perspectives on the financing and resource allocation issues facing LDC health sectors. These presentation will broaden our own thinking beyond that of the LAC region.

Social Security

We will discuss medical care under Social Security systems because these systems either do or could play a major role in the health sectors of most LAC countries. Social Security is under close scrutiny in the international health community as both a generator of health problems and as a potential solution. Across Latin America, Social Security systems tend to consume a large share of public resources, but among the low income countries their services only cover 7 to 13 percent of the total population. Middle income countries cover a much larger percentage of their total populations, but nevertheless suffer from problems of escalating costs and an excessive focus on curative services. Several experts who are knowledgable about Social Security systems will identify what they believe to be the critical problems of these systems, discuss the implication of these problems for less vigorous systems, and suggest opportunities and limitations for their future use. These presentations should provide a useful basis for our own discussions.

Management Improvement Projects

We now have had a "generation" of management improvement projects in a variety of countries. Ostensibly, these projects could and should have had an impact on productivity, cost savings, and cost containment in the public sector health care delivery institutions. We have asked a few health officers who have had particular associations with these projects to reflect on their experiences and summarize their conclusions for us. Following this AID panel, we will have a presentation which will suggest new directions for this type of project, particularly if we are interested in achieving increased productivity, cost saving, and cost containment.

Prepaid Systems of Health Care

Much interest has been generated from the field during the last year regarding HMO-like project interventions. You have made numerous requests for information, materials, and short-term technical assistance. As an Agency, we have limited knowledge and experience with these mechanisms. The gap in our knowledge and information led us to establish a cooperative agreement with the Group Health Association of America. This project has been underway for about 6 months and on Wednesday we will hear about some of their findings: the state of HMO development in the hemisphere,and the potential for this technological concept to address the health problems and resource and financing constraints of the public sector. The GHAA project is also developing a protocol for considering HMO feasibility. You have already received a draft of that protocol and what we intend to do here is submit it for general discussion. We seek your input to make this document relevant and useful to your work.

We will also be fortunate to have the participation on Wednesday of several individuals who represent organizations with on-the-ground operational experience with designing and running HMO-like systems in LAC. These individuals describe the relevant characteristics of the HMOs they work with and will then assist us in discussing concept papers for HMO-like projects which will be presented by 3 of our health officers.

Financing and Resource Allocation Problems With Retard to Pharmaceuticals

On Thursday we will take up issues of financing and resource allocation for pharmaceutical systems. We will begin with an overview presentation of the multinational pharmaceutical industry and its impact in LAC. We will follow with a case study based on Haiti which will allow us to identify collectively the problems of the system and structure alternative solutions.

Finally we will end the conference with a synthesis of your comments on and reactions to the presentations and discussions, and your recommendations, both technical and operational, as to appropriate follow on activities.

I'd like to conclude by taking this opportunity to acknowledge and give special thanks to Cathy Overholt who identified the need for this "single theme," tehcnical meeting, who designed the conference format, solicited the technical papers and assisted the preparation of case studies. She has been the catalyst and provided the intellectual leadership on issues of health sector financing for the LAC Bureau since she began her work in the Health and Nutrition Division. This meeting demonstrates that even if she's on longer "one of us" we still depend on her.

Together with Al Bisset, I welcome you on behalf of the LAC Bureau.

PRIMARY HEALTH CARE IN HONDURAS

> A good health officer must stand up for his project, but he also must be prepared to address the economic and recurring cost concerns of the Program Office. At the same time, he must see to it that the Mission addresses some of the other concerns as well, not just the economic ones. At times the sorting out of these issues requires an adversarial approach. If you don't understand when and how this should happen, however, your projects may get sacrificed. If you try to be tough without adequate data to support your position, you also lose. In the case of the Health Sector-I extension, we have not yet been successful in selling the project to the front office. We need to demonstrate that the project has met its objectives, and that a good case can be made for its continuation on a multi-year basis. We know we have to focus on recurring costs since that seems to be the big concern at the moment.

Paul Thomas, the Health Officer for the Agency for International Development's Mission in Honduras, thus commented on the problem he faced. At stake was the continuance of A.I.D.'s multi-million dollar primary health care program in Honduras. The task was to develop a convincing project proposal which addressed the economic, political, and organizational constraints surrounding the program.

COUNTRY CONTEXT AND HEALTH STATUS

Honduras is the second largest country in Central America and has one of the lowest population densities. It is one of the least urbanized countries, with 65% of its 4.1 million people living in the rural areas. Its mountanous terrain and the lack of all-weather roads make transportation in the rural areas difficult, especially during the rainy season when flooding is common. (See map in Exhibit 1).

The real GNP per capita was $690 in 1982, making it the second poorest (after Haiti) country in Latin America. Over 60% of the work force is employed in subsistence farming, forestry, hunting, or fishing. Only 40% of the population over 10 is literate.

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1. This case was prepared by James Austin, Harvard Business School, based on the case Primary Health Care in Honduras (A) by David W. Young, Harvard School of Public Health. It is intended as a basis for class discussion, rather than to illustrate either effective or ineffective handling of an administrative situation.

A fertility rate of 7.3 children per female contributes to an annual population growth rate of 3.5%, well above the 2.7% average for Latin America. Forty-eight percent of the population is under the age of 15. General mortality in 1978 was 11.8/1000 population and infant mortality 99/1000 live births, third highest in Latin America. Rates in the rural areas were about 1.5 those in the cities. Nearly 40% of all deaths are found in children less than five years old.

The top ten causes of infant mortality in order of importance were: diarrhea, perinatal period diseases, prematurity diseases, pneumonia, bronchitis, other respiratory illnesses, perinatal infections, pertussis, cardiac arythmia, measles. The top five causes of hospitalization were: complications in pregnancy, delivery, and puerperum; infectious diseases and parsites; accidents and violence; respiratory disease; and digestive disease.

HEALTH SYSTEM: PUBLIC SECTOR

(1)Ministry of Public Health (MPH) - The public sector health system under the MPH is responsible for 85% of the population (although actual coverage is about 60%); it has six levels of service (see Exhibit 2):

Level 1: Community Workers- These are unpaid volunteers in communities under 500 people who are selected by the communities and trained and supervised by the MPH. They include Health Guardians, Midwives, Malaria Volunteers, and a Health Representative. They attend to common illnesses, make referrals, do vector control, and organize the local health services.

Level 2: Rural Health Centers- 429 of these centers exist to serve populations of 2000-3000. These clinics have full-time MPH employees. An Auxiliary Nurse (one year of training) provides direct care and supervises the community health workers in 4-8 surrounding communities. The Health Promoter assists communities in health education and sanitation projects. The Auxiliary in Vector Control is responsible for malaria control.

Level 3: Rural Clinics with M.D.s- 119 of these centers provide populations of 10,000 with ambulatory care. The staff includes a medical doctor, nursing auxiliaries, lab technician, and administrative support staff.

Level 4: Emergency Hospitals- Each of these 7 units serve areas of 100,000 people and have 50 or more beds and up to 9 physicians, 5 nurses, and 45 nursing auxiliaries, plus administrative staff. They also supervise the urban and rural clinics.

Level 5: Regional Hospitals- These six 200-500 bed hospitals offer a full range of medical services, including various specialties.

Level 6: National Hospitals- The national hospital in the capital has 1,200 beds and is equipped to handle referrals from the other levels. There are also specialized hospitals for tuberculosis, mental health, and maternal-infant care.

(2)Honduran Social Security Institute (HSSI)- The Institute services about 7.5% of the population through its four hospitals and four clinics in the two major cities of Tegucigalpa and San Pedro Sula. The HSSI was established in 1959 as an autonomous public entity to provide comprehensive health care to certain categories of wage and salaried workers. Services are considered to be of high quality and the hospitals efficiently run, but the population coverage has not changed in ten years. HSSI is entirely funded through employer and employee payroll deductions. Employee contributions amount to 2.5% of their salary up to Lps. 600 and the employers provide 5% of the salaries. The average unskilled worker's income is so low as to preclude participation in the system. The HSSI purchased 13% of its pharmaceuticals in 1983 from Honduran producers and imported the majority of its needs from Mexico and Central American producers.

(3)National Laborotory (PANI)- The PANI laborotory was established as an autonomous agency in the mid-sixties to provide low-cost essential medications to MPH and HSSI. It produces about 50 medications on WHO's essential drugs list and supplies 20% of MPH's requirements. PANI is financed by the only national lottery and returns more funds to the federal treasury than it uses. Its products are of high quality but involve only minimal value-added manufacturing operations.

(4)National Water and Sanitation Service- This agency is responsible for the potable water supply for communities over 2000 inhabitants and the MPH for those less than 2000. In practice there is considerable overlap.

HEALTH SYSTEM: PRIVATE SECTOR

Of the 44 hospitals in the country, 25 were private. Private hospitals, laboratories, physicians, nurses, and dentists are concentrated in Tegucigalpa and San Pedro Sula where they serve approximately 9% of the population, principally the higher income strata, who have a morbidity pattern quite distinct from the national average. For lower income strata, particularly in the rural areas, there are many traditional healers. For many peasants, illness is seen as caused by external and often supernatural forces. Traditional healers incorporate these dimensions into their practices and have high credibility with the common people who often consult them before or concurrent with other sources. The traditional midwives are private practitioners who have, to a considerable extent, been incorporated into the public health system as part of the community health worker scheme. In 1983, the government trained 7500 midwives. The midwives, unlike the other workers, receive from the family 25 Lempieras per delivery.

In the pharmaceutical system, in addition to PANI, there were twenty-eight

private laboratories[2] and a mixed enterprise, Hondulab Farmoquimica Internacional, S.A., a joint investment of the National Investment Corporation of the Honduran Government (64%), the Argentine Government (30%), and three local private investors (6%). Hondulab was formed in 1979 with plans to supply 47 products, ranging from antibiotics to vitamins, to the MPH, public hospitals, and the HSSI. Only 6 of its products would duplicate PANI's production. As of 1984 Hondulab had not reached its production or sales objectives and was experiencing some financial difficulties. The retail distribution of drugs is handled primarily through private pharmacies and other corner stores situated throughout the country.

Most family planning services are provided through the Honduran Family Planning Association. There were 40,000 users in 1982. Services are provided in the Association's clinics in Tegucigalpa and San Pedro Sula as well as through 1100 community run rural distribution posts. Under the Association's auspices sterilizations are performed in the 13 MPH and 3 private hospitals. Recently, a social marketing project began distribution of contraceptives through 600 commercial retail outlets.

GOVERNMENT HEALTH STRATEGY AND PERFORMANCE

During the 1974-84 decade three distinct phases in the government's health strategy are discernible: 1974-78 stressed expansion of primary health care(PHC) coverage; 1978-81 saw renewed interest in hospital-based services; and 1981-84 reemphasized primary health care through A.I.D.'s Health Sector I project.

(1) 1974-78 Expanded Coverage Program

The basic objective of the program was to extend basic health services to the entire population. The strategy was fourfold: (a) to focus on providing services to individuals who did not have access to health care, giving particular attention to rural areas and sub-groups such as the maternal-child population; (b) to decentralize health services, relying on community participation as an essential component; (c) to place emphasis on preventive health services, including both primary care and environmental means; (d) to reorganize the basic structure of the health care system, establishing defined levels of care and strengthening the referral system from one level to the next. To do this, resources were diverted from hospital expansion to rural-based primary health care delivery systems. Health clinics were constructed and auxiliary and community workers trained. Reduced attention, however, was given to developing management support activities; MPH's administrative budget decreased from 10% to 2% of the budget.

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2. These were all Honduran owned except one and only four of these make medicines found on the MPH's essential drugs list.

The results were marked. The number of ambulatory consultations per person rose from .26 to 1.00 and the Health Guardians and Midwives reported a combined average of 254 consultations per worker per year. Coverage for immunizations for children under two reached 96% for polio and 79% for DPT. During this period the death rate dropped from the 16 per 1000 average in the 1965-70 period to 12 per 1000. Morbidity rates for several common diseases generally increased, but many felt that this was due to improved reporting rather than a higher actual incidence rate.

(2) 1978-81 Hospital Expansion

Personnel changes at the policymaking level within the MPH led to changed focus. Although extension of PHC services remained the official policy, the MPH embarked upon an ambitious program of constructing 7 emergency and 2 regional hospitals to add to their existing 15 hospitals, with funding coming from the Inter-american Development Bank(IDB). The MPH budget during this period grew from Lps. 85-million to Lps. 166-million, increasing from 10.2% to 11.1% of the total government budget. Overall health expenditures per capita rose from below Lps. 10 to Lps. 12.

Many of the gains under the previous strategy were eroded. Immunization coverage dropped by over half. Community workers' productivity plummeted 90% and desertions were common. Morbidity and mortality rates did not show significant improvement.

By 1980 several problems stood out. Under MPH's organizational structure those who developed objectives had little control over implementation, and the implementors had little control over the needed resources, and the resource providers had little input into the setting of objectives. The only office that could provide coordination was the Director General's and that was staffed by only two people. Coordination was poor, overlap common, and conflict intense. Most auxiliary nurses in the rural clinic received only one supervision visit during the year. The community workers and clinics were frequently out of supplies. Only half of the MPH vehicles were operative and many clinic refrigerators were also not working. Construction of the nine new hospitals remained uncompleted.

(3) 1981-84 Health Sector-I Project

With the assumption of power by a new president came changes in personnel and policies in the MPH. The new National Health Plan revived the earlier strategic thrusts toward PHC through a decentralized organizational structure for high-risk groups who lack access to health care. Hospital construction and capital investments were temporarily halted and then cut in half. A.I.D. provided $32-million in loans and grants through the four year H.S.-I project.

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The project has four major components:

(a) Health Technologies-concentrates on providing resources in the control of malaria and diarrhea (emphasizing oral rehydration), the promotion of maternal and child health, and the support of an expanded program in immunizations;

(b) Logistics and Maintenance-supports training, facility construction, equipment, management and technical advice aimed at ensuring that supplies reach the peripheral areas and that equipment is kept operational there.

(c) Management and Planning-attempts to redress the problems generated by a rapid growth in the scope and complexity of the health care system in the last 10 years with no concommitent increases in management resources.

(d)Human Resources Development-includes improved supervision, continuing education of community and MPH workers, public health training of medical and nursing school teachers, and mass media support of village level workers.

The MPH made the strategic decision to focus on those diseases which have the highest impact on mortality, and for which an effective and relatively inexpensive intervention existed. Priorities were assigned to immunopreventible diseases, diarrheal diseases, Tb and respiratory diseases, malaria, improved birthing services, nutrition services and education, and family planning/MCH services (contraceptives and pre- and post-natal care).

To address the previous organizational problems MPH established a series of working groups which cut across several departments and levels to supervise various activities. A new formal organizational structure was also approved (see Exhibit 3). These changes increased the effectiveness of the organization. When an outbreak of polio occurred in mid 1984, a national coordinating committee was formed and its actions were a large factor in controlling the outbreak within 6 weeks of detection.

The technical assistance to MPH through a team of 9 resident advisors complemented with short-term consultants has contributed to progress on several fronts. A logistics system was designed, 1000 MPH personnel trained, and the central and regional warehouses reorganized, resulting in significantly improved inventory management and supply dependability for the clinics and community workers. The Maintenance Department was also reorganized and personnel trained; 95% of the refrigerators were working and 50% more MPH vehicles were on the road. Document flow time was reduced by 25% and budgetary controls instituted using microcomputers, cost indicators, and cost centers. Training curricula for the community health workers has been designed for use at the local level. The supervision model was revised and simplified to focus on the priority diseases; MPH personnel have been trained in using the supervision manual.

By 1984 immunization coverage had returned to high levels, 95% for polio and 70% for others. Ambulatory consultations had risen again to 1.0 per inhabitant. The midwives increased their consultations to 101 per year and the Health Guardians to 240 per year per worker. The infant mortality rate had been reduced by 30% during the four year period.

Total health expenditures rose from Lps.109-million in 1979 to a high of Lps.185-million in 1983, dropping to Lps.169-million in 1984 (see Exhibit 4). The country experienced significant inflation during these latter years along with recession and budget cutbacks in 1983-84. MPH's expenditures in real terms increased 42% between 1979 and 1982, an increase of 28% on a per capita basis. However, in 1983 real expenditures declined 15% (see Exhibit 5). During this period PHC expenditures experienced significant growth (see Exhibits 4 & 6).

HEALTH SECTOR-I PROJECT EXTENSION

Paul Thomas's initial working draft of the Project Proposal (PP) to extend HS-I recommended a three year extension, with a life of project increase of funding of $5.7-million in Development Loan funds and $4-million in Development Grant funds. In addition to continued support for the original objectives of HS-I, the project would also help the government to expand the social security system into the rural areas and to move toward self-sufficiency in basic drug production.

The major obstacle the Health Officer's PP encountered was economic viability. The Mission's Program Office pointed out the problem of recurring costs:

> The real issue posed by this Project is whether the projected financial position of the GOH will allow it to sustain an expansion of the HS-I project activities as proposed. This is an important question, as the GOH has begun to implement a series of austerity initiatives which will constrain GOH outlays for the next five years or more.

Coupled with this pessimistic outlook for the general economic future of Honduras was an indication that the priorities of the MPH might be shifting:

> There are strong indications from GOH and IDB officials that the GOH has decided to resume the construction of unfinished hospitals and to staff them appropriately. Aside from IDB pressure to resume the hospital program, the GOH is also under political pressure to come up with high visibility projects such as hospitals prior to the November 1985 elections. Thus, any scenario projecting the availability of funds to finance recurrent costs and in-kind contributions for the HS-I Project extension must account for the increases in cost resulting from the proposed completion of the GOH/IDB hospital program.

The economists' projections, which assumed completion of the hospital construction and staffing, revealed that all other health programs would consequently experience significant cuts (see Exhibit 7). The economists' concerns were confirmed in a cable from AID/Washingtin stating that the IDB, not wishing to have "white elephants" on its hands, was indeed pressuring the Honduran government to proceed with the hospital construction program, and that it was providing the financing necessary to complete it. The GOH, according to the cable, had agreed.

These events created a crisis for the Mission's project staff. Stephen Barr, the HS-I Project Officer, commented:

> We realized that we had only two choices: The first was to go to AID/Washington with the PP as it now stood and bluff. But we had no good answers to the problem of recurring costs. The second was to try to find some means to keep the project alive without going to Washington for the full amount. If we didn't make some arrangements, though, we were going to run out of funds for a 9-member technical assistance team, and set the project back several years.

The Mission's solution was to ask for a one year $2-million extension, which provked strong reactions:

> The technical team howled. We had extended them at the last minute two or three times, and now they would have to incur a rather sizeable cost of rebidding for a one-year extension. They said they were going to consider whether it was in their best interests to rebid, and we really didn't want to lose them. The MPH was equally upset. They were counting on this project as a strong bargaining chip for protecting their budget in negotiations with the Ministry of Finance. This raised questions in their mind about the whole future of primary care in the country.

Carlos Guzman, the Director General of Health, provided a MPH perspective on the situation:

> Working within the public sector is a constant series of battles, and this is no less true within the MPH in Honduras. There are many different points of view--political, economic, social--which means that decisions are influenced by a variety of forces. Between ministries, the battle may be between a new building for the Post Office and a program for potable water throughout the rural areas of the country. Within the Ministry, it may be between a program for hospital construction and one for primary care clinics. The problem becomes even more complicated because people can see a hospital as representing health, but cannot see such a clear relationship between the lack of potable water and the incidence of diarrhea. Moreover, medical groups, one of the more powerful lobbies in the country, want hospitals.

> A.I.D. viewed our decision about the IDB loan as a pulling back of our commitment to primary care, and they cut us out of their decision-making process. What they didn't see is that this was just one of many battles that we have every day. We may have lost this one, but for them to pull out would mean losing not only the battle but the war.
>
> Overall, what we need is a balanced development of the health sector. Hospitals are not the devils; we need hospitals. But we must balance the construction of hospitals with the development of primary care and other public health activities.

A.I.D.'s General Development Officer, Will Roland, saw the situation somewhat differently:

> Technical people in any project area tend to take the point of view of their clients, in this case the Ministry of Public Health. Of course we would like to have multiple year projects and all the benefits of their continuity, but we also must be concerned with a prudent use of U.S. Government funds. We're not threatening to pull out of primary care activities, but we are saying to the MPH, "This is your issue. How do you want to deal with it?" We can't wake up three or four years from now facing a recurrent cost crisis for our on-going project because we have funded the development of a primary care system which is too expensive for the Ministry to operate.

The rejection of the idea of a one year extension by MPH and the contractor forced the Health Officer, Paul Thomas, to reexamine the PP in the light of the economic concerns and the policy implications. He commented:

> It's popular these days to talk about a "policy dialogue," but with whom? One of the problems with all technical people, not just health officers, is that we tend to be insular. We work with our counterpart ministry and with people we are using for technical assistance, and we neglect our colleagues in the Program Office and other staff offices here in the Mission. The Program Office, on the other hand, looks exclusively at economic factors and internal A.I.D. procedural requirements and often ignores the softer things that make a project go. It's up to the technical people to break out of that insularity, but it's not easy to do.

In grappling with the resource scarcity and allocation issue, Paul identified three areas for analysis: alternative financing mechanisms, hospital construction and development, and new roles for public and private sector institutions.

(1) <u>Alternative Financing Mechanisms</u>

The first alternative Paul thought should be explored was user fees. He had received a copy of a letter sent to Hospital Directors by the Director General of Health instructing them to revise their user fees to achieve cost recovery (see Exhibit 8). MPH user fees currently covered 5% of hospital operating costs. Paul wondered what factors should be considered in determining how much user fees could be feasibly raised. A survey found that expenses for "health protection" represented 5.2% of total family costs in rural areas and 4.8% in urban areas. The survey showed that the mean overall expense for an illness episode was $10.20. However, the median expense of $1.00 indicated that there were a relatively small number of families with very high expenses, often incurred because the illness was perceived as relatively serious. The results of this study are shown by type of illness (Exhibit 9) and by source of treatment (Exhibit 10). There had also been some talk about developing a prepayment system whereby families would make fixed monthly payments and have unlimited access to the services without any subsequent payments. MPH had also expressed interest in rotating funds for medicines, whereby the drugs would be purchased by the patients and the proceeds would enter the drug fund for the purchase of new supplies of medicine. A third alternative was to seek financing from the IDB to cover recurrent costs in the new hospitals; in the past IDB and most other development agencies had refused to authorize such financing.

(2) Hospital Construction and Administration

The overwhelming financial impact of the hospital costs made it imperative that Paul reexamine the schedule for the new hospitals to come on-stream and the corresponding financial projections. He was unsure as to which financial variables and operating indicators he should analyze and how. For both the existing and new hospitals, Paul was concerned about cost containment, efficiency, and productivity and wondered what actions might be called for there. He noted that the occupancy rates for the National Hospital, the regional hospitals, and the area hospitals had been 81%, 71%, and 50% respectively in 1977. Cost per discharge had been 315, 102, and 137 Lempiras, respectively. Slightly higher occupancy rates had been reached in 1980, although inflation had increased the cost per discharge somewhat.

(3) New Roles for Public and Private Sector Institutions

Given the multiple constraints facing the MPH, Paul thought of the other institutions in the health system. First was the Social Security Institute. Paul wondered whether the Institute's strengths and resources could somehow be mobilized in some new way so that its relationship to the MPH and contribution to the nation's health needs could be strengthened.

Second was the national laborotory. PANI was MPH's main pharmaceutical supplier and thus impacted significantly on its budget. Paul remembered a study that showed that with an appropriate investment, PANI could improve its logistics, its production planning, engineering, and costs, and its pricing structure so that by 1986 it could become a viable, independent laboratory producing high quality, low cost, generic drugs. If this effort were successful,

government expenditures for pharmaceuticals would be reduced by $9.6-million, and direct patient expenditures for pharmaceuticals would decline from $115-million to $113.8-million annually. Overall, the economy would save approximately 0.5% of the GNP and over $10-million annually in foreign exchange. Paul pondered the desirability of actions in this direction. He also wondered whether the private pharmaceutical producers should be strengthened.

Also on the private side were the hospitals, health clinics, and family planning centers. Paul reflected on the issue of whose responsibility national health coverage was and whether the private sector could play a larger role and how. He also remembered the example of one community which covered over a third of its health care costs by means of fee for service payment, sale of medications, and community projects that generated communal income.

A crisis atmosphere surrounded the Project Proposal task. Submission deadlines were rushing toward Paul. Pressure was rising from the Ministry, the contractor, the Program Office, and Washington. And the stakes were very high.

LAS REGIONES SANITARIAS Y SUS AREAS
HONDURAS C. A.

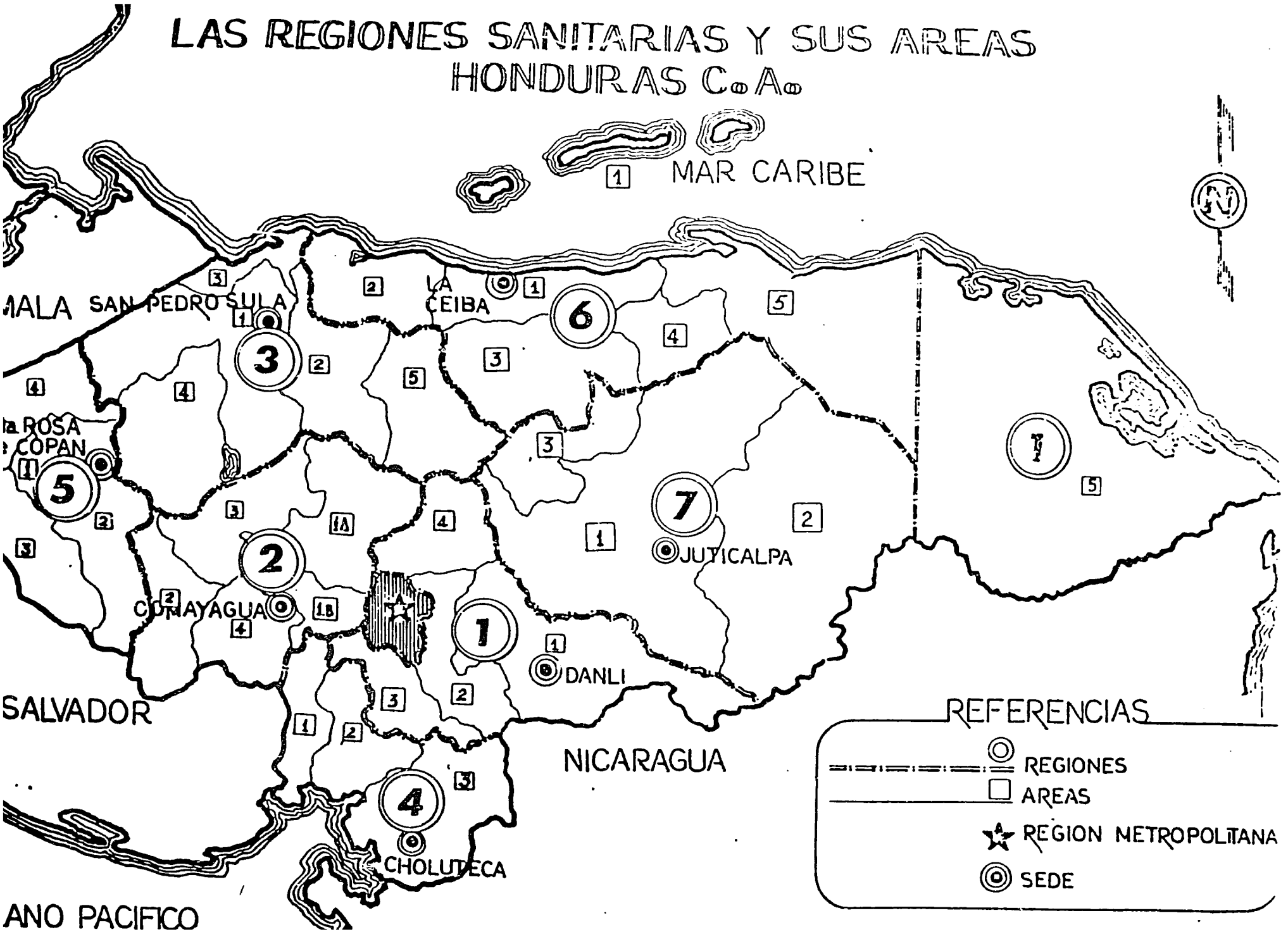

EXHIBIT 2

HONDURAS HEALTH SYSTEM : PUBLIC SECTOR

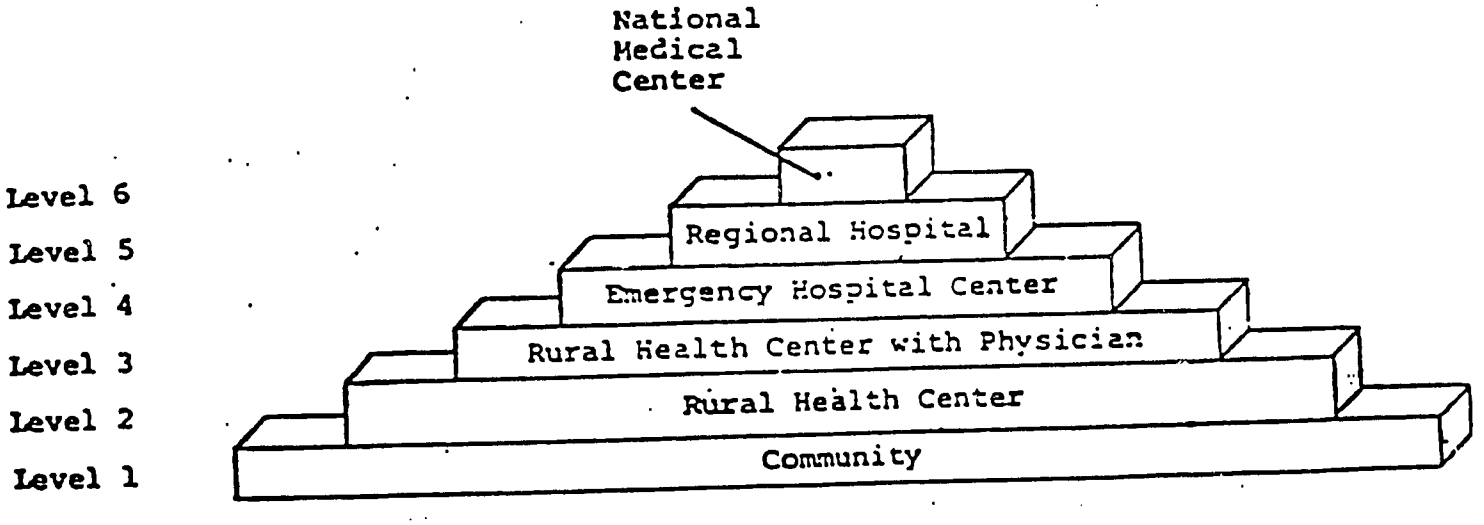

EXHIBIT 3

MPH ORGANIZATION

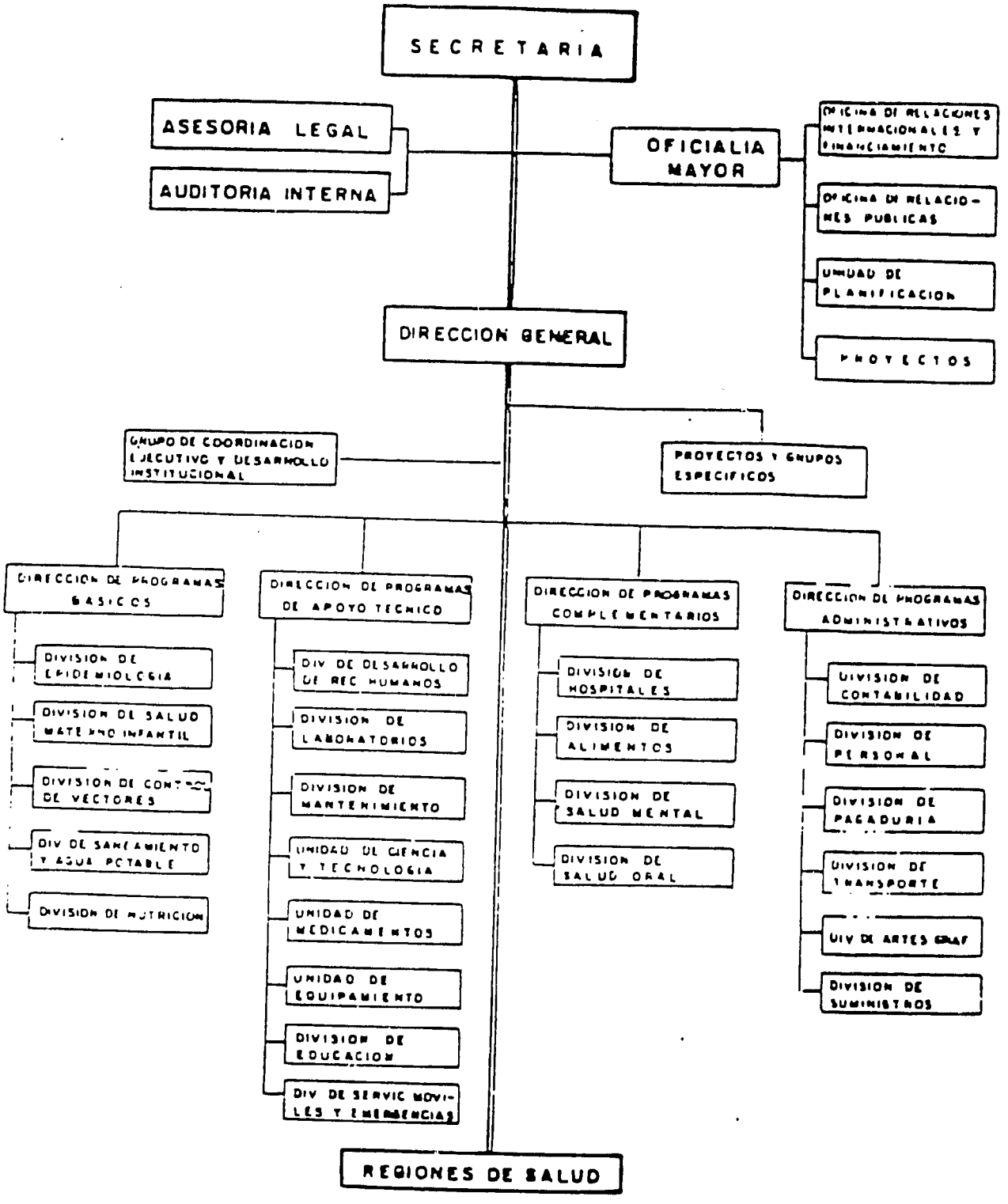

EXHIBIT 4

TOTAL HEALTH EXPENDITURES BY PROGRAM
(000 Lps)

	1979	% of foreign financing	1980	% of foreign financing	1981	% of foreign financing	1982	% of foreign financing	1983	% of foreign financing	1984	% of foreign financi
Operating Programs	59572.2		74930.4		100392.0		113775.8		118060.8		122365.5	
Health Promotion and Environmental Program	6419.1		8516.6		12037.4		12562.3		13144.3		11498.5	
Control of Communicable Diseases *	15381.4		19836.8		28990.8		34110.2		38093.5		43373.1	(32.8)
Hospital Care	33502.1		40856.8		48779.2		57081.9		57826.5		58023.7	
Central Administration	812.5		1368.9		5347.5		5104.3		4703.3		5305.5	
Normative Health Services	3457.5		4351.3		5237.1		4917.1		4293.2		4167.4	
Current Transfer to Domestic and International Organizations	744.9		833.0		1133.0		1391.9		1586.9		1379.7	
Investment Program *	26800.0	(75.3)	27987.2	(52.3)	19602.8	(30.8)	22230.8	(41.9)	37488.2	(57.9)	14959.1	
Construction of Health Centers	26800.0		27987.2		19602.8		22230.8		37488.2		14959.1	
Capital Transfers to Domestic Institutions *	22343.8	(63.4)	20924.3	(67.4)	28081.8	(69.1)	32873.9	(31.5)	28090.9	(47.9)	30630.0	(76.0)
T O T A L	109460.9	(31.4)	124674.9	(23.1)	149209.6	(70.8)	170272.4	(16.5)	185225.5	(23.2)	169337.8	

* Includes external financing

EXHIBIT 3

HEALTH EXPENDITURES, MINISTRY OF HEALTH

	1979	1980	1981	1982	1983
Overall MOH Expenditures (1000 Lps)	77148.0	103065.0	116052.0	126995.0	132029.0
Percent of Budgeted amount	67.1	68.6	72.2	73.0	71.2
Overall Health Expenditures/GDP (%)	1.76	2.07	2.20	2.25	2.2
Overall Health Expenditures/Total Exp (%)	9.5	8.9	10.06	9.5	9.8
Overall Health Expenditures per capita (Lps)	21.65	27.92	30.38	32.10	32.26
1966 Prices					
Overall Health Expenditures	35019.0	42783.0	45816.0	49801.0	42234
Overall Health Expenditures per capita	9.82	11.59	11.99	12.59	10.32

Source: Administrative Analysis Report, Birch & Davis Associates, Inc

EXHIBIT 6

BUDGETED HEALTH EXPENDITURES BY PROGRAM*
(Percentages)

	1979	1980	1981	1982	1983	1984
Operating Programs	54.42	60.10	67.28	66.81	63.73	72.28
Health Promotion and Environmental Program	5.86	6.83	8.06	7.37	7.09	6.79
Control of Communicable Diseases	14.05	15.91	19.42	20.03	20.56	25.62
Hospital Care	30.60	32.77	32.69	33.52	31.21	34.27
Central Administration	0.74	1.09	3.58	2.99	2.53	3.13
Normative Health Services	3.15	3.49	3.50	2.88	2.31	2.46
Current Transfers to Domestic and International Organizations	0.68	0.66	0.75	0.81	0.85	0.81
Investment Program	24.48	22.44	13.13	13.05	20.23	8.80
Construction of Health Centers	24.48	22.44	13.13	13.05	20.23	8.80
Capital Transfers to Domestic Institutions	20.41	16.78	18.82	19.30	15.16	18.09
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

* Includes external financing

EXHIBIT 7

PROJECTED HEALTH BUDGET BY PROGRAM TO BE FINANCED WITH DOMESTIC FUNDS
(000 Lps)

	1984[1]	1985	1986	1987	1988	1989
Operating Programs	107581.3	108558.1	110749.8	118690.9	132377.8	144791.6
Health Promotion and Environmental Program	11365.2	10159.5	9089.3	9319.6	10810.3	11790.0
Control of Communicable Diseases	28986.1	27780.4	26800.2	27030.8	28521.5	29501.3
Hospital Care[2]	58023.7	63823.1	70205.4	77224.1	84948.5	93443.4
Central Administration	5172.2	3966.6	2896.5	3127.1	4617.8	5597.5
Normative Health Services	4034.1	2828.5	1758.4	1989.0	3479.7	4459.4
Current Transfers to Domestic and International Organizations	1246.4	40.8	-	230.6	1721.3	2700.9
Investment Program[3]	6505.2	7939.0	6858.4	8134.7	4532.6	4532.2
Capital Transfers to Domestic Institutions	5650.0	4445.0	3374.7	3605.3	5096.0	6075.8
T O T A L[4]	120982.9	120982.9	120982.9	130661.5	143727.7	158100

Notes:

1. Adjusted for L2.5m budgeted cut, of which L1.7 is a reduction in transfers to domestic institutions and the rest distributed evenly among all all programs except hospital care.

2. Assumes 10% yearly growth in expenditures.

3. For the 1985-89 period the figure utilized is 40% of the overall investment plan, that is an assumption is made that 60% of the plan will be financed with external funds.

4. The MOH budget is assumed to remain at the same level for 1985 and 1986 and to grow 8% in 1987 and 10% thereafter.

5. All IDB hospitals will open upon completion of construction.

6. San Pedro Sula hospital will open on schedule and will operate at 100 percent capacity.

EXHIBIT 8

DIRECTOR GENERAL OF HEALTH

Circular No. 1-84

Tegucigalpa, D.C.

31 January, 1984

Hospital Directors

As was discussed in the recent meeting of Hospital Directors, allow me to reiterate the following:

1) Each hospital will design a plan for cost recovery that permits the progressive financing of the operational costs of the hospital in the area of medications, surgical supplies, fuel, and food. It is estimated that these areas represent around 30 percent of hospital costs.

2) In order to comply with the foregoing you must effect a substantial revision of the fees and collection mechanisms that the hospital currently uses. It will be important to develop a plan which specifies a progressive approach to increasing collections, with the objective of developing a systematic collection control system.

3) We remind you that each Hospital Director must initiate contact with organized groups from the nearby community in order to establish agreements about the health services offered, as a transitional means to the eventual extension of the services of The Social Security Institute.

4) Also, you must consider other mechanisms such as the installation of boarding facilities, the integration of Health Committees for hospital support with the participation of the vital forces of the community, and substitution of services.

We would like to remind you that you are managers of an institution that, besides being an efficient institution administratively, must guarantee its proper social mission in matters and activities concerned with health.

Sincerely

Dr. Carlos Guzman C.

Director General

cc. Minister of Public Health
cc. Deputy Director General

EXHIBIT 9

EXPENDITURES FOR ILLNESS BY TYPE OF ILLNESS

ILLNESS	Nº OF CASES	%	COSTS ($US)							
			CONSULTATION		MEDICATION		OTHER		TOTAL	
			MED	MEAN	MED	MEAN	MED	MEAN	MED	MEAN
Respiratory, Other	361	21.9	.50	4.15	.25	5.35	.25	1.10	1.00	9.05
U.R.I.	280	17.0	.25	1.45	.50	2.15	.25	.18	.50	3.10
Diarrhea	205	12.4	.50	3.25	.50	3.0	.25	1.45	1.50	6.70
Fever/Malaria	184	11.2	.50	4.15	.50	4.85	.25	1.00	1.00	9.00
Pregnancy/Birth	113	6.9	.25	3.60	.25	3.80	.25	3.65	1.50	12.60
Other G.I.	87	5.3	.50	5.15	.25	3.50	.25	1.90	1.50	10.60
Arthritis	79	4.8	1.00	6.2	2.00	8.20	.25	1.60	3.00	15.20
Headache	71	4.3	.50	4.65	.25	5.70	.25	2.60	2.50	12.95
Anemia/Malnut.	39	2.4	.50	2.90	1.50	6.85	.25	1.15	3.0	11.0
Others	229	13.9	-	-	-	-	-	-	-	-
TOTALS	1,648	100.1	.50	4.80	.50	4.70	.25	1.65	1.00	10.20

U.S.$1.00 = Lps. 2.00

Source: Fred Hartman, "The Cost of Illness in Honduras," Nov., 1984, MSH mimeo

EXHIBIT 10

EXPENDITURES FOR ILLNESS BY SOURCE OF TREATMENT

SOURCES	Nº OF CASES	%	COSTS ($US)									
			CONSULTATION		MEDICATION		TRANSPORT		OTHER		TOTAL	
			MED	MEAN	MED	MEAN	MED	MEAN	MED	MEAN	MED	MEAN
Family	508	31	-	-	.50	1.85	-	-	.25	.20	.50	2.00
Self	250	15	-	-	.50	3.20	-	-	.25	.15	.50	3.25
Private M.D.	223	14	7.50	13.65	7.50	13.65	2.0	15.25	.25	4.35	25.0	35.35
Rural Center	223	14	.25	.25	.25	2.45	.25	.20	.25	.45	.25	2.25
Rural Clinic with M.D.	149	9	.50	.85	.25	1.40	.25	2.15	.25	1.30	2.0	5.55
MPH Hosp.	126	8	.50	1.51	.35	2.50	.25	4.90	.25	5.75	4.0	14.05
Guardian	53	3	.25	.13	.25	1.05	.25	.05	.25	.06	.25	1.25
Others	102	6	.25	3.85	1.0	7.35	.25	2.20	.25	3.15	2.50	15.30
TOTALS	1634	100	1.0	4.3	1.0	4.3	.25	2.4	.25	3.0	1.0	9.13

U.S.$1.00 = Lps. 2.00

Source: Fred Hartman, "The Cost of Illness in Honduras," Nov., 1984, MSH mimeo

Financial Viability for the Health Sector

William R. Goldman
November 23, 1984

The AID-assisted Sine Saloum Rural Health Project in Senegal has been cited as a model for addressing the problems of financial self-sufficiency and recurrent costs. Due to recent major modifications in the project design, the project has been much improved and now has several particularly exemplary features, the foremost of which is the extensive community involvement in the financing and management of the service delivery system. Villagers contribute to the costs of construction and maintenance of health huts, salaries of village health workers, and the stocking of drugs in the villages. Excluding supervision costs, the villagers provide nearly 100% of the village level expenses of the health care system. Furthermore, the communities play a significant role in the design and management of the system of care. While focussing on financing and community participation, the project has not neglected management and supervision. Specific actions have been taken to improve these essential aspects of the delivery system.

While the project has many attractive features, it can also be viewed quite differently. The project has been expensive. With only 900,000 beneficiaries in the coverage area the AID per capita costs for the project has been over $3.50 per beneficiary. Thus, a similar project covering the whole country of Bangladesh would cost AID over $300 million. Furthermore, the project is not self-sufficient now. The costs of supervision, which are considerable, are paid by the Government. Most important, it appears that the impact of the project on health, that is, severe morbidity and mortality, may have been negligible. With the exception of the prophylactic administration of chloroquine it appears from the limited literature available that most of the services provided by the village health workers have been curative, usually involving the provision of drugs. Thus, with the possible exception of malaria control, after <u>seven</u> years the project appears to have done little to improve health status. The delivery system has virtually ignored the delivery of family planning services, oral rehydration therapy, and immunizations. This is in a project area with exceptionally high infant mortality (120 deaths per 1,000 live births), fertility (48 births per 1,000 population), and population growth (4% per annum).

The project managers admit that the project will continue to require external financial support for the foreseeable future and that the project has not to date effectively delivered preventive services that have an impact on health. The USAID Mission and the Government of Senegal perceive these as two major problems and intend to address them in a follow-on project. That is, they intend to support experiments to recover from the villagers the costs of supervision and to create a demand for needed preventive services to increase the health impact of the project. The "Sine-Saloum approach" is based on the argument that a financially sound service structure founded on the sales of curative services in high demand must be established before preventive services should be added to the system. The assumption is that Government primary health care (PHC) system should and can be financed by users through the purchase of curative services and drugs and that preventive services can be added, perhaps on a fee for services basis, after the financial viability of the system has been established. The credibility of the system will create demand for preventive services. After seven years, the project managers feel that the project is only partially successful, much more progress has to be made in providing the basic mortality reduction services before success can be claimed.

The intent here is not to be overly critical of the Sine-Saloum Project; it has its merits. It is too early to pass final judgement on its success or failure. The point is, it does not at this juncture deserve to be singled out as a model project. This paper proposes a different framework for considering health financing issues. Financing can not be considered in isolation, but must be related to a health goal. The major goals of AID assistance for health and population in Asia are fertility and infant and young child mortality reduction. AID is not unique in establishing these goals which are commonly held by many LDCs and other donors. The AID Asia Bureau strategy accepts that the most cost effective means of achieving this goal is through a selective primary health care (PHC) approach. Selective PHC here refers to lay worker delivery of a set of services determined by local health conditions. These are likely to include at a minimum, family planning, immunizations, oral rehydration therapy, nutrition growth monitoring, and possibly malaria control. Thus, the financial issue of most interest to us has to do with the long term financial viability of a system (both public and private) that can deliver this limited number of priority services on a country-wide basis to children and infants and fertile women. In this context, we should categorize the various financing issues into three main topics: (1) resource allocation, (2) revenue raising, and (3) cost-cutting.

Much of the discussion about the long term financial viability of health systems or the "recurrent cost problem" centers around cost cutting and/or means of raising additional revenues. The issue of resource allocation is often neglected. Yet, if the economic and financial issues are considered in the context of the health goal of fertility and infant and child mortality reduction, resource allocation becomes a key issue. There has been a tremendous amount of rhetoric about the priority of PHC since the 1978 Alma Alta Conference. In fact, for the last 20 years there has been a considerable amount of interest in basic health services for the rural poor. However, with few exceptions budgetary reality does not appear to have matched rhetoric. Most countries have paid only "lip service" to PHC. A close examination of national health budgets would likely show that there has been little change in the traditional allocation of funds with much greater resources continuing to be spent for urban-centered curative services for the middle and upper classes and for maintaining expensive medical institutions for higher education. This is at the expense of basic PHC services for the rural, less well-off majority. The standard proposed solution to the problem is that the recurrent costs of PHC cannot be met by the national government; thus, PHC services must be reduced and/or the rural people must pay, or assist in paying, for the services. This solution ignores the very real problems of inadequate demand due to low quality services, and that of differential demand for curative versus preventive services. It also fails to note that the recurrent costs of rural, selective care programs are relatively less than those of other forms of health care. However, it does avoid the more difficult political issue of reallocating resources from the urban middle class to rural lower classes.

It is the task of AID to address the issue of resource allocation in the context cited above. Allocation and affordability should be priority health policy issues. Furthermore, we should strongly discourage new development activities, e.g., donor financing of a new urban teaching hospital, that place additional demands on the Government's recurrent cost budget for urban health programs. Tracking resource allocation is particularly difficult because access to the required budgeting data is very limited. Much of the data barely exists in a useful form. Furthermore, the information is often considered by Governments to be very sensitive; thus, they are touchy about the research findings which often present politically sensitive issues. AID should support research which remains objective while providing a final product that is acceptable and can be used for productive purposes.

This paper will provide only a few brief thoughts on the other two approaches for dealing with the financing problem, revenue raising and cost-cutting, which have been analyzed and reviewed in much more detail elsewhere, especially by the World Bank. Revenue raising, or seeking alternative sources of financing, is the most common approach supported by AID for establishing the long term financial viability of health projects. Revenue raising can contribute to recurrent costs. User fees, prepayment schemes, revolving drug schemes, community and local government financing, social marketing and other types of user fees should be encouraged. However, there are important related issues that must be considered, including that of differential demand for curative versus preventive services, equity, and inadequate demand due to low quality of care. User charges can be instituted for curative care, especially that which occurs in hospitals and urban-based facilities which tend to serve those who are better off. However, we doubt that user charges can be successfully instituted for public health programs, such as immunizations and nutrition surveillance. The quality of program implementation will have a great effect on demand. Many government rural clinics offering free services are underutilized. Usage levels will continue to be low until the quality of services are improved.

Local government financing provides another important alternative to central government financing. However, historically the local governments of developing countries, unlike those of the European countries and the USA, have had limited authority to generate and spend local revenues. Further study is needed of the potential of local government financing of recurrent costs of health care.

Another alternative frequently sought to reduce the recurrent costs burden of the government is to seek ways to increase the role of the private sector in the delivery of health services. In Asia the private sector (both modern and traditional) is currently the major source of "health care." Unfortunately, the bulk of the "care" provided is curative in nature, consisting mainly of the dispensing of drugs, and has little or no effect on severe morbidity or mortality. Little attention is given to preventive health and diagnoses are often poorly substantiated. The effect of the "care" may, in fact, be negative as large quantities of antibiotics are often used inappropriately. Thus, in Asia the goal of mortality reduction will not necessarily be assisted by increased private sector service provision. The challenge is to channel private energies and resources more productively to achieve the health goals of governments and donors.

Increasing efficiency, or cost-cutting, is the third way to improve financial viability. Operations research should be used to measure the cost-effectiveness of various approaches to delivering services. More information is needed about the relative cost-effectiveness of the various mixes of service centers and providers in the delivery of basic health services. The priority should be to improve the efficiency of the most costly programs, e.g., malaria control programs, water supply and sanitation, and essential drugs supply. An improvement in the cost-effectiveness of the malaria control programs in India, which assumes 25% of total health budget, would have the potential to free a significant amount of money. In Indonesia over 50% of the Ministry of Health's budget is spent on drugs. A small savings from the drug program could substantially reduce the Government's recurrent cost burden.

The Asia Bureau feels health financing is a key strategic issue and has highlighted its importance in the Bureau's Regional Strategic Plan. Our major efforts to date in health financing include:

1. Philippines - The Primary Health Care Financing Project (FY 83-88) was designed specifically to improve utilization of financially viable PHC services managed and financed by the communities. The project provides almost $5 million for (a) the testing of 25 health care financing schemes to demonstrate the advantages of relying on communities, local government and the private sector to organize, manage, and finance their own PHC services, and (b) health policy and economic studies including analysis of the cost-effectiveness of the Government PHC program. The project addresses both revenue raising and cost-cutting issues.

2. Thailand - The USAID Mission is assisting the Government with efforts to develop a model community financing scheme. The Mission intends to build upon an ongoing PRICOR supported study analyzing existing experience with community financing for nutrition surveillance, supplemental feeding, and household sanitation.

3. Bangladesh and Nepal - AID is developing activities to assist with private social marketing of oral rehydration salts (ORS) by adding ORS to successful family planning social marketing projects in these two countries.

4. Pakistan - To address the problem of financial viability, the Mission requested Carl Stevens to analyze alternatives for health financing. Stevens's analysis provided a series of recommendations for cost recovery (user fees for

hospital services), cost cutting (reorganized and reduced PHC staff) and for resource reallocation (reallocate funding from urban hospitals to rural basic services). The Mission is currently negotiating with the Government to institute major policy changes on an experimental basis by initiating charges for various hospital services. An economist and a hospital management and financial expert plan to visit Pakistan in January to assist in the design of a system for cost recovery.

5. The Asia Bureau is currently planning to support a regional study which will build upon the themes highlighted in this paper and be designed to provide specific recommendations for policy discussion and project development. The study will focus on resource allocation issues and cost cutting measures, and also provide some guidance for cost recovery and revenue raising.

A B S T R A C T

This paper presents an overview of the principal issues, problems, and policy options in financing health services in developing countries. Expanding upon several points in earlier Notes (GEN 23 and 25), the paper first describes the essential features of the options available, which include (i) user charges, (ii) risk-sharing mechanisms, (iii) restructuring of government subsidies to providers, (iv) altering the public/private mix, and (v) reallocating resources. User charges are then discussed in detail, with an emphasis on assessing the extent to which different types of services require different sorts of pricing policies.

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THE WORLD BANK

PAYING FOR HEALTH SERVICES IN DEVELOPING COUNTRIES

September 1984

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PAYING FOR HEALTH SERVICES IN DEVELOPING COUNTRIES

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I. INTRODUCTION

Throughout the developing world, the health sector[1] is in trouble, beset by conflicting pressures rooted in financial difficulties and resource allocation problems. Governmental budgetary support for health is faltering and in some cases actually declining in real terms, as countries struggle to exercise fiscal restraint in the face of poor economic performance and burgeoning debt. At the same time, ambitious promises continue to be made for rapid improvements in health conditions—calling for substantial increases in spending. Expectations of fundamental changes in the types of services provided (e.g., to meet WHO's "Health for All by 2000" objectives) clash with reluctance to shift funds away from established programs. Worse still, escalating costs threaten to erode past health gains.

As these pressures have mounted, the Bank has been called upon increasingly to provide advice on health financing and allocation questions through its lending operations and its country economic work. Experience to date in fielding these requests has highlighted a need to clarify Bank policies in two key areas:

(1) What position should the Bank take with respect to alternative strategies for paying for health services? For example, under

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1/ Defined as in Table 1, i.e., medical services (care of patients) plus disease control programs and related activities. Sanitation, though separate in Bank operations, is included in Table 1 because of its obvious relationship to health. Water supply, another separate but related area, is excluded because it has already been extensively covered elsewhere (e.g., Saunders and Warford, 1976).

what conditions and with what provisos should the Bank support increased application of user fees for health services? Or expansion of insurance or other risk-sharing schemes? Or changes in the public/private mix that might affect the financing of the sector?

(2) What should be the Bank's stance on the allocation of expenditures within the sector? In particular, what response should be given to questions about how much should be allocated to primary health care as distinct from more costly hospital-based services? Or to preventive compared to curative, urban compared to rural, or vertical compared to horizontal services?

This paper focuses primarily on the first of these areas: financing. Conceptually, financing and resource allocation issues are, of course, closely interrelated; it is impossible to deal with the one effectively in operational settings without concurrently addressing the other. Moreover, of the two, resource allocation is in some ways more fundamental. Often one wants to know first how resources should be distributed and then how the necessary funds to support such a distribution should be generated. The present paper thus concentrates on one aspect of a broader problem. The resource allocation aspect is the subject of other ongoing work in the Bank.

The discussion is organized into three main sections, which (i) outline the nature of the problem, (ii) examine one issue--the role of user fees for services--in detail, and (iii) describe two other issues--on risk-sharing and the public/private mix--more briefly. The paper seeks to identify what the important questions are currently in the area of health financing in developing countries, and to sum up what is known and not

known about them at present. It does not purport to break new theoretical ground or to provide new research findings, and leaves the actual task of formulating proposed Bank policies to a subsequent effort; but it does present some conclusions and recommendations on a number of issues wherever the way seems clear.

II. NATURE OF THE PROBLEM

The problem of deciding how health services should be paid for is at one level simple and at another enormously complex.

At a general level, it is simple--because it is completely parallel to similar issues in other sectors, issues that already have been articulated and investigated extensively.2/ In health as elsewhere, opportunities exist to have the users of services pay for all or part of their cost through pricing mechanisms (e.g., fees for physician consultations or hospital stays; and charges for medicines). Opportunities also exist to draw on other funding sources instead or as well, including, most notably, subsidization from government revenues from general taxation. Decisions must be made about the appropriate combination of mechanisms and sources, taking into account considerations of efficiency and equity--as well as other possible factors such as overall national objectives (which may involve basic needs goals) and requirements to assure the financial viability of suppliers.

Still at this general level, certain basic principles for dealing with such problems are well known. One is that ideally each good or service should be priced so that the marginal social cost to users (counting both the fees they pay and any non-fee costs such as travel expenses) equals the marginal social benefits, after allowing for any distortions existing in other sectors. Because this criterion is difficult

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2/ See for example, Acharya (1972), Anderson and Turvey (1974), Baumol and Bradford (1970), Feldstein (1972), Munasinghe and Warford (1982), Ray (1975), and Saunders and Warford (1976).

to apply directly, due in part to the fact that marginal social benefits and costs are not always explicitly observable, it can be helpful to try to proceed in a more approximate way toward the same end, by

- first determining the strict efficiency price of the good or service (i.e., where price equals marginal private cost), and
- then asking whether there are good reasons for departing from that price level.

Typical reasons that would need to be scrutinized carefully in each particular situation include: externalities, public-good or merit-good arguments, high cost of collecting fees, difficulty in metering consumption, market failures in other sectors, equity concerns, and supply effects. In some instances, this procedure might lead to prices much higher than those prevailing at health facilities today. In other cases, more modest prices, zero prices, or even negative prices (subsidies) might be called for[3/].

Yet it is a long way from advice at this general level to concrete practical recommendations on financing strategies for the varied circumstances that developing countries actually face presently. And when one begins to get to that second level--the practical level--the issues become immensely more complex. Should service X be exempt from strict efficiency pricing in circumstances Y? How can one develop guidance to aid planners in finding their way through the myriads of possible combinations of different services and different circumstances? This paper concentrates largely on questions at this second level, on the presumption that the

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3/ The line of reasoning sketched briefly thus far will be returned to at greater length later.

general principles outlined above are already familiar and that the most critical need now is to assist countries in applying them.

What must one know about the health sector in order to make progress on such questions? The remainder of the current section summarizes several of the sector's essential features. Some are institutional, but a few are more fundamental, revealing instrinsic peculiarities of the supply and demand for health services. This is not to imply that the health sector is unique in some sense; all sectors have their distinctive attributes. But understanding the implications of those attributes can be critical.

BASIC FACTS ABOUT THE HEALTH SECTOR

Before exploring a number of subtler points, several preliminary features of the sector are worth noting.

First, the sector's "outputs"--health services--are extremely heterogeneous. Table 1 indicates the range of services provided.4/ Some, like environmental intervention (e.g., removing vegetation from stagnant waterways to control schistosomiasis) have pronounced "public good" aspects. Others have no obvious "public" or "merit" good attributes (e.g., Brazil's flourishing specialty in elective cosmetic surgery). Failure to discriminate clearly among dissimilar types of services has in the past been a major barrier to more effective analysis.

4/ General descriptive information on country-by-country expenditures in relation to gross national product and other public expenditure is provided in Annex Tables A-1 and A-2. The breakdown of expenditure across the service categories shown in Table 1 is discussed later.

Table 1. THE STRUCTURE OF THE HEALTH SECTOR IN DEVELOPING COUNTRIES: TYPES OF SERVICES AND PROVIDERS

	Central Government				Regional, Provincial and District Government Agencies	Local Government and Community Organizations		Industry and Agricultural Enterprises Para-total and Private	Private Voluntary Organizations: Missions and Other	Private Practitioners: Modern and Traditional
	Health Ministry	Social Security Agency	Other Provider Agencies/1	Public Works and Other Support Agencies		Municipalities	Villages			
1. Personal services (care of patients)										
1.1 Through health facilities (hospitals, centers physician's offices, etc.)										
1.1.1 Outpatient										
— general (mostly treatment of ill patients)				NA			NA			
— maternal and child health (preventive care for children under five, for pregnant and postpartum women)				NA			NA			
1.1.2 Inpatient				NA			NA			
— general (bed and nursing)				NA			NA			
— special services (deliveries, surgery, nutrition rehabilitation, etc.)				NA			NA			
1.2 Village health care										
1.2.1 Preventive		NA	NA	NA		NA		NA		
1.2.2 Curative		NA	NA	NA		NA		NA		
2. Disease control programs; can include, singly, or in combination:										
— vector control (e.g., spraying for malaria mosquitos)		NA	NA	NA			NA		NA	NA
— population prophylaxis (e.g., mobile teams immunize or deparasitize whole villages)		NA	NA	NA			NA		NA	NA
— environmental intervention (e.g., removing vegetation from stagnant waterways to control schistosomiasis)		NA	NA				NA		NA	NA
3. Drug sales (to individuals by private or public pharmacies; excluding drugs sold or provided free as part of services in 1 above)				NA						
4. Other Programs										
4.1 Sanitation										
— human waste disposal		NA	NA					NA	NA	NA
— general sewerage		NA	NA				NA	NA	NA	NA
— inspection (e.g., of food purveyors and processors)		NA	NA				NA	NA	NA	NA
4.2 Education and promotion on health and hygiene										
— through institutions (e.g., schools)		NA	NA				NA	NA	NA	NA
— through media (e.g., radio, posters)		NA	NA			NA	NA	NA	NA	NA
4.3 Control of pests and zoonotic diseases										
4.1.1 in domesticated animals		NA	NA			NA	NA		NA	NA
4.1.2 in wild animals		NA	NA			NA	NA	NA	NA	NA
4.4 Control of pollution										
— air		NA	NA			NA	NA	NA	NA	NA
— water (e.g., from industrial sources)		NA	NA			NA	NA	NA	NA	NA
4.5 Monitoring (e.g., for outbreaks) of communicable diseases		NA	NA					NA	NA	NA

Explanation of symbols: NA = service often not offered by this provider category.

/1 E.G., defense ministries that provide health services for service personnel; also police agencies, prisons and mental institutions that provide services for their employees and inmates.

Second, the sector's suppliers--health providers (and intermediaries like insurance systems)--are also exceptionally heterogeneous. Besides a variety of public and quasi-public agencies,[5] providers and intermediaries can include: employers with health plans, mission hospitals and clinics supported by religious organizations, several types of traditional practitioners, and an emerging private modern medical care sector. The resulting multiplicity of diverse service-provider combinations (as in Table 1) that can co-exist within a single country requires a broader approach to policy planning than central government health ministries often have taken to date.

Third, the appropriate role of government is a subject of some debate in the health sector. Should public institutions directly administer most health services or should private and quasi-public entities be the primary providers? In addition or instead, should government help finance health care indirectly--through explicit or implicit subsidies to private and quasi-public providers, or through transfers to individuals (e.g., medicaid programs)? Or should the principal function of public agencies be simply to regulate, monitor, and maintain quality control? Differing tendencies are evident in the limited data available (Table 2). Even in industrialized countries, sharply contrasting models exist, as illustrated by two otherwise comparable countries like the United Kingdom, where the public role in health services is extensive, and the United States, where it is much more limited. Furthermore, it has not helped developing countries that international organizations have not always

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5/ "Quasi-public" refers in these pages to health care coverage through entities such as social security systems or publicly owned commercial enterprises.

Table 2. PRIVATE AS A PERCENT OF TOTAL HEALTH EXPENDITURE

Country	Percentage/1	Country	Percentage/1
Developing Countries			
Afghanistan, 1976	88	Pakistan, 1982	71
Argentina, n.d.	69	Philippines, 1970	75
Bangladesh, 1976	87	Peru, 1982	53
Bostwana, 1978	48	Rwanda, 1977	37
China, 1981	32	Senegal, 1981	39
Colombia, 1978	33	Spain, 1976	39
Ghana, 1970	73	Sri Lanka, 1982	45
Haiti, 1980	65	Sudan, 1970	41
Honduras, 1970	63	Swaziland, n.d.	50
India, 1970	84	Syria, n.d.	76
Indonesia, 1982/83	62	Upper Volta, 1982	19
Jamaica, 1981	40	Tanzania, n.d.	23
Jordan, 1982	41	Thailand, 1979	70
Korea, South, 1975	87	Togo, 1979	31
		Tunisia, n.d.	27
Lesotho, 1979/80	12	Upper Volta, 1981	24
Malawi, 1980/81	23	Venezuela, 1976	58
Mali, 1981	54	Zambia, 1981	50
Mexico, 1976	31	Zimbabwe, 1980/81	21
Industrialized Countries			
Australia, 1974/75	36	Norway, 1976	4
Canada, 1975	25	Portugal, 1976	24
France, 1975	24	Sweden, 1975	8
Germany, West, 11975	23	Switzerland, 1975	34
Italy, 1975	9	United Kingdom, 1974/75	7
Japan, 1976	10	United States, 1974/75	57
Netherlands, 1974	29		

Source: Table A-3.

/1 Because sources use different definitions of "private," data for some countries are not directly comparable. See Notes to Table A-3.

attached high priority to questions of public/private mix in the past, despite the fact that the technical advice and funding they provide have far-reaching implications for government responsibilities--usually in the direction of expanding the public role.

Fourth, for government-run services, fees charged to users have generally been small or nonexistent. Fees presently recover under 15 percent of the costs of publicly provided health services in most of the developing countries where figures are available (Table 3).6/ Of course, full recovery is feasible in health for countries willing to risk adverse popular reaction. But few have been--so sensitive is health care as a political issue, overlaid with strong cultural or institutional forces as well as broad-ranging equity concerns.

Fifth, in the health sector, demand exists for "coverage" as well as services. Individuals desire and are willing to pay for protection and prevention against both ill-health and the cost of treatment. A rich array of risk-sharing, pre-payment, and insurance vehicles has accordingly begun to emerge in developing countries, although this tendency is far less advanced yet than in developed countries. Examples include not only social security systems but also employer-based coverage schemes, cooperative-based schemes, and community-financed plans. Increasing numbers of countries are now seeking information on the pros and cons of the various possibilities, and on the conditions required for success.

6/ Individually, some services recover a much higher fraction relative to their own costs alone. Also, cost recovery rates vary substantially across central, provincial, and local levels of government. For private services, cost recovery rates from user charges are much higher, although they still can be less than 100% on a sustained basis where funds are obtained from such sources as household payments into insurance schemes and foreign assistance to mission hospitals.

Table 3. REVENUE FROM USER CHARGES AS A PERCENT OF EXPENDITURE ON GOVERNMENT HEALTH SERVICES

Country 1/ 2/	% of Total Expenditure	% of Recurrent Expenditure	Notes 3/
Botswana, 1978	2.5	2.8	
Burundi, 1982	3.3	4	For Health Ministry only.
Colombia, 1980	17.3	28.4	
Ghana, 1976/77	n.a	3	Total health as a percent of recurrent expenditure. Down from 5% in 1966/67.
Indonesia, 1982/83	12.9	15.5	All levels of government, excluding government employees' insurance scheme.
Jordan, 1982	10.9	13.2	Excludes Royal Medical Service sponsored by Defense Ministry, due to lack of data.
Lesotho, 1980/81	5.2	6	Down from 16% in 1974/75
Malawi, 1982	2.8	3	
Pakistan, 1980/81	1.5	2.5	
Peru, 1981	7.2	8	Percent of total (recurrent plus capital) expenditure. Down from 12%
Philippines, 1981	6.4	6.8	Health Ministry only. Down from 14% in 1978.
Rwanda, 1982	5.7	7	
Sri Lanka, 1982	0.6	0.7	Down from 3.0% in 1974.
Sudan, 1980/81	0.9	1.4	Central government only.
Togo, 1979	n.a.	6	
Tunisia, 1982/83	1.8	2	
Zimbabwe, 1980/81	2.0	2.2	All levels of government, excluding Parirenyatwa Hospital. Down from 10% in 1974/75.

Source: Ainsworth (1984), de Ferranti (1983a), Laurent (1982), World Bank sector reviews and project documents.

n.a. = not available.

1/ For several countries not listed, insufficient data exist to compute a percentage, but other evidence implies that the figure must be either (i) zero because no fees are charged or collection is not enforced, or (ii) very small (e.g., under 2%) because fees are minimal or, again, collections is poor. Countries in this category include Angola, Bangladesh, Bolivia, Cameroon, Egypt, Gabon, Guatemala, Honduras, Jamaica, Liberia, Libya, Mali, Morocco, Nigeria, St. Lucia, Yemen (PDRY) and Zambia.

2/ In China, relatively high levels were found in reviews of the following selected areas: Shanghai County (26% for 1980); Yexian County, County Hospital (74% for 1981). See Prescott and Jamison, 1983.

3/ Figures exclude quasi-public institutions (e.g., social insurance schemes).

Sixth, the health sector is notable for the enormous gap that has developed between goals and reality in the allocation of public expenditure. Despite widespread consensus that government health budgets are far too heavily biased toward urban, hospital-based care (with the result that curative services are stressed to the detriment of preventive services), there is little evidence that this bias is lessening. In many countries, hospitals account for over half of government recurrent expenditures on health. Concomitantly, only a small fraction of the rural population in the developing world (10 to 20% according to one 1978 estimate[7]) has effective access to medical care other than through traditional practitioners.

Seventh, the sector suffers from uncertainty and shifting policies concerning the broader allocation question of how much should be devoted to health in general compared to other sectors. As economic development leads to increases in per capita incomes, there appears to be a nearly universal tendency for the share of income devoted to health services to rise also.[8] At the same time, however, governments usually are under pressure as well to invest more in other sectors, to accelerate future growth. Difficult choices must be made, involving policy judgments about the importance of health not only as a consumption good but as a contributing factor to productive capability (including effects on population growth).

These seven distinctive features of the sector, together with others noted later, condition choices of financing policies in diverse ways, as will be apparent later.

7/ Abel-Smith, 1978.

8/ See Annex A-1.

THE RANGE OF POLICY OPTIONS POSSIBLE

Beyond the basic facts above, there also are distinctive features of the health sector relating to the range of policy options available on financing. These options are far more numerous and varied than is sometimes realized, in part because the underlying issues themselves are more complex than they first appear. Figures 1 and 2 help illustrate this point.

In Figure 1, a highly simplified view of the health sector is shown. From that perspective, the salient questions of interest are (i) how user fees for government services should be structured given prevailing conditions in the private sector, and consequently (ii) what proportions of the costs of government services should be covered by user fees on the one hand and taxes on the other.

However, Figure 1 fails to capture several key additional attributes of the sector. It overlooks risk-sharing arrangements completely. It does not take into account the linkages and flows of funds among (i) providers and (ii) other institutions that channel funds to providers. Consequently, it ignores the impact of financial intermediaries ranging from large social security systems to small community plans; and it omits the crucial distinction between public health facilities as providers and government as a source of funds subsidizing providers, both public and private. The precise form this subsidization takes (e.g., direct allocations from annual government budgets; grants; contracting for services; or reductions in the costs of inputs, such as drug prices or medical staff salaries) and the basis on which it is distributed (e.g., according to the amounts of services each facility provides, or "capitation" levels reflecting the size of the population the facility is

FINANCIAL FLOWS IN THE HEALTH SECTOR — TWO VIEWS

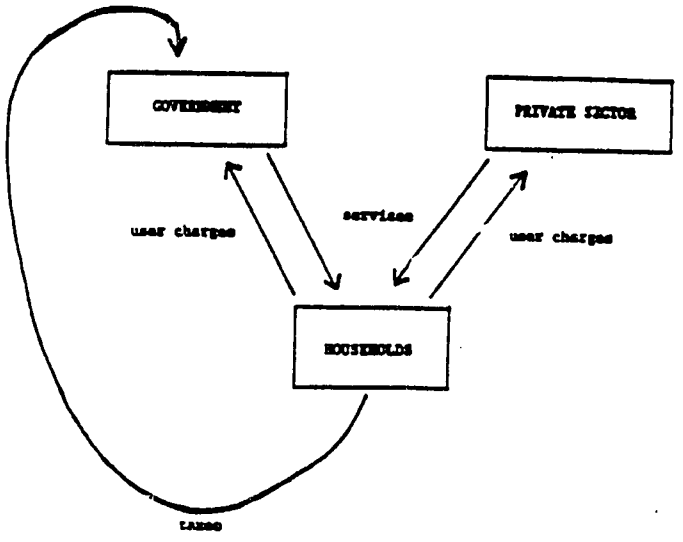

Figure 1

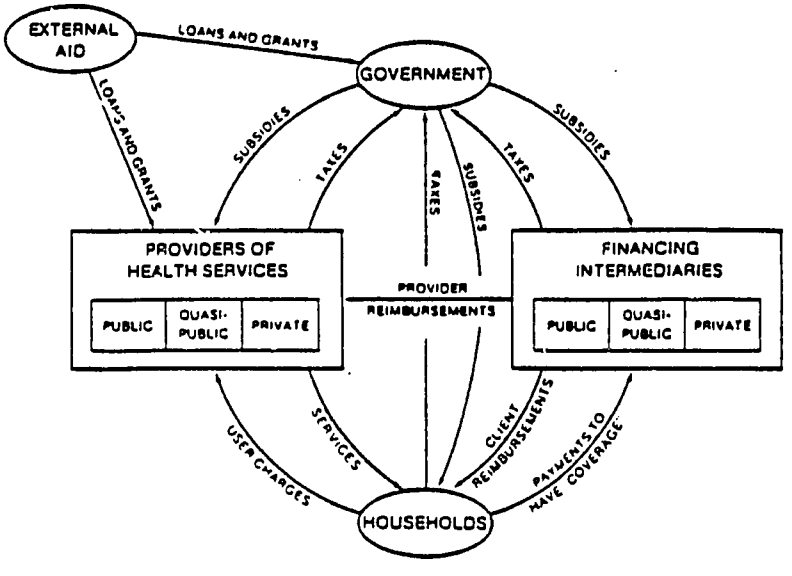

Figure 2

meant to serve) can have important efficiency and equity effects. In developed countries, questions about risk-sharing, provider-intermediary relationships, and subsidies have become as central to policy debates as issues relating to user charges.

Figure 2 is a revision of Figure 1 reflecting these additional considerations. Of course, not all countries currently have health sectors as complex as the example given there. Simpler variants predominate in the lowest income countries, where: (i) financing intermediaries may be few or little developed, (ii) private services may be mostly limited to traditional practice, and (iii) the flows between government and providers may consist solely of annual budget allocations passed through the health ministry and other official agencies. Yet as countries advance economically, socially and administratively, more intricate patterns emerge. As this happens, markedly dissimilar outcomes can result, in which some of the linkages in Figure 2 are expanded more than others and some may disappear entirely. What is most important here, though, is that all of the linkages shown are always potentially available to policymakers.

From the perspective of Figure 2, options exist at multiple entrypoints in a complex system, not just at the point where user fees enter. Choices must be made as well about the form and basis for diverse possible types of subsidies, and about the ways that participants of risk sharing schemes contribute into them (referenced in Figure 2 as "payments to have coverage"--on which more will be said later) and receive services or reimbursement in return. An even broader perspective would encompass other options too, summarized in the following overview list.

1. Improve the pricing of services.
2. Adopt new approaches to risk-sharing (i.e., improve pricing of "coverage").

3. Alter the structure of public subsidies, as manifested in
   i. government budget allocations to public health facilities;
   ii. grants and other support to private and quasi-public facilities;
   iii. reductions in the costs of health services inputs such as drug prices or medical staff salaries.
4. Change the level of government spending on health services, through:
   i. adjusting health's share of total public expenditure, and/or
   ii. raising or lowering total expenditure.
5. Revise the level or content of external assistance.
6. Use the resources already available to the health sector more efficiently (e.g., improve the allocation of resources and strengthen institutions).
7. Alter the organizational makeup of the sector (e.g., change the public/private mix).
8. Expand or contract activities in other sectors that affect health conditions (e.g., increase investment in water supply and sanitation in lieu of or in addition to extending health facilities).
9. Reorient health sector goals to conform to resource limitations (e.g., reduce targets for facility construction).

The remainder of this paper concentrates chiefly on a few items on this list, relating to fees for services, risk-sharing, and the public/private mix. The treatment of fees is fundamentally different in character --longer and more specific--than the discussion of the other two.

This emphasis is necessarily selective, and should not be construed as a judgment that certain options are less worthy of consideration than others. If more were to be said about the remaining options, one obvious topic under item 6 (using available resources more efficiently) would be possible strategies for correcting the bias toward curative, hospital-based services. Another topic, relating to items 4 and 5, would be prospective trends in domestic spending on health and external assistance (Annex A provides a brief introduction on that).

Concerning item 3 (the structure of public subsidies), a fuller treatment would note that the nature and implications of subsidies, both as they exist today and as they could be remade in the future, still remain largely overlooked in planning and policy formulation. For example, in government health services systems, where the dominant form of subsidy is the budgetary funding that individual public facilities receive from higher levels, the approaches followed in determining what amount of support each facility should have, and how they can use the sums assigned to them, continue to result in poor incentives for managers at each level. Individual facilities have very little autonomy, and possible rewards for risking innovative action are minimal or non-existent, while the potential penalties (e.g., in career advancement) may be high. On subsidies to private services--such as grants to facilities run by religious organizations--many governments ignore the contribution that private providers can make to attaining overall health sector objectives. Few recognize the enormous problems that would ensue if extant private services (e.g., the mission hospitals and clinics in Africa) were allowed to disappear because of lack of funds, leaving public facilities to fill

the void. Subsidies have become a subject of much analysis in developed countries; the time has come when they should be investigated more comprehensively for developing countries as well.

SHORTCOMINGS OF EXISTING POLICIES

Existing policies have other shortcomings as well that must be taken into account when new options are considered. Serious deficiencies exist in relation to (i) efficiency, (ii) equity, and (iii) inability to generate sufficient revenue to meet perceived requirements.9/ Purists will argue that only the first two are fundamental, and that resolving revenue shortfalls is an easier matter. Country officials and many international institutions, on the other hand, see the revenue generation issue as a central obstacle to achieving progress in the sector, and by no means trivial to put right practice. Both have a point, from their differing perspectives.

On the revenue generation issue, attention has been drawn to:

- The large and growing gap between the resources required to meet planned sectoral goals and the projected availability of funds from all sources now and in future, if present policies are retained. For example, country studies that have costed out national health plans often find they cannot be afforded (e.g., Indonesia, Zimbabwe, Pakistan).

9/ For several views on the relative importance and the sources of the prevailing problems, see Abel-Smith (1978), Golladay and Liese (1980), Griffiths and Mills (1982), Mach and Abel-Smith (1983), Health Sector Policy Paper (World Bank, 1980), and the World Health Organization (1978).

SHORTCOMINGS OF EXISTING POLICIES

A. On revenue generation, crises arise with respect to

1. meeting country goals for improving health (Now have growing gap between resource requirements and projected availability from public budget sources);

2. resolving current underfunding of existing services (Now leads to low quality; also, to insufficient spending on maintenance--requiring added investment cost to replace capital items prematurely);

3. avoiding institutional crises that can burden government finances (e.g., social security agency with deficit needing to be bailed out by treasury);

4. reconciling goals of maximizing investment for economic growth with the demands of health programs for public funds.

B. On efficiency

1. present allocation of resources is poor (not enough for the most cost-effective services);

2. operational efficiency also is low, due to problems in management, logistics, etc. (I.e., the "output"--quantity and quality--of services is low, given the levels of inputs used);

3. existing financial policies, with heavy reliance on tax sources, hinder efficiency in economy overall

   - some taxes used are highly distortionary
   - some are costly to collect

C. On equity

1. huge disparities exist presently in distribution of resources from budget sources (e.g., across provinces, urban/raral);

2. advantaged groups benefit most (e.g., emphasis on hospitals aids higher income groups);

- The pervasive underfunding of existing health services administered by government authorities, resulting in diminished quality (e.g., when drugs run out) and increased investment costs (when inadequate spending on maintenance leads to replacement of vehicles, equipment and buildings ahead of their normal expected lifetime).
- The demands on public funds to rescue institutions that become burdened by deficits (e.g., some social security systems).

In all such problems, of course, what may be perceived as a lack of enough resources may in part stem from overambitious objectives. It is the mismatch between resources and the level of actual or desired expenditures that is important, not resource availability alone.

An example of how immense this mismatch can become on a global scale is suggested by present efforts being sponsored by the World Health Organization to extend primary health care along lines set forth in the "Health for All by 2000" initiative. According to one source (WHO, 1981), the additional resources required to meet these aims would be on the order of US$50,000 million annually for the developing world as a whole, or over ten times the current total amount of official external assistance for health. This estimate unavoidably is highly speculative. Nevertheless, even under much more conservative assumptions, the resource "gap" is still enormous.

Yet efficiency and equity isues are in the end even more disturbing than the resource availability issue. Current methods of financing health services, with their heavy reliance on taxation, often adversely affect how efficiently resources are allocated and used, all the more so where taxes are distortionary or costly to collect. If, as often

happens, efficiency losses are accompanied by disparities in the distribution of services (e.g., across provinces, income or ethnic income groups, and urban vs. rural), equity also is diminished.

Underlying these tendencies is the fact that present financing policies typically have not been designed with much consideration of the incentives they create or reinforce, or of the ensuing impact on the behaviour of service providers, households, and government agencies. This is especially the case with respect to containing costs, utilizing cost-effective technologies, and minimizing inappropriate utilization of services (e.g., utilization by patients with minor complaints, impeding the handling of major cases). Lack of effective incentives in turn has hindered efforts to improve services through other routes, such as managerial and organizational initiatives aimed at institutional strengthening.

Still, the significance of the efficiency and equity issues depends on more than just the degree to which existing services are inefficient or inequitable. Also crucial is whether alternative financing policies would lead to something better. Answering that question is seldom easy, since some new policies would be an improvement in certain respects but not in others (e.g., better for efficiency, worse for equity). Yet in certain areas, as will be seen, reasonably strong conclusions are possible even with current data limitations.

III. WHAT ROLE FOR PRICING OF SERVICES?

In many countries currently, charging fees for health services is viewed with disfavor. Until very recently, there was a trend toward reducing or eliminating fees at public facilities in developing countries, and some governments have stated officially that health services should be free as a basic right for all their citizens. Nevertheless, fees continue to be widespread in the developing world. Most private spending on health is probably through user fees, if all forms of compensation to traditional practitioners are included; and private expenditure, as Table 2 showed, accounts for a large fraction of total health expenditure, often larger than in developed countries. Furthermore, public services, despite rhetoric to the contrary, do have charges in many instances, although the revenue obtained, as Table 3 indicated, usually represents a small proportion of total expenditures.

But what position ought governments to take on fees?

WHERE TO BEGIN?

Earlier, it was stated that in principle the price charged for any service or commodity in the health sector, as in other sectors, should be set so that the marginal social cost to users (counting fee and non-fee costs) equals the marginal social benefits resulting from consumption by that user of that unit of the service, after allowing for distortions existing in other sectors. Also, because that criterion can rarely be applied directly, due in part to the fact that social benefits and cost are not always observable, it may be necessary to try to proceed in a more approximate way toward the same end. To do this, one might:

- first determine the strict efficiency price of the service or commodity (price equals marginal private cost),
- then ask whether there are good reasons for departing from that price level.

When reviewing potential reasons for departing from the strict efficiency price in a particular case, one normally would need to consider a variety of issues. An attempt is made on the following page (List A) to summarize the key questions that policymakers might need to ask themselves when doing this. Although some of the questions are phrased broadly, all of the well known technical issues are present in some form, including, besides externalities, public-good and merit-good arguments, collection costs, equity concerns, and the possible supply response (in quality and/or quantity) to increase cost recovery.10/

This general approach is sharply at variance with the conventional tendency in the health sector to assume services should be provided at no charge to users unless compelling reasons emerge to the contrary. Yet that tendency lacks a persuasive conceptual foundation. By starting, instead, with the strict efficiency price, one has a clearly defensible initial benchmark. If there truly are good reasons for setting prices below that benchmark (or at zero or below zero), it should be possible to show that convincingly. The alternative of using zero as a starting value is arbitrary and potentially can lead to incorrect policies.

But the main business of this section is to explore ways of making progress in applying the general principles on a practical level. How should countries proceed? And how can discussions such as the current one be most useful in aiding them in this work?

10/ The latter issue has been stressed in recent papers by Thobani (1983) and Birdsall (1982).

LIST A: QUESTIONS TO BE CONSIDERED WHEN POLICIES INVOLVING USER CHARGES ARE EXAMINED

A. How would households respond to increased user charges?

1. Ability to Pay. Would households have enough income/resources, especially lower income groups, to pay the charges? Would they be able to convert their resources to whatever form—cash or in kind—is required for payment? If special allowances (e.g., exemptions) were made for the poor, how would that affect conclusions for other questions below?
2. Willingness to Pay. Would those who can pay want to pay? How sensitive would household choices be to fee increases (i.e., what is their fee elasticity of demand)? Would they react differently with respect to (i) choices on whether to seek a service or not and (ii) choices on which provider to go to (e.g., public or private)? Would the fact that fees are only a part of the total cost of households of obtaining services (private costs, e.g., for travel or time, can sometimes be the major share of the total) be important?
3. For those who cannot or choose not to pay, what would be the consequences? For their health status? For their productivity and income?
4. For those who can and do pay, what would the effects be? (When they pay more to receive the same amount of services, their consumption of other items must decrease. What would they not consume and would there be any significant adverse impact—e.g., from lowered food intake?)

B. How would the supply of services be affected?

1. How much in additional resources would become available (both through (i) revenue from fees and (ii) the freeing up of resources that results when those who choose not to pay reduce their utilization of services)?
2. What would the added resources be used for? Would they be assigned to optimal alternative uses within the sector or be diverted elsewhere?
3. Would reductions in utilization when charges are raised be offset by increases resulting f improvements in the supply of services? Under what conditions might the user population a whole, and various subgroups (e.g., the poor relative to the not-so-poor), be better off overall in a welfare sense?
4. Would changes in how resources are controlled and allocated be required to bring about efficient use of the added resources (e.g., abolish the practice of having all fee revenue go straight to the Treasury)?

C. Would there be special reasons for not increasing charges (concerning (i) divergences between private and social costs and benefits and/or (ii) the feasibility of administering charges)?

1. What externalities do these services have? How large are they? Is their presence a rationale for not raising fees?
2. Does the fact that households may have limited information or understanding of either their needs or the potential benefits of some health services make a difference? (E.g., when providers largely determine what services are required, as in inpatient medical care, are charges desirable?)
3. Are some services essentially "public goods," for which charges would not be workable? (E.g., for environmental interventions like draining malarial swamps, it may not be possible to exclude "free riders").
4. Would the collection cost or the administrative difficulties be too great.

D. Overall, would there be net benefits, and would they be large enough to warrant urging governments to assign high priority to developing and implementing new policies?

1. What would be the net effect on:
   - efficiency
   - equity
   - the gap between resource requirements and availability in the social sectors
2. In which of these three areas would the effect of greatest? Hence, what would be the main justification for the new policies?

Obviously, there are no simple formulas. Although much is known about calculating strict efficiency prices, the task of working through the questions in List A cannot be reduced to a routine manipulation of numbers. What is right for service X may be wrong for service Y, and what is appropriate for <u>any</u> service in circumstances Z_1 may be misguided in circumstances Z_2. Furthermore, as will become more evident below, few of the questions in List A can be resolved as yet through rigorous hypothesis testing, since relevant data remain extremely limited. There is not yet, for example, a straightforward way of quantifying certain externalities of health services. Nor is it clear that there will ever be such methodologies.

The best that can be done at present on many key issues is therefore to explore them in a largely descriptive way--but carefully, and using evidence and experiences from country case study examples. The remainder of this chapter attempts to provide just that sort of discussion, drawing on findings and conclusions from country visits and extensive report reading.[11/]

11/ Relevant (though not always complete and up-to-date) country study data exist for Argentina, Bangladesh, Bolivia, Botswana, Brazil, Burundi, Chile, China (parts of), Ghana, Guatemala, Haiti, Indonesia, Jamaica, Korea, Lesotho, Malawi, Malaysia, Mali, Nepal, Pakistan, Paraguay, Peru, Philippines, Rwanda, Senegal, Sri Lanka, Sudan, Tanzania, Thailand, Tunisia, Upper Volta, Zambia, and Zimbabwe. See references in de Ferranti (1983b). Other useful sources include Abel-Smith (1978), Mach and Abel-Smith (1983), Akin et al. (1982), Arrow (1963 and 1974), Barlow (1976), Barnum et al. (1982), Club du Sahel (1980), Creese (1979), Culyer and Wright (1978), Donaldson (1982), Drummond (1980), Dunlop (1982b), Evans et al. (1981), Golladay and Liese (1980), Gray (1982), Griffiths and Mills (1982), Heller (1975, 1978, 1982), Lee and Mills (1983), McLachlan (1982), Meerman (1979), Mesa-Lago (1983), Newhouse (1976, 1978), Olson (1981), Over (1979), PAHO (1970), Parlato and Favin (1982), Prescott (1980), Prescott and Warford (in Lee and Mills, 1983), Roemer (1971), Selowsky (1979), Sgontz (1972), Sorkin (1976), Stinson (1982), Tait and Heller (1981), Weisbrod (1961), World Bank ("Health Sector Policy Paper," 1980), World Health Organization (1975, 1978), and Zschock (1977, 1980, 1983).

Accordingly, each of the service categories identified in Table 1 has been reviewed one by one. In each case, all of the questions in List A have been considered. The results are summarized below.

Before beginning, though, a few preliminary points need to be noted. One is that some services within the health sector merit greater attention than others in debates about pricing, because resource use (and other indicators of magnitude and impact) vary substantially from service to service. In general, preventive services account for relatively small shares of the financial, human, and other resources consumed by the sector as a whole, while curative services absorb very large shares. A rough breakdown of total (public plus private) expenditure by major categories of service might look like Table 4. It should be emphasized that these figures represent best guesses only, based on imperfect country data that are not always directly comparable. With the same caveat, breakdowns on other dimensions of resource use--especially personnel--would probably be broadly similar in terms of the distribution among the three major categories shown.

Given this fact, it follows that whatever stance is taken on user charges for curative care will largely determine the degree of cost recovery for the health sector as a whole. Worrying about what should be done about policies for preventive services can thus be regarded, at least from this perspective, as secondary.

A second important preliminary point is that countries must take into account the roles and characteristics of private as well as public providers. While pricing policies for public institutions can be set by fiat, governments are far more limited in how they can influence choices by private and quasi-public entities. Policies for both kinds of providers

Table 4: COMPOSITION OF THE HEALTH SECTOR

Services[a]	Percent of total expenditure on health[b]
Curative care	70 to 87
1. Personal services (care of patients) by health facilities and independent providers, including traditional practitioners	
2. purchases of medicines	
Preventive services: patient related[c]	10 to 20
1. maternal and child health clinics, at health facilities	
2. community health programs (e.g., home visiting)	
Preventive services: other	3 to 10
1. disease control programs	
2. sanitation	
3. education and promotion of health and hygiene	
4. control of pests and zoonotic diseases	
5. monitoring disease patterns	
TOTAL	100

a/ From list in Table 1, exclusive of water supply.

b/ More precise estimates on individual countries are presented in de Ferranti (1983b). Due to definitional differences across countries, simple averages would not be meaningful.

c/ The primary services offered in this category (through the outlets listed--maternal and child health clinics and community health programs), and discussed below, are: immunization, oral rehydration therapy, growth monitoring, and promotion of breastfeeding and improved weaning practices. Another likely to be increasingly important in future is hypertension control. Oral rehydration therapy although strictly speaking a curative activity (treatment for diarrhea), can also be considered preventive--and will be here--because it has similar delivery system requirements and is essentially intended not to cure diarrhea but to prevent death from dehydration during diarrheal illness.

must be designed with an awareness of the opportunities available to households from the other. For example, planners for public facilities must consider the charging practices of nearby mission hospitals, and how existing practices affect utilization rates at both.

WHICH SERVICES? WHAT PRICE LEVELS?

A convenient place to begin is with the services classified in Table 4 as "preventive—other." This category, by far the smallest as a resource user, is comparatively simple to deal with and thus can be disposed of relatively quickly, clearing the way for then taking up the more difficult first two categories.

The "preventive—other" category can also be referred to unambiguously as "non-patient-related," since it consists exclusively of services to target areas or groups rather than to individuals singly. The other two contain only services to patients. Consequently, this section is divided into two main subsections--"patient-related services" and "non-patient-related services," with the latter discussed first.

1.0 Non-Patient-Related Services

Few advocates of user charges seriously propose that fees be instituted for non-patient-related services. Yet it is still useful to work through the reasons why—both to test that supposition and to clarify certain issues that also arise in the case of patient-related services.

To start with, it is significant that non-patient-related services, with few exceptions, involve no direct transaction (e.g., no face-to-face, one-on-one contact) between the provider and the beneficiaries. Furthermore, trying to arrange direct transactions would usually be either infeasible or extremely costly.

Consider, for example, the last two items in the "preventive—other" category: control of pests and zoonotic (i.e., animal) diseases; and monitoring of (human) disease patterns to aid in planning and in the control of epidemics. Providers of these services, typically public agencies, must have contacts with various other public officials and, in the case of the former, with owners of animals or property affected by pest infestation or wild animal attacks. Yet the ultimate beneficiaries of such programs are only identifiable vaguely as "the population in the target area." Any attempt to identify, locate, and visit beneficiaries individually would quickly become mired in intractible questions about how diseases would have spread without the intervention, who would have contracted them, and who might have benefited (e.g., children, if a parent is spared death or disability). Most beneficiaries do not even know they have benefited, or perhaps even that a service has been rendered on their behalf.

1.1 Exclusivity. If one then subjects services with this characteristic to the questions in List A, an obvious problem emerges right away: exclusivity is not assured. If a fee were charged for any of these services--other than a blanket charge levied on all residents of the target area (which then would be a tax not a true user charge)—there would be no viable way of limiting benefits to those who pay. Everyone would therefore have an incentive not to pay, since everyone stands to benefit the same whether they pay or not. The fee policy would collapse under the weight of unchecked free riderism. Fees simply are not feasible.

Given this constraint, there is little point, for these services, in exploring the remaining questions in List A in detail. On some questions, it is not inconceivable that user charges might look attractive

for certain non-patient-related services. Yet that, a fortiori, is moot: fees simply are not feasible.12/

Some non-patient-related services, however, cannot be dismissed so easily. The first item in that category in Table 4, disease control programs, has two distinct components: (i) programs that involve vector control (e.g., using insecticides against vectors such as mosquitos that carry malaria or black flies that carry onchocerciasis) and/or environmental intervention (e.g., draining mosquito breeding sites or dredging waterways infested with schistosomiasis-carrying snails); and (ii) mass compaigns for immunizing or deparasitizing entire villages. The former is like control of pests and zoonotic diseases in that no direct transaction takes place between providers and beneficiaries. Thus exclusivity is a problem; charges, other than some form of implicit tax, are infeasible. The second component, mass campaigns, is different.

1.2 Mass Campaigns. In this case, providers do have contact with each recipient of the service (e.g., the child who is immunized and his/her parents).

There is, though, another feature of mass campaigns that conflicts with charging fees for such services. By definition, a mass campaign is an undertaking where there is a definite goal to try to immunize or deparasitize the entire target group in a given geographical area, missing no one. If, on the other hand, the intent is to offer opportunities but not influence individual choices strongly, the result

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12/ Hypothetical examples can of course be concocted where charges would be feasible--e.g., if pest infestation were localized in households and its effects did not extend beyond the infested household. But these examples have little real world relevance.

would be not a mass campaign but a "mobile outreach effort," falling under one of the two patient-related categories in Table 4 (e.g., preventive maternal and child health services).

Charging fees in a mass campaign would risk reducing participation below the minimum threshold that is the campaign's target. One should probably therefore choose: either charge fees but then also just do "mobile outreach," or conduct mass campaigns but without fees.

There may, though, be a place for negative charges--incentive payments--in mass campaigns.

1.3 Sanitation Services. For yet another subcategory of non-patient-related services--sanitation--user charges are feasible in principle, but usually not desirable for several additional reasons. In many countries, the highest priority at present in the sanitation area is still the safe disposal of human excreta, to improve health conditions and make homes and communities more pleasant to live in. In places where that problem has been satisfactorily brought under control, emphasis can shift to disposal of other waste--e.g., household garbage, street trash, or industrial discharges. (Industrial discharges are not considered in the present discussion; there already is a rich literature on that subject, albeit mostly for developed countries.)

The benefits of sanitary waste disposal--especially the health benefits--acrue mostly to other individuals than to the one who deposits the waste. In the case of human excreta, the principal source of health benefits from improved sanitation is the interruption of transmission across individuals of disease-causing agents that depend for their dispersion and survival on fecal contamination of water, food, or surfaces that people touch. In this sense, one benefits from one's neighbors'

cleanliness more than from one's own. In a less precise way, the other benefits of sanitation also are largely external to the user. Eliminating the smells, flies (and other diseases they carry), unsightliness, and annoyance that result from one's own excreta, garbage, or trash may be worth little if others in one's immediate surroundings do not follow suit.

True, the benefits of sanitation are not solely externalities. A clean home in an unsanitary neighborhood may be preferred to an unclean home in the same neighborhood. Yet, the internalized benefits, being comparatively modest, may sometimes be offset by other factors--such as the fact that using sanitation services is often inconvenient and that facilities are unattractive (e.g., malodorous). This is particularly true in the many countries where pit latrines and similar low-technology solutions remain more cost-effective than piped systems and other enhancements.

Overall, considering the strength of the externalities argument and the possibility of partially offsetting internalized considerations, there is not a good basis for attempting to charge fees for sanitation services. Obviously, too, implementational obstacles--collection costs, metering, enforcement (gatekeepers for pit latrines?)--are another major problem. Negative charges conceivably could be desirable in concept; but implementation, again, looks troublesome.

1.3 Promotion and Education of Better Health Practices and Hygiene. Regarding this last subcategory of non-patient-related services, a distinction must be drawn between (i) those services that entail face-to-face contact between participants and message-presenters, either individually or in small groups (e.g., mothercraft classes or village meetings) and (ii) those that rely on distance education methods (e.g.,

radio or distribution of printed materials). On the latter--where there is no individual contact—fees are generally not feasible. Health messages are too small a part of radio broadcast time to warrant special charges on radio owners, who in any case are only a small proportion of the total listening audience in developing countries.

On the former—where providers do have contact with participants—fees are feasible and actually exist in some cases (e.g., childbirth classes for prospective parents in developed countries). The fact that the service provided is the imparting of knowledge (including the acquiring of new attitudes or behaviors) lends a special character to this subcategory, but does not, ipso facto, argue entirely against pricing. If the society in question attaches little significance to the possibility that some individuals will not be willing to pay to receive health education because they do not fully understand the potential benefits, then strict efficiency pricing should prevail. Such might be the case for any ordinary good—say, olive oil (assuming that underconsumption of olive oil as a result of ignorance of its beneficial properties is not a burning national issue). On the other hand, if failure to avail oneself of public health and hygiene programs is seen by that society as detrimental, then a lower may be warranted.[13/]

Are programs for teaching and promoting better health and hygiene in this latter category—i.e., do developing countries view them as merit goods? The willingness of virtually all countries, for as long as these programs have been in existence, to supply them through public agencies to

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13/ See also the further remarks on merit goods below under "Do Users Know Enough?"

participants free of charge must be counted as some evidence that societies do view them as merit goods. Though other services also have been provided at no charge over extended periods, there is not the same consensus of international opinion. Nevertheless, a society that chose to charge for health education programs could have perfectly good grounds for doing so.

On a more pragmatic level, continuing the current custom of offering such programs at no charge may make sense for the practical reason that improvement of pricing policies for other (i.e., patient-related) services should have higher priority. Health education and promotion programs account for a very small portion of total health expenditure. There is merit to trying to rectify the substantial problems with policies for other services first—which most countries will find no small task—before coming to this naturally more controversial area.

1.4 Conclusions for Non-Patient-Related Services. Overall, for this category as a whole, it will frequently be the case that user charges either are infeasible or should be zero or negative (i.e., incentive payments should be offered).

2.0 Patient-Related Services

In discussing these services, it is convenient to address the questions from List A in slightly different format than given originally, using the subheadings: Are Charges Feasible?; How Would Utilization Be Affected?; Externalities; Do Users Know Enough?; and Equity--Further Comments. All of the issues in List A are discussed somewhere under these subheadings.

2.1 Are Charges Feasible? This subheading covers exclusivity, metering of consumption, collection costs, and administrative problems.

2.1.1 Would exclusivity be a problem? No. In every case among the services in the first two categories in Table 4, preventive as well as curative services, there is direct, individual contact between providers and patients. Charges are feasible. Free riders can be excluded.

2.1.2 Can the Amount Consumed by Each Consumer of a Service be Determined (the Metering Problem)? Yes. Time spent by physicians and other staff with patients is one common metric. Use of drugs, other supplies, and equipment (x-ray, operating rooms) is another.

2.1.3 Would Collection Costs Be Too High? There is no absolute standard for what is "too high." In some instances, fees may be appropriate even if the cost of collecting them exceeds the revenue realized. For example, this might be the case where improving resource allocation is an important objective of pricing policies.

Little data are available on collection costs for health services. However, rough calculations suggest that facilities large enough to have beds should be able to administer a simple fee structure at a cost per patient that is well below the revenue which would be collected under marginal cost pricing. The principal source of most collection costs is the additional clerical and accounting staff required. In country case studies where salary data for such staff are available and can be compared with the total costs of facilities and programs (e.g., Peru, Senegal, and Indonesia), collection costs probably would be below 10%—possibly even well below 5%--of revenues if marginal cost pricing were applied and no accounts were delinquent. Allowing for lower prices and for delinquency, these figures would be higher, but still reasonable. For smaller facilities, the ratio of collection costs to revenue depends critically on the extent to which (i) additional staff may not be required, (ii) some

functions can be handled at a higher level (e.g., reconciliation of accounts for subcenters can be done by the centers that supervise them), and (iii) fees are merely nominal amounts, far below marginal cost.

Overall, collection costs may be excessive in certain instances, but not probably in general.

2.1.4 Would There Be Insurmountable Administrative Difficulties? Opponents of fees maintain that the multiple problems involved in collecting, managing, and accounting for patient payments are overwhelming. Yet it is a fact that fees exist now in a wide variety of situations—public and private, hospital and clinic—in all parts of world (see earlier tables). Private facilities, even in extremely difficult circumstances (e.g., mission hospitals in some of the most impoverished areas of Africa), have demonstrated that the administrative issues are manageable. When public facilities have trouble, the source is usually not the fees themselves but rather the absence of effective incentives for hospital and clinic staffs to collect revenues and utilize resources efficiently. Revenues often revert completely to higher authorities, allowing no potential for the local facilities to utilize a portion of the proceeds to improve its services. There is an argument here for reforming management incentive structures, but not necessarily for steering away from user charges in principle.

2.2 How Would Utilization Be Affected? So, user charges definitely are feasible for patient-related services. But are they desirable? Before that multi-faceted issue can be addressed effectively, it is necessary to consider—among other things—how charges might affect utilization of these services. This involves questions about ability to pay, willingness to pay, and impacts on the supply of services.

2.2.1 Ability to Pay. The extent to which households would be unable to pay user charges, and thus would reduce their utilization of services, depends on both (i) their income levels in relation to the magnitudes of the charges and (ii) their degree of access to cash money or other accepted forms of payment. Invariably, there will always be at least a few households unable to pay. Even when services are provided at no charge, the very poor sometimes are unable to afford the non-fee costs (e.g., the cost of travel to and from a health clinic, or the opportunity cost of foregoing a day's labor).

The key question is consequently whether those unable to pay are a small or large proportion of the total. If the proportion is "small" (somehow defined—presumably reflecting the importance the country attaches to compensating for income inequity), the interests of the very poor can be protected through fee exemptions or discounts. (See later section on equity.) If, on the other hand, the proportion is large, the case for fees would need to be reconsidered.

There appears to be a wide range of situations where the proportion would probably not be large for patient-related services. Data presented earlier (Table 3) showed that existing fees are often small relative to wage levels. Higher fees, closer to providers' marginal cost, would still be affordable to most households. For example, if a US$0.5 fee were charged for an outpatient consultation, households with a per capita income of US$200 annually would require only one half of one percent of their annual income to reach the WHO norm of two consultations per person per year. A household with only half as much income (US$100) would require one percent. Total household expenditure on health frequently is 3% or more of income currently, according to survey results given in Table A-1.

Of course, extended illness could still impoverish some families, particularly if there were fees for inpatient services too. However, such illnesses are relatively uncommon. (To cover them, systems of waivers and/or risk-sharing need to be considered—the same as in developed countries.)

Moreover, evidence on several countries, including Indonesia and Malawi, suggests that the implicit fees charged by traditional practitioners are much higher—by a factor of five in some instances—than prevailing public sector charges. Granted, the services provided are not the same, and households may be more willing to pay practitioners in whom they have long-standing trust than modern newcomers. Yet if the question is simply ability to pay, then clearly households do have the option of paying more for non-traditional services by cutting back on their use of traditional healers—and keeping the same overall outlay on health care.

Other information indicates as well that access to cash money or other forms of payment is less of a problem than has been supposed. Informal market processes exist in most countries to convert in-kind resources into accepted currency. Also, some health facilities will take alternatives to cash—such as food stuffs.

In short, it could not be said that ability-to-pay concerns are never a constraint in applying user charges; but neither is there evidence that charges have to be an intolerable burden.

2.2.2 Willingness to Pay. There is some empirical support for the proposition that demand for health care is substantially price-inelastic in developing countries currently, at least within the price ranges typically found in many countries. If so, then raising user charges would not, in general, reduce utilization of most patient-related

services substantially, although some noticeable shifts among alternative providers might occur.

A study that separately analyzed six types of outpatient services (adult curative, prenatal, deliveries, well-baby care, and infant immunizations) in the Bicol region of the Philippines found that, controlling for other factors, users were not sensitive to the fee level (Akin, et. al. 1982). The authors concluded that "the threshold above which costs would affect consumption behavior is apparently quite high" (p. xv). Within the range of fee levels observed, they found that increased charges would not affect either the total use of services or choices among alternative providers.

A Malaysia study, also examining several types of services (outpatient, inpatient, deliveries, and prenatal) and controlling for other factors, reached similar conclusions regarding the total use of services, but found that choice among provider is sensitive to price differences (Heller, 1976). However, the cross-elasticities were not large and not strongly significant statistically. A study for parts of Central Java in Indonesia (Ascobat Gani, 1981), working with more limited price data, obtained regression results suggesting that for certain sources of care (health centers and traditional practitioners), users prefer providers with higher fees over lower-cost alternatives--contrary to what Heller observed and to what conventional price theory would predict.

This apparently positive relationship between fee levels and utilization also has been observed in several country studies (e.g., Bangladesh, Cameroon, Ivory Coast, Lesotho, Rwanda, and Zaire), although similar data for Malawi and Tanzania imply the expected negative

relationship.[14] Since much of that evidence is anecdotal, and the influence of other factors has not been accounted for, it may not be significant. Nevertheless, one possible explanation is that users' perceptions of quality differences--whether real or imagined--dominate their concern about the cost of them. Underlying these perceptions may be fundamental problems at particular providers, such as unavailability of essential inputs (e.g., drugs), noted in studies on Mali by Ainsworth (1983).

If some of these findings are valid generally, it could be hypothesized that when households in developing countries make decisions about when to seek medical help and when not to, they are unaffected by fee levels (within the policy relevant range); but once they have decided to get help, fees influence which provider they select--though not, perhaps, enough to offset perceptions of quality differences.[15]

Willingness to pay, of course, may vary from one type of service to another. For example, one might suppose that if household heads are more willing to spend resources on curative care for adult male earners than on preventive services for infants, then demand for preventive care might be price elastic, even though curative care is not. However, the limited data available--such as the Philippines study just cited--suggest that demand for preventive care for mothers and infants is not very

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14/ See country study references in Akin, et. al. (1982) and de Ferranti (1983b).

15/ In the literature on demand for health in industrialized countries, similar patterns have been postulated. Recent studies, including one controlled experiment in the U.S., have found statistically significant negative relationships between utilization and fee level, allowing for other factors. See summaries in Newhouse (1978) and van der Gaag and Perlman (1981).

sensitive to fee level. No difference has yet been documented between preventive and curative care on this point.

Much remains to be learned, but at present there does not appear to be good cause for arguing against user charges on the grounds that many users would be unwilling to pay and hence deterred from seeking care.

2.2.3 How Would The Supply of Services Be Affected? The revenue collected through user charges, together with the freeing up of other resources (e.g., clinic staff time) that results if utilization is reduced, can be used in diverse ways. If these resources are plowed back into improving the quality or quantity of the same kinds of services as the fees are levied on, the supply of those services increases. Thobani (1983) and Birdsall (1982) have explored the implications of such an increase for efficiency and equity.

However, in practice there is little guarantee that the extra resources will in fact be retained in the same services. Fee revenues usually revert now to general government accounts, and are not necessarily reassigned back to the health sector. Within the health sector, resources generated from, say, outpatient services may be used to buy more equipment for inpatient care. These allocation choices are determined largely by program administrators—even in the case of some private institutions (e.g., mission hospitals). The influence of market forces on allocation choices is often weak.

When the extra resources made available are diverted in this way to alternative uses (including, possibly, tax abatement), the efficiency and equity effects are more difficult to determine. The country as a whole, or certain groups within it, can be either worse or better off overall. It would simplify matters greatly, of course, if one could say

that, in most cases, the effects are positive and that for the few groups and few circumstances where the impact on efficiency or equity may be negative, the magnitude is small. But the evidence examined in this review does not show that. Nor does it show the converse. The most that can be concluded is that both net positive and net negative effects are possible.

Some may argue that this assessment of the quantity and/or quality responses to price increases does not go far enough and does emphasize the entire issue strongly enough. Yet while the issue is important at the general level of debate about why user charges can be useful in principle, there is less that can be said with certainty about it as one moves to the more practical level of trying to decide what to do for service X in circumstances Y, given the ambiguities surrounding what actually happens to funds made available for reallocation. Most of what can be said is fairly obvious: namely, that countries (i) should first think about what will or might happen to the additional resources made available by a fee increase before adopting it, (ii) should try to take whatever measures are necessary to assure that these resources—and all resources—are allocated cost-effectively, so that the potential gains in efficiency (and possibly equity too, as Birdsall has shown) are in fact realized, (iii) should cancel planned fee increases if there is unequivocal evidence that the reallocated resources would be poorly used, but (iv) should go ahead if there is reason to expect that efficiency would be enhanced.16/

16/ Where efficiency would be served but equity not, there is still the possibility of discriminatory pricing to protect disadvantaged groups. This is discussed in the section below on equity.

Of special relevance here, though, is the further question of whether, in contexts where there could be efficiency gains, different services have different characteristics as far as the potential of achieving such gains is concerned. On that, hypotheses are plentiful (e.g., that reallocations tend to add more to curative care and take away from preventive activities); but there is not as yet any persuasive evidence demonstrating that a price increase for one particular service would indeed be more likely to boost efficiency than a comparable price increase for another service.

For the time being, therefore, there is not a case for exempting, or treating specifically, certain services in pricing policy planning on the basis of the expected efficiency impact.

2.3 Externalities. So far for patient-related services, no obvious candidates for departures from strict efficiency pricing have emerged. However, a few do in this and the next section, both of which deal in different ways with the question of whether full marginal cost pricing would lead users to consume what from their society's perspective might be considered the "wrong" amounts of services—too little of some and/or too much of others.

On externalities, it is frequently assumed, particularly among those unfamiliar with the health sector, that health services must have large external benefits. But a closer look suggests a different conclusion.

Benefits and costs that are external to users and suppliers of health services can arise for several reasons. On the benefit side, health services can influence the extent, pace, and virulence of disease transmission from the individual to others ("transmission externalities").

Second, and also on the benefit side, facilitating the recovery of a patient from an illness and averting disabilities or premature death can alter the lives of others in non-disease-related ways ("other-benefit externalities"). Families may be spared the loss of an earner; relatives who would assist at the sick bed may be spared the loss of work time; communities and enterprises may be spared the loss of a leader; and society at large may be spared the loss of someone who would have contributed a scientific or technological breakthrough.[17/] Finally, on the cost side, purchases of inputs and sales of outputs can affect supplies and prices in other markets, through the same sorts of pecuniary and non-pecuniary externalities as can result from other sectors' activities.

2.3.1 Transmission Externalities. The practical significance of the first externalities differs between curative and preventive services. For most curative services, it is doubtful whether any reduction in transmission probabilities is achieved. Available technologies for treatment of most infectious diseases—ranging from common respiratory and gastrointestinal illnesses to more serious viral and bacterial diseases—rarely can be made effective before diseased individuals already have had maximal infectious impact on others around them. This is to some degree true in all countries (e.g., by the time strep throat is diagnosed and antibiotics have taken hold, a large number of individuals may have been exposed). But it is even more pronounced in developing countries where weeks or months may pass before proper treatment is received, due to the sparse numbers of facilities, the chronic difficulties in obtaining

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17/ External benefits can be negative as well as positive--e.g., saving the life of a future mass murderer.

viable medicines, and the limited training of personnel. For other diseases and health problems, treatment technologies either are inherently unable to interrupt transmission (e.g., chemotherapy for the parasitic diseases--malaria, schistosomiasis, onchocerciasis) or transmission is not an issue (cardio-vascular disorders, cancers, injuries).18/

Among preventive services, there is one--immunization--for which the transmission externalities can be considerable. Countless future generations were saved from the scourge of smallpox when immunization campaigns over the last decade helped eradicate that disease forever. Current immunization efforts for measles, polio, pertussis, typhoid, diptheria and tuberculosis also can curtail the risk of infection significantly, although not yet to the epidemiological breakpoints required to achieve eradication.

Other preventive services that are patient-related have little or no transmission externalities. For example, growth monitoring of infants, antenatal and perinatal care, and instruction on breastfeeding and improved weaning practices benefit the mother and child receiving these services, but do not affect the health risks facing others. The same could be said about preventive programs for hypertension.19/

2.3.2 "Other Benefit" Externalities. On these, one ideally would like to know the net present value of the contributions (social benefits net of social costs) that others besides the afflicted individual

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18/ Far from diminishing transmission probabilities, curative services may in fact increase them, insofar as ill people congregating in cramped or poorly maintained quarters provide fertile ground for infection.

19/ Preventive, non-patient-related services do have substantial transmission externalities (e.g., earlier remarks on sanitation); but only patient-related services are being discussed here.

would have made, if that individual had not been ill or disabled or had not died early. This is not a concept that is easy to estimate. It also is not a concern unique to the health sector: one could also imagine comparable externalities from missed opportunities to educate a person, to irrigate his land, to electrify his home, etc. Usually, these externalities are assumed—with reasonably good judgment although little empirical basis--to be minor. By and large, there is no cause to treat health services differently—except in one special case.

The exception concerns preventable disabilities. Averting a disability that would seriously impair an individual's capacity to provide for him- or herself and dependents (e.g., blindness, mental retardation, paralysis) is not only an obvious (internal) benefit to that individual, but also yields important (external) benefits in the form of savings in support costs that would have to be borne by families, communities, and government programs. In some instances, the latter savings alone outweigh the cost to society of averting the disability; that is, the net present value of those benefits, less the social costs of programs that reduce the risk of disablement, is positive. Possible examples from among patient-related services include: immunization (e.g., to avert paralysis from polio); perinatal care, especially assistance at birth from trained birth attendants in a sanitary environment (e.g., to reduce the risk of complications such as oxygen deprivation leading to mental retardation); antenatal care (e.g., to avert low birth weight resulting in physical or mental handicaps); growth monitoring of infants for the first one to five years after birth, focusing on height for age and weight for age in relation to appropriate norms (e.g., to avert stunting, wasting, or subnormal mental development); and preventive measures for hypertension (e.g., for stroke).

On the other hand, several other types of health services would not necessarily meet this criterion, because either (i) the disease in question rarely results in long term disabilities (e.g., with diarrheal diseases, the patient generally either dies, in which case there are no future support costs, or recovers completely), (ii) the disease can be disabling but available technologies are not very effective in altering outcomes or the probability of disablement (e.g., Chagas' disease), or (iii) effective technologies exist but they are very expensive relative to the limited resources that the country has (e.g., chemotherapy cures for onchocerciasis).20/

Charging fees for services that cost-effectively reduce the risk of severe disablement would not be a problem if they would not deter individuals from using those services. In fact, though, demand for the services is not likely to be totally fee-inelastic, despite the empirical findings above suggesting that elasticities for health care may be small. For example, fees charged for deliveries are reported to be a deterrent in some areas of Africa to women who are considering whether to give birth at homw or in a health center. In general, in circumstances where both (i) demand is not totally fee-inelastic and (ii) positive external benefits are present (in the form of potential savings in support costs), fees may need to be set below marginal cost, or even equal to zero. The most likely candidates for this are immunization, antenatal, perinatal, growth monitoring, and hypertension control services.

20/ Because quantitative evidence on the benefits and costs of health interventions is very limited, any such classification of services largely reflects hypotheses requiring further analysis.

2.3.3 Externalities on Costs. On this third category of externalities, the comparatively small size of the health sector in economic terms (it is still less than 5% of GDP in most developing countries) limits the potential for major effects, either through input or output markets. This is not to say that important issues cannot arise, such as the foreign exchange implications of pharmaceutical purchases or the effects of physician employment policies on markets for skilled labor. However, there appear to be few instances where cost-related externalities justify differing user charge policies for some services relative to others.

In sum, then, externalities on the benefit side raise questions about the desirability of full marginal cost pricing for certain preventive services. Similar questions do not apply, though, to curative services.

2.4 Do Users Know Enough? Earlier, with respect to health education and promotion programs (in the discussion of non-patient-related services), it was argued that although users may not have complete information and understanding about their need for or the potential benefits of a particular health service, that fact should not have a bearing on pricing policies unless the society they live in attaches importance to minimizing the risk of having some individuals fail to seek the service as a result of not knowing enough about it. The notion that a society colectively wants, for certain goods (thereby identified as "merit goods"), to intervene on behalf of individual consumers to compensate for their presumed inability to act in their own best interest, is not easy to accept or deal with effectively in conventional pricing analyses. Yet to deny that such collective preferences are possible would be to ignore a pervasive and durable phenomenon in selected aspects of health care delivery.

In seeking a more precise definition of a merit good, one has several choices. One interpretation, often underlying a good deal of what might be called politicians' loose talk on the subject, is that society decides there is a minimum level (OQ in Figure 3) of certain health services which everyone should consume. Alternatively, other frequently heard arguments presume that society wants to guarantee that no one has to pay more than a certain maximum fraction of income to obtain these services (e.g., not more than OF, where F varies with the individual's income level). Both these interpretations imply a stronger interventionist role by "society" than many observors would feel is necessarily apt. There may be agreement, they would say, that some users lack important information and understanding, but not that someone else can or should correctly divine what is best for them. To avoid confounding the lack-of-information element—which should be included—with the "big brother knows best" element—which should not—it is necessary to move to a third interpretation.

The third interpretation focuses on the shift in the individual's demand curve that may occur when he or she acquires more information and comprehension. Assume that initially demand is DD in Figure 3 and then moves to D_1D_1 after new information is absorbed. D_1D_1 can in principle be either right or left of DD; but if society is correct in supposing that users would want to consume more of the service if they knew more about it, D_1D_1 will be to the right.

Around any prevailing demand curve DD there will typically be a family of alternate curves like D_1D_1, corresponding to the possibly infinitely many different levels of knowledge and understanding which the individual is capable of attaining. Suppose he or she currently does not

Figure 3

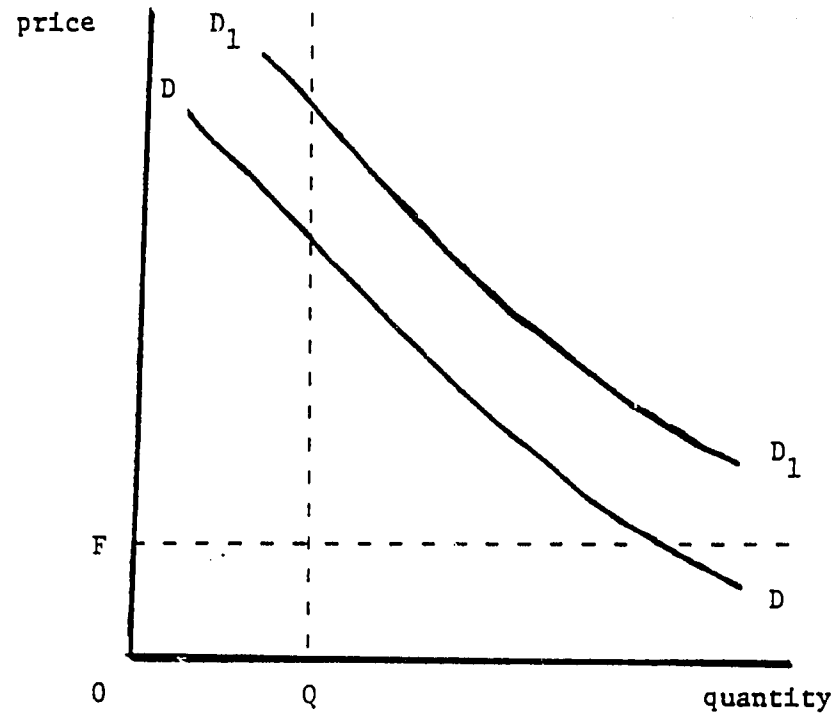
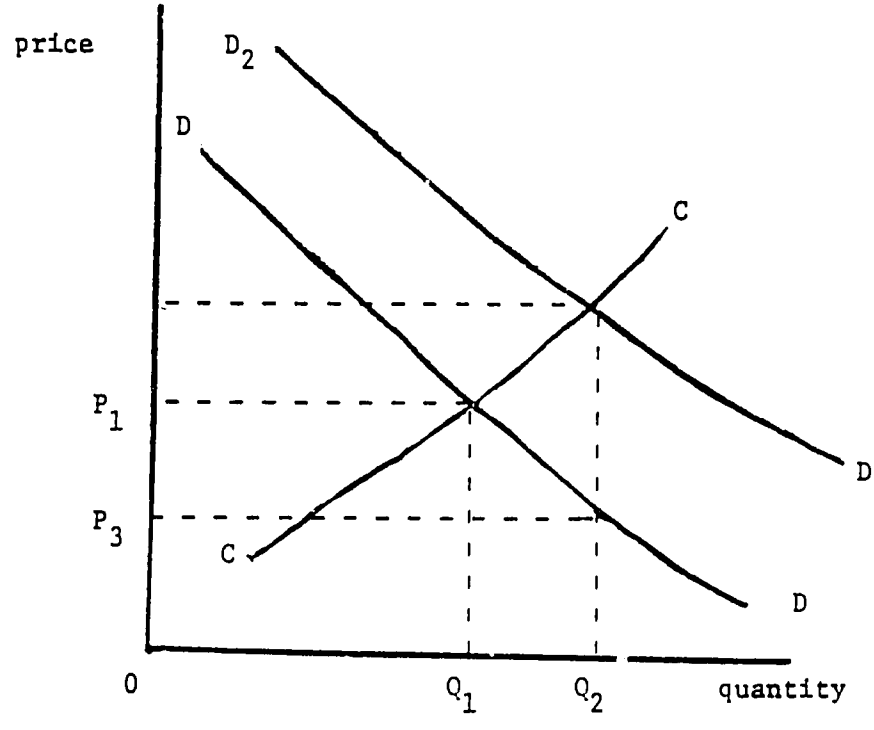


Figure 4



know certain facts or concepts which society considers crucial for everyone to know about the service and the health problem it addresses (if society does not care, the service is not a merit good), and that if these facts or concepts were known, demand would shift from DD to D_2D_2 in Figure 4. The optimal level of consumption for this individual, given society's concern about information, is OQ_2, where D_2D_2 intersects marginal cost CC. But if strict efficiency pricing is applied and thus price is OP_1, only OQ_1 is consumed, because the individual's current prevailing demand is DD. In order to raise consumption to OQ_2, price must be lowered to OP_3.

Yet how does one find D_2D_2—the benchmark for this analysis—from all the myriad of other possibilities in the family of alternate demand curves? Or to put it another way, how does one know which level of knowledge and understanding is, from society's perspective, optimal for this individual. In theory, there may exist a maximum level that the individual can achieve within a given time period, given his or her prior knowledge and capabilities as well as the limits of scientific and technological advances in the field. However, this maximum, if it exists, is not necessarily an optimum, since the costs of transferring all this added information effectively to the individual must be considered. What society in fact should want is that the individual achieves the highest level of knowledge and understanding attainable in each time period, up to the point where the marginal social cost of efforts needed to raise the level still higher would exceed the marginal social benefit. If this criterion were followed, there is no reason why, in principle, one could not compute the reduction in price (from OP_1 to OP_3) required to raise consumption to OQ_2.

In practice, of course, it is never possible to carry out all this work completely and precisely--much less even estimate prevailing demand DD reasonably well. Yet what one can do constructively is to proceed in that general direction in a more approximate way, by asking questions of the following sort for each service separately:

(i) Are there some simple but crucial facts or concepts about the service, or about the health problem it addresses, that a nontrivial proportion of the target population apparently has not been exposed to or does not yet fully comprehend? Only facts or concepts that can be easily grasped even by individuals with no formal education should be considered here. For example, the concept that infants suffering from severe diarrhea need liquids (preferably, oral rehydration solution) is both simple and crucial, but mothers do not need to comprehend the biochemical reasons why.

(ii) If these basic facts or concepts were more widely known, would demand for the service be different? Would the shift in demand lead to changes in either the health status of members of the target population or some other aspect of their welfare (e.g., would they have more or less disposable income for other uses)? Or would these consequences be too small to worry about? In the diarrheal illness example, demand for services involving the sale or administration of oral renydration salts is nonexistent among mothers who are unaware of the need for fluid replacement. But once that concept is accepted, demand for such services can be considerable. The effect on health status can be a

substantial reduction in death due to dehydration among infant diarrhea cases—a major source of deaths in most developing countries.

(iii) Could these basic facts and concepts be transmitted to the target population successfully and at reasonable cost? Programs that seek to educate populations in health and hygiene or to promote better practices have not always been effective. Some facts or concepts, even though inherently simple, may be able to be conveyed with lasting impact only at costs that far exceed the likely benefits. For example, convincing entire populations to drastically reduce their rates of smoking and other tobacco use is for the time being not realistically possible in some countries, except at unthinkable expense. In cases where essential facts or concepts cannot be cost-effectively transmitted at present, one should ask whether any lowering of price below the strict efficiency level is really warranted. There is a knotty issue here: Is a "lack" of knowledge or understanding truly a lack if there is no cost-effective way of rectifying it currently?

(iv) Is there a plausible explanation for why these basic facts and concepts have not already been acquired by the target population, through self-discovery or contacts with health providers or other individuals? (This question is included primarily to help safeguard against overuse of the lack-of-knowledge-and-understanding argument. If there is not a good explanation for the target population's ignorance

on a particular point, then the presumption of ignorance may be incorrect.) Viable explanations could include: (a) recent technical advances have not had sufficient time yet to filter through to the population at large or to remotely located groups (e.g., oral rehydration therapy is less than two decades old; some vaccines are even newer); (b) the staffs of health provider institutions in some areas, particularly rural districts, are not yet themselves aware of certain basic facts or concepts, due to inadequacies in the training they received or, again, to the recency of new developments; (c) cultural barriers (e.g., recommendations for improved weaning practicesmay conflict with long standing traditions and beliefs); or (d) intrinsic features of the new facts or concepts may hamper acceptance of them (e.g., vaccines or medicines that require multiple doses at specified intervals call for a level of patient compliance that often is not forthcoming).

If a review of the available evidence suggests that on all of these points there are solid grounds for believing that an exception to strict efficiency pricing is warranted, then lower prices should be advanced accordingly. However, if there is doubt on any one point, an exception may be inappropriate, at least until that point can be investigated further.

Applying this logic to each of the patient-related services listed in Table 1 yields the following conclusions.

2.4.1 Curative Services. On curative services, it is necessary to distinguish between those typically provided (i) at the first contact

that a patient has with the health provider for a given new affliction, and (ii) after the first contact—in follow-up visits and on referral. For first-contact services, which cover some but by no means all outpatient activities, patients and their families must decide by themselves whether or not to seek care; health providers are not involved yet. For referral services, which include all inpatient care as well as the remaining outpatient activities, the advice of providers may significantly influence, or in some cases completely replace, decisionmaking by the patient.

2.4.1.1 First Contacts in Curative Care. In the case of first-contact services, there is no clear evidence that, in general, potential users lack crucial facts or concepts they need to know about what health providers can do for them. What they need to know, for most part, is simply that when illness or injury occurs (other than obviously minor and self-correcting problems), one should seek medical help. And no more universally accepted criterion for individuals to follow in assessing when to seek help has yet been developed than: be guided by the degree of pain or other symptoms of abnormality that the patient feels--or in other words, "Get help if it hurts or annoys, wait and see if it doesn't." Few health care systems expect, and few providers would advocate, that patients and their families usually should attempt to acquire and apply more technical knowledge in the pre-first-contact phase of a problem.

This practice is not flawless, of course. Some individuals are better than others in judging when a problem will be minor and self-correcting and when, on the other hand, assistance is needed. Inefficiencies in the delivery of health care result from the twin errors represented by midly ill patients who seek care but do not need any and seriously ill patients who should seek it but stay away. However, there

are limits to how far these errors can be minimized without reacting other difficulties. Encouraging greater self-diagnosis and self-treatment, for example, would increase risks of mishandling of health problems, even in developed countries where educational levels are high.

In sum, given that users do not need to know more than they learn from personal experience, first-contact services do not meet even the first of the four tests above to qualify for below-marginal-cost pricing.

2.4.1.2 Referral Services in Curative Care. Referral services are more complex. Users are likely to know less about the nature and effects of referral than first-contact services because the technology is more complicated. At the same time, the patient's ignorance is compensated in part by the involvement of the provider in the decisionmaking. However, this involvement fundamentally alters the structure of demand for the service.

Instead of representing the individual user's own thinking exclusively, demand relationships reflect a combination of the thought processes of both the patient and the provider. If the provider's interests could be counted on always to be completely identical to those of the patient, this would be no problem. Yet in fact they may not be. Providers face different incentives. The incomes of physicians and paramedical staff, from salaries and/or their institution's retained net earnings, may depend on the volume of service provided. While the most familiar instance of this is when private practitioners rely entirely on fees for services, it can arise in other contexts too. For example, public facilities may be reimbursed by higher government agencies on the basis of reported actual quantity of services rendered (e.g., number of surgical operations performed), or staff may receive unreported side payments or

donations from patients. In addition, career advancement may depend on expanding utilization of a service; and it is even possible in some instances that a practitioner's zeal to do the maximum possible to save a life or cure an illness may entail more tests, treatment, or expense than the patient would choose.

These particular incentives all imply a potential provider bias toward giving patients more services than may be in their best interests, a hypothesis that in developed countries has come to be discussed under the heading of "supplier-induced demand." Yet there can also be incentives in the opposite direction. Staff at public facilities who are lowly paid and would gain little or nothing, either financially or in recognition or career advancement, from improving their facility's performance and efficiency may simply be eager to get through their daily rounds quickly. The organizational and managerial customs that might lead to this snuffing out, under unimaginative bureaucracy, of individual initiative are far from uncommon in many developing countries. Moreover, in countries where professional staff at public facilities can have a private practice on the side, there can be an incentive not only to "get through" quickly at the public facility but also to undersupply services there in order to deflect more patients to one's private office hours.

Some observors, drawing mainly on the experience of developed countries with these issues, have argued that all referral services ought to be provided to all users free of charge. They maintain (i) that users have insufficient knowledge to judge by themselves which referral services they should receive and in what quantities, (ii) that providers, if no fees were charged, would make appropriate decisions, and (iii) that fees, far from fostering better resource allocation in this case, would actually have

a negative effect, by deterring patients and providers from doing what is best for both the patient individually and society overall (considering the social benefits and costs involved). However, this argument fails to take into account the full range of incentives just mentioned. Merely removing fees from the picture does not guarantee that providers will generally be "right," given that other important incentive forces can remain, relating to how government reimbursements or funding allocations of public facilities are determined, how career advancement occurs, whether patients would make side payments, whether institutional arrangements encourage or stifle initiative, and other issues.

Moreover, even if incentives concerning providers' financial and other wellbeing could somehow be completely neutralized, zero-fee policies for referral services could have another drawback. When providers do what is best for the patient personally, the result may not be coincident with what is best for society. To serve the patient's interests well, the Hippocratic Oath enjoins providers to continue administering additional care as long as there is some net benefit to the patient.21/ Yet this goal may be excessive from society's perspective, since it can lead to providing some services that "cost" society more than they yield in benefits (i.e., the marginal social benefit is less than the marginal social cost—implying that greater overall welfare could be achieved by using the same resources for other purpose instead). Fees, while not a flawless means of signalling

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21/ Interpreted from a strictly medical viewpoint, this criterion could mean: as long as the marginal private benefit in health status alone is greater than zero. An alternative interpretation is: as long as the marginal private benefit in consumer welfare (not just health but everything) is greater than the marginal private cost. The marginal private cost, in the absence of fees, consists of non-fee costs such as the patient's time and travel expense.

resource scarcity to both providers and users, can nonetheless help curtail some excesses.

At the same time, it could not be said that zero-fee policies, or some other relaxation of full efficiency pricing, never are warranted for referral services. Indeed, in many countries currently, a sharp shift toward higher fees for these services, without broader reforms taking into account the totality of incentive problems at issue, could have different consequences than hoped for—possibly more detrimental than beneficial. Besides several obvious questions flowing from points above (e.g., what would be the impact on provider incomes, and the implications for resource allocation?), there would be a fundamental additional issue. namely, if users suddenly face much higher charges before risk-sharing mechanisms have had time to reach a larger percentage of the population with expanded forms of coverage, substantial numbers of patients for referral services might have to choose between going without care or suffering financial ruin.

This last problem stems from the fact that the unit costs of referral services tend to be very high, relative to costs for first-contact services (e.g., a hospital stay with surgery, compared to a fifteeen minute outpatient consultation). Thus, although events requiring expensive referral services may be rare, their impact on the patient unfortunate enough to need care can be crippling--financially, or otherwise.

There is no theoretical reason why societies necessarily should always be disturbed by this prospect, but it is an empirical fact that they typically are. No country consciously has chosen policies that do nothing to aid users in defraying the enormous costs incurred for treatment of catastrophic illness. There is, in this tendency, a merit good argument

generically different from the concepts discussed earlier, because it is unrelated to users' level of knowledge and understanding. Even if all users were maximally informed (and thus all at demand curce D_2D_2 in Figure 4 instead of DD), most societies probably would not want to expect all users of referral services to bear the entire cost by themselves.22/

Given all this, it must be concluded that referral services fo qualify for below-marginal-cost pricing in some situations. In many cases, the rationale may be essentially progmatic: other, broader reforms must be developed first. But low fees may also be required even after broader reforms have been implemented, if these reforms call for some form of protection for users against high referral care costs (e.g., through risk-sharing) on merit-good grounds.

2.4.2. Preventive Services. This leaves only the preventive services still to cover. For them, lack of information and comprehension among the target population typically is much more critical than in the case of curative services. The patient is well, not sick; the decision-maker (e.g., the mother, if the patient is an infant) must know enough to want medical care despite the absence of any sign of pain or discomfort to be relieved, or of the constant reminder and worry that goes with having an ill person in the house. Interest in receiving care must overcome evidence that no concrete benefit is visible in the short run and that, on the contrary, the patient may feel worse (e.g., after certain injections).

22/ There are a few exceptions of course, such as countries where social policy is virtually non-existent due to internal turmoil or war. Also, in centuries prior to the present one, attitudes may obviously have been very different, considering that the medical interventions possible were fewer and less efficacious.

The effect of these factors on demand can be substantial. When most of the target population is unaware or doubtful of the potential merits of a preventive service, demand for it is virtually non-existent. Yet when understanding increases, demand shifts outward significantly—as is abundantly evident in areas where mothers now travel long distances and wait long hours to attend maternal and child health clinics for well babies.

For many of the major preventive services currently feasible on a large scale in developing countries--including immunization, oral rehydration therapy,23/ antenatal and perinatal care, promotion of breast-feeding and improved weaning practices, and hypertension control--the facts and concepts that users need to know are simple and can be communicated to the target population easily and at reasonable cost. This, of course, is no coincidence: many other conceivable patient-related preventive services have not become priority activities precisely because they are not readily implementable.

In principle, therefore, preventive services, or at least the most prevalent ones, meet all of the preliminary requirements noted above for concluding that an exception from strict efficiency pricing is justified. The main remaining question is: how much do the target populations know already? If they are already well informed, the shift in demand indicated in Figure 4 has taken place in the past, and no further compensation for lack of information is needed. On the other hand, if

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23/ As in Table 4 (see Notes there), oral rehydration therapy is classified here as a preventive service, although it could also be considered a curative activity.

awareness of crucial facts is still limited, there may be a case for low, zero, or negative prices.

On immunization, the existing level of user knowledge appears to be highly uneven. In some parts of the world (e.g., Asia more than Africa, even the poorest and least educated are strongly likely to know enough about the potential benefits of immunization to be able to reach informed decisions. In other, usually less economically and socially advanced areas, ignorance of basic facts about immunization—especially the importance of going back for required second and subsequent doses of multiple dose vaccines (measles)—continues to be widespread. Coverage levels for most vaccines in these areas, even after adjusting for problems on the supply side, remain low.

On other patient-related preventive services, users generally know less. The possible benefits of good antenatal and perinatal care including the advantages of supervised, sanitary childbirth relative to traditional practices, are not widely comprehended. Growth monitoring of infants and other non-immunization services provided through maternal and child health clinics remain a mystery to many parents, although experiments have found that mothers take an intense interest in their children's growth charts when the purpose is explained to them.

2.4.3 Conclusions on Whether Users Know Enough. Preventive services, all in all, do seem to merit exempting from full marginal cost pricing. For different reasons, referral services in curative care may too in many instances. However, first-contact curative services in general do not.

2.5 Equity: Further Comments. At a general level, the effect of fees for services on equity is intrinsically ambiguous due to two partially

offsetting considerations. The first is that fees are obviously regressive compared to some alternative financing methods such as a graduated income tax. From this perspective, fees diminish equity, insofar as the distribution of income among rich and poor (after health services have been paid for) is more unequal than under other possible policies. The second is the point of Thobani (1983) and Birdsall (1982) noted earlier, implying that if the revenues collected from fees are used to increase the quantity and/or quality of basic services, many of which benefit the poor most, then the net effect of fees can sometimes be to improve equity; but this depends on how the funds are used precisely and on other conditions.

Moving, now, beyond these general considerations, can viable fee policies be devised that, without losing the efficiency-promoting benefits of raising fees above the currently very low levels, would avoid making the poor worse off overall? To achieve this aim, a country would typically need to include special provisions in its fee policies to allow for discriminatory pricing, in which different subgroups of the population would face different prices (or other determinants of the supply of services).

2.5.1 Protecting the Poor Through Discriminatory Pricing. To a degree, such provisions exist already, enabling low income groups to receive some services free or at a reduced price. One common though seldom officially documented example is the tendency for some providers, particularly at small facilities or in rural areas, to assess, informally on their own subjective judgment, a patient's ability to pay and then to require no payment from those who appear too impoverished. In some countries, more formal income tests exist, relying either on self-declaration by patients (usually not a highly successful method) or

presentation of documentation authorized by the patient's village headman or other community leader. Far easier administratively are systems that discriminate among different parts of a country geographically (e.g., facilities in predominantly poor rural areas have one fee, those in urban districts have another).

These options, however, are only the beginning. A host of additional possibilities exist whenever a given service can be offered with more than one level of convenience or comfort to users. For instance, inpatient accomodation is offered in general wards or semi-private rooms (or even more alternatives, ranging from 20 or more patients to a room, to one to a room) in many countries. The quality of medical care may be the same, but patients enjoy greater or less privacy. Not infrequently, the fees charged at present for more private rooms are much further below the marginal cost of providing that sort of accomodation than the fees for general wards are below their marginal cost. Consequently, the generally more affluent patients in more comfortable rooms may implicitly be subsidized in part by the less affluent in general wards. Strict efficiency pricing in this case, by eliminating that subsidy, would improve equity. Yet a discriminatory pricing scheme might also be considered that, while assuring that inpatient care as a whole is efficiently priced, would allow for cross-subsidization in the opposite direction--requiring the more affluent who elect semi-private care to partially subsidize the general ward patients. In private hospitals in Indonesia where this is done, the cross-subsidization is large enough to support provision of free accomodation for indigents. These and other schemes distinguishing among convenience and comfort levels can turn a potentially anti-equity strategy into one that is pro-equity, as long as there are guarantees that patients who choose the minimum level of comfort are not short-changed medically.

Overall, there is some evidence that feasible methods exist for raising fees generally while also, through discriminatory pricing provisions, protecting the interests of the poor. But examples are not yet widespread and more information is needed on precisely which methods work best (or work at all) in which circumstances. More needs to be known espeicially about the extent to which particular types of policies involving discriminatory pricing (such as the inpatient accomodation example) would affect both cost recovery and efficiency.

2.5.2 Other Equity Issues. Before leaving the general topic of equity, two other issues relating to equity should also be mentioned. Both were raised in List A:

- If fees were increased, would those who cannot or choose not to pay suffer significant adverse consequences in their health status or other aspect of their wellbeing (e.g., income)?
- Would those who do pay suffer adverse consequences too, because when they pay more for health services they have less disposable income left for other uses (e.g., less to spend on food)?

Taking the second of these questions first, the magnitude of the fee increases is clearly crucial. However, even under assumptions that presume the increases would be very large relative to current levels, it is unlikely that the additional expenditure by households on health care would absorb more than an extra one percent of disposable income. (Current total household expenditure on health is in the vicinity of three percent, according to the figures in Annex A.) The resulting reductions in other consumption would probably thus be very minor--too small to suppose that,

say, food intake or some other essential requirement would be cut drastically.

On the first question, one cannot rule out entirely the possibility that a few individuals, by being deterred by increased fees from seeking health care, will suffer some form of loss in health status and, because of that, in income or some other aspect of their welfare. However, the number of individuals sustaining such losses, and the size of the losses, may be minor for several reasons. First, as has already been noted, fewer individuals would be unable and unwilling to pay than is commonly believed. Second, events leading to health losses--illness and accidents--are relatively rare; and those that are not self-correcting or that have serious lasting impact (e.g., disability or death) are even rarer. Many visits to health providers are for temporary afflictions like viral infections. Third, among the set of health problems which are serious, many cannot be influenced efficaciously by the kinds of health providers that are available to large parts of the populations in many developing countries (e.g., a rural clinic can do little for heart patients). None of this is conclusive, but it suggests that the issue of whether higher fees would hurt health status may be less significant than it first seems.

SUMMARY

The conclusions of this chapter suggest that the health service categories identified in Table 1 fall into three groups (see following page or Table 4) with respect to pricing policies.

Beginning with the third group--"Preventive services: non-patient-related"--it was concluded that user charges in many instances

HEALTH SERVICES: CATEGORIES FOR USER CHARGE POLICIES

I. Curative Care

Includes personal services (care of patients) by health facilities and independent providers, including traditional practitioners; and purchases by users of medicines. Can be subdivided into:

(i) "first-contact" services (all outpatient)

(ii) referral services (inpatient and some outpatient)

II. Preventive care: patient-related

Includes services to well patients, particularly infants, mothers, and pregnant women; also oral rehydration therapy (see note in Table 4) and hypertension control. Delivered through maternal and child health clinics at health facilities and community health programs. Typical services aree: immunization, growth monitoring, and instruction on improved breastfeeding and weaning practices.

III. Preventive care: non-patient-related

Includes disease control (both vector control and mass campaigns), sanitation, education and promotion of health and hygiene, control of pests and zoonotic diseases, and monitoring of disease patterns.

either are infeasible or should be zero or negative (i.e., incentive payments should be offered to users). For several services in this group, true user charges aree infeasible because of an exlusivity problem: residents of the target area who decided not to pay the charge could not be excluded from receiving ther same benefits as those who do pay. Fee policies would collapse under the weight of unchecked free-riderism.

For other services in this third group, additional problems were noted, such as (i) for sanitation services (waste disposal) the large extent to which the main benefits, and particularly the social benefits, are external to the users, (ii) for mass immunization or deparasitization campaigns, the inherent conflict between their underlying strategy and the scope for individual decisionmaking that user charges require, and (iii) for health education and promotion programs, the apparent preference of many societies to treat these programs as merit goods, and some other more pragmatic considerations.

With respect to the first group—curative services—few compelling arguments <u>against</u> efficiency pricing emerged from the discussion of each of the salient issues identified in List A. While the available evidence is too limited and country circumstances are too varied to resolve some outstanding questions entirely, fees for these services undoubtedly should be increased above the current very low (or zero) levels in many cases. Policy debates on user charges for curative services should no longer presume, as was commonly done in the past, that curative services should be free <u>unless</u> some extraordinary condition favors otherwise. Rather, proposals for departures from full efficiency pricing should be subjected to careful scrutiny and required to be rigorously supported.

There is, however, one category of curative services--referral activities (all inpatient and some outpatient care)--where a different approach is needed. Significant increases in fees for referral services generally should not be undertaken until the broader complex of incentive issues affecting delivery of those services is addressed broadly. This means developing initiatives not only on fees but also concomitantly, on risk-sharing and organizational makeup--the topics of Chapter IV.

Finally, on the second group--preventive services that are patient-related--efficiency pricing may be warranted in some cases, but there often can be plausible reasons for setting prices lower (or at zero). Among these reasons are considerations relating to externalities and users' lack of information. Charges are feasible for patient-related preventive services (unlike services that are not patient-related), although issues relating to collection costs and administrative constraints are more questionable than in the case of curative services. Moreover, users do appear to be able and willing to pay for preventive services (according to the few empirical studies available)--contrary to the common hypothesis that most households will pay only for curative services. However, due to externalities and users' lack of information, it is likely that private and social demand relationships are not entirely coincident for such services as immunization, most other maternal and child health measures, and hypertension control. Immunization has social benefits in the form of "transmission externalities" that the recipient families themselves do not necessarily care about. In addition, all these particular services have external benefits associated with the prevention of disabilities, insofar as averting severe disability yields future savings in the support costs that communities, government programs, or

extended families otherwise have to bear for maintaining disabled individuals. Also, users' knowledge and understanding about their need for, and the potential benefits to them, of these services often is below what the society they live in has decided all members should have access to. Lacking certain basic facts or concepts which could be easily and cost-effectively communicated to them, their demand for the services may be weaker (lower and to the left in a price-quantity diagram) than it would be if they were better informed. This combination of externalities and lack of information may be enough, at least in some contexts, to require compensatory adjustments in pricing policies, keeping fees below marginal cost benchmarks.

IV. WHAT ROLE FOR OTHER OPTIONS?

As indicated earlier, this chapter is fundamentally different in character from the preceding one. The topics discussed here are the subject of ongoing work that is less advanced yet than efforts on fees for services. As a result, the present chapter is shorter, less complete and more of an introductory overview.

Picking up on themes raised in Chapter II, the discussion is in two parts, one on risk-sharing mechanisms and the other on the organizational make-up (public/private mix) of the health sector.

PRICING OF "COVERAGE": RISK-SHARING

Pricing of services, as Chapter II stressed and Figure 2 highlighted graphically, is not the only possible means, apart from taxation, for having users contribute to paying for health care. Users also, in many countries, pay for "coverage," insofar as they belong to risk-sharing schemes or other institutions that cover some or all of their health care needs. Such arrangements can range from social security schemes to third-party insurance to informal community-based drug cooperatives.

In some cases, coverage may take the form of a guarantee of eligibility to receive treatment when needed, at reduced or zero additional cost to the household at time of use; in other instances, it may be an assurance that any fees incurred by the household will be paid in whole or part by someone else (e.g., by a third-party insurer or a cooperative's managers). The element of risk-sharing involved may be either explicit, as in the pre-paid plans of health maintenance organizations, or implicit, as

in health care offered by employers for employees or by growers' cooperatives for their members. The payment users make (coverage charges) and the means of collection are diverse: paycheck deductions, insurance "premiums," membership dues, crop share contributions, or village assessments.

Because coverage charges do not vary with the amount of services a household receives, they, like taxes but unlike fees for services, contain no inherent disincentive to overutilization health facilities by users. However, unlike taxes, some forms of coverage charges are voluntary, in the sense that the household may be able to elect, if it wants, to cancel its coverage and spend its health outlays in some other way instead. Where this possibility exists, there is an incentive to providers and risk-sharing schemes to be responsive to household preferences regarding the type, quality and cost of care offered. Thus, while coverage charges lack the intrinsic restraining influence on household behavior that user charges have, they at least share the potential for fostering efficiency and better services through competition on the supply side. This feature diminishes, though, as the household's "degrees of freedom" lessen. For example, where suppliers are few or employers provide only one coverage option (so that individuals can only switch plans by leaving their jobs), the stimulus to efficiency may be modest. In the case of mandatory social security contributions, coverage charges become indistinguishable from taxes.

Risk-sharing concepts are attracting growing interest currently from both governments and donors as a possible alternative to having to choose between substantial increases in user charges on the one hand and continued gross underfunding of services on the other. In part, this

interest derives from a sense that risk-sharing arrangements could be made more equitable than some other types of policies, not only because those who happen to become ill and those fortunate enough to remain well share costs equally, but also because coverage charges can be graduated with respect to income level and can include exemptions for the poor. In part, too, there has been recognition of the high cost recovery potential of such schemes, since relatively modest coverage charges, when spread across an entire participant population, can raise substantial revenue. Furthermore, households' interest in participating in risk-sharing appears to be high, reflecting a widespread willingness to pay something for protection against being unable at some future time to obtain or pay for health care, even when the probability of this occurring may be small.

An additional attractive feature of risk-sharing schemes is the possibility of achieving, through them, policy options that involve appealing combinations of fees for services and coverage charges. The fees for services--called co-payment or cost-sharing--would serve primarily to deter users from unnecessary overutilization. The coverage charges would accomplish the major part of the cost recovery needed to meet expenses. In this way, the co-payment fees would foster efficiency goals from the demand side, compensating for the inability of coverage charges to do so. At the same time, fees could be kept low enough to support equity objectives and avoid denying access to poorer participants.

Against these hopeful perceptions, however, must be set the reality that existing risk-sharing schemes have numerous and not insignificant shortcomings. A brief review of some of the more salient problems follows under headings on social insurance, employer-based systems, cooperative-based schemes, and community-based systems.

Social Insurance.[24] While the details of medical care under social insurance system differ greatly from country to country, a few common features can be identified. One commonality is the fact that coverage is mostly limited to those with relatively stable wage-earning employment. Dependents of such individuals may or may not be included, while the vast numbers of marginal wage earners and subsistence farmers are, with rare exceptions, excluded. By one estimate (WHO, 1978), only 5 to 15 percent of the population in many countries with social security schemes are covered. These few also have the highest incomes. In addition, many systems provide services directly through their own facilities, rather than reimbursing participants for care received at private or general public institutions. Covered individuals thus have access to generally better equipped, less crowded hospitals and centers with better trained and better paid staff than the poorer remainder of the population.

Such trends have kindled sharp controversy. Some critics have maintained that social security aggravates social stratification and has a regressive effect overall on income equity. In their view, it undermines both public and private health care by competing with them for the limited supply of medical talent and resources, and thereby increasing the cost to users of public and private providers. The poor, it is argued, pay the

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24/ A substantial literature exists now on medical care under social insurance, including several papers by the International Labor Organization, the Pan-American Health Organization, Roemer, Mesa-Lago, Zschock, and many others. Two recent reviews (Mesa-Lago, 1983, and Zschock, 1983) extensively examine the available evidence on Latin America. Less is known for other areas, although there are a few country studies such as Dunlop (1982) on Korea and Donaldson (1982) on Nepal.

same (or a higher) percentage of their income in taxes but get less in service, due to both the siphoning off of resources for social security and the diminished political pressure to "do more for health."

Another common theme is that participants frequently pay only a flat regular contribution--typically deducted from each paycheck. Few provisions for co-payment or deductible amount have been incorporated in existing schemes.25/ Since participation may effectively be compulsory, the entire system rests on what is from the individual's perspective the same as a tax.

One possible response to these problems might be greater integration of facilities, so that the uncovered population could have some access to social security hospitals and centers. Covered groups, however, might oppose this. Alternatively, a small fraction of employees' and/or employers' contributions could be diverted to government use for aiding in provision of public services for the uncovered. In this way, social insurance programs would subsidize poorer segments of the population—instead of the reverse, as is now the case in some countries. It is not impossible that a level of subsidy that is relatively small from the insured population's standpoint (and hence need not arouse insurmountable opposition) might represent a substantial marginal increase in support for public services for the non-insured. Still another possibility is to extend coverage to include groups now excluded and to use a sliding-scale contribution schedule to have higher income participants subsidize those with lower incomes. Moves to expand coverage are already well advanced in many countries, such as Argentina, Brazil, Egypt, and India; but whether

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25/ There are, however, some exceptions—e.g., the Philippines.

there will be appreciable cross-subsidization among members remains to be seen.

The appropriate strategy for a country to follow now depends on what is in place already. For countries where social security programs already are large, entrenched and powerful (e.g., Latin America), different issues will command highest priority and different recommendations may emerge than for countries that currently have no program. In the former case, attention may need to focus on encouraging marginal—and often second-best improvements—in systems that have evolved lives of their own. On the other hand, for countries that presently have no program, the focus can be on assuring that mistakes of the past are not repeated, and that if and when a program is initiated, it is designed with broader national objectives in mind.

Employer-Based Systems. Health coverage provided by employers for their employees, whether directly through the employer's own health facilities or indirectly through third-party insurance, has several features in common with social insurance. Employer plans benefit only a select group—in this case those with jobs at firms large enough and stable enough to establish and maintain the necessary procedures and investments. Extension of coverage to dependents is sometimes limited. In most cases, no charges, whether as co-payment or deductible amounts, are levied.26/ Equity with respect to spreading of health risks and equity with respect to income distribution are well served within the covered population, but

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26/ While some firms make regular deductions from each employee's paycheck, the more typical pattern for developing countries is simply to fund health care from gross income, as an ordinary expenditure item.

probably poorly served from an overall national perspective. In Latin America, for example, employees of the armed forces and police organizations have access to their own well-equipped facilities, enabling them to be not only higher paid but also better looked after medically--as well as socially separated from--the vast majority of the population. In parts of Asia and Africa, the health plans of large agricultural enterprises have similar consequences, sometimes accompanied by a dependence on "company" services that permeates multiple aspects of the lives of employees and their households.

At the same time, employer-bsed medical care is fundamentally different from social insurance in certain respects. Because it is a private rather than public sector activity, there can be opportunities for competition among alternative means of providing the same coverage (that is, different insurance carriers, and insurance vs. direct care). The emergence of large, and (some would say) uncontrollable social insurance bureaucracies is obviated. Moreover, the risks of burgeoning cost burdens for the government's budget, such as might result if a social insurance system becomes financially unsound, are lessened. There is, of course, another side to these points too. Leaving selection of coverage strategies to numerous firms responding atomistically to market influences entails a possibility that the facilities and services created will be duplicative or otherwise ill-designed from an overall social perspective. When firms fall on hard times, coverage may be reduced or, in the case of bankruptcy eliminated entirely.

These problems conceivably could be alleviated or averted, however, through new forms of government regulatory initiatives. Clearly,

initiatives that impose substantial additional costs on industrial and agricultural firms, beyond what they would have spent anyway, may be undesirable because of the precarious financial status of some enterprises. Nevertheless, certain regulatory options would not increase firms' costs unacceptably.

For example, one conceivable target for regulation is the choice between insurance and direct care. From the standpoint of a single firm, provision of direct care has the advantage of being easier to control and, if necessary, to curtail. In some countries, however, more use of insurance may be preferrable from the perspective of longer term national goals. In situations where perpetual reliance on public funds for most health services is not viable or not in the country's best interests, expansion of employer-supported health insurance might help stimulate the growth of a competitive private setor of medical care providers. Depending on how the insurance plans are structured, they might also contribute to promoting greater uniformity in treatment practices and/or diminished social stratification. Opposite outcomes also are conceivable, but government could channel the employer health plans along constructive lines by setting and enforcing standards. In countries where direct care is preferrable to insurance (due, for instance, to the fact that employers' operational sites are located far from any centers where competent private providers might take root), standards might also be useful.

Cooperative-Based Schemes. Because social insurance and employer-based schemes that target on wage- and salary-earners reach only a small minority of the total population, a key concern in the search for alternatives to financing health services from general public revenue has been how to reach the vast majority in rural areas. Cooperative-based

schemes, in which members of agricultural cooperatives would designate a portion of their revenues to financing health services, are one possibility. Few viable examples exist yet, but the essential elements required and some of the obstacles that must be overcome have been discussed in a number of recent papers (e.g., Stevens, 1982).

Many different types of cooperatives--whether principally involved in marketing, credit extension, procurement of inputs, or some other activity--can be suitable as a basis for funding health services. The leading requirements are (i) that a stable organization exists, in which a substantial fraction of the local producers have confidence and expect to remain viable for many years to come, (ii) that some tangible transaction takes place (sale of a crop, payment of crop shares as "dues") in which most members regularly participate at frequent, routine intervals, and (iii) that there be some easily administrable way of setting aside a small fraction of the commodities (or cash) exchanged in each individual transaction and then converting the pooled proceeds into a steady flow of funding for health services. In some cases, a sub-unit of the cooperative's executive arm might directly operate health facilities; but more often, one or more cooperatives might contract with another organization specially created to serve as health services provider. The ability of the covered population to generate enough resources to sustain a health care component would have to be assessed in each instance, along with the managerial competence needed at the institutions involved. Consideration would have to be given to the effect that variations in crop prices would have on the extent and nature of the benefits provided. In addition, the potential impacts on the supply of inputs for health care, affecting the availability and price of doctors, nurses, drugs, and so on

for other segments of the health sector, would need to be taken into account. Compliance problems could be another issue: other kinds of rural insurance plans have experienced very low collection rates (Dunlop, 1982b and Donaldson, 1982). All of this is still largely unexplored terrain, and merits further investigation.

Community-Based Schemes. The idea that rural villages, urban neighborhoods and other forms of small communities can and should mobilize resources from among their own members to cover part or all of the cost of locally-provided health services has attracted intense interest recently, in the wake of debate on the role of community participation in, and the financial requirements for, meeting the Alma Ata goal of "Health for All" by 2000.

Opponents contend that too many communities are too poor to raise more than a small fraction of the funds or supplies required; that the poorest households might get short shrift; that even if communities could afford to pay, they would not be willing to support the quantity and quality of care they need; that in the many countries where free or heavily subsidized public services also exist, there would be a tendency for politically influential areas, often with higher income levels, to benefit from the subsidized services, while more impoverished locales are left to get by on their own meager resources; that the net effect would be reduced equity, both nationally by income level and across geographic areas; that it is even possible, in some tax systems, to wind up with poor communities contributing a net subsidy to support urban specialized hospital care; and that reliance on self-financing would encourage governments to provide less and less financial support for health than is in the public interest.

Advocates, on the other hand, maintain that it is unrealistic--naive, even--to believe that significant improvements in many communities' health care will come about in the foreseeable future without tapping local resources, given the limited amounts and unrealiability of other fundingsources; that on financing as on other aspects of initiating effective primary health care, full community participation is vital; that the resulting enhancement of local self-reliance and organizational capabilities would have spin-off benefits in other areas of community development; that communities would not necessarily have to cover the entire cost or even a major part, since government support may be available for some items; that the dangers of inequitable distributional effects, while real, can be avoided by proper design; and that a well-conceived scheme could contribute toward more efficient resource allocation and better health status.

Stimulated by these multifaceted concerns, a recent study by Stinson (1982) reviews more than 70 community self-financing endeavors, ranging from China's much noted national program to projects elsewhere involving only a few villages.[27/]

According to Stinson's results, nine principal methods of financing, listed in the left most column of Table 5 appear to be in use presently, of which fees for service, drug sales, and voluntary labor are the most common, but production-based prepayment (employed in China) reaches the most people. The resources generated include cash, labor, materials, and produce. The types of costs most frequently covered are construction and maintenance of health posts or other local civil works,

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27/ See also a recent review of 52 primary health care projects (American Public Health Association, 1982).

Table 5. ALTERNATIVE COMMUNITY FINANCING METHODS

methods	resources generated	types of cost supported	major factors affecting economic viability	technical status required	community prerequisites
Fee for service	Local currency; in kind (produce)	Recurrent: CHW compensation; drugs	Regularity of drug supply; ability of people to pay	Fee setting; accounting	Leadership commitment essential
Drug sales	Local currency; labor	Recurrent: drugs; CHW compensation	Regularity of drug supply; ability of people to pay; management of capital	Price setting; inventory management; accounting Premium setting; accounting	Leadership commitment essential
Personal prepayment	Local currency; in kind (produce)	Recurrent and some one-time: CHW compensation; drugs sometimes hospitalization	Willingness and ability of people to pay management and technical factors	Premium setting; accounting	Widespread understanding of prepayment essential
Production-based prepayment	Local currency; labor	Recurrent and one-time: CHW compensation; drugs; sometimes hospitalization	Market factors affecting production; management and technical factors	Premium setting; accounting	Depends on management structure
Income generation	Labor (used to create cash)	Recurrent and one-time: CHW compensation; drugs	Market factors affecting production; public willingness to participate	Depends on project	Widespread commitment to activities being supported
Community labor	Labor	One-time: facility construction; community projects	Public's willingness to participate	Facility design	Widespread commitment to activities being supported
Individual labor	Labor	Recurrent: volunteer CHWs	Turnover rate of volunteer staff; need for retraining of replacement staff	Health related skills	Community support must develop to ensure long-range support
Donations and ad hoc assessments	Local currency; materials; labor	One time: facility construction; equipment purchase	Public's willingness and ability to participate	None	Widespread support essential for assessments, though not for donations
Festivals, raffles, etc.	Local currency	One time: facility construction; equipment purchase	Public's willingness and ability to pay.	None	Commitment of community leaders may be adequate

Source: Stinson (1982).

compensation of community health workers, and the local currency costs of drug sales. All basic services, curative and preventive, that are provided within the community are being supported. The consequences for the scope and accessibility of services (Table 6) and the overall strengths and weaknesses of the different financing methods (Table 7) vary.

What does experience to date suggest should be concluded about community financing? Clearly, neither the worst fears of opponents nor highest hopes of advocates have been unambiguously vindicated. There have been both failures and successes, considering the benefits and cost broadly. This suggest that caution should be exercised when embarking on any new efforts. However, where there is reason to anticipate that such efforts might be viable, and where undesirable distributional effects can be avoided, the pace of improvement in health status may be accelerated substantially, if other sources of financing are limited.

Two further facts also emerge from experience to date. The first is that community financing will rarely be able to cover the full costs of local services. Even if drug expenses, adequate compensation of community health workers, and construction and maintenance expenditure can be provided for--which is far from assured--there are still other costs which villages and neighborhoods cannot carry. Besides relatively minor amounts for training and supervision, these other costs may include considerable outlays to upgrade health centers and other facilities needed to support community health activities. Not only might these facilities have to be expanded or new ones built, but they then have to be maintained at a higher level of recurrent costs. It will be best, for these reasons, to enter into community financing schemes with the full awareness that only a portion--perhaps just a small portion--of the costs will be recovered locally.

Table 6. EFFECTS OF ALTERNATIVE COMMUNITY FINANCING METHODS ON THE SCOPE AND ACCESSIBILITY OF PRIMARY HEALTH CARE SERVICES

method	income-related adjustments	risk sharing
Fee for service	Sliding scales feasible and common	Only the sick pay
Drug sales	Adjustments rare: indigent may be helped by supplemental funding sources	Only the sick pay
Personal pre-payment	Premiums often adjusted for household income	Risks are shared, although users still pay additional fees
Production-based prepayment	Usually all participants benefit equally, regardless of inputs	Risks are shared, although users may still pay additional fees
Income generating schemes	Most community members can contribute in some way	Risks are shared
Community labor	Most community members can contribute in some way	Risks are shared
Individual labor	Not applicable	Not applicable
Donations and assessments	Donations generally reflect donor's resources; assessments are sometimes income adjusted	Risks are shared
Festivals, raffles, etc.		Risks are shared

Source: Stinson (1982)

Table 7. OVERALL EVALUATION OF COMMUNITY FINANCE ALTERNATIVES

Methods	Strengths	Weaknesses	Appropriate Uses	Supplemental Needs	Common Problems
ee for service	Familiarity; may draw current private spending into public sector	Mostly supports curative services for those who can afford to pay; no risk sharing	Payment of health workers if moderated by sliding scale	Support for preventive and community work	Many are reluctant to pay minimally trained community worker when traditional or private practitioner is available
Drug sales	Reduces drug costs through use of unpaid labor and emphasis on limited range of essential drugs	Supports mainly curative care for those who can afford to pay; no risk sharing	Coverage of in-country drug costs	Help for the poor; foreign exchange for imports; support for preventive and community work	Supply interruptions; "decapitalization"; black marketing
Personal prepayment	Spreads health costs between the healthy and the sick	People often reluctant to pay for health care, expect when specifically required	Prepayment of fixed costs, if adjusted for family income	Back-up funds may be needed for cost overruns	Many people prefer service fees when given the option; adverse selection
Production-based	Bases financing on existing economic unit	Available for limited population groups (except where production is communal)	Appropriate for employed persons or for cooperative or communal production	Support for subsistance groups	Especially subject to economic forces
Income eneration	Allows community labor to be used for recurrent costs	Start-up costs may be especially high	Most appropriate for multisectoral (especially PVO) projects	Back-up funds	Especially subject to economic forces
ommunity labor	Uses an abundant resource	Only seasonally available and only for one-time costs	Appropriate for facility construction and maintenance	Support for recurrent costs	Community loses interest if government does not provide expected inputs
Individual labor	Uses an abundant resource	Generally available only part-time; high turnover may raise training costs	Mainly for part-time and supplemental health activities	Referral links for all but simple problems	May be unavailable when needed
Donations and ad hoc assessments	May use readily available local materials; donations allow people to contribute according to ability	Limited utility, mainly for one-time costs	Purchase of equipment or initial drug supply	Support for recurrent costs	May be difficult to motivate
Festivals, raffles, etc.	People may "enjoy" paying	Limited utility, mainly for one-time costs; low efficiency	Purchase of equipment or initial drug supply; capital construction in some countries	Support for recurrent costs	

Source: Stinson (1982).

The second point, related to the first, is that any locality prepared to embark on such a scheme will need a lot of help, both financial and organizational, during the start-up phase, and continued shoring up from time to time subsequently. It may be necessary, too, to plan on a certain drop-out rate--say, a third of all participating communities. While devising fallback arrangements for drop-outs that do not undermine the system or treat some locations unfairly may be difficult, it is worth the attempt.

ALTERING THE ORGANIZATIONAL MAKEUP OF THE SECTOR

Even with vigorous efforts to improve pricing policies in the health sector, many countries will still be faced with severe financing problems (resource constraints and efficiency and equity issues) in the remainder of the 1980s and beyond. This state of affairs provides added impetus for countries to re-examine the organizational makeup of their health sector, asking in effect (i) what sorts of public, private and quasi-public providers and financing intermediaries should there be, (ii) what roles should they have (e.g., who should provide which services), and (iii) what relationships should exist among them (who should have what forms of control or oversight over whom). In terms of Figure 2, these questions pertain to the content of the boxes and circles shown, whereas preceding topics have mostly dealt with the flows connecting them.

Deciding how much should be done by government in administering services directly and how much should be left instead to private entities (also, whether there is a place for quasi-public institutions) is not the only important issue that arises here, but it clearly is a key one. In principle, such questions should be resolved on the basis of whichever set

of organizational arrangements will result in the most efficient use of resources, taking into account equity goals and the administrative costs borne by government in fulfilling whatever regulatory or enforcement functions are assigned to it.

Whether private entities are more or less efficient than public facilities is hotly contested. Most of the evidence currently available is too anecdotal to support generalizable conclusions. Nevertheless, it seems clear that at least for some services and in some countries, governmentmay not be the most efficient provider.

A related but separate consideration is that reducing the public role in service delivery diminishes requirements for scarce public funds. Thus, encouraging substitution of private for public activities is helpful from the standpoint of government fiscal management; but it must be stressed that such measures may or may not increase efficiency for the country overall, depending on the service provision characteristics of both public and private providers.

As with policies on charges, different types of health services may call for different handling with respect to public, private and quasi-public responsibilities. For each service, two preliminary questions must be addressed before the issue of which approach is best for efficiency can be resolved. First, can and would private providers deliver the service widely and on a long-term basis? Second, if they did, would the terms on which it is offered (its distribution geographically, its quality, and the costs to households) meet whatever special constraints are deemed societally important, allowing for equity concerns? In delving into these questions, an assessment must be done of the extent to which market mechanisms, as developed in private provision of health care, would be able

or unable to lead to socially optimal amounts and allocations of expenditure. Such an assessment should consider the same sorts of issues as were indicated above for user charges, in List A. In addition, the possibility that a natural monopoly may exist for some services (e.g., because average costs decline as the quantity provided increases) must be explored.

Only a few broad observations on these points will be offered here. For certain services, there is little doubt that public agencies need to be the leading providers, for reasons already mentioned. Most of the non-patient-reelated services, as defined in Table 4 above, are in that category. For patient-related services, particularly services curative care (the first group in Table 4), the arguments in favor of a strong public role in the provision of care are, on close inspection, not very compelling. A shift toward reduction (or at least less rapid expansion) of government's share in the direct administration of curative services may therefore be appropriate in some situations, if indicated on efficiency grounds. A first step in that direction would be to allow or foster further development of private or quasi-public institutions while restraining additional growth in public facilities. Eventually, devolution of control and ultimately ownership could be considered. The shift in responsibilities should be gradual to avoid dislocation, and may require a large public role initially. Also, although government authorities would be scaling back their participation in direct administration of services, they would often need to retain or even increase their activity in planning, monitoring, and regulating.

Patient-related preventive services (the second group in Table 4) are somewhere in the middle with respect to public/private arguments. For

pragmatic reasons, it may frequently be advisable not to alter existing policies for them until more clearcut options relating to Group III have been dealt with.

Naturally, too, all of the above considerations must be applied within the context of the existing institutional setting. For example, in situations where services from more than one group are provided jointly (e.g., health centers that offer both general outpatient care and immunizations, tradeoffs must be made in selecting the best overall organizational structure.

V. CONCLUDING REMARKS

This chapter, in an attempt to summarize briefly several of the main themes advanced earlier, focuses on two broad questions. The first is: What implications do all of the foregoing discussion and conclusions have for current policymaking--that is, for action that countries, the Bank, and other international institutions can take right away without waiting for more data to become available? The second is about implications for research needs.

IMPLICATIONS FOR CURRENT POLICYMAKING

While much of the discussion has been on conceptual issues, this paper in essence has argued that present policies on how health services are paid for in developing countries need to be substantially reoriented. A case has been presented for rethinking the prevailing tendency to rely predominantly on public funding, and for moving instead toward having users bear a larger share of health care costs. Various ways of achieving that end have been suggested and explored, including greater use of user charges. Although issues relating to user charges have occupied a major portion of the paper, other possibilities have also been examined--particularly, increased roles for risk-sharing schemes ranging from large, formal social insurance systems to small, informal community-based plans. In addition, altering the organizational makeup (especially the public/private mix) of the health sector in ways that might strengthen the financing of services has been considered.

The conclusions reached imply that expanded roles for user charges, risk-sharing, and private provision of services may often be in a country's

best interests at present. Existing policies favoring public provision of services at little or no fee to users and with little encouragement of risk-sharing have been widely unsuccessful. While new initiatives reversing these trends would not always (and not automatically) lead to improvements in efficiency, equity or other aspects of a country's objectives, there do appear to be promising options for designing policies that would yield significant progress in some areas without notable losses in others (e.g., better efficiency without necessarily less equity).

Equally important, though, is the need to assess each set of specific circumstances (the country, the service, the providers, the target population, etc.) in its own right, and to tailor new initiatives to fit the requirements of those circumstances, rather than to apply a "meat-axe" approach to revamping financing policies. Health services are not all similar. For some, there can be compelling reasons for having public institutions remain the primary provider. In several of these cases, there may be good grounds as well for not charing a fee, or for keeping fees at a very nominal level (e.g., far below the benchmark of long run marginal cost). Or a long period of transition--possibly more than a decade--may be required before public involvement diminishes and/or charges are raised.

Moreover, certain services, for reasons set forth in Chapter III, are likely to warrant exempting from full marginal cost pricing in a wide range of circumstances. Most preventive services fall in this category, including maternal and child health clinic services (e.g., immunization, antenatal and perinatal care, and growth monitoring), hypertension control, and the non-patient-related services (e.g., vector control and sanitation programs). These services, however, account for only a small fraction--perhaps only 15 to 30 percent--of total expenditure on health care in

developing countries. On the other hand, for curative services, representing the remaining 70 to 85 percent, there is no prima facie case for assuming that below-marginal-cost pricing is usually justified; each situation must be assessed independently. A qualification should be added, however, for curative services of a referral nature. Often, for those services, the complex of incentives influencing providers and patients through vehicles other than fees may need to be straightened out first (e.g., through altering organizational structure or introducing more risk-sharing) before fee changes should be implemented.

Evidence on all of these points is, as has been frequently repeated, very limited. Still enough is clear to argue for action, by the Bank and borrower countries through dialogue and sectoral policy planning. The argument for increased cost recovery from users (for certain health services in some circumstances) is not inherently different or more complex from that for other sectors, where similar data constraints exist as well. The economic principles appealed to are well known and widely accepted. Given what is known now, efforts could reasonably begin immediately to reverse prevailing tendencies toward curtailing user charges, particularly for general outpatient and selected inpatient services. The roles of public and private providers could be re-examined too. Much progress is possible in these directions before the question "How far is too far?" becomes critical; and the initial steps will help generate additional information needed in addressing that question.

IMPLICATIONS FOR RESEARCH

Filling current gaps in the available evidence will require research of diverse kinds. Besides pure research and more applied country

studies, much can be learned from "natural experiments" wherever they may arise—i.e., situations where major policy changes take place and can be tracked analytically. Of course, some issues are inherently difficult to research well, others need a long time for data collection and analysis, and still others can only by elucidated if governments commit themselves to exploring subjects that often are politically sensitive. With these considerations in mind, the following priorities for next steps are suggested.

First and foremost, something must be done as soon as possible about the serious lack of reliable cost data in sufficiently disaggregated form to support at least rudimentary types of cost analysis. In several countries (including many in Africa), the sum total of all cost information routinely tabulated consists of the few pages of planned expenditures used in preparing the national budgets; actual expenditure accounts, where they exist in usable form, often are years behind, highly aggregated, and marred by inconsistencies. In other countries (e.g., in Latin America), detailed cost categories have been defined, but the numbers obtained are universally regarded as without much meaning, so poor is their quality. Progress on this problem must start with recognition by the relevant health ministry officials that a problem exists, and must be followed by a sustained effort from within the ministry to improve matters. Where those prerequisites exist, a variety of approaches (in terms of techniques, staffing, funding, timing, organization, and management) are possible, in which the Bank can be useful through technical assistance in project lending, sector and project preparation missions, and other means. The Population, Health and Nutrition Department is now raising the issue of improving financial management (of which cost data is a central part) in most of the countries

where it is working; but country interest is not always strong. A suggested strategy for upgrading financial systems (including reporting, recordkeeping, accounting, budgeting, and financial control processes) is detailed in de Ferranti (1983b).

Second, to identify more precisely the critical elements and potential of insurance-type and pre-payment vehicles, studies should be encouraged which examine existing schemes in greater depth than has been possible from present data. Both the practical workings of functioning schemes and the implications for equity and efficiency should be analyzed, with the aim of gaining better understanding of generalizable features that account for success or failure. Contrasting the experiences of a carefully chosen small group of countries could be useful here.

Third, a similar approach--looking at selected country experience more rigorously than has been possible from current evidence, and focusing on both "how things work" and "who benefits, who loses?"--should be pursued in studies of mixed public/quasi-public/private systems. All systems, in a sense, have this mixed nature; what is needed is analysis of cases where quasi-public and private services not only exist but have a recognized place in the government's health planning, complementing in some particularly noteworthy way the publicly administered services.

Fourth, on user charges, additional demand studies should be initiated, drawing on household survey evidence to investigate ability and willingness to pay and other issues. One study--funded with Bank support--on Mali--has already been completed and another--on Peru--is in process. These, however, will be unable to resolve several key issues which are not directly related to price, such as the implications of users' imperfect knowledge about medical services. Special studies are needed to

address those issues, which are as important to understand as price effects. Also, results for a greater range of different country situations would strengthen the base of information beginning to become available.

ANNEXES

Health's Share of Government Expenditure and External Assistance

The outpouring of hopeful exhortations in the period since Alma Ata to increase external aid for health and boost health's share of government expenditure has not brought the dramatic changes that some had anticipated. In fact, nothing in the recent past, present, or near future (given current economic projections) suggests that funds from outside the sector will do more than rise slowly in the next five to ten years. In some countries a period of no increase, or of a decrease after adjusting for inflation, may occur. This is not to say that pressing for larger outlays is a mistake; but if ardent promotional efforts are allowed to suppress hard thinking about additional, more realistic options, there will be little to cheer about in the year 2000.

The total amount of external aid to the health sector has been estimated for 1979 at US$3 500 million.[a] There is little prospect that it has risen much since then, and even less chance that it will soon reach the US$7 000 to 30 000 million or more that some say would be needed to attain the HFA/2000 goals. (Again, the precise amounts are less important than the simple point that a radical departure from past levels would be required.) In the early 1980s, external aid for all sectors (these data do not exist for health alone) has fluctuated between approximately 3% and 13% above the 1979 level, based on inflation-adjusted data for OECD and OPEC

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[a]From WHO, 1981. A slightly lower figure, US$3 000 million, for 1978, is given in (7).

countries through 1982.[b] In view of more recent developments (especially concern about international debt problems), a steady upward trend is improbable soon; the 1984 figure may well be below 13%. In addition, there is some evidence that health's proportion of total external aid certainly has not increased and may have fallen since 1979. The United States, accounting for by far the largest amount of total aid among OECD and OPEC countries, spent over 20 percent less on health assistance in 1983 than it did in 1979 (inflation-adjusted).[c]

Regarding health's share of domestic public expenditure, the situation is equally unpromising. Tables A-1 and A-2 present estimates of several basic expenditure indicators describing the prevailing trends. Table A-1, included as background information, provides a one-point-in-time profile for most of the countries in the low income and lower middle income groups (as listed in 8), in each case using the most recent evidence obtainable. Analysis of these and related data underscore several general features of health sector expenditure patterns, including:

- The enormous differences, across income level (i.e., per capita Gross National Product), in health expenditure per capita (in 1980, public health expenditure per capita averaged US$2.8 for the low income group and US$7.0 for the lower middle group. These compare with US$28.1 for the upper middle group and over US$400 for industrialized countries);
- The fact that the share of GNP spent on health rises as income level increases, although this relationship is weaker among developing countries than industrialized nations (in 1980, public

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[b]Computations by author from data in (8), Table 18.

[c]Personal communications with USAID officials.

health expenditure as a percent of GNP averaged under 1.5% for the low and middle income groups combined, and over 3.5% for the industrialized countries);

- The similarly positive but weak correlation between income level and health's share of total government expenditure (in 1980, the low income group devoted 5.0% of their central government outlays to health, the middle income group devoted 5.5%, and the industrialized countries, 12.0%);
- The large magnitude of private spending on health relative to public spending; (In some countries—e.g., Upper Volta, Haiti, and the Philippines - the difference is more than a factor of 2, implying that 67 percent or more of health expenditure is through private channels including not only modern facilities but also traditional practitioners); and
- The tendency for household spending on health as a proportion of household income to be between 1 and 5 percent in most countries.

Table A-2 traces how two of these indicators have changed over the last decade. Public expenditure per capita on health, after adjusting for inflation and population growth, exhibited a generally rising trend in some 34 of the 47 countries shown a falling trend in about 8, and a fluctuating or constant pattern in the remainder.[d] In the low income group and the upper middle income group, the number with a rising trend exceeded those

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[d]These classifications are based on comparing the figures for the first and last years given, using the arbitrary criterion that a difference of less than 5 index points (5% of 100) is too small to count as a rising or falling trend. For the data on health's share of total public expenditure, the corresponding cutoff was 0.3 percentage points (e.g., 0.3 out of 4.9 for Ethiopia in 1977).

with a falling trend by 2 to 1; in the lower and upper middle income groups, gainers led losers by 4 to 1. Over the same period, health's share of total public expenditure fell in 25 countries rose in 14, and varied in some other way in the rest. In the low income group, falling trends dominated (11 of 14), as they did also in the upper middle income group (7 of 11); but they were in the minority (7 of 22) in the lower middle income group, which has 12 countries with rising trends. Unfortunately, the path of private spending over time cannot yet be similarly documented.

Overall, the available evidence suggests that government spending on health services in developing countries has been (i) increasing in real per capita terms in many places but not universally, and (ii) drifting downward as a percent of total public expenditure, though again not uniformly. A related question often raised is: how has health, a social sector, fared in comparison with other sectors in recent years, particularly during periods of economic downturn? Data analyzed by Hicks (9) shows, contrary to common perceptions, that the social sectors, and health in particular, have experienced smaller declines in their budget allocations than other sectors during recent periods when public expenditure in total has fallen in real terms. On the other hand, during periods of rising public expenditure, health and other social sectors have done less well than sectors such as agriculture and industry.[e]

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[e]In part, these findings can be attributed to the fact that costs that cannot be changed easily in the very short run - most notably, staff salaries - typically form a greater proportion of expenditure in the social sectors than in other sectors. Yet there also is another consideration that relatively small budget cuts in the health sector's variable inputs - such as drugs - can have an enormous impact on the quality of service. Thus, even though health may appear from aggregate data to have fared better than other sectors during recessionary periods, the consequences may still have been equal or greater, in some quality-adjusted sense, to the effects of cuts elsewhere.

What is most relevant for our purposes here, however, is that current trends do not appear even remotely likely to lead to the substantial, global increases in health spending by developing country governments that some have hoped for. Apart from a few exceptions (such as, from Table A-2, Guatemala and Korea in per capita expenditure), increases have been modest at best, and decreases have not been uncommon. Other evidence from WHO is consistent with these conclusions. Thus, for many countries, the key question about the direction of government outlays for health in the years ahead will be not whether new plateaus can be reached but rather whether old ones can be preserved.

Table A-1: HEALTH EXPENDITURE INDICATORS

Country	GNP per capita (US$ 1981)	Expenditure on Health Services: Public Only: per capita (US$)	Public Only: as % of GNP[a]	Public Only: as % of all Government Expenditures[a]	Public and Private: per capita (US$)	Public and Private: as % of GNP	Household: as % of household Income
Low Income							
Kampuchea	...	1.00 (1976)	.8				
Lao, PDR	80	1.00 (1978)	.9				
Chad	110	2.00 (1978)	1.2	4.2			
Bangladesh	140	1.00 (1981)	1.0 (1980)	5.7 (1980)	1.98 (1976)		2.5 - 4 (n.d.)
Ethiopia	140	1.00 (1978)	1.2	4.9 (1977)			
Nepal	150	1.00 (1980)	.6	3.9 (1979)			2 - 5 (n.d.)
Burma	190	1.00 (1979)	.8 (1978)	5.3 (1977)			.8 - 3.1 (1973-74)
Afghanistan	...	1.00 (1978)	.6	4.8 (1980)			
Mali	190	1.17 (1982)	.8	3.1 (1980)	3.41 (1981)		
Malawi	200	2-3.00 (1980)	1.0 (1978)	5.5 (1980)	9.00 (1981)	4.0 (1980)	.2 - .8 (1968)
Zaire	210	3.00 (1978)	1.0	4.0 (1977)			1.1 - 2.0 (1969-72)
Uganda	220	4.00 (1978)	1.1	6.1 (1980)			1.0 - 1.9 (1964-65)
Burundi	230	1.00 (1978)	1.0	4.7 (1977)	3.45 (1982)	1.5 (1982)	
Upper Volta	240	2.50 (1981	1.4	4.9 (1979)	3.95 (1981)	3.2 (1981)	
Rwanda	250	1.00 (1978)	.9	4.8		3.5 (1982)	
India	260	2.00 (1978)	1.2	1.7 (1980)		3.3 (1976)	2.1 - 2.3 (1973-74)
Somalia	280	2.00 (1978)	.9	3.2			
Tanzania	280	3.00 (1979)	2.0 (1978)	5.4 (1979)	5.00 (1977)	3.0 (1977)	1.0 - 1.9 (1969)
Vietnam	...	1.00 (1978)	.7				
China	300	4.50 (1980)	2.5 (1979)	5.89 (1980)	3.3 (1981)		
Guinea	300	3.00 (1978)	1.2				
Haiti	300	5.40 (1981)	.8 (1978)	11.0 (1981)	15.00 (1981)		8.6 (1970)
Sri Lanka	300	5.00 (1979)	1.7 (1978)	4.2 (1977)	14.95 (1982)	5.1 (1982)	1.6 (1973)
Benin	320	3.00 (1978)	1.4				
Central Afr.Rep	320	3.00 (1978)	1.5	7.1 (1977)			
Sierra Leone	320	3.00 (1979)	1.7 (1978)	4.1 (1979)			2.2 (1981)
Madagascar	330	4.00 (1978)	1.9	8.1			.4 - 2.8 (1968-69)
Niger	330	2.00 (1978)	.9	4.6			1.3 (1961-62)
Pakistan	350	3.19 (1981)	.9	1.5 (1980)	11.26 (1981)		1.8 - 2.1 (1971-72)
Mozambique	...	2.00 (1978)	.6				
Sudan	360	3.00 (1978)	.9	1.7		3.4 (1976)	2.3 (1967-68)
Togo	380	7.00 (1978)	2.1	4.6			
Ghana	400	4.00 (1979)	1.2 (1978)	7.0 (1980)		4.2 (1976)	3.6 - 4.7 (1967-68)
Lower-Middle-Income							
Kenya	420	5.00 (1979)	1.9 (1978)	7.8 (1980)		3.7 (1975)	.9 - 1.6 (1970-71)
Senegal	430	6.20 (1981)	1.1 (1978)	5.2 (1981)	14.50 (1981)		2.2 (1981)
Mauritania	460	3.00 (1979)	1.7 (1978)	2.8 (1979)			
Y.A.R.	460	4.00 (1978)	.7	3.9			
Y.P.D.R.	460	12.00 (1982)	2.6	6.0 (1981)			
Liberia	520	7.00 (1979)	2.4 (1978)	6.1 (1979)			
Indonesia	530	5.00 (1978)	1.0 (1980)	2.5 (1980)	4.00 (1976)	2.8 (1980)	3.2 (n.d.)
Lesotho	540		1.0 (1978)	7.1 (1981)		1.6 (1979)	1.4 - 2.6 (1972-73)
Bolivia	600	8.00 (1978)	.9	8.6 (1979)	6.00 (1974)	2.0 (1974)	
Honduras	600	7.00 (1979)	2.1 (1978)	8.0 (1979)		6.0 (1976)	.3 - 4.8 (1967-68)
Zambia	600	11.00 (1978)	2.5 (1981)	4.6 (1980)	33.60 (1981)	5.6 (1981)	.5 (1966-68)
Egypt	650	8.00 (1978)	1.7 (1977)	3.6 (1978)			1 - 1.8 (1974-75)
El Salvador	650	6.00 (1979)	1.5 (1978)	8.7 (1980)			2.3 (n.d.)
Thailand	770	3.00 (1979)	1.2	4.1 (1980)	15.88 (1976)	4.2 (1975)	2.7 - 5.7 (1971-72)
Philippines	790	7.50 (1982)	.7 (1978)	3.5 (1980)		2.2 (1976)	1.8 (1971)
Angola		7.00 (1978)	1.1				
Papua N.G.	840			8.7 (1980)			
Morocco	860	7.00 (1979)	1.2 (1978)	3.1 (1979)			2.9 (1970-71)
Nicaragua	860	13.00 (1978)	1.4	14.6 (1980)			
Nigeria	870	4.00 (1978)	.5	2.2 (1977)			2.5 (1959-60)
Zimbabwe	870	21.20 (1980)	3.4	6.4 (1982)	26.26 (1980)	4.2 (1980)	1.9 - 2.5 (1960)
Cameroon	880	3.00 (1979)	.8 (1978)	5.1 (1980)			
Cuba P.R.	-	41.00 (1978)	3.2				
Congo P.R.	1110	10.00 (1978)	2.0	4.2			
Guatemala	1140	6.00 (1979)	.8 (1978)	10.9 (1980)			>2.5 (1966)
Peru	1170	32.00 (1981)	2.4	4.5 (1980)	59.00 (1981)	4.5 (1981)	3.0 (1977-78)
Ecuador	1180	6.00 (1979)	1.0 (1978)	6.7			2.5 (1967-68)
Jamaica	1180	34.00 (1978)	3.5 (1980)	7.8 (1977)		5.0 (1980)	1.2 - 3.2 (1957-58)
Ivory Coast	1200	14.00 (1978)	1.6				4.3 (1969)
Dominican Rep.	1260	12.00 (1978)	1.4	9.0 (1979)	14.00 (1974)		
Mongolia	-	10.00 (1978)	1.4		51.53 (1977)		
Colombia	1380	38.00 (1978)	1.5	6.7 (1980)	46.00 (1978)	4.0 (1978)	
Tunisia	1420	22.00 (1978)	2.7 (1979)	7.3 (1978)			
Costa Rica	1433	7.00 (1979)	1.2 (1978)	5.1 (1980)			
Korea D.R.	-	3.00 (1978)	.3				
Turkey	1540	8.00 (1979)	2.0 (1979)	3.6 (1980)			
Syria	1570	3.00	.4 (1978)	1.0 (1979)	29.00 (1976)	2.3 (1975)	2.5 - 3.2 (1971-72)
Jordan	1620	13.00 (1979)	1.4 (1978)	4.1 (1979)			
Paraguay	1630	3.00 (1979)	2.5 (1981)	4.5			2.1 - 4.6 (1963-64)

Source: Compilation by author from Bank and non-Bank country studies.

[a]Year, if not shown, is same as in previous column.

Table A-2. RECENT TRENDS IN PUBLIC EXPENDITURE ON HEALTH SERVICES

Countries	Public Expenditures on Health Services									
	Per Capita Index (1976 = 100)[a]					As Percent of Total Public Expenditure				
	1973	1975	1977	1979	1980	1973	1975	1977	1979	1980
Low-income										
Ethiopia	36.8	116.9	73.9	....	....	2.1	5.9	4.9	....	....
Nepal	53.1	68.8	88.1	91.5	....	4.9	5.9	5.5	5.1	....
Burma	133.1	106.2	103.7	....	....	6.1	6.6	5.9	....	....
Malawi	100.9	104.6	71.3	127.8	136.5	6.9	5.7	4.1	5.3	5.5
Burundi	80.0	103.3	88.5	....	....	6.0	7.2	4.7	....	....
Upper Volta	88.0	72.6	78.8	85.4	....	8.2	6.6	5.3	4.9	....
Rwanda	86.8	103.3	101.5	....	....	5.7	6.5	4.0	....	....
India	....	81.2	80.0	80.6	81.4	....	2.4	2.0	1.7	1.7
Somalia	124.0	108.2	107.2	....	....	6.9	5.9	4.9	....	....
Tanzania	89.2	110.6	106.9	113.9	....	7.0	7.0	7.1	5.4	....
Sri Lanka	89.2	77.4	112.9	....	....	13.0	10.5	11.7	....	....
Niger	....	....	88.1	120.8	128.8	....	....	4.5	4.7	4.1
Sudan	229.6	83.4	94.1	75.8	63.1	5.1	1.6	1.5	1.5	1.4
Ghana	96.8	130.9	60.4	34.2	28.4	7.9	8.3	7.4	6.0	7.0
Lower Middle-income										
Kenya	91.2	98.3	102.3	110.7	111.8	7.4	8.0	8.2	7.2	7.8
Yemen Arab Rep.	....	81.3	115.9	283.8	351.8	....	2.7	2.8	3.4	4.0
Liberia	....	94.3	101.6	116.2	68.1	....	9.3	7.9	6.1	5.2
Honduras	61.1	77.9	66.4	72.8	....	11.7	12.8	8.5	8.0	....
Bolivia	66.7	88.4	104.7	115.4	....	7.8	8.4	8.0	8.6	....
Zambia	103.9	95.0	92.6	69.4	69.5	5.5	4.4	6.2	5.6	4.6
Egypt	....	89.9	109.7	....	....	....	2.7	3.2	....	....
Thailand	68.7	71.6	112.8	131.2	125.6	3.4	3.7	4.7	4.5	4.1
Philippines	54.0	83.7	101.8	89.9	79.2	2.9	3.9	4.6	4.2	3.5
Papua N. Guinea	....	80.4	100.2	104.5	114.0	....	6.3	8.3	8.0	8.7
Morocco	71.2	90.4	93.1	82.0	....	4.7	3.6	3.0	3.0	....
Nicaragua	....	71.2	100.7	62.8	134.2	15.7	8.4	9.6	10.3	14.6
Nigeria	42.0	97.9	86.2	....	....	2.6	2.2	2.2	....	....
Cameroon	....	105.3	90.6	92.1	114.5	....	5.4	4.8	4.3	5.1
Guatemala	101.9	94.7	106.9	111.5	181.1	9.2	8.6	7.6	7.6	10.9
Peru	87.7	88.6	96.6	89.5	86.7	5.5	5.1	5.9	6.1	4.5
Ecuador	94.7	93.2	100.7	139.2	160.5	7.5	7.2	8.2	7.8	8.7
Tunisia	67.5	87.8	120.3	....	....	6.7	6.1	6.9	....	....
Costa Rica	49.7	73.5	75.1	76.3	157.2	3.3	4.5	3.3	2.4	5.1
Syrian Arab Rep.	35.1	103.3	78.2	151.1	157.8	.5	.7	.5	1.3	.9
Jordan	....	92.0	97.9	126.1	....	....	4.1	3.6	4.1	....
Paraguay	96.2	90.6	101.1	139.5	....	3.3	2.8	2.7	2.7	....
Upper middle-income										
Korea	69.1	74.7	168.0	140.6	153.3	1.3	1.0	1.7	1.1	1.2
Malaysia	93.4	103.6	148.3	128.2	....	7.1	6.9	7.4	6.4	....
Panama	99.5	108.6	105.9	123.7	....	15.1	14.5	14.5	12.3	....
Brazil	62.6	79.8	113.0	124.0	....	6.8	6.5	8.0	8.5	....
Mexico	90.3	93.6	105.9	115.9	80.6	4.9	4.2	4.4	3.9	2.4
Argentina	74.0	70.9	56.3	37.8	40.5	3.4	2.5	2.7	1.7	1.7
Chile	112.2	100.5	120.2	....	....	8.0	6.9	6.4	....	....
Uruguay	105.9	99.9	103.4	115.5	....	4.8	3.9	3.8	4.7	4.8
Venezuela	77.9	92.6	102.0	89.2	89.7	11.6	9.1	8.0	8.6	8.7
Israel	92.0	104.8	134.9	182.2	125.3	3.3	3.7	4.3	5.1	3.5
Singapore	71.3	90.4	103.2	109.1	121.6	7.8	8.5	7.4	7.0	6.9

[a]Computed as follows: Per capita public health expenditure for each year in local currency was first adjusted by that country's consumer price index to remove the effects of inflation. This result was then divided by the 1976 value to create an index.

Source: International Monetary Fund. Government finance statistics. Various issues.

Table A-3. PRIVATE AS A PERCENT OF TOTAL HEALTH EXPENDITURES

Country	Percentage	Notes 1/
Developing Countries		
Afghnistan, 197675	88	Payments by individuals only.
Argentina	69	2/
Bangladesh, 1976	87	Payments by individuals only. Golladay and Liese (1980) report 76% from WHO sources.
Botswana, 1978	48	Payments by individuals account for 21%.
Brazil, 1981 1976	33 or greater 31	Rough estimate. Better data expected from new household surveys.
China, 1981	32	Payments by individuals only.
Colombia, 1978	33	68% if contributions to the social insurance system are included.
Ghana, 1970	73	2/
Haiti, 1980	65	Payments by individuals account for 57%.
Honduras, 1970	63	2/
India, 1970	84	2/
Indonesia, 1982/83	62	64% if contributions to government insurance scheme are included.
Jamaica, 1981	40	2/
Jordan, 1982	41	

(continued on next page)

Sources: Stinson (1982) on Afghnistan; WHO (1978) on Bangladesh and Korea; McGreevey (1982) on Brazil; Prescott and Jamison (1983) on China; Health Sector Policy Paper (1980) on Ghana, Honduras, India, the Philippines, and Sudan; Cumper (1982) on Jamaica; Jeffers, et. al. (1983) on Lebanon; Laurent (1982) on Rwanda and Togo; Bicknell and Lebowitz (forthcoming) on Swaziland, Syria, and Tunisia; Golladay and Liese (1980) on Tanzania; "World Health Spending Outlook to 1990" (Predicast, Inc., 1978) on Argentina, Mexico, and Venezuela; World Bank sector and project reports on the remaining developing countries; and Maxwell (1981) on the industrialized countries.

1/ Except as noted, "private" includes, in principle, expenditures on health services (defined as in Table 1) by: (i) individuals, excluding regular contributions to government insurance schemes (e.g., payroll deductions for social security), (ii) employers on behalf of their employees, (iii) private voluntary organizations (e.g., mission hospitals), and (iv) private practitioners—all taken net of government subsidies and other transfers (e.g., items (ii), (iii) and (iv) should be net of fees collected). In practice, however, many figures are crude approximations. "Total" health expenditure encompasses all private, public and quasi-public (hence government insurance scheme) outlays—again in net terms.

2/ Source provides only limited information on definitions and/or data used.

Table A-3 — continued

Country	Percentage	Notes 1/
Korea, South, 1975	87	
Lebanon, 1982	50 or greater	Rough estimate.
Lesotho, 1979/80	12	Does not include expenditures on traditional practitioners and private non-PVO services.
Malawi, 1980/81	229	2/
Mali, 1981	54	2/
Mexico, 1976	31	2/
Pakistan, 1982	71	72% if contributions to social security are included. Payments by individuals account for 58%.
Philippines, 1970	75	2/
Peru, 1982	53	Rough estimate.
Rwanda, 1977	37	Does not include expenditure on traditional practitioners and non-hospital modern care. Payments by individuals account for 13% (or 15% of recurrent expenditure).
Senegal, 1981	39	Does not include expenditure on traditional practitioners.
Spain, 1976	39	
Sri Lanka, 1982	45	As percentage of recurrent expenditures only.
Sudan, 1970	41	2/
Swaziland, n.d.	50	2/
Syria, n.d.	76	2/
Upper Volta, 1982	19.3	
Tanzania, n.d.	23	2/
Thailand, 1978	79	
1979	70	
Togo, 1979	31	Does not include expenditure on traditioal practitioners or non-hospital modern care. Payments by individuals account for 28%.

Sources and notes are on preceding page.

Table A-3 — continued

Country	Percentage	Notes 1/
Tunisia, n.d.	27	2/
Upper Volta, 1981	24	24% if contributions to social insurance are included. Excludes private foreign aid.
Venezuela, 1976	58	2/
Zambia, 1981	50	Payments by individuals account for 27%; missions, for 3%; and services funded by mining enterprises, for 19%.
Zimbabwe, 1980/81	21	Payments by individuals account for 17%.
Industrialized Countries		
Australia, 1974/75	36	
Canada, 1975	25	
France, 1975	24	
Germany, West, 1975	23	
Italy, 1975	9	
Japan, 1976	10	2/
Netherlands, 1974	29	
Norway, 1976	4	2/
Portugal, 1976	24	2/
Sweden, 1975	8	
Switzerland, 1975	34	
United Kingdom, 1974/75	7	
United States, 1974/75	57	

Sources and notes are on preceding page.

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CURRENT PROBLEMS AND FUTURE PROSPECTS OF MEDICAL CARE UNDER SOCIAL INSURANCE IN LATIN AMERICA

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In recent years, U.S. AID's health sector strategy has emphasized the primary health care approach. The agency has mainly supported public health care programs while also seeking to stimulate private sector initiatives at the community level. In Central and South America, six countries have been the principal targets of U.S. AID assistance, namely El Salvador, Guatemala, Honduras, and Ecuador, Peru and Bolivia, respectively. The health sectors of these six countries represent mixed systems comprising public health, social insurance and private sector components. Social insurance, however, has been largely omitted from the U.S. AID strategy. In an effort to rethink the justifiability of this omission I was asked last year to prepare a review of medical care under social insurance in Latin America.[1/]

After briefly summarizing my findings from this review, I will advance several as yet untested propositions on the relationship between public health and medical care in the social insurance and private sectors. After stating my arguments in favor of fostering health sector coordination, in cooperation with the Pan American Health Organization (PAHO), I will conclude with an outline of possible areas of technical assistance through which U.S. AID could contribute significantly toward this objective.

1. Characteristics of medical care under social insurance

In my earlier review, I described the characteristics of coverage, organization and financing of medical care under social insurance. The two most notable findings were that population coverage now exceeds 50% of the combined population of 16 Latin American countries that have mixed medical care systems, and that much of the generally accepted negative sentiment toward social insurance programs may not be justified, particularly in comparison with the public health alternative.

a) Coverage. Population coverage by medical care under social insurance is strongly related to countries' level of economic development. Thus, the sev more advanced countries--Argentina, Brazil, Costa Rica, Mexico, Panama, Uruguay and Venezuela--have an average of about 70% population coverage, while the nine lower to middle-income countries--Bolivia, Colombia, Dominican Republic, Ecuado El Salvador, Guatemala, Honduras, Paraguay and Peru--show an average coverage o only about 10%. It stands to reason that countries with larger urban, formally employed labor force components will also have more extensive social insurance coverage since these programs depend on a steady wage base for their membership contributions.

In the lower to middle-income countries, coverage has not expanded proportionately in the last 10-15 years, not only because of the lack of formal sector employment expansion in these countries,[2/] but also because of the intensification of medical services for those already covered. It cannot be said, however, that social insurance programs are inherently regressive in either thei tax or benefit incidence. Contrary to conventional sentiment--if not wisdom--there is neither convincing logic nor supporting evidence for shifting in the contributory burdens of medical care under social insurance. If anything, the incidence of benefits may be slightly progressive among those covered.[3/]

b) Organization. Social insurance programs provide medical care either directly through their own facilities and medical staffs, as they do in all of the lower-income countries, or they merely provide coverage indirectly through financial arrangements with public health or private medical services, as in Brazil and Uruguay. Such arrangements resemble prepaid health maintenance organizations and group practices operating on a fixed fee basis. In several middle and higher-income countries with predominantly direct service delivery,

coverage is being expanded through the indirect approach; where there are reasonably well functioning public health or private medical services, social insurance programs have been predisposed toward contractual agreements with these providers to deliver services for social insurance beneficaries in outlying areas.

The direct delivery of medical care was introduced whenever social insurance institutions considered public or private care to be inadequate for their beneficiaries' needs. The direct pattern has been justified as providing better and more extensive care, but it is also considered to be more costly. It has exhibited strong tendencies toward using capital-intensive medical technology and becoming increasingly depersonalized and organizationally rigid. Advantages of the indirect pattern include its greater flexibility, closer doctor-patient relationship, and lower marginal cost. It is thus considered to be more appropriate for the expansion of coverage, although it tends to incur problems of quality and cost control.

c) Financing. About two-thirds of social insurance in Latin America is financed by employers and one-third by employees. Half of all revenue collected is earmarked for medical care. Governments contribute primarily as employers. They do not contribute much in transfer payments, except in countries such as Mexico, Costa Rica and Brazil where general revenue is channeled through social insurance institutions to provide medical care for indigent population segments. Where laws call for tri-partite contributions, the government usually fails to pay its share. There is not much empirical support for the widely held view that governments subsidize social insurance programs.

One of the least understood aspects of medical care under social insurance is how these programs finance their physical facilities and equipment. These

installations are generally new and capital-intensive, yet expenditure data do not show large proportions of current insurance revenue being used for this purpose. A general assumption is that medical care installations are financed through bonds, most of which are then held by the old age pension and invalidity insurance funds of the system. These bonds typically bear negative real interest and thus transfer funds from one insurance program to another. While it favors medical care delivery, this approach is financially irresponsible and deceitful.

In concluding this brief and partial summary of my earlier review, it bears mentioning that public health and social insurance expenditures for medical care are roughly proportional to the respective population coverage estimates. This finding contradicts another widely held view, namely, that social insurance is more costly than public health in delivering medical care. The general assumption that public health represents a low-cost approach to primary health care expansion probably would not stand the test of a systematic comparison of unit costs. Public health does not in fact provide coverage for most of the medically indigent, contrary to frequent assertions. Rather, the public sector primarily supports secondary and tertiary care facilities and staff. The type of services the sector delivers, for the most part, is not significantly different in quality or quantity from what is provided under social insurance. I cannot fully support this conclusion, drawing upon the available data base, but neither can one prove that public health is a low cost alternative to medical care under social insurance.

2. Some general propositions on the relationship between public health and medical care under social insurance.

If the above summary findings and conclusions are perceived as controversial,

then the following propositions will add to that perception. Let me outline four arguments in support of the conclusion that expansion of medical care coverage requires coordination among public health, social insurance and private approaches to medical care delivery.

a) The public health sector in the several low-income countries primarily targeted for U.S. AID assistance is not capable of supporting effective, low-cost primary health care delivery. It has a legacy of antiquated facilities and obligations, many of which were taken over from moribund 'beneficencias.' Public health also has built a number of new facilities, many of them referral hospitals for special groups (children, cancer victims, etc.). These facilities tend to be overstaffed, but undersupplied with pharmaceutical supplies. Their utilization ratios are typically low and their quality of care is much maligned. While many primary health care facilities have been constructed as well, they tend to be understaffed and even more severely undersupplied with drugs and other essentials for effective care. Management and supervision, transportation, communications and other support services all tend to be deficient at this level, which is not surprising considering that less than 10% of total public health expenditures trickles down for primary care. The average unit cost of primary health services tends to be high when one considers all cost components of the superstructure. The marginal cost cannot be much lower as long as primary care is dependent on the support of the public health superstructure.

b) Competition between social insurance and public health programs tends to hurt both programs. The former typically pays higher salaries and provides better facilities and thus tends to drive up the cost of medical care. The more capital-intensive nature of medical care under social insurance has a demonstra-

tion effect on public health administrators, reinforcing tendencies toward developing similar patterns of services delivery by the latter. Social insurance programs also are dependent on public health authorities to some extent. The minister of health has at least nominal responsibility for setting norms of care for the whole sector. He presides over a national health system that is incapable of enforcing legally what is not feasible practically. Thus, there is a strong tendency for the public health sector to adjust to the norms of the social security program, rather than vice versa. This tendency is reinforced by the many joint appointments of medical doctors in both sectors, which is likely to result in their transferring to the public sector the standards of quality and technical sophistication to which they may be accustomed in a social security program or in a private practice. Under conditions of economic crisis such as now prevail in all countries of the region, real expenditure levels must be reduced. The effect is to reduce marginal expenditures which are primarily pharmaceutical products, leaving in place expensive facilities and relatively highly paid medical staff. Thus, the superstructure remains in place while the trickle of resources for primary health care dries up completely.

c) International aid has tended to make coordination between public health and social security more difficult, instead of encouraging and facilitating coordination. Donor assistance has strongly favored public health and primary care expansion, thus further bidding up domestic prices in the form of wages and supply costs. Moreover, the largely uncoordinated sector development projects financed by various international donors exhibit a tendency toward creating disparate standards in primary health care delivery. They also tend to displace rather than supplement domestic contributions toward primary health

care. Their different disbursement and budget accounting requirements, including their demands for counterpart funds, have complicated managerial problems in the sector by drawing funding away from other program areas that do not rate equal priorities. Reallocation of funding, however, has not been accompanied by reassignment of people from lower to higher priority areas. Instead, more people have been employed in public health, further swelling already bloated payrolls. Meanwhile, by favoring public health programs, international donors have contributed to the already strong inhibitions against expansion of population coverage by social insurance programs in the low income countries.

d) My fourth proposition is that U.S. AID's policy of stimulating alternative financing methods and seeking greater participation of the private sector in primary health care expansion has failed so far in looking at social insurance programs as the major alternative with a strong private sector dimension that already exists in Latin America. Social insurance represents a user-financing mechanism, based on proven ability and willingness to prepay specified contributions. In the countries that already have health maintenance organizations, these are financed primarily under the indirect social insurance pattern (i.e., Argentina, Brazil, Uruguay). Indeed, encouraging development of alternative medical care financing schemes in Latin America without reference to social insurance runs the danger of contributing to a proliferation of diverse payment and provider organizations that already exist. Rather than expanding coverage, this diversity of mechanisms is more likely to bid up medical prices and be mistaken as a signal for the further growth of medical doctor production and facilities investment. A more rational approach would be to acknowledge the

existence of medical care programs under social insurance, help rationalize their organization and financing, and thereby promote their expansion of coverage. In exploring how social insurance coverage could be expanded, coordination of public health and social insurance represents an existing analytical and operational framework developed by PAHO in recent years.

3. Coordination of medical care under public health and social insurance programs in the lower-income countries.

Efforts to coordinate medical care under public and social insurance date back to a large regional conference in 1959, sponsored by the International Labor Office (ILO) in cooperation with PAHO, the Organization of American States (OAS), the Interamerican Social Security Conference (CISS), the Ibero-American Social Security Association (OISS), and the forerunner of the present Pan American Federation of Medical Schools (FEPAFEM). Significant progress in the coordination and integration of public health and social insurance medical care programs was achieved by several countries in the region during the 1970's. Brazil gradually consolidated its many social insurance funds into what is now one national institution (INAMPS) that provides personal health services coverage for 80% of the country's population. Costa Rica has completed the transfer of all institutional medical care from the Ministry of Health to the National Social Security Institute which now provides close to 100% coverage. Mexico also provides medical care coverage under social insurance for most of its urban population and for over a third of the country's rural population. Argentina, Panama, Uruguay, and Venezuela are other relatively advanced countries in the Region that provide most of their medical care under closely coordinated public health and social insurance programs. The nine less developed countries, however, have

not made much progress toward intrasectoral coordination. Instead, their public health and social security programs have developed separately and neither serves its target population very effectively.

While the specific objectives of health sector coordination will vary among countries, their common objective of expanding coverage can take some of the following approaches:

a) Where equal access to services is not yet provided for dependents, social insurance can work toward providing full coverage. Public health experience in primary care delivery could be incorporated into social insurance plans for providing equivalent services, some of them jointly with the public programs (e.g., immunizations and oral rehydration);

b) Where social insurance has not yet expanded coverage to include all "formal sector" employees and their dependents, such expansion could be accomplished in cooperation with public health programs under contractual arrangements which might eventually lead to the transfer of public health facilities to social insurance authorities;

c) Communities, cooperatives and groups of self-employed workers could be assisted in purchasing (e.g., on a prepayment or reimbursable basis) access to improved public health services by using social insurance mechanisms. This might begin with agreed upon fee scales that would rationalize ad-hoc charges already being made by many public health facilities;

d) Social insurance programs could begin to provide medical services to noncovered individuals for specific purposes (e.g., emergency treatment, immunizations, etc.), financed on a cost reimbursable basis through general tax revenue transfers;

e) Public health authorities could begin negotiating with social insurance programs for the latter gradually to assume managerial and staffing responsibility for secondary and tertiary levels of care at currently public facilities. Eventually, all such facilities could be transferred to social insurance and operated under either the direct or indirect pattern of financing and management.

f) At some point, social insurance could become the principal provider of medical care, under either the direct or indirect pattern, with coverage for the medically indigent financed by general tax revenue transfers. The result would be either a system following the Mexican and Costa Rican examples, or one resembling the Brazilian or Argentina models. None of these countries as yet provide full, efficient and equitable coverage of medical care, but they represent approaches that have the potential of becoming viable national health care systems.

4. Mechanisms for bringing about coordination of public health and social security programs.

Having suggested what might be done, the question remains of how coordination might be brought about. Several specific approaches could be explored.

a) Under the current economic crisis in the region, both public health and social insurance programs suffer increasingly severe financial constraints. Particularly affected are pharmaceutical supplies and maintence of physical facilities. This should create opportunities for joint programs of purchasing, storage, and distribution and for cooperative approaches toward the upkeep and utilization of health centers and clinics operated by both sectors.

b) The economic crisis could also be an opportune time for designing and implementing coordinated primary or basic medical care approaches for the expansion of coverage to underserved population segments, particularly in the urban areas. The ILO has since 1982 promoted the idea that social insurance programs should actively participate in the expansion of primary health care,[4/] and this view may be gaining ground in the region.

c) Joint planning of health personnel requirements, utilization and remuneration may also be an area for technical cooperation. With labor costs representing approximately 70% of total current health sector expenditures, even small improvements in personnel administration could yield substantial benefits for both sectors. Since public health and social insurance draw upon the same pool of manpower and tend to use the same sources and methods of continuing education, a basis for better coordination may already exist.

d) Cooperative planning on a broader scale for the health sector as a whole would require a joint information system and medical record keeping methodology that do not now exist. Cooperation at the technical level could be encouraged, starting at the level of basic health services in the urban areas, and gradually move upward to the secondary and tertiary levels of care. Since this is an area of potential expansion of social insurance coverage, the public sector with its greater experience at this level may find social insurance programs receptive to cooperative action, combining service delivery with appropriate information use and record keeping.

e) Research that relates the health sector's resources to the country's health needs is an equally necessary area for cooperation. Financing in

particular offers a common ground for research on comparative costs of medical services, for efficient means of financing them, and for coordinated approaches to partial cost recovery through direct payments or supplemental private insurance.

The present time offers opportunities for health sector coordination because the need for such initiatives is now more apparent than ever. After years of trying to stimulate coordination without much success in the less developed countries, PAHO has this year taken bolder initiatives in this area.[5/] Ministers of health and directors of social security institutions have begun to hold joint regional meetings, and a few timid requests by social insurance authorities for technical assistance have been received by international donors. The time is ripe; opportunities exist for some real progress in health sector coordination in the countries primarily targeted for U.S. AID assistance.

Under a new director at PAHO, the organization may be in a stronger position than before to help countries design and implement new approaches toward health sector coordination. A way to proceed may be to focus on technical assistance in specific, relatively non-controversial areas. This may in the longer run facilitate the necessary political decisions for bringing about health sector coordination. Without usurping the prerogatives of PAHO or the major international donor organizations, their pursuit of the same basic objectives in health and development should lead to improved cooperation also at the international level.

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RESOLUTION XV

COORDINATION OF SOCIAL SECURITY AND PUBLIC HEALTH INSTITUTIONS

THE XXX MEETING OF THE DIRECTING COUNCIL,

Having examined the report on Coordination of Social Security and Public Health Institutions (Document CD30/18);

Cognizant of the progress that the countries have made in this field and aware that, unless the ministries of health and social security institutions coordinate their activities, it will be virtually impossible for a large number of countries in the Region to achieve the objective of universal coverage;

Bearing in mind the various suggestions and proposals made by the country delegations for strengthening and broadening coordination arrangements, which will improve the organization of national health resources in addressing the health care needs of the population; and

Considering that the current critical situation of the Latin American economies directly affects the financing of health and social security programs, and that new financing approaches and strategies must be found for providing those programs with an adequate share of society's resources and opportunities,

RESOLVES:

1. To accept the report presented by the Director on coordination of social security and public health institutions.

2. To reiterate the recommendations included in Resolution XXXIV of the XXVIII Meeting of the Directing Council (1981), especially those recommending that the Governments "establish or restructure the bodies for interinstitutional representation in the health field...to...give these institutions a role in decision-making" within the health sector and "include representatives of social security agencies and other health sector institutions in delegations to the Organization's Governing Bodies."

3. To recommend to the Member Governments that they formulate strategies for the progressive development of linkages in those areas in which the coordination of social security institutions and ministries of health would help ensure better use of national resources for the extension of health care services to those population groups that still lack access to them.

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4. To urge the Member Governments to:

a) carry out studies that will help define the sectoral framework and the interinstitutional relationships in which health care delivery actually takes place;

b) conduct health care coverage studies designed to determine the actual use made of the services and the possibilities of complementary sectoral institutions in providing health care for the population;

c) analyze the financial systems of social security institutions and the health sector as a whole, with a view to the adoption of policies and programs that will promote adequate interaction between ministries of health and social security institutions.

5. To recommend to the Member Governments that they include the health programs of the social security system in the preparation and implementation of technical cooperation plans and programs for the health sector, as well as specific activities for promoting and supporting the legal, institutional and operational coordination of ministries of health and social security institutions.

6. To request the Director to take the steps necessary for the establishment and conduct of a well-defined program of technical cooperation with national and international social security agencies that will ensure the appropriate broadening and strengthening of activities for encouraging and supporting the above-mentioned actions.

7. To request the Director to report to the XXXII Meeting of the Directing Council on the current situation, the progress made and activities undertaken in this field, and to include in his annual reports information on the continuing development of the matter.

(Approved at the ninth plenary session,
28 September 1984)

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WHERE DO WE GO FROM HERE?

A REVIEW OF HEALTH MANAGEMENT IMRPOVEMENT PROJECTS IN THE LAC REGION

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INTRODUCTION

During the past three to five years the Agency for International Development has undertaken a number of health management improvement projects in Latin America and the Caribbean. The specific objectives of the projects varied;however, their overriding aim has been to improve the ability of Ministries of Health to allocate and manage their resources in order to increase the coverage and effectiveness of primary health care services. As the resources available for health decline in the face of rising demand for services, MOH's will be forced to grapple more effectively with the issues of resource allocation, efficiency and cost-benefit.

In order to better understand how to design future USAID assistance efforts to help countries respond to these growing concerns, the LAC Health Office requested that a review of past and current management projects in the region be undertaken.The purpose of the review was to identify those areas in which projects have been most successful,the problems encountered by management improvement efforts and the reasons for those problems. The review formed the basis for recommending strategies that should be considered in designing future health projects in the region.

This paper is divided into five sections:SUCCESSES IN MANAGEMENT IMPROVEMENT PROJECTS;IMPEDING FACTORS;CRITERIA FOR SUCCESS OF MANAGEMENT IMPROVEMENT PROJECTS;THE ENVIRONMENT OF THE FUTURE,and CONSIDERATIONS FOR FUTURE PROJECTS.

Information for this paper was obtained through interviews with the LAC Health Officers who have been involved in the design and implementation of management improvement projects as well as from project papers and evaluations of the projects themselves.The programs reviewed included:The Dominican Republic Health Sector I, The Haiti Rural Health Delivery System Project,the Honduras Health Sector II Project, The Peru Sur Medio,Extension of Integrated Primary Health and Integrated Health and Family Planning Projects, The Basic Health Management Training Project in the Caribbean Region,and the Health Systems Vitalization and Health and Jobs for Displaced Families Projects in El Salvador.

SUCCESSES IN MANAGEMENT IMPROVEMENT PROJECTS

In reviewing the past and current health management improvement projects it is clear that projects were able to have an impact in several areas :

- POLICY-MAKING

  During the course of most projects Ministries of Health established policies which were designed to to re-direct health resources towards primary health care priorities.For example, in Haiti the Ministry created

a policy to make six key areas the focus of its efforts;these were diarrhea,tuberculosis,family planning,malaria,nutrition and immunizable diseases. Similar policies was established in Honduras.Policies to buy drugs based on an essential drug list compatible with the primary target diseases also were established in El Salvador and Honduras.If implemented these policy decisions would lead to resources being targeted on the major diseases facing each country;this approach would be in contrast to previous practice which resulted in resources being spread across a broader variety of health activities, diluting the potential impact on prevention or alleviation of a narrow set of prevelant diseases.

o SYSTEMS DESIGN

In parallel with achieving policies focused on primary health care, most projects were also successful in re-designing key management systems to facilitate implementation of the policies.In Peru, the MOH has now designed a streamlined management information system and gained approval of plans for making it operative. Honduras also has designed a number of new management systems,some of these are: maintanance and repair of refrigeration equipment for the cold chain,with an information system to monitor the status of equipment monthly;a national supervision system directed towards oversight of tasks related to five priority diseases;a local programming system for doing bottom-up planning of primary health services. Transporation and vehicle maintainance and management information systems have been designed in Haiti.El Salvador has plans to implement a decentralized management information system which will allow regional directors to have immediate feedback about the activities in their regions in order to make more effective and efficient resource programming decisons.

o TRAINING

Almost all projects have been successful in implementing the targeted training activities for both management and service delivery personnel.The regional Carribbean project developed three of the four management modules originally planned and trained 1,342 individuals in all three basic management modules. Other projects developed curriculum and provided training to health system personnel in vehicle and equipment maintance,management information systems,program planning and budgeting,drug logistics and supply systems,supervision and skills related to delivery of primary health care services.

o IMPLEMENTATION OF SPECIFIC TECHNICAL INNOVATIONS

Some projects were able to design and implement very specific, focused management system innovations.In Barbados and Haiti the MOHs put into operation systems that are helping to improve the supply and flow of drugs;in Haiti a personnel information system was instituted which allowed the MOH to identify aand remove from the payroll the names of a large number of individuals who were no longer working in the Ministry. Honduras has begun to institutionalize an information system for keeping track of the status of cold chain refrigeration equipment as a means for organizing the schedule of maintanance visits.

In general, the management projects in the Latin-America and Caribbean Region have had the most success in influencing government policies, designing new management systems and carrying out training programs for a broad spectrum of management and service delivery personnel.In analyzing these accomplishments ,it is interesting to note that they are the least structural,least expensive and also require the least amount of change in the actual operations of the Ministry;they also may be the easiest to accomplish within a bureaucratic organization because they are seem to be in areas that are the least threatening to individuals with established power bases.

However, it also is important to point out that some of these successes are the prerequisites to accomplishing major changes in the operations of management systems directed at improving primary health care delivery;it may simply be that in some countries more time is needed to institute major shifts in the way that the Ministry functions.

Some projects also have been fairly successful at implementing changes in the operation of specific management systems.However, few to date have been able to demonstrate the broad reforms in how resources are actually allocated and managed that are needed to substantially improve the quality and coverage of primary health care services.An examination of the problems encountered in carry out management projects is useful in considering what future projects can expect to accomplish and under what conditions.

IMPEDING FACTORS

There appear to be a number of factors which have prevented many of the management projects from fully achieving their original objectives and therefore reducing their impact on the expansion of effective primary health care services.A review of these factors does raise questions about the validity of some original assumptions on which project designs were based.

o MINISTRY OF HEALTH CAPACITY

The ability to effectively use and capitalize on the technical and financial resources provided through the projects has been limited in some Ministries by the quality and quantity of counterpart personnel available to carry out the work. While MOHs may commit personnel for project activities, the reality is that there are not as many qualified individuals as needed in most ministries;there also are competing demands for their time among existing projects. The result is that either individuals are overloaded or less capable people are assigned to project activities.Both cases make it more difficult to adhere to original timeframes and may well impede the quality of the outcomes.This problem has affected progress in almost all of the projects reviewed, and was especially evident in the Domincan Republic, Haiti and El Salvador.

A related problem is the financial capacity of the ministries to sustain and therefore institutionalize systems development efforts. Even in Honduras where considerable progress has been made within the project, the Ministry has had difficulty taking over funding responsibility for new positions created under the loan agreement .If these positions are necessary to continue management improvement activities but not sustainable by ministries after the project,it is unlikely that further institutionalization of new systems will occur. The question therefore arises as to whether sufficient attention has been paid to the issue of absorbative capacity in the design of management improvement projects.

o LACK OF BROAD BASED ORGANIZATIONAL COMMITTMENT

A related issue is the degree of organizational committment to management reform.In order for new systems to be successfully implemented there must exist a comittment to making them work throughout the organization. A number of management projects in the region appear to have suffered from lack of broad-based support for changes which would substantially improve the effectiveness of primary health care service delivery. This lack of support is characterized differently in each country:however there are some commonalities:

In general, ministries have failed to substantially shift resources toward primary health services despite verbal statements and policies which target PHC as the top priority health program;hospitals continue to eat up large portions of health budgets. While some progress is now being made ,until governments are prepared to substantiually invest a significant

proportion of their limited funds in PHC ,it is unlikely that major progress towards expanded and effective coverage will result.

At the same time,highly centralized ministries have made it difficult for changes to be implemented vertically down through the operational level;the assumption that changes designed at the top would trickle down through the organization needs to be re-examined. Part of the difficulty may be a fear by those at the top of erosion of power;they therefore seek to maintain tight control over the system without necessarily including regional and local level managers in the decision-making process. Lack of participation by operational level personnel will inevitably reduce the chances of widespread acceptance and support for the new systems. MOH's in Bolivia ,the Dominican Republic and Peru seem to have been plagued by this problem in the past.

The tendency to maintain control at the top is exacerbated by the competition for limited resources between normative programs,including those that may be marginal to PHC priorities. As new systems are designed normative directors are likely to push for data collection or supervision instruments that incorporate measures for their programs;the result is dilution of focus from the priority programs at the operational level,both in terms of resource allocation and personnel activities.

Another common problem that implies lack of broad support for management improvement programs is the level of personnel that are assigned to project activities. Frequently it appears that the people who are trained or assigned to run counterpart activities are not in a position to influence major changes within their ministries. Progress can be substantially delayed or completely thwarted by the lengthy processes required to obtain interest or approval from higher level decision-makers. Progress in the Caribbean Regional Project was stifled by this problem.

Finally, ministries of health are subject to the political and economic conditions of their countries.Turnovers of senior level appointees or political pressures can cause disruption in policies and program priorities.Therefore, even with strong support,management improvement projects may have less time than originally anticipated to institutionalize new systems before other priorities divert the MOH's attention and resources.This also has affected progress in the Haiti and Caribbean programs.

o UNREALISTIC TIMEFRAMES

All management improvement projects appear to have been designed with unrealistic timeframes for accomplishing their objectives. A mixture of the above constraining factors have contributed to slowing down progress in each case. As a result ,projects had not accomplished all of their outputs when they ended :for example the Caribbean Regional Project did not develop the fourth training module originally proposed nor affect major institutional management reforms in the nine island countries that were targeted. Other projects were extended for an additional one to three years with the expectation of achieving the original objectives;this is the case in Honduras, Peru and Haiti.

o BROAD MANAGEMENT SYSTEMS APPROACH

A factor which may have contributed to MOHs inability to achieve project objectives in the original timeframes may have been the broad scope of the projects. Most health officers and project evaluations suggested that management improvement projects were trying to accomplish too much in too short a time. Given the human resource constraints cited above, it may be that trying to work on a variety of systems at the same time results in doing a little in alot of areas rather than bringing about in-depth vertical reform throughout the ministry in one or two major systems. The Caribbean Regional Project ,Haiti and the D.R. were cited as having experienced this difficulty.

o INFLEXIBILITY IN PROJECT DESIGN

Projects papers frequently were designed a year or two prior signing of contracts and actual implementation. With the rapidly changing environments in many Latin-American and Caribbean countries,some of the original designs may not have been realistic or consistent with the environment that existed during the implementation period. Where workplans were insufficiently flexible to allow major shifts in emphasis, it was impossible for projects to actually accomplish what was described in the agreements. The Caribbean project in particular was cited as being planned in such detail that the project managers tended to adhere to specific action plans rather than being responsive to the changing needs of the ministries. Similarly, it was pointed out that in D.R. where central systems reform seemed too difficult,the flexibility to shift to regional projects might have increased the projects ability to achieve management systems improvements at the operational levels. Honduras appears to be an example where flexibility has been the key to success;the ability of the project to

respond quickly to an MOH request to assist with a polio epidemic appears to have given increased credibility to project activities at the field and central levels of the ministry.

o LACK OF MOH CONTROL OVER KEY SYSTEMS

A major issue in many projects has been the degree to which the MOH is able to influence change in areas over which it does not have direct control. Systems which necessarily affect major management reform outcomes are personnel, budgeting and financial planning.In most countries,these systems are managed out of other Ministries,e.g. Planning or Finance;it has proven difficult for MOHs to accomplish significant changes in these areas. For example, while it has been possible to clean the payroll roster of nonworking employees in Haiti,it seems unlikely that changes in the way people are promoted or compensated in the civil servant system can be dealt with by the MOH alone. Unless projects are designed to include reforms in these government-wide systems then its probably unrealistic to expect substantial progress within the MOH in areas which are outside of its direct control.

o TRAINING WITHOUT STRONG TECHNICAL SUPPORT

A final problem noted particularly in the Caribbean Regional Project was the assumption that major organizational changes could be accomplished through extensive training and minimal technical assistance. While training may establish an important base and common frame of reference for managerial development, a review of the projects suggests that in-depth technical assistance is needed for major changes in management systems to occur.

In reviewing the overall problems faced in management improvement projects to date, it appears that insufficient attention had been given to the importance of political support throughout the organization;several health officers noted that not enough emphasis had been placed on the process of consensus-building at the operational levels in most projects.

CRITERIA FOR SUCCESS OF MANAGEMENT IMPROVEMENT PROJECTS

This review of the successes and problems encountered by management projects suggests that unless future projects are able to conform with the following criteria,they are not likely to achieve significant institutional reform in management systems needed to support primary health care services.

o LONGER TIMEFRAMES

Implementing major change is a long process in any organization;participation at many levels is required to gain committment. In the private sector, a year or two would be considered the minimum timeframe for institutionalizing change in even one major system.In public organizations which are highly political and bureaucratic in nature, the process is likely to be much longer.It would appear then that management improvement projects with MOHs might require from five to ten years to accomplish what was originally thought to be a two to three year process.

In-Depth Institutional Committment

Clearly there must be both high level political support for reforms as well as committment throughout the organization if management improvements are to become an ongoing part of the operations of a ministry.The assumption that policies dictated at the top will be sufficient to mobilize the energies of the ministry towards improved management practices has not proven valid. Rather,it appears that the following three criteria also must be in place if major management reforms are to succeed.

o RESOURCE ALLOCATION IN LINE WITH PHC PRIORITIES

The allocation of MOH human and financial resources must accompany MOH policies establishing PHC expansion of coverage as the priority. To date, there is little evidence that re-allocation of resources by MOHs at the level required to accomplish major systems improvements has occured. Without this re-allocation of internal resources,it is difficult to see how MOHs will be able to accomplish the ambitious objectives established in their PHC management improvement agreements or sustain major progress in PHC coverage.

o DECENTRALIZATION OF RESOURCES

As noted earlier, experience in highly centralized ministries suggests that the trickle down approach to change has not worked. In these environments, a more successful approach may be decentralization of authority and resources to regional or district levels;designing and testing new management systems at the operational levels, rather than controlling this process centrally,may hold more promise for creating functional systems in a shorter period of time.

o CLEAR INCENTIVES FOR REFORM

Designing new management approaches which will support a strategy of expanded PHC coverage is a relatively

easy task in comparision to implemention. One important step towards institutionalizing change is to involve those that will have to implement the change in the design process. Equally important is the need to motivate people at all operational levels to behave in new ways so that the systems function as intended. Systems depend on the people that operate them. Without specific incentives to adopt new work practices or disincentives to continue with old ones, it is unlikely that major reform will happen. As Graham Allison points out in his book, Essence of a Decision ,government organizations in particular have a tendency to function in the way they have traditionally functioned, despite specific directives from the top to operate differently;only when individuals perceive it to be in their own self-interest to do things differently will the organization respond to change. This observation was clearly confirmed by a former Minister of Health from Colombia.

Incentives provide a mechanism for directing that behavior in desired directions. However, it appears that very little attention has been paid to this critical aspect of institutional development in the management projects reviewed.

THE ENVIRONMENT OF THE FUTURE

In considering future directions for PHC management projects in the LAC region, it is important to take into account the environment in which they are likely to be operating. It will have a decided affect on the ability of projects to succeed and therefore play a strong role in shaping the design of these efforts.Some of the significant characteristics of that environment are likely to be:

o DIMINISHING RESOURCES

There will continue to be diminishing in-country resources in proportion to the increasing demand for health services.The financial and economic conditions of most developing countries suggest that they will not be able to allocate larger proportions of their budgets to health services despite the unmet needs.

o GOVERNMENTS UNWILLING TO USE LOANS FOR EXPENDIBLES

Governments will be less willing or unable to spend loan funds on: expendibles such as drugs, vehicles or salaries. Higher financing costs will force them to obtain loans for only the highest priority programs. Primary Health Care activities may well be among those that receive smaller amounts of loan funds in the future. The implication is that at minimum there is unlikely to be an increase in the percentage of

national budget allocated for the health sector.At the same time, donor agencies will continue to expect governments to pay the recurrent costs of new construction and capital projects.

o UNPREDICTABLE TURNOVER OF KEY MOH STAFF

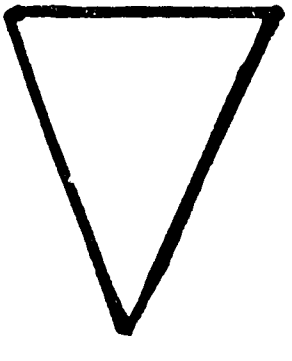
Frequent and unpredictable turnovers in senior MOH staff positions occur when there are shifts in political power. Given the current political and economic problems in the LAC region there is no reason to expect that this pattern will be different in the future. Since new officials often come in with their own priorities, there is no assurance that ministries themselves will maintain strong support of any one program for more than several years. Despite the need for longer time periods to institutionalize new management systems, the political reality may be that the internal support may not last that long.

o PRESSURE TO DEMONSTRATE VISIBLE RESULTS

Another political reality is that there will be continued pressure on governments to demonstrate visibly that they are expending funds in ways which will benefit the public. Hospitals are much more obvious symbols of better health care systems than timely delivery of ORT packages to rural communites;they also are likely to be important to those with political influence. Therefore,it will be difficult for many governments to make major budget shifts away from expenditures on hospitals in most countries.

o RESOURCE ALLOCATION INVERSE TO PHC RESOURCE NEEDS

Thus the resource allocation for primary health care services will continue to be inverse to the resources needed to provide basic preventative and curative services to the majority of the population and meet the goal of expansion of coverage.



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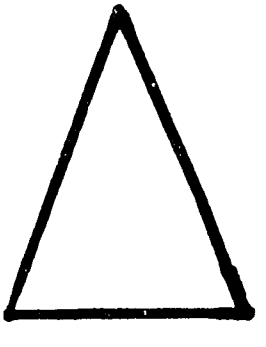

(PHC Resource Needs)

o INDIVIDUALS PAYING FOR PRIVATE CARE AND DRUGS

Evidence in several countries, including Haiti and Honduras, suggests that people are spending money on health care .Although government services generally have been free, even people in rural areas buy drugs and services from private providers.The assumption that people cannot or will not pay for health care appears to be erroneous;it is doubtful that the willingness to pay will decrease in the future, especially if government services are inadequate to meet needs.

CONSIDERATIONS FOR THE FUTURE

When the criteria for successful management improvement projects are juxtaposed against the environment of the future, it is clear that achievement of the ambitious objectives of these programs will be exceeding difficult in most countries. In looking forward then, it appears that some restructuring of projects is required. The following approaches are suggested for planners to consider in designing strategies aimed at improving resource allocation and management to achieve extended coverage goals.

o RESTRUCTURE INCENTIVES AND REWARDS

One of the most powerful management control tools used by private sector organizations is an incentive and reward system. Objectives and norms for individuals are established, appropriate information systems are put into place to measure achievement and individuals are rewarded for their accomplishments. As Douglas McGregor points out in The Human Enterprise , it is in the best interests of the organization to match its own objectives with the self-interest of the individual; that is,one should set up specific rewards which are important enough to the individual so that he or she will be motivated to behave in ways that are most beneficial to the organization.

In the absence of concrete incentives , individuals can be expected to behave in the traditional ways;they will seek informal rewards which may be counter to organizational goals. In MOH's, these informal rewards can take a number of forms.Political affiliations may lead operational level workers to do favors for individuals which get in the way of accomplishimg their tasks;however, if there is no disincentive or lack of reward for not accomplishing ones job ,there is little risk for the worker and there is the gain of political capital. Similarly, in the absence of direct and concrete rewards for focusing on primary health care activities, physicians are likely to press for more hospitals;hospitals traditionally bring those connected with them recognition and status within the community.

In El Salvador, drug distribution managers at the district level are paid aproximately $100 per month to handle millions of dollars worth of drugs;, what is the incentive for a manager to move those drugs out to the field level under at best difficult conditions,when it is far easier and more profitable for him to find other ways of disposing of the drugs?

While the arguements have been made that re-designing reward systems ,is too political and complex, there are examples of it occuring in the LAC region. In Jamaica, the government is about to revamp the entire civil service personnel system. The reason is the poor productivity of public sector .The government believes that the only way to improve it is to attract higher quality people by providing approriate rewards based on performance. Similarly, the Ministry of Energy and Mines of Venezuela, which subject to the rules of the government civil service systems, has just revised its entire personnel promotion and career system using a performance-based approach.

In designing management improvement projects it is important to consider building in mechanisms that will motivate people to adopt new practices. Incentives can take many forms. Promotions,clear career paths, continuing education opportunities,and public recognition for achievements are a few types of incentives that have worked;while bonuses may be difficult to administer, salary increases or lack of them based on performance need to be considered. Finally,an approach is being tried in the AGAPCO program in Haiti that has the potential for creating an incentive-based reward system. There a semi-public entity has been established to obtain,distribute and sell essential drugs;in the system, each level of distribution receives a percentage of the profits from sales. The incentive for managers to get the drugs out to the sales points is clear;if those profits then were to be distributed among personnel based on their contribution to the results,,workers would have a strong motivation for improving their performance.

The key to establishing effective incentive systems is that rewards must be based on actual performance of individuals;they also must be ones that are valued by the potential recipients. Unless MOHs establish concrete rewards for people based on performance,it seems unlikely they they will be successful in institutionalizing major changes in the way the organization has traditionally functioned.

o PRIORITIZATION AND SELECTIVITY

Given both the limited absorbative capacity of MOH's as well as the potentially short timeframe for maintaining consistent high level support for activities,an arguement can be made for either limiting the scope of management improvement projects or phasing their activities ;the aim would be to work on one or two key systems, get them designed, tested, and implemented vertically down through the organization to the field level before working on another system. Once a new a system is functioning at the operational levels,it becomes part of the organization's norms;high level political changes or priority shifts are less likely to have an impact on the continued operation of that system.

Systems should be selected in logical sequence;it is fruitless to revamp the community health worker training program system if the transportation and drug supply procedures will not be in shape to support the workers for secveral years, for example;by then many will have dropped out and re-training will have to occur,as has happened in Peru. However, it also is true that reforms should begin where there is enthusiasm and support from Ministry personnel at various levels in the structure. Since the time between project design and implementation may result in personnel changes, it is important that projects be flexible enough to allow work in areas where there is higher initial receptivity.

The arguement for making limited, focused amd phased management system interventions is clearly supported by the experience in private sector businesses and organizations. Even businesses which have an abundance of qualified and talented personnel as well as financial resources to support systems development, never attempt to make major changes in a variety of key management systems at the same time. It would be difficult to find an example of a firm which attempts to revamp their financial control, personnel,marketing and production systems all at once. Institutionalizing change is both time-consuming and disruptive;the private sector seems to come out on the side that attacking management systems in phases is far more successful than attempts at across the board reforms.

o DECENTRALIZATION:TARGET MANAGEMENT PROJECTS TO REGIONS

It is clear that the trickle down approach to management reform has not been very successful in some countries. Participation and committment from operational level people is critical to successful implementation. An alternative is the regional

approach. In the Dominican Republic management improvement activities started in one region where there was a particularly enthusiastic director; other projects were stalled at the central level. In Peru, the MOH has agreed to have technical advisors placed in the regions to work directly with regional staff in designing management information and drug logistic systems. Targeting project funds,training and technical assistance to the regions improves the chances of testing alternatives more quickly and can reduce the resistance from below that is often a bi-product of things designed centrally;to be successful,this approach requires that ministries also give regional directors the authority and control of resources needed to implement new management approaches.

o HOSPITAL COST CONTAINMENT

One reason that ministries of health are unable to provide sufficient resources to effectively deal with primary health care needs is that hospitals eat up the major portions of their budgets;given the continued pressure to maintain current levels of hgospital-related programs, one approach to freeing up more funds for PHC is to control hospital costs. If the health sector budget is looked at as a whole, then savings incurred in hospital efficiencies could be re-allocated towards PHC. A management improvement project in Portugal is developing simple information systems as well as adapting hospital management techniques being used in the United States and France which will reduce the amount of resources expended for hospital activities;the project is focusing on improving productivity of physicians, designing quality and efficiency protocols for patient care, improving the ordering and distribution systems for materials and drugs management to reduce loss and waste,and changing the hospital reimbursement and capital budgeting systems.

Hospital management firms in the United States have been able to demonstrate that improved systems in small public hospitals can save up to $1 million dollars in annual operating costs. Even savings of a smaller magnitude multiplied across the publically operated hospitals in most countries could potentially yield substantial resources for PHC activities. Reallocation of resources through hospital cost containment actions should form a legitimate and important part of any PHC management improvement project;at the same time these projects have to insure that the new management systems established, at both the hospital and PHC level,are cost effective. The MOH must be able to support the salaries and recurrent costs needed to operate them in the future. The whole area of cost containment deserves

far more attention than it has received in the projects undertaken to date.

- ALTERNATIVE DELIVERY APPROACHES

Most MOHs in the region have traditionally performed a multitude of roles in relation to health services: financers,regulators and providers. Health services generally have been free. Given the diminishing public resources in relation to demand as well as the complexities of managing the delivery of services in the public domain, Ministries may need to recognize that they cannot do it all. An important role for new projects may be to help MOHs identify opportunities for service delivery through private or semi-public providers;the Acapco drug program in Haiti is a good example. Other mechanisms might include fee-for-service programs,revolving drug funds,health maintaince organizations, pre-paid health schemes or some form of health cooperatives.

In these entities it is possible to create committment to organizational goals through clearly defined incentives based on measurable objectives;at the same time, managers can more easily be given control over and held accountable for the resources;finally they can be directly rewarded through bonuses,profit-sharing or promotional systems unencumbered by the traditions of the civil service system.

Looking toward other mechanisms for providing health care also allows the MOHs to capitalize on and redirect private expenditures for health care;the net affect is to increase the revenue available for appropriate health care services. While alternative delivery systems are not a panecea, they could help to alleviate the heavy burden that currently falls to Ministries of Health. It may be in the MOHs best interests to develop policies that permit the creation of alternative mechanisms, passing regulations to insure that expenditures for inappropriate services are not encouraged by the organizations.

While these considerations are not intended to provide simplistic solutions to the complex management problems facing Ministries of Health, they are suggested as a stimulus for the designers of future health management improvement;the hope is that by reviewing the past experiences with these programs, new and better approaches can be found to the critical problem of adequately providing basic health services to the population in the LAC region.

MatthewThornton HealthPlan, Inc.
MTHP

November 28, 1984 -- Presentation to Health Officers' Conference
Bureau of Latin America and the Caribbean

by Harris A. Berman, M.D., Executive Director, Matthew Thornton Health Plan, Nashua, New Hampshire (a staff model HMO with 35,000 members), and Chairman, Medical Directors Division, Group Health Association of America (the trade organization of Group Practice HMOs in the USA).

Today we will discuss "alternative delivery systems", the latest jargon phrase to categorize generically the new types of health care financing and delivery arrangements. One particular type of alternative health delivery system which has been popular and successful in this country for many years is the HMO, the Health Maintenance Organization. Recently HMOs have enjoyed tremendous growth throughout the country and have proven their ability to deliver quality health care in a cost effective manner.

The HMO may be particulary applicable to developing countries, since the accent is on cost-effectiveness, prevention, and health care management. This can be done in any setting, and in general will make better use of the health care dollar than is current practice. Many of us feel, however, that the generic term "HMO" is a bit of a misnomer. To imply that we provide "health maintenance" instead of "health care" suggests that the state of the art of preventive medicine is more developed than in truth it is. In the setting in which we function in the USA, a better definition of the term "HMO" would be that of a "health management organization". This

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A State Certified and Federally Qualified Health Maintenance Organization

would suggest that our primary function is the management of the health care for our enrollees, rather than the promise that we can do something we are indeed poorly equipped to do — prevent illness.

In the International arena, however, the promise of "Health Maintenance" may well be attainable. In areas of the world where preventive medicine still can make significant strides in nutrition, sanitation, immunization, well-baby care, infant diarrhea control and prevention of infectious diseases, an HMO would have the opportunity to make major improvements in the health status of its members. When these opportunities are coupled with the opportunities to control health care costs by effective management of the dollars available for a given population, the HMO would have an excellent chance to demonstrate its effectiveness as a creative organizational form to achieve real Health Maintenance.

Let me describe what an HMO looks like to give you an idea of what we mean by this concept. Basically we are describing a direct service, managed health care delivery system. This is a very different concept from the traditional health insurance system prevalent in this country. The essential elements in an HMO include a source of payment, a health care delivery system including providers of care as well as facilities, a marketing capabililty, and good management.

Typically, the elements mentioned above are provided in a setting something like this. Employers offer the Prepaid Plan to their employees as an alternative to their current health insurance plan. Each employee can choose whether his family will get their care from the HMO or from their

traditional source, be it a long trusted family doctor or a neighborhood health clinic. The employer, sometimes supplemented by a contribution from the employee also, pays the premium. Sometimes instead of an employer, the government, in the form of "Medicaid" for the poor, or "Medicare" for the elderly, becomes the payor. The delivery system is a Medical Group Practice, provided primarily in a fully-equipped ambulatory care clinic. In order to run the business aspects of the Plan, the management must be able to handle the organizational needs of a sizable company, the financial management of multimillion dollar resources, and the marketing skills necessary to sell a product which may be new to the marketplace in which it is functioning.

The financial success of such an endeavor is dependent upon a restructuring of the traditional incentives in health care financing. In the USA this has meant switching from a fee-for-service payment system to a salaried or "capitation" approach. The traditional fee-for-service approach in this country has engendered a very costly health care delivery system which rewards providers of care, be they doctors or hospitals, for doing more and charging more. To control costs, HMOs pay their doctors to take care of a certain group of patients, and reward them for being cost effective. The medical group will save money if it manages the care effectively, only uses the hospital (the highest cost area) for cases which really need hospitalization, and moves people out of the hospital into less expensive care as soon as possible. Conversely, the Group will lose money if it overutilizes hospitalization and referrals, or wastes resources in areas that are not cost-effective. One might worry about the possibility of the Group withholding necesssary medical care in order to save money. To some extent, we

must rely upon the professionalism of the medical staff to prevent this. Clearly the unscrupulous physician could take advantage of any system, be it fee-for-service (where he can benefit from doing unnecessary surgery or other procedures) or prepaid care (where he could save by withholding needed diagnostic tests or therapy). The patient is protected from this to some extent because the cost of care from delayed diagnosis or from a mistreated illness frequently is greater than early, appropriate care would have been. Thus the medical group has an incentive to detect disease early, treat it appropriately, and avoid later complications which could be costly and require lengthy or expensive hospitalization. Providing good care for the enrollees in the first place is still the most cost effective health care of all!

The operation of any HMO presupposes certain conditions. First of all, someone must pay the bills in the form of premium payments — that is, services must be paid for before they are performed. In this country, employers usually pay the premium. In many cases, the premiums for HMOs are lower than conventional health insurance premiums because of the tight control HMOs maintain over the most expensive part of health care delivery in this country -- the hospital. In some developing countries, employers are already involved in providing health care benefits to workers. When they do not, the government or unions may do so. In fact, unions and cooperatives may be particularly receptive to the HMO concept.

Secondly, an HMO should be a health care delivery system rather than just a clinic supplying services. HMOs manage the health care of the people enrolled in their plans. Management skills must be mobilized to use re-

sources as effectively as possible. That means, in part, limiting hospitalization to the minimal number of days absolutely necessary since hospitalization is very expensive. If one can control the number of days in the hospital, major savings result. That is why HMOs in this country can offer services more cost effectively than can Blue Cross/Blue Shield or commercial insurance carriers. The latter have no control over what happens in the hospital -- they simply pay the bill afterwards and then raise the premium if necessary the next year. HMOs save money both within the hospital itself and by controlling utilization of referrals outside their system.

Whether or not an HMO will work in the Third World depends upon the country in question. If all hospital services are provided by the government, HMOs could spend more money on health education, and outpatient and other services not being offered by hospitals. Saving money in some service areas to spend in another presupposes that one has control over a comprehensive system which includes hospitalization, referrals, and some public health activities performed by the government. If the HMO plan can include all of these, then presumably resources can be used more efficiently and effectively.

Thirdly, HMOs need health care providers. Again, different countries have different needs. Many Third World countries do not lack sufficient numbers of doctors. While physicians may not be distributed equitably throughout the country, absolute shortage of doctors is frequently not the problem. The real problem is getting doctors in the right place to provide needed services— basically primary health care services rather than specialty

care (which physicians tend to prefer because they are more remunerative).

In this country, physicians are more expensive than non-physicians. In many HMOs, non-physicians provide health care as well as physicians. The inclusion of non-physicians as providers of health care in the HMOs creates a useful cost-benefit ratio and means better care. Non-physicians become very good at the outpatient care which they provide all the time. Given proper protocols and training, non-physicians can provide serivces at clearly the same quality level as physicians can. HMOs using a combination of physician, physician assistants and nurse practitioners are able to provide more personalized service, including health education. In countries which are short on doctors, HMOs can use physician assistants and nurse practitioners instead.

Recruiting and retaining appropriate providers is an important issue facing HMOs. In order to attract and keep good physicians, benefits must be competitive. Initially, an HMO might rely for a while on missionary zeal--but this missionary zeal wears off, especially as new people are added. If an HMO cannot offer benefits in terms of salary, lifestyle, or quality of practice or environment that somehow compensate for what a physician might be giving up elsewhere (e.g., higher salaries), it will not attract and keep good physicians.

An HMO requires attractive, modern facilties to draw people into its health care delivery system. There must be some reason why people should join an HMO plan. Proper facilties play an important role in attracting both members and high-quality medical staff.

Involvement in the hospital care of patients is key to controlling costs. Many developing countries have systems of outpatient medicine which are entirely separate from hospital medicine. In such cases, obtaining access to hospital privileges on the part of HMO physicians may be a real problem. Certainly it has been in this country. If HMOs are to function effectively, however, they must obtain sufficient control over hospital utilization to shorten length of stays, and ensure that treatment in outpatient services and clinical facilities is efficient and appropriate.

When our HMO, Matthew Thornton Health Plan, opened in 1971, there was no facility in our community for doing outpatient surgeries, a relatively new concept at that time. Anybody who had a hernia repaired was in the hospital for at least three days and frequently five days. Anybody who needed anesthesia was admitted to the hospital to have their surgery done. Now our HMO surgeons do forty percent of their surgery on a same-day basis in a short-stay unit. A patient comes in the morning, goes to the operating room, has surgery, goes to the recovery room... and at five o'clock goes home. Such patients never get into a hospital bed. Most of the hernias and minor surgery are treated that way, and some other major surgery is also done on an outpatient basis.

This represents tremendous savings to us and is probably better for the patients, who recover better at home than in hospitals. Physicians are all aware of the fact that hospitals are not necessarily safe places to be, particularly if it is not necessary to be there. People fall out of bed and break their hips in hospitals; people are given penicillin when they

were supposed to be given something else and they were allergic to it. Hospitalization is not so bad that one should never go, but one certainly should not be there unless it is necessary! Thus, getting people out of hospitals when they do not need to be there is cost-effective and probably safer.

The final requisites for running an HMO are to have good management and marketing. HMOs frequently evolve into large businesses, and require management skills appropriate to their size and complexity. Marketing an HMO involves the introduction of a new product into the marketplace, and takes political as well as educational skills to introduce it successfully. This must be done with tact and skill.

If properly conceived, direct service prepayment plans offer the potential for introducing competition into the health care delivery system in ways which can control costs, improve quality, and offer members a choice in how they obtain their medical care. They may well have a place in LAC countries.

HMO and/or PREPAID HEALTH ACTIVITY IN SOUTH AMERICAN COUNTRIES

Preliminary Report

by Dr. Alfredo Solari M.D.
Montevideo, Uruguay
November 1984

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CHAPTER I

INTRODUCTION

1.1 Background

This report was undertaken under the Cooperative Agreement N° LAC-A-00-4049-00 between AID and Group Health Association of America. It is part of the project to develop a critical assessment of Health Maintenance Organization (HMO) development in Latin America.

The first objective of this project is "to identify and describe prepaid and/or HMO-type activity in the Latin American region". As stated in the agreement, a report in this subject will include:

a) Characteristics of each activity: name, sponsorship, etc.

b) An assessment of advantages and disadvantages of "HMO System"

To carry out parts of this project in South American - countries, an agreement was reached between GHAA and this consultant. Section b) of the "Services to be provided" stated the terms of reference for this report as follows: "Using the standard format, identify and report on HMO and/ or prepaid health care activity in designated South American countries".

There is an accepted definition of what an HMO is as -- stated in the HMO Act of 1973. The application of its -- strict terms to the types of prepaid activities in South American countries would have practically excluded all of them from the study. In recognition to this limitation, the terms

of reference utilized an expanded concept by referring to "HMO and/or prepaid activity". It became necessary thus, to identify and describe the kinds of prepaid health care organizations existing in each South American country.

Each class or type of prepaid activity was then compared with three main prepayment concepts: indemnity insurance, PPO and the HMO concept in order to select those that, although different in some respects, were similar enough to the latter as to deserve its inclusion in the study. For types of prepaid activities so recognized, an effort is being made to identify and list all, or at least the most important, organizations that fit the characteristics of the group.

In order to recognize existing types of prepaid activities in designated South American countries, an initial visit was paid to each country. The task of identifying, listing and describing the components of those groups, most similar to HMOs, was arranged in most countries with a local correspondant. This second aspect of the study is still in the process of being developed in all countries and will be reviewed later in this report.

1.2 Health Care Delivery Systems in S.A. Countries

The country visits just referred provided an unique opportunity to gain first hand knowledge on the overall organization of the health care delivery systems in these countries. This is valuable not only in itself but also as a means of understanding existing types of prepaid activity and also of exploring its potential development. Since the presentation on each country will start with a description of its overall health care delivery system, it is worthy to introduce at this point some of its main features. There are traditionally in every country three major components:

1.2.1 Government Services

The governmental sector which administers a whole spectrum of health care facilities mainly through the MOH, for the indigent people; by the Ministries of Defense and Interior, for the security

forces and their families and through the Ministry of Education (teaching hospitals and ambulatory clinics) serving also the indigent.
These services are financed through general revenue and, with the exception of those for the security forces, are perceived as uncomfortable, low in quality of care and highly ineffective and inefficient.

1.2.2 Social Security

The Social Security sector which is organized -- along two different types.

In countries like Brazil, Uruguay, Argentina and Chile,the Social Security Administration, for the most part, does not operate its own health facilities. In these countries, it constitutes predominantly, a financing mechanism with employer, employee (and sometimes government) contributions aimed at ensuring the access of beneficiaries to health care services organized by others (may be government or private services or both).

In the other countries, most notably Ecuador, Perú, Venezuela and to some extent Colombia, the Social Security Administration is not only a financing mechanism but also an organization that operates its own health - facilities, both outpatient and inpatient, to serve its own beneficiaries exclusively.

Health care services, organized and administered by the Sickness Insurance Funds, although enjoying a - higher level of resources than those of the Ministeries of Health, are also perceived as ineffective and inefficient both by public health authorities and by their beneficiaries.

Particularly in countries where the Social Security Administration operates its own services, the population covered by sickness insurance benefits is -- proportionally small (10%-15%) since coverage is restricted to those in active employment (dependents are seldom included), of the most modern sectors of the economy and predominantly urban based.

1.2.3 Private Sector

The private sector comprised by physicians and dentists, working as liberal, independent prefessionals, drugstores, private diagnostic and therapeutic clinics and hospitals. Most of the private sector operates on a fee for service basis, with payments made directly by customers.

As will be seen in this report, there is, however, a significant development, sometimes with a long tradition and sometimes new, of prepayment. Particularly in Argentina, Brazil and Uruguay, there is significant purchasing of 'private" or "semi-private" services by third parties: mostly Social Security Funds, voluntary insurance and even some government schemes.

Although services provided by private organizations are perceived as of higher effectiveness and efficiency in comparison to those of the Ministry of Health and of the Social Security Administration, hard, scientific evidence in this regard is nonexistent and may be hard to obtain given the substantially different levels of funding of the three components.

Despite the significant variations that exist between countries, variations that will be specified later, there are some general conclusions which are valid for most South American countries studied.

a) An important segment of the population, difficult to estimate in precise terms because of the scarcity of health surveys, but ranging between 10%-15% in the most developed countries and may be up to 35%-40% in the poorest ones, does not have regular access to health care services, even of the primary care nature. For the most part, these are the rural poor and to some extent also, the lowest income groups in the large cities. Studies of health expenditure do reveal that direct payments for medical care and drugs are substantial, in proportion to their income, for these groups.

b) Health facilities, both ambulatory and hospital, administered directly by the Ministries of Health and by the Sickness Insurance Institutes are perceived as of low quality and ill equipped, of poor comfort and grossly - inefficient. Larger, more powerful companies, react to this by "opting out" of the official social security - services either by organizing their own services or by buying health insurance for their employees, therefore ensuring their access to the private sector.

c) There is in almost every country an oversupply of physicians as a result of two decades of expansion of medical schools. Subemployment or even unemployment of physicians is quite common and one of the important concerns of health authorities throughout the region.

d) Because of lack of ability to cope with direct payments of increased costs of health services, there has been a surge over the last ten years of several forms of prepayment, aimed at middle and upper middle income groups. For the most part, this development has taken the form of reimbursement, either through traditional commercial insurance or through arrangements with a list of providers that are similar to the Preferred Provider Organizations (or PPOs).

Before entering into the description of each country, it will be useful to present a classification of health care prepaid organizations so that the types of prepaid activities encountered in each country can be then compared against these "model" types.

1.3 Health Care Prepaid Organizations

There are three main forms of health care prepaid organizations in the private or semi-private sector:

1.3.1 Health Insurance of the traditional, indemnity type

The organization provides health care coverage by reimbursing expenditures incurred by the insured, usually with a ceiling (maximum amount covered) but assumes no responsability in the organization and the delivery of the services needed by the insured person. Premiums are frequently actuarially based, in other words, they vary according to risk. Since the insured has freedom of choice of the provider of care and since these are free to set the prices for their services, there are usually substantial and variable copayments. These arise from the difference between prices paid and reimbursements received by the insured person. The scope of benefits covered (or risks insured) also vary both between insurers and between plans within a single insurance organization. In South American countries we have found traditional health insurance of the indemnity type provided mainly by financial institutions (linked to banks) and by insurance companies.

1.3.2 Prepaid Organizations (PPO type)

Health Insurance with price arrangements with a group of providers (similar to PPOs). It represents basically the same economic relationship between the insurer and the insured: reimbursement of a fixed amount or a fixed percentage of costs incurred. However, the insurer makes arrangements which a group of providers, both physicians and hospitals, regarding their prices

Therefore, insurers may be restricted to these providers "entirely" (no reimbursement of costs incurred with providers not included in the list), or "partially", with the percentage reimbursed being higher when services of providers included in the list are used.

The insurance organization does not assume responsability for organizing and ensuring the access to services. It may or may not operate its own facilities. Providers are independent from the insurance entity and are paid on an indemnity basis. Unlike the HMOs, in these organizations the providers of the services are not "at risk".

In these organizations there are copayments, though these tend to be of a fixed amount for a given service and often smaller than in traditional health insurance. Because of the financing arrangement, the freedom of the insured to select its provider of care is reduced, sometimes restricted to the "preferred" or "closed" list. The scope of benefits covered varies across organizations and between plans within an organization.

In South American countries we have found this type of health insurance organized by commercial companies, by unions and by groups of providers frequently in association with an insurance company.

1.3.3 Prepaid Organizations (HMO type)

By definition the HMO assumes the financial risk of the cost of care used by the members and assumes as well the responsibility for the organization and the delivery of health services to their members when needed, frequently through facilities (particularly for ambulatory care) operated directly by the HMO.

Usually there is no reimbursement mechanism. Health services provided to members are delivered directly by the HMO personnel (mainly in ambulatory care) or are paid directly by the organization. Consequently, there are in the last hypothesis, contractual arrangements with providers, usually hospitals.

These can be paid on a fee for service or on a per capita basis.

User charges or copayments either do not exist or are very limited. When levied, they are of a fixed amount per service independently of the provider.

Because of the double responsibility of the HMO - financial and for organizing the delivery of care - there - is a greater restriction to their memebers of selection of providers. Access is insured only to services administered directly or recognized as "usuable" by the organization.

The scope of benefits, although they vary across dif-

ferent organizations and may vary according to several "plans" within an HMO are, in general, quite comprenhesive covering - both outpatient and inpatient care, diagnostic and therapeutic procedures and, in some limited instances, drugs and some prosthesic devices.

Nine main characteristics were specified in the standard format used to identify HMO-type organizations in South American countries. These were:

a) The organization must be a private or semiprivate legal entity.

b) The organization must assume the financial risk and the responsibility for organizing the delivery and ensuring the access to health care services.

c) Prepayment must be the sole or the most important -- source of financing the organization. Regular premiums (monthly or quarterly fees) must be unrelated to the use of services by members. Copayments, though may exist, must be small and cannot represent a barrier to access to care.

d) The organization must provide comprehensive coverage of health benefits.

e) Health services may be provided by the HMO either:
- directly through its own facilities
- by contracted providers

f) Physician services, except highly specialized ones, may be provided by:
- physicians working as employees of the HMO.
- as a group or an association of professionals that collectively share the financial risk (for medical care) with the HMO

g) Continuity of care must be ensured by the organization

h) Members cannot be disenrolled by the HMO because of their health status or their utilization of services

i) Membership premium may be paid by the member or by an organization (business, union, social security, etc.) In either case premiums are regular and fixed per per-

son, not related to actual use by the member.

Preliminary findings in each South American country follow.

Countries are presented in alphabetical order. For each country an attempt has been made to cover the following topics:

- health care delivery system
- types of prepaid activities with emphasis on those most similar to HMOs.
- summary and HMO development prospects.

CHAPTER II

ARGENTINE

2.1 Health Care Delivery System

2.1.1 Government services

The national, provincial and municipal governments operate a large network of ambulatory and hospital facilities. They account for 68% of the total beds and represent about 20% of the national health expenditure.

Every resident in the country has legal right of access to these services. Fees can be charged and vary according to the income of the patient. In practice, because of low level of comfort and perceived low quality of care, use of government services is restricted to the indigents. However, some government hospitals, particularly at the provincial and municipal level, sell services under contract to prepaid organizations for their beneficiaries.

The importance of the government network of health services as a provider of care is decreasing; it used to be up to forty years ago the predominant source of hospital care in the country.

2.1.2 Non-Governmental services

There are four different forms to organize and/or finance services.

2.1.2.1 Obras Sociales (O.S.) / Social Insurance Fund (over 400 organizations).

These are private, not for profit legal entities, originally sponsored by unions as sickness insurance funds, financed by mandatory social security contributios by union members.

Most O.S. function as P.P.O.s, entering into special price arrangements with groups of providers. For most O.S. a provider is "valid" and can be considered for a contractual arrangement, only if the provider (physician, center, hospital, etc.) is duly registered with the national agency in charge of controlling the performance of the O.S.

The fewer, largest O.S. have developed their own facilities, and have hired or entered into a contractual -- arrangement with a group of physicians.

In these instances, they function more like HMOs, - since they assume noy only the financial risk but also the responsability for organizing the services for the beneficiaries.

The O.S. provide comprehensive coverage of health - services, among other social benefits, like recreation, - education, etc.

Population coverage by O.S. runs very large: about 75% of the national population. Because not all O.S. are of same quality and effectiveness, some beneficiaries, although maintaining their contribution (which is mandatory) buy some form of care in the private sector.

Health care costs in the O.S. is mostly covered by the prepayments of mandatory social security contributions. However, the O.S. are allowed to charge copayments or user charges and these can be important: up to 30% in some organizations for the cost of a physician visit or up to 50% of cost for the dispensing of drugs.

The entire group of O.S. represents about 50% of national health expenditure.

2.1.2.2 <u>Mutualistas / Mutual Benefit Societies</u> around 10 organizations).

These are private, not for profit legal entities, - originally sponsored and organized by inmigrant groups as private, voluntary sickness insurance funds.

Most of them developed their own facilities, hired their health personnel and organized themselves as HMOs.

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At present, because of loss of members, they predominantly sell services to O.S..

They have lost membership and importance in the health care scene because of two reasons:

a) members were forced to enroll in an alternative system with the appearance of the O.S.

b) they always have difficulties in recruiting doctors who, in Argentine as in other South American countries, are reluctant to lose their autonomous liberal style of practice.

2.1.2.3 Health Insurance Plans (around 75 organizations)

Developed during the past 10 to 20 years, these are private commercial (for profit) legal entities sponsored by three types of organizations: Insurance Companies, Private Hospital and Provincial Medical Associations.

They provide health coverage to about 3% of the Argentinean population of the upper middle income levels. Of this, about 20%, are as well, enrolled to some O.S.

For the most part they appear to be organized along the basis of traditional indemnity insurance or PPO-type. This will be discussed in some detail later, although information is still being gathered by our local correspondants in this subject.

2.1.2.4 Private care

As stated previously, there has been a proliferation over the last forty years of private, some community based, some commercial, hospitals of higher level of technology and comfort than the government ones. They account for 28% of the total number of beds. Their relative importance as health care providers is however much larger since they are responsible for producing about 60% of acute care hospital discharges.

This sector is also composed of private diagnostic and therapeutic centres and private physicians and dentists working predominantly in solo practice.

This sector represents about 30% of the national health

expenditure.

2.2. Health Care Prepayment Organizations

2.2.1 Obras Sociales (O.S.) / Social Insurance Funds

Most of the O.S. are organized along labor lines and sponsored by their respective unions or trade associations. Therefore, unless the beneficiary changes employment, and by so doing, enters into a different labor line, he cannot switch from one O.S. to another.

The O.S. are financed through mandatory contributions of a 7.5% payroll deduction: 4.5% by the employer and 3% by the employee.

They provide social benefits to the employee and his/her dependants. The most important benefit, measured in resources allocated to it, is health services. Others are recreational, -- housing, consumer goods and income subsidies.

The O.S. were originally administered with entire - autonomy from the state, under union auspices. Later, around - 1971, out of charges that the O.S. were inappropriately used to promote union power, 75% of the O.S. lost part of their autonomy and became regulated and controlled by the Federal Government through the Instituto Nacional de Obras Sociales (INOS).

Only 300 (out of over 400) O.S. are regulated by INOS. They represent 58% of the national population.

Among the regulated, the most important ones in - membership volume and in number of organizations, belong to two categories: "Union Sponsored", "Mixed Administration".

Among these 300 O.S. INOS collects a percentage - of the premiums paid by members, creating thus a Reinsurance Fund to bail out O.S. in risk of financial insolvency.

There is a group of O.S. still not regulated by INOS enjoying therefore a higher degree of autonomy. Categories

of O.S. in this group are: "Provincial and Municipal"
"Armed Forces"
etc.

Most O.S. operate like PPOs. Services consumed by members are paid to external providers -registered in a list- at a fix, preferential rate, lower than fees charged by same providers to private patients.

However, some of the larger O.S. in the following categories: "Union Sponsored", "Mixed Administration" and "Provincial and Municipal" have arrangements for sharing the financial risk with the providers of care either because they operate their own services and facilities or because they have made contractual arrangements on a per capita basis with hospitals and medical associations. In these instances they operate more like HMOs.

2.2.2 Health Insurance Plans

These commercial, for profit, private legal entities are of recent appearance. Out of a total of 75 organizations 20 are the most important ones in terms of membership volume

They are organized in two trade associations;

. CIMARA (Cámara de Instituciones Médico Asistenciales de la República Argentina / Argentinean Chamber of Medical Care Institutions). It groups those prepaid organizations that operate their own health facilities.

. ADEMP (Asociación de Entidades de Medicina Prepaga / Prepaid Medical Institutes Association). It nucleates organizations that have very limited facilities and thus, contract most of their health services to outside providers either through traditional indemnity insurance or most frequently through PPO arrangements.

All these organizations have stated policies to avoid the enrollment of bad risks. Their benefit package is comprehensive and varies according to the plans selected by the member. Invariably it excluded any pre-existing condition: disea--

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ses that occurred or were present at time of enrollment

2.3 Summary and HMO Prospects

a) Argentine has evolved towards the three classic components of health care in Latin American countries with financing and delivery of care organized along income lines:

- government services mostly for the indigent
- social security services through the O.S. for middle income groups organized as insurance funds, mainly as PPOs, some as HMOs. The O.S. that do not operate their own facilities purchase outside care according to the financial ability or income capacity of the fund, either in the government or in the private sector.
- a private sector for the high income level with a clear tendency to organize health insurance schemes of the three types: traditional indemnity, PPOs and HMOs.

b) Since 1971 there have been efforts to reorganize the O.S. through higher regulations and controls. There is a clear resistance by the medical profession to enter into labor agreements with the O.S. that may make them share the financial risk or loose their status as liberal, independent professionals. However, the O.S. will continue to be the predominant form of financing health care.

c) Health insurance for profit, organized by the private sector is restricted to high income groups and its growth will depend on economic development and income distribution. There is resistance by physicians, even here, to organize truly structured HMOs.

CHAPTER III

BOLIVIA

3.1 Health Care Delivery System

The Bolivian health care system is conditioned by -- the country's extremely adverse socio-economic situation and its geography.

Bolivia is one of the poorest countries in South America, with a large indian population scattered throughout the different regions of the country, from desert highland to the jungle. The government's main concern is therefore centered in primary health care and community participation aimed at achieving forms of self-help.

Private medicine of higher quality and comfort exists for that small percentage of the population that can afford it, and it is limited to the main cities.

3.1.1 Government services

The national government owns and operates an extended network of health care facilities, aimed at the indigent population. This includes a wide range of services, from "puestos sanitarios" (sanitary outposts) of which there are 824 in the interior of the country, to general hospitals, of which there are 11.

Theorecatically government services provide coverage to two different groups:

a) almost all the population living in the rural areas (about 60% of the national population)

b) those workers and their dependents who will be event-

ually incorporated to the social security scheme, but are not enrolled in the Sickness Insurance Fund yet. (about 20% of the national populatinn, including construction workers, domestic servants, professional sportmen, drivers, cattle ranch workers and seasonal farm workers).

There is an important drive to promote community participation, and primary health care is gradually becoming accessible to a larger portion of the population, but it is hard to determine the actual extent of coverage. It does not seem risky to assume that large numbers still go unprotected.

The quality of care and the comfort offered are poor and these services are not utilized by the higher income groups.

3.1.2 Social Security

Although there is a Caja Nacional de la Seguridad Social, several labor groups have achieved enough autonomy to operate their own social security organizations: railway workers, highway workers, COMIBOL (miners), teachers, etc. Each one operates its own network of health facilities including ambulatory clinics and hospitals.

When fully developed, the social security system will provide coverage to about 27% of the population. However, at present, because of limited facilities, it covers effectively -- with its own services around 7%. As stated previously, the remainder is being served by government facilities.

Sickness and maternity insurance provide medical and dental care, even specialized services, surgical, inpatient care and prescribed drugs. It covers also some preventive activities.

The social security system is intended to provide coverage to the employee and his/her dependents.

There is no coordination in the utilization of health facilities by the social security organizations among themselves or with those of the Ministry of Health. This results in cost-

ly duplication of facilities, underservicing and inefficient results.

Due to the economic constraints of the country, even in this limited scope, the social security organizations are running into serious financing difficulties and deficits.

3.1.3 Private Sector

This sector has traditionally been dominated by solo physicians working on a fee for service basis and private hospitals providing the inpatient care by the same system.

In recent years there has been a development of prepaid health care organizations of different types, which will be described in detail in the next section.

As well, both in the main cities and in the countryside, there are a number of cooperatives that provide health care as their only benefit or as one of many benefits. At least eight of the first kind and four of the second were detected in our study.

3.2 Health Care Prepaid Organizations

3.2.1 Health insurance of the indemnity type

At least three companies sell health insurance. Only one of them functions as a PPO, whereas the others reimburse expenses incurred by the insured up to a certain limit, and he/she is free to choose the provider he/she prefers.

3.2.2 PPOs

In recent years several groups of physicians have started offering ambulatory care with a prepayment mechanism to groups of higher income workers. These physicians are generally related to clinics, but that need not be necessarily so. At least 10 clinics throughout the country offer services by this mechanism to 10 bank workers unions, who are the groups that are more generally ensured by this system. The scope of services included is quite limited, since these are partial insurance systems.

It is hard to determine exactly how many groups of physicians are working in this manner.

3.2.3 HMOs

These organizations are also quite new and still very rare. Only two of them were found in La Paz, but they adjust to our definition of an HMO.

They cover mainly workers through their unions or employers (as side-benefits) and there is a percentage of copayment at the time of using the services that depends on the type of contract they may have.

They do provide comprehensive care, though drugs may or may not be included.

The two HMOs visited in La Paz are private for profit companies, and physicians are hired for a salary.

3.3 Summary and HMO Prospects

The Bolivian health care scene is largely dominated by the public sector that reaches the largest part of the population and tries to cope with the main problems of the population with the shortest life expectancy in South America.

Prepaid health services, except for cooperatives are seen as a need by that part of the population that has a higher income and to whom public services are unacceptable, but this is not a large group, and its possibilities to increase are very limited.

Cooperatives are an interesting solution that should be further considered, because it has several advantages: namely that they respond to people's needs and that they increase community participation and control of services because of their financial mechanism. They can also offer, in many cases, services of higher quality than those of the MOH for more or less the same level of resources.

CHAPTER IV

BRAZIL

4.1 Health Care Delivery System

Brazil's health care system is like Argentina's -- heavily dominated by the social security financing mechanism organized under the Instituto Nacional de Asistencia y Previdencia Social (INAMPS) / National Institute for Medical Care and Social Security. On paper, it receives contributions directly from or, on behalf of 90% of the Brazilian population. Its own health care facilities being very limited, it is forced to purchase health services from all sorts of providers scattered throughout the -- country, both governmental and private. In practice, the percentage of the population having access to health services financed by INAMPS is more limited, leaving thus, room for some governmental services with their own captive beneficiaries and for the development of a variety of private providers that sell services, on prepayment or on a fee for service, outside INAMPS, even to INAMPS beneficiaries.

4.1.1 Government Services

4.1.1.1 Ministry of Health : provides health services to medically indigent people in underserviced areas like Northeast and Amazonia. Of primary care nature, they are primarily oriented towards preventive medicine and the control of communicable diseases. It is financed from general revenues.

4.1.1.2 Institutos de Previsión Estatales y Municipa-

les / Municipal and State Social Security Institutes: They provide health services to civil servants and their dependents through own network of ambulatory and inpatient facilities. They are financed through social security contributions made by beneficiaries, by general revenues at the State and Municipal levels as well as by user charges.

4.1.1.3 Armed Forces: Active and retired members of the security forces are covered by a complete network of facilities run by the Armed Forces. Their dependents are protected by this network for specialty services and enjoy additional protection from INAMPS for care at primary and secondary care levels. Health facilities of the Armed Forces are financed from general revenues through the Ministry of Defense budget. Copayments are also requested from users as a source of financing.

4.1.1.4 Universities : Teaching hospitals offer their ambulatory services to the entire population, covering the whole spectrum of care from primary to the most highly technological services. They are financed from general revenues by the Ministry of Education budget for government universities. These and private teaching hospitals are also allowed to charge users of middle or high income level on a fee for service basis and receive payments from INAMPS for services provided to their beneficiaries.

4.1.2 Social Security

The INAMPS, already referred to, is the overwhelmingly major source of social security health care financing in Brazil. It is financed not only from payroll deductions from beneficiaries but also from general revenues from the federal government in order to enable it to protect some indigent people.

INAMPS is the fifth largest public corporation in Brazil.

It provides coverage to:

a) urban workers, active or unemployed and their dependents.

ensuring their access to the entire spectrum of medical and hospital care.

b) rural workers, active or unemployed and their dependents. It provides them with primary care, dental care and emergency and hospital services.

c) civil servants of the federal government, active or retired and their dependents.

d) indigent population of some regions, independently of whether or not they make social security contributions.

Most of the services financed by INAMPS are provided by third parties; only 20% of physician visits and less than 2% of hospital discharges were produced in their own services.

Main providers of health services are private physicians and hospital and State and Municipal facilities

	Outpatient	Inpatient
INAMPS facilities	20.5%	1.6%
Purchase to private providers	29.9%	69.7%
Contractual agreements with unions	9.0%	0.2%
Contractual agreements with government agencies	14.5%	6.3%
Contractual agreements with firms	10.1%	3.9%
University hospitals	2.3%	1.6%
Other agreements	13.7%	16.7%

It is worth noting two aspects of the relationship between INAMPS and outside providers: 1) purchase of hospital care to private hospital faces all sorts of financial difficulties prompting INAMPS to organize payment away from fees claimed and by a regime similar to the DRG payments of Medicare in the U.S.; 2) the "contractual arrangements with firms" (Convenio-Empresa) were arrangements by which firms could retain their contributions to INAMPS provided that, either through their own services or through a prepayment organiz-

ation (HMO) the firm remained responsible of providing their workers and dependents at least the same level of health benefits that INAMPS would have provided. The relative failure of this kind of arrangements (no new ones are being allowed by INAMPS and old ones are financially constrained) explains partially, the low profile of Brazilian HMOs in INAMPS picture.

4.1.3 Private Sector

Brazil has a large network of private health care providers both in the professional and in the institutionalized sectors.

As stated previously, to a large extent they are not organized and relate to their patients individually on a fee - for service basis or to INAMPS in the same form if professional or by DRGs if a hospital.

In the past twenty years however there has been a surge of different kinds of prepayment organizations related to or supplementary to INAMPS. As well, there has appeared hospital and health insurance for high income groups ensuring access to high comfort and technology. This development will be presented in the next section.

4.2 Health Care Prepayment Organizations

Eight different kinds of organizations or arrangements will be presented in this section. All of them involve some form of prepayment. They will be presented in the following order:

a) traditional indemnity insurance is offered by two types of firms; each one with its own characteristics:

. Insurance Companies

. Hospital Corporations: Membership enrolled through acquisition of capital stock of the hospital.

b) services financed by INAMPS and/or supplementary to those financed by the social security administration can

be either provided directly or purchased to third - parties by two types of organizations:

. business firms on behalf of their employees and their dependents may develop their own facilities or enter into some kind of arrangement with a provider, usually an organization of the HMO-type, sometimes a PPO.

. unions for their members and their dependents may as well organize their own services, mainly for ambulatory care, and arrange with third-party providers for more specialized services.

c) Finally there are four types of health care organizations that finance their activities from prepayment, through individual, family or group affiliation, in the latter case sometimes with the participation of INAMPS. Of these four there is one group that functions with the characteristics of a PPO, while the remaining three are, for all practical purposes, HMOs. They will be presented as:

. Sociedades de Garantía de Saude / Health Assurance Societies

. Beneficencias /Mutual Benefit Societies (HMO-type)

. Medicina de Grupo / Group Practice (HMO-type)

. Cooperativas Médicas / Physician Cooperatives (HMO-type)

4.2.1 Sociedades de Garantía de Saude

These are commercial firms that will pay directly to providers services rendered to their members. Some of them will organize, at least partially, health care facilities to provide services to their members.

Although membership is open to the general public, these plans are affordable only to middle and upper middle income groups.

The delivery of medical and hospital care is not organ-

ized with owned facilities. There is however a list of providers, where members can procure services, that have an arrangement (regarding price and access) with the organization, The plans are oriented toward curative medicine and operate on demand of services by members.

Plans offered are of individual, family or group type. Initially, these organizations were limited to the reimbursement of hospital expenditures incurred by members with complete freedom of choice of hospital. Thus, they were restricted to high income groups. Later, in order to expand their coverage to other segments of society, these Health Assurance Societies started to offer as an alternative, coverage of ambulatory and inpatient care, by a group of authorized providers, with selection limited to the list.

In individual and family plans (which are more comfortable, with private rooms, etc.), there may be limitations of coverage, exclusions or period of time (beginning of membership) with limited benefits.

In group plans, the extent and characteristics of the health benefit package depends on the existence of an agreement between the firm and INAMPS to use the Health Assurance Society as the provider of the social security benefit (Convenio-Empresa). Group plans organized as part of INAMPS coverage, cannot have limitations or exclusions of benefits (because of pre-existing conditions) and the delivery of services must be free of charge, without copayments, deductible or any type of user charges.

In individual or family plans, there is no financial participation of INAMPS. These are typical supplemental insurance policies bought by individuals or families to ensure better access to care. Members enrolled under these plans, if they are also INAMPS beneficiaries, are free to use, on their own and under INAMPS coverage, any other provider including INAMPS own

facilities.

On the contrary, in group plans where enrollment of the group is financed (at least partially) by INAMPS, members are forbidden to use other providers, including INAMPS' own services.

The largest in this group is Golden Cross, with at least 36 branches, but there are other smaller companies of similar kind.

4.2.2 Beneficencias / Mutual Benefit Societies

These are not for profit institutions, organized by ethnic, religious or professional groups to provide health care, usually mostly hospital care, to their members.

They protect middle and upper middle groups.

Health care is organized, essentially curative medicine and selection of provider is limited to the facilities and physicians of the organization. For the most part, the Beneficencias operate their own facilities. A few have licensed external providers.

Beneficencias are financed through monthly premiums paid by members, subsidies or income raised on capital or by the sale of health services, usually inpatient care, to -- third parties.

Only two of these were detected in the study carried out by HCA.

4.2.3 Medicina de Grupo / Group Practice HMOs

These are health care delivery organizations, some commercial, some not for profit, that are financed through fixed payments (unrelated to utilization) under contractual arrangements with individuals, families or groups.

Enrollment is open to the general public although affordable only by middle and upper middle income groups.

Health Services Delivery is organized by the group, -- either in their own facilities or with external providers.

Ambulatory care is almost always centralized in a facility operated by the medical group. Selection of providers by members is limited to the medical team, its own facilities or external providers specifically authorized.

Health benefits are comprehensive with the unique exclusion of chronic illnesses. The benefit package and the conditions are similar to those described for the Health Assurance Societies, particularly in so far to the INAMPS and its beneficiaries.

Most medical groups operate their own central ambulatory care facility and satellite clinics. Some operate as well, their own hospital although the majority enter into contractual arrangements with private hospitals to serve their members.

Group practice HMOs are financed through monthly premiums paid by members: individual, family or group.

This is the largest group, with over 140 institutions, some of which, like Amico, have several branches.

4.2.4 Cooperativas Médicas / Independent Practice Associations HMOs

These are teams of physicians that organized themselves as cooperatives for the production of health services.

They are usually sponsored or related to local medical societies.

Membership is open and similar to that of the Health Assurance Societies or to Group Practices.

The economic relationship between membership and the organization is similar to that of Group Practice.

The main difference with this organization lies in the lack of a centralized ambulatory care facility operated by the group. Physicians in this model work out of their own offices.

There are at least 76 Unimeds (physician cooperatives) spread in 19 states.

4.3 Summary and HMO Prospects

The Brazilian health care system is grossly dominated by INAMPS, the social security health insurance system.

Since INAMPS does not offer its own services the provision of health care remains a problem, and in the most -- distant areas it is up to the MOH to make health services accessible to the population.

There is a problem of lack of access coupled with low efficiency and often poor quality of care, mainly at the primary care level.

There is an important drive towards prepaid health care in the more affluent areas, like Rio de Janeiro, Sao Paulo and Rio Grande do Sul. In these regions there are enormous prospects for further growth of these organizations, but as a solution to the increased demand for comfort of the high middle income class.

If HMOs were to become an answer to the health problems of the Brazilian population at large, they should offer their services through INAMPS, in the fashion of the convenios-empresa that have been stopped lately.

CHAPTER V

COLOMBIA

5.1 Health Care Delivery System

In this country, the report will not contain a separate section on health care prepaid organizations since there is very little development of this form of financing, and what exists will be described in the Private Sector.

5.1 Health Care Delivery System

As in most Latin American countries the HCDS in Colombia is organized in three separate segments: government (several agencies within it), social security and private. Since 1975 there are legal instruments by which the Ministry of Health is in charge of coordinating all the different delivery agencies into a coherent national health system. As in other countries, bureaucratic autonomies and other obstacles make this coordination a goal to be still reached.

5.1.1 Government Services

The Ministry of Health operates a national network, denominated "Sistema Nacional de Servicios de Salud" of ambulatory and inpatient facilities. This is a regionalized system composed of:

a] 107 regions of which 97 are headed by a regional hospital

b) 470 local health services, some with small inpatient facilities

c) 3.000 health centres

On paper, the MOH provides coverage to indigent population, not protected by a social security mechanism, comprising about 70% of the national population. In practice,

it is estimated that it provides coverage to about 1/3 of the country's people.

Besides providing health services, the MOH performs other duties (epidemiological, nutrition, etc.) through related branches or organizations. In all, it spends about 32.7 of the national health expenditure.

5.1.2 Social Security

It is formed by two types of organizations:

a) Cajas de Previsión / Social Security Institutes - which are quasi-public agencies, provide sickness and maternity insurance and income maintenance plans (retirement, old age pensions, etc.). There are over 100 of these institutes although one, the "Instituto de Seguros Sociales" accounts for over 75% of people covered by these organizations.

b) Cajas de Compensación Familiar / Family Allowance Organizations: private legal entities, organized like consumer cooperatives but where enrollment is mandatory and made effective through the firm to which the person is employed; health services are provided or insured, but mostly for children (1-18) and they provide a wide range of other benefits: recreation, education, merchandising, etc.

5.1.2.1 Social Securities Institutes

There are over 100 of these organizations in Colombia, providing health and income coverage to about 15% of the population. Their total expenditure represents about 58% of the national health expenditure.

The most voluminous one is the Instituto de Seguros Sociales. It operates its own national network of hospitals and ambulatory facilities: 37 hospitals with 4.200 beds. As well, it purchases services from other providers in areas where it does not operate its own facilities.

It provides coverage to about 12% of the national population, mainly in the most important urban areas, covering the employees of private firms of the modern sectors - of the economy. It is financed by mandatory contributions, as percentage of the payroll, by employers and employees.

Other organizations of this group are:

. Caja Nacional de Previsión Social: covers the civil servants of the national government, about 250.000 beneficiaries.

. There is a social security scheme that protects active personnel as well as dependents of the Armed Forces - covering 300.000 people. The Ministry of Defense operates 3 hospitals and 44 clinics scattered throughout the country. Similar protection and services are available for police - forces.

. Caja de Previsión Social de Comunicaciones, which - provides income subsidies and health services to employees of the Ministry of Communications and their dependents covering over 100.000 people.

5.1.2.2 Cajas de Compensación Familiar / Family Allowance Organization.

These are private legal entities that provide additional social benefits to basically the same segments of Colombian population as do the Cajas de Previsión,

They were organized originally as Family Allowance - Funds providing monetary transfers to workers (below a - certain income level) with children. Later, these organizations expanded their activities and incorporated as benefits subsidized access to: health, education, recreation, merchandising, loans for home appliances and housing, etc.

They became some sort of cooperative financing institutions for their beneficiaries.

Some of these organizations developed their own faci-

lities for an expanded role in these additional benefit areas, particularly merchandising and health services.

They have to provide health services protection to the children of beneficiaries between ages 1 and 18. Despite the fact that some operate their own health care facilities (mainly ambulatory care centres, some even have quite sophisticated children's hospitals), most FAOs operate as PPO's reimbursing expenditures incurred by beneficiaries for care provided by a selected, authorized list of physicians, clinics, etc.

The enrollment of private firms to these organizations - is mandatory by law. Even individual firms must enroll. A firm has the right to choose, to which FAO it will enroll itself.

FAO are financed through a variety of sources:

. payroll contributions from the firms enrolled.

. copayments made by beneficiaries when using the services; although tariffs charged for services are below market levels, copayments requested for health services are considerable: between US$ 2.- to US$ 4.- per physician visit. It is important to note that tariffs vary according to the income level of the beneficiary,the cutting point being around four times the minimum wage.

. profits obtained from the commercial operation of owned facilities (supermarkets, hotels, health services, etc.)

5.1.3 Private Sector

Most Colombians will argue that the FAOs just described belong to the private sector and with good reason. As legal entities, they are "not for profit", private firms. However, the mandatory nature of the enrollment of private bussinesses to these organizations, the mandatory nature of the payroll contributions by the firms and the mandatory transfer payments to beneficiaries per child or family allowance, make the Fa-

mily Allowance Organizations part of the social security - scheme.

In Colombia the private sector is a strong provider - of services. There are 190 private hospitals with 8.900 - beds. It provides all types of services to about 15% of - the national population.

There are mainly two types of health care prepayment organizations, since most private providers operate on a fee for services basis:

a) PPO-type organizations. They are of recent development in Colombia (last 5 years). It is composed of three companies: Colsanitas, Colsisa and Colsalud (this last one failed)

They are private, for profit, insurance organizations that arrange preferential prices and ensure access - with a group of providers.

Their membership is growing, mainly in the middle income segments of the population. Total membership - is still reduced.

There are restrictions to enrollment and limitations, once enrolled, according to age and preexisting health conditions.

b) Commercial Indemnity Insurance. Health benefit policies offered by insurance companies.

5.2 Summary and HMO Prospects

a) About 30% of the population does not have access to health services, mainly in rural areas.

b) Those 33% covered by MOH services are poorly served: inefficiency, ineffectiveness and low level of resources are the main problems.

c) There is low level of satisfaction among beneficiaries served by the Social Security Institute.

d) Out of pocket health expenditures are high and regressive: 25% of income for the lowest income group and 8% for the highest.

In sum, the lack of real access for an important segment of the population, the apparent failure (inefficiency, ineffectiveness) of the government services, the relatively high GNP per capita (US$ 1.200), and a high percentage of it devoted to health (7%-8%), indicates a fertile ground for exploring the development of new forms of organizing and financing health care services like HMOs.

One important indication of prepaid services prospects is the dynamism of Colsanitas and Colsisa in the recent period. Also, the high level of return on commercial prepaid health services points at an important future for types of institutions that are more cost conscious and efficiency - oriented.

CHAPTER VI

CHILE

6.1 Health Care Delivery System

6.1.1 Government Services

The Ministry of Health has its own network of facilities organized in 26 public corporations (named Servicios de Salud) that provide preventive and curative medical and hospital care. Together they operate 220 hospitals, 244 outpatient clinics, 916 rural health posts and 978 medical stations.

The Servicios de Salud are public corporations with a high degree of operational autonomy, supervised and controlled by the MOH.

The 26 Servicios de Salud are financed through a centralized fund called Fondo Nacional de Salud / FONASA (National Health Fund) made up of general revenue and of the social security contributions of beneficiaries that have opted to get their benefits (health services and income subsidies) in the government services.

6.1.2 Social Security

All active employees are subject to mandatory social - security contributions (6%) to protect themselves and their dependents.

The social security beneficiary has the option of channelling his/her contribution in two alternatives ways:

a) through the FONASA in which case health services will be obtained from one of the 26 Servicios de Salud; the one serving the geographical area where the beneficiary resides.

b) through a private, social security company called Instituto de Salud Previsional (ISAPRE)

Both,the 26 Servicios de Salud and the 20 or so ISAPREs are the result of a profound reform produced during 1979 and 1980.

In Chile there are not Social Insurance Institutes with their own services as in other Latin American countries

6.1.3. Private Sector

As in the case of Colombia with the Family Allowance Organizations, most Chileans in this country will argue, with good reason, that the ISAPREs belong to the private sector. In fact, as legal entities they are private firms, some not for profit, some commercial. However, their beneficiaries being exclusively social security beneficiaries, the companies being financed (partially) by mandatory payroll con-

tributions and the mandatory nature of the income subsidies that have to be given to beneficiaries in case of sickness make the ISAPREs part of the social security scheme.

The private health services sector has not been strong in Chile until the last decade. Almost all hospital care was previously provided by the hospitals of the then existing National Health Service (decentralized in 26 corporations at the end of the 70's). Ambulatory care on private basis by solo or associated practitioners was more extended than private hospital care.

Commercial health insurance (indemnity type) has not developed in Chile mostly because its natural clientele including upper middle income and high income groups were respectively covered by a social security insurance scheme that allowed them complete freedom of choice among private providers (SERMENA) and by the direct purchase of services.

6.2 Health Care Prepayment Organizations

As stated,this group is constituted by the ISAPREs. These are approximately 20 firms, of widely different sizes, covering about 4% of Chilean population.

ISAPREs are regulated by the government in terms of:

. minimum benefit package in terms of health services (comprehensive) and income subsidies.

. the minimum benefit package is linked to the smallest social security contribution allowed (6%).

. minimum lenght of the contractual arrangement between the ISAPRE and the beneficiary. However, the latter may - change to the government system at any time, as he/she wishes.

. maximum level of copayments for use of health services (20%) for utilization of the basic benefit package.

ISAPREs are however free to:

. reject potential customers:i.e: those with low wages where 6% does not cover costs, bad risks, etc.

. offer supplementary plans for contributions higher and in addition to the basic 6%.

. adopt whatever legal status (commercial, not for profit, cooperative, other) suits better the purpose of the organization.

ISAPREs may be exclusively a financing mechanism, in - which case they tend to organize themselves as PPOs by entering into contractual arrangements with a list of private providers for preferential fees. Beneficiaries are either - partially reimbursed (according to the kind of plan in which they enroll themselves) of incurred costs or the services - they consumed are paid directly by the ISAPRE to the provider and the beneficiary charged (usually in advance) with the - corresponding copayment. Copayments vary according to the - plans and may go as high as 40% or even more, of the price of

the service used.

ISAPREs may operate their own facilities. Some run - their ambulatory care centres while one, the largest ISAPRE in the country, operates a complete range of outpatient and hospital facilities. These ISAPREs function more as HMOs - despite the negative characteristic of the copayments.

6.3 Summary and HMO Prospects

a) Chile has developed a system that offers reasonably good access to almost all its population.

b) The National Health Service previously and the 26 Servicios de Salud now, are reputed as relatively efficient and effective, although with little comfort for the emerging upper middle class. Efficiency may have increased as a result of decentralized operation since 1979.

c) The ISAPREs may be hampered by two basic flows:

i. they may develop, in fact there is some evidence that this is actually occurring, along "income lines", breaking down the "solidarity" component of the social security system. Workers with low salaries have no real option between FONASA / Servicio de Salud and an ISAPRE.

ii. The extensive use of copayments and their volume put most ISAPREs far away from the HMO concept or even from the PPO concept, losing in the process the ingre-

dients for cost containment and increased efficiency.

d) Prospects for HMO development are linked to the - successful growth of the ISAPREs. This may be difficulted by the following factors:

i.The economic recession that hits Chile since 1981 and the flaws already described have resulted in a complete halt of ISAPRE's growth since 1982.

ii. there is a tradition of a strong national network of government health services relatively efficient and effective and foremost, easily accessible to the population at large.

iii. the medical profession has traditionally preferred a strong private practice with limited or no institutional ties, either to ISAPREs of HMO-type or to an Universal National Health Service.

CHAPTER VII

ECUADOR

7.1 Health Care Delivery System

7.1.1 Government Services

On paper, the MOH provides coverage to 85% of the nation's population. In practice, it covers somewhere between 30% and 60% of the nation's indigents. At least between 25% and 35% by most counts, mostly rural poor and indians, do not have any real access to health services, not even of primary care nature. It operates its own network of ambulatory and hospital facilities at the national level, covering the entire spectrum of complexity from rural health posts to terciary care hospitals. An important investment effort was made by the MOH during the past ten years (oil boom), to construct physical plants. Most of them are still not functioning because of lack of operating funds. Health services provided by the MOH are mainly financed by general revenue although copayments are charged according to the income level of the user.

The Armed Forces provide services with their own facil-

ities to active personnel and their dependents covering about 3% of the national population. They are financed also from general revenue and copayments, that are substantially higher than in the MOH services.

7.1.2 Social Security

It is formed by a single institution: the Instituto Ecuatoriano de Seguro Social (IESS). It is a public corporation with authorities drawn from employers, employees and representatives of the government. It operates its own network of facilities and it is financed by social security contributions. Beneficiaries are not charged at time of using services. The IESS provides coverage to about 10% of the national population. In areas where it does not have its own facilities, it purchases services from the MOH. Its services are perceived by the beneficiaries as of low comfort and inefficient.

7.1.3 Private Sector

It has several components:

a) There is a strong private practice, either by physicians working in solo or associated practices or organized and operating private diagnostic and therapeutic health centres.

b) Junta de Beneficencia, private, not for profit legal entity, that operates its own hospitals and clinics, in urban centres and provides services to about 5% to 10% of the population, mainly indians of indigent condition,

free of charge.

It is financed by subsidies from the national government and it coordinates its program activities with the MOH.

c) Private firms with health services. One hundred - and thirty three firms (industries, commercial enterprises, etc.) operate some form of health service, mainly ambulatory, on plant site, for their employees and sometimes, for their dependents. This development grows out of insatisfaction by beneficiaries of services rendered by IESS.

In a few firms these services have developed extensively, including one that operates its own hospital. Usually, the use of the service does not entail any payment.

d) Cooperatives with Health Services: Credit union, consumer cooperatives, etc. A small percentage of the cooperatives in the country provide health services as a side-benefit to members, mostly of ambulatory type and through their own facilities. The health services of - the cooperatives are staffed by young, non-specialized practitioners, and are therefore, perceived as of lower quality in comparison to the traditional private sector.

e) Commercial Indemnity Health Insurance: there are six insurance companies offering health insurance policies.

This is a development of the last ten years. The number of insured people is small and limited to high income groups. Reimbursement is limited and there is freedom of selection among private providers.

f) Health Assurance Plan (PPO-type). There is one firm called Ecuasanitas that fits in this category. It is a private legal entity, for profit, branch of Sanitas (España) as is Colsanitas in Colombia.

It does not operate its own facilities. It has entered into contractual arrangements with a list of physicians and hospitals with whom it has agreed preferential rates for its members.

It started its operations in Ecuador in 1978 reaching at present about 20.000 members. Although enrollment is open, it is aimed at middle and upper middle income groups that cannot be enrolled by the IESS or are unsatisfied - with it.

The health benefit package (there are several plans) is comprehensive, covering outpatient and hospital care.

It is financed through prepayment by members (individual, family and group enrollment) and substantial copayments at time of use, particularly for hospital services.

7.2 Summary and HMO Prospects

a) The delivery of health care services to the ecuatorian

indigent is not appropriately solved:

i. between 25% and 35% at least, do not have real access

ii. the services provided by the MOH and the Junta de Beneficencia are insufficiently funded and perceived as ineffective and inefficient.

b) The dependents of social security beneficiaries do not have an adequate protection and existing prepayment mechanisms have failed to attract them. Prices for private care, both medical and hospital, are becoming less and less affordable for this group.

c) There is consensus that the country has produced more physicians than it can reasonably employ in traditional models of health care delivery.

The combination of these three factors may contribute to make Ecuador a fertile ground for the development of alternative health care systems of the HMO type.

CHAPTER VIII

PARAGUAY

8.1 Health Care Delivery System

8.1.1 Government Services

The Ministry of Health operates a national network of health facilities ranging from rural posts to national hospitals. It provides coverage to about 58% of the national population and it is financed through general revenue.

The Armed Forces and the Police operate their own network of facilities providing coverage to active personnel and their dependents. They also cover some indigent population in the geographical area of El Chaco and provide emergency services for the entire population in situations of natural disasters.

8.1.2 Social Security

It is formed by the Instituto de Previsión Social (IPS / Social Security Institute). It is a public corporation with authorities representing employers, employees and the government. It operates a large, national network of its own facilities: 30 hospitals and 88 health centres. It provides coverage to about 12% of the national population, mostly active workers and some dependents.

Health benefits are comprehensive, covering outpatient and hospital services, dental care and drugs.

It is financed mostly by social security contributions although it receives, as well, funds from general revenue.

8.1.3 Private Sector

Besides the traditional providers (private physicians,

dentists, hospitals, etc.), there are 25 firms engaged in - some form of prepaid health care.

Information about these health care prepaid organizations, their structure, sponsorship, modes of operation and other important characteristics of their performance is being obtained by a local correspondant. However, preliminary data indicates that most of them are of the traditional indemnity insurance or of the PPO type.

CHAPTER IV

PERU

9.1 Health Care Delivery System

9.1.1. Government Services

Overall health policy coordination, in terms of investments and programs is sought by a National Health Council integrated by the heads of the government and private agencies involved in the delivery of health care and by the representatives of professional associations and teaching institutions.

9.1.1.1 Ministry of Health

On paper, it provides coverage to about 65% of the population. In practice, about 40% have real access to services. Therefore, 25% remain unprotected.

It was, 35-40 years ago, the most important provider of services. Since then, in the urban areas, it has been supplemented by the appearance of private hospitals and diagnostic and therapeutic centres. It still operates the largest, most complex and extended national network of health care facilities.

MOH services are regionalized (in 16 regions), each one is divided in Health Areas with a hospital base and a network of health centres and rural posts.

Its services are financed mainly through general revenue There are as well tariffs that vary according to the income level of the user. It serves mainly indigents. It also sells services to the Peruvian Social Security in those areas - where this does not operate its own facilities. It also sells

services to private patients in special sectors of the hospital called "pensionados".

According to local health experts, the services of the MOH present numerous problems resulting in ineffectiveness - and inefficiency:

a) there is insufficient delegation of authority at the operating level.

b) there is a lack of adequate management in delivery - units: inadequate training of health managers and inexistent or inadequate management techniques.

9.1.1.2 Armed Forces and Police

They provide coverage to active personnel and their dependents representing about 6% of the nation's people, through their own network of facilities. Their services are financed through general revenue.

In the isolated forest region, eastern side of Perú, the Armed Forces provide health services to local populations as part of an overall development effort.

9.1.2 Social Security

It provides health care coverage to about 14% of the national population, mainly through the Instituto Peruano del Seguro Social (IPSS) / Peruvian Institute of Social Security. There are, as well, several smaller Cajas de Previsión (Pension and Health Funds) organized along types of activities: miners, fishermen, etc.

IPSS: it provides income subsidies and health services to about 10% of the Peruvian population. It protects the employed workers, their children up to one year of age and their spouses for pregnancy and delivery.

It is financed through mandatory social security contributions.

It operates its own network of health care facilities, mainly in the urban centres. In areas where it lacks its own

facilities, the IPSS purchases services from the MOH. - The IPSS used to buy, on experimental basis, services from the private sector under fee for service arrangements. These attempts failed and were discontinued because of allegations of abuse, overutilization and overpricing, and, may as well be, because they represented a threat to the power base of the bureaucracy running IPSS own services.

IPSS has faced several kinds of difficulties:

. financial: neither the government, nor the private firms turn over regularly their contributions to IPSS, - because of economic recession.

. efficiency is low due to poor management and bureaucratic rigidity.

As a result, comfort is quite low and quality of services, as perceived by the beneficiaries, is not satisfactory. This has led many private firms to develop alternative ways of ensuring access for their employees to health services, either developing their own or buying supplemental health insurance. This economic and/or financial effort undermines their contributions to IPSS.

9.1.3 Private Sector

It provides coverage to about 15% of the population, of which around 6% are in some prepayment scheme.

9.1.3.1 Private Hospitals

Private hospitals, generally owned by groups of physicians; diagnostic and therapeutic centres and private practitioners working in solo or associated practice form the backbone of the private sector in Perú.

Private hospitals finance their activities through:

. selling their services under fee for service basis

. entering into contractual arrangements with firms (for their employees) or with groups of people (union, associations, etc.) or with insurance companies on a fee for -

service basis with preferential rates; sometimes with a prepayment as a base: PPO-type arrangements.

. entering into contractual arrangements with individuals, families or groups of people for comprehensive coverage (ambulatory and hospitalization, including physician services on a prepaid basis as an HMO-type arrangement).

9.1.3.2 Firms with Health Services or Health Insurance

Firms that are unsatisfied with the IPSS are reacting in two ways:

a) those most powerful economically and with larger work forces are developing their own health services, on the plant site financed most frequently through company's revenues.

b) those smaller or with more scattered employees provide additional health coverage to their members by developing a health fund and purchasing health insurance. This can be done directly with a private hospital or much more frequently, through an insurance company which, in turn, arranges with one or several hospitals and its medical group in a PPO type arrangement.

9.1.3.3 Cooperatives (agricultural, credit union, consumer, educational, etc.)

172 or about 9% of all cooperatives, provide health services to members, mainly through their own facilities. Although these services are mostly ambulatory care, they sometimes provide even inpatient care. Health services, given as side-benefits to cooperative members, comprise about 13% of the population. Most cooperatives finance their health services -- through the cooperative's general revenue, and services to members are therefore free of charge. However, some cooperatives have a combination of financing mechanisms for their health -- activities:

a) exclusively by user charges

b) prepayment plus copayments

c) prepayment exclusively

9.1.3.4 Private Voluntary Organizations (PVOs)

Approximately 25% of existing PVOs (270 organizations) operate some form of health facilities for their beneficiaries,usually of ambulatory type and of primary care nature. They tend to serve the indigent in areas where the MOH has difficulties locating or operating its own resources PVOs provide some limited coverage to about 13% of the national population. PVOs finance their health services -- mainly through donations and through community financing.

9.2 Health Care Prepayment Organizations

About 6% of the population have some sort of prepayment coverage for health services.

Prepayment is offered by two main kinds of organizations:

9.2.1 Insurance Companies

They offer two varieties of health insurance:

a) indemnity insurance with free selection of providers

b) PPO-type arrangements with a limited group of hospitals and physicians.

9.2.2 Private Hospitals

They also offer two varieties:

a) PPO-type arrangements with:

i. Insurance Companies

ii. Private Firms

iii.Groups of Members

b) HMO-type arrangements with individuals or families.

A complete list of the prepaid activities offered by private hospitals and their main characteristics is being developed by a local correspondant in Perú.

9.3 Summary and HMO Prospects

a) 25% of the population has no real access to MOH services. This is compensated partially by the PVOs, the Armed Forces and the Cooperatives.

b) IPSS suffers from low effectiveness and efficiency. Being perceived as of low quality, it generates several reactions:

. firms developing their own health facilities

. firms purchasing insurance coverage of, among others, PPO-type

c) Prepayment is restricted (only 6% of the population) even in comparison to the private, fee for service sector (about 10%)

There is a reluctance of physicians to bear the financial risk of providing care. Organized as individual or small firms, even within hospitals where they are privileged, physicians clearly reject the concepts of capitation and preferential fees. They prefer fee for service even -- when the hospitals have PPO arrangements with some customers.

d) The best chances for HMO development may come from a profound reorganization of IPSS using the cooperatives and the firms with their own services as the basis for expansion.

CHAPTER X

URUGUAY

10.1 Health care delivery system

Uruguay has a mixed health care delivery system, with public and private services having equal importance in terms of number of people covered, but with important differences when quality of care and comfort are concerned.

The characteristic feature of the Uruguayan system is the great importance of the Institutions of Collective Medical Assistance (HMOs) which cover 44% of the total population, providing comprehensive health care, and with a long tradition in the country (over 150 years).

10.1.1 Government Services

10.1.1.1 Ministry of Health

The Ministry of Health runs its own facilities ranging from primary care centers to secondary care hospital The public terciary care hospital is run by the University, but all MOH's patients have free access to it.

Legally speaking, every resident has a right to use the MOH's facilities, though they are free just for indigents.

In reality, they cover only about 30% of the country's population.

Services are financed from general revenue and also from tariffs charged by services sold. The Ministry of Health receives only 14.6% of all health financial resources, and its participation both in global health expenditure and in the central government's budget has notoriously decreased over the last 10-15 years.

Because of this, and of poor management and organization, services provided by the MOH are perceived

to be of very poor quality and comfort and are unacceptable to a large percentage of the population.

10.1.1.2 Armed Forces and Police

They operate their own services, both ambulatory and inpatient care. Their secondary and terciary care facilities are located in the capital city, but outside Montevideo, Army Units have their own posts while the Police -- usually makes a contract with local HMOs under a capitation system.

These services are financed from general revenue and social security contributions of the active personnel.

Expenditures of this sector are 7.4% of all health expenditures.

They offer services to active and retired personnel and their dependents, who comprise 10.5% of the national population.

These services are considered of good quality but comfort varies depending on the patient's position within the hierarchy.

10.1.1.3 Public Corporations - Hydro, Water Supply Co., National Railways, etc.

Large public corporations provide health care coverage to their employees, and, less frequently, to their dependents too.

The largest among them run their own ambulatory services and contract inpatient care with private hospitals.

Others contract out coverage with existing HMOs or pay their employees' premiums no matter which HMO they are enrolled to.

The coverage of these services is approximately 1% of the total population. It is difficult to determine the exact percentage of expenditures within the national health expenditures because only part of them are indicated as such, while the rest is included with the resources of HMOs.

Services are generally regarded as of good quality, but they have the highest per capita cost of the whole system.

10.1.1.4 University

The School of Medicine provides health care to the population in its training hospital, the only terciary care public hospital, where cases are referred to from the whole country. Services are free of charge for indigents and obtainable on a fee for service basis for the rest of the population.

10.1.2 Social Security

There are two social security programs related to health care:

10.1.2.1 Family Allowances

It provides subsidies to families with children and provides maternal and child services to working women or workers' wives. The Social Security runs its own mother and child clinics, but contracts out hospital services with HMOs or private hospitals.

10.1.2.2. Sickness Insurance Fund

It provides income subsidies and health care to active workers.

The Social Security does not run its own services, but contracts on a capitation basis with the HMO that the worker may choose.

The main problem with this system is that it does not include all workers (coverage presently is about 10% of the population) and that the benefit expires after six months of unemployment, with the added burden of the unemployed worker having to pay for his health care at a time of crisis.

10.1.3 Private Sector

The private sector has two main components: traditional private practice and HMOs.

a) Traditional private practice includes the services offered by hospitals, physicians and den-

The prevalent form of payment is fee for service, though some hospitals have developed insurance schemes covering only inpatient services.

b) HMOs (Instituciones de Asistencia Médica Colectiva), are of two types:

- mutual aid societies, organized and directed by their members.
- physician cooperatives, which appeared as a reaction of physicians to the Mutual Aid Societies and the loss of control of health services by the medical class that they represented.

10.2 Health care prepayment organizations

They provide health care services to 45% of the national population and use approximately 38% of all resources dedicated to health care.

They may be divided into two types:

10.2.1 Of limited benefit package

10.2.1.1 Hospital Insurance

Private hospitals offer partial insurance, not including physician services.

Their membership is very small, less than 1% of the national population.

10.2.1.2 Emergency Services

They may include all emergencies or just coronary care, but only the emergency is insured, continuity of care must be provided by other means. This is the reason why there is -- often a double coverage of HMO plus emergency insurance.

These services are usually organized by groups of physicians and they are growing fast due to the problems of home emergency services of HMOs and of the Ministry of Health.

10.2.1.3 Health Indemnity Insurance

They are organized by commercial firms, generally groups

of physicians. These organizations have appeared very -- recently and their membership is very small. The increase of HMO's fees has forced many people to have them and these are generally the members of this new type of organization, which has lower fees and offers less benefits.

10.2.2 Of comprehensive coverage

There are 50 HMOs that provide health services to about 44% of the national population. They are not for profit organizations that take both the financial risk for the delivery of care needed by their members and the responsibility for organizing the services that they might need and making them accessible.

Their financing mechanism is through a monthly premium of about US$ 8.- (which may be paid directly by the individual or by a union or a Sickness Fund) and by copayments for the use of some ambulatory services: i.e.: US$ 0.5 for a prescribed drug, US$ 1.- for a physician visit and US$ 2.5 for a home emergency visit.

The benefits offered are standardized and legally regulated.

They include some preventive services, ambulatory care, inpatient care even for terciary procedures like renal dialysis, cardiac surgery and hip replacement, drugs, some dental and rehabilitative services and limited psychiatric treatment.

All HMOs run their own ambulatory care facilities, and about half of them operate their own hospitals. Only a few of them own the more sophisticated equipment, while the rest must contract services when needed.

They actually constitute the predominant form of health care delivery and are therefore heavily regulated and closely supervised by government.

10.3 Summary and HMO Prospects

Whereas till some years ago HMOs grew because of individual affiliations, the increase in health care costs, resulting in higher premiums, coupled with the loss of buying power of the Uruguayan population, has led to gradual desenrollment.

There is thus a trend to shift from individual to group enrollment through the Social Security.

If this happened so to a large extent, say, through a sort of national health insurance, HMOs might easily become the most efficient health care delivery organizations in the country.

For this there is a need to improve their management efficiency, particularly with regards to the training of top and mid level managers, and to providing clinical guidance to medical staff.

There are proposals to strenghten HMOs but there are also proposals to establish a National Health Service, more like the British model, which would drastically change the picture.

These are political decisions and much will depend on the directives of the new government and the role of the different lobbies.

CHAPTER XI

VENEZUELA

11.1 Health Care Delivery System

The Venezuelan health care system is of the traditional mixed type, with a public sector including government and social security services and a private sector , till very recently almost exclusively dominated by individual private practice. This picture is changing with the fast appearance of different health insurance schemes.

11.1.1 Government services

11.1.1.1 Ministry of Health

The Ministry operates a large network of facilities, ranging from primary care centers to terciary care hospitals distributed in the main urban centers.

Till about twenty years ago this network was the most important provider of health services in the country, but its relative importance is decreasing in comparison with the private sector.

Services are financed from general revenue , but the funding has been stagnant since 1977 despite the oil bonanza.

Most indexes point to inefficiency in the services: 2.8 physician visits per hour, and 1.5 physician visits per person protected per year, long lenght of hospital stay (8 days) and low occupancy rate: 58%.

11.1.1.2 Junta de Beneficencia del Distrito Federal

This Board operates the municipal hospitals in the Federal District of Caracas, providing free inpatient care

to indigents.

11.1.2 Social Security

There are two main organizations within the social security

11.1.2.1 Venezuelan Institute of Social Security (IVSS)

The IVSS provides not only income subsidies but also health services to active workers and their dependents.

It is financed by social security contributions by employers and employees and by funds from general revenue .

Its Directory Council is formed by representatives of the state, the employers, the employees and a Commissioner from the Medical Federation of Venezuela.

The IVSS operates its own network of ambulatory and hospital facilities throughout the country.

11.1.2.2 Social Prevention and Assistance Institute for Ministry of Education Employees

It provides maternity services, surgery and dental care to Ministry of Education employees and their dependants. Drugs are also sold to beneficiaries at discount prices.

It is financed by social security contributions from employees and from general revenue on behalf of the Ministry of Education (the employer).

The Institute runs its own network of health care facilities in the main urban centers of the country.

11.1.3 Private Sector

Within a framework of traditional liberal practice of medicine, private hospitals and diagnostic and therapeutic centers have expanded enormously in the past 15 years, -- changing the balance between government-social security facilities and private ones. As an example, we may say that the number of private hospitals has increased by 80% in the period from 1973 to 1980: from 164 to 266 hospitals.

There has also been a tremendous growth in the enroll-

ment in the traditional indemnity health insurance. In fact, this growth has been tenfold.

Reimbursement to insurers grew by a factor of 12 in the period from 1974 to 1982.

On paper, prepayment for health insurance in Venezuela is restricted exclusively to the indemnity type, but in reality some alternative forms seem to have appeared although disguised, in the last ten years.

This situation derives from the position of the Venezuelan Medical Federation, which firmly defends two principles:

a) freedom of choice of providers. The Federation maintains that prepayment for medical care cannot "lock in" the insurer with a restricted group of providers.

b) freedom to set professional fees as a private -- agreement between the physician and his patient, -- even when the latter is insured.

However, the surge of new high technology, high comfort private hospitals organized as commercial enterprises and of preferential tariffs between these hospitals and some insurance companies, (sometimes commercially linked to a common financial source) have led to the opening of what can constitute PPO arrangements.

Our local correspondant is gathering more data about the names and characteristics of these new organizations, but, because of the great power of the Venezuelan Medical Federation and the somewhat twisted nature of the relationship between insurance companies and hospitals, factual data may be hard to obtain.

11.2 Summary and HMO Prospects

Concerning priorities of care, there is an emphasis on curative, high technology medicine, despite the fact that

large segments of the population would benefit more from primary care, which is presently disregarded.

The public sector organizations: i.e.: MCH, Junta Beneficencia, IVSS, IPAS-ME have large natinnal networks of health care facilities and there is a great deal of superimposing, with duplication of services in spite of a coordinating and integrating effort that has not been run successfully so far.

There is a decline in the productivity, effectiveness and efficiency of government and social security institutions.

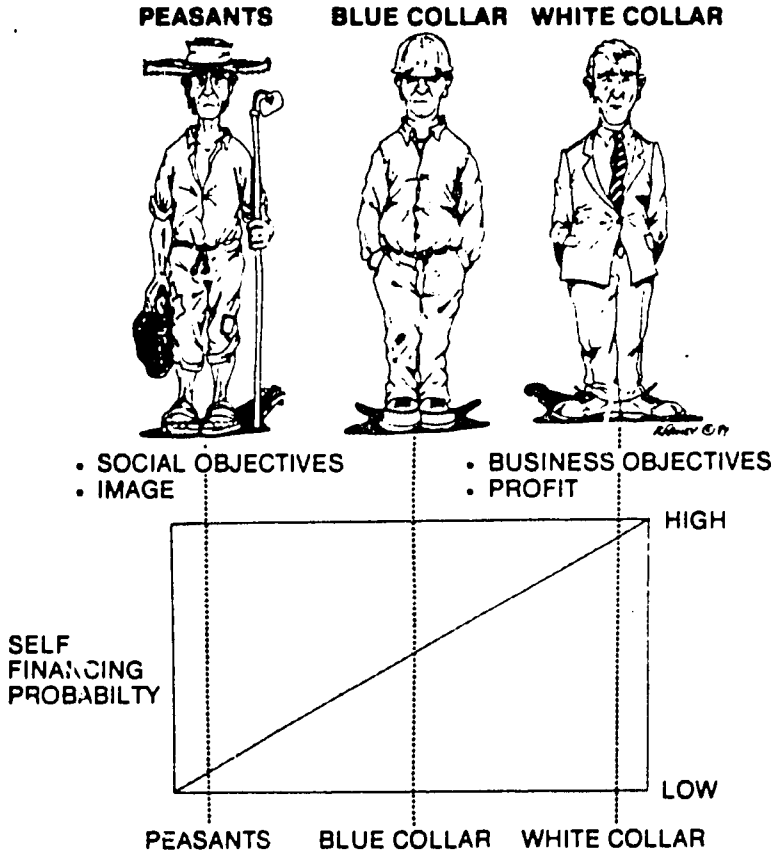
The great increase of private services can be understood within the oil boom, which prompted middle and upper middle class families to seek higher comfort in the new private hospitals, whose costs were so high that they could not be afforded without insurance.

In the future we can only see a growth of indemnity insurance organizations and, of the PPOs or HMOs that might very well be organized by the Venezuelan Medical Federation, thus solving the present conflict (for power) and creating new working places for young physicians.

HEALTH CENTRAL INTERNATIONAL

PRESENTATION

CLIENTS

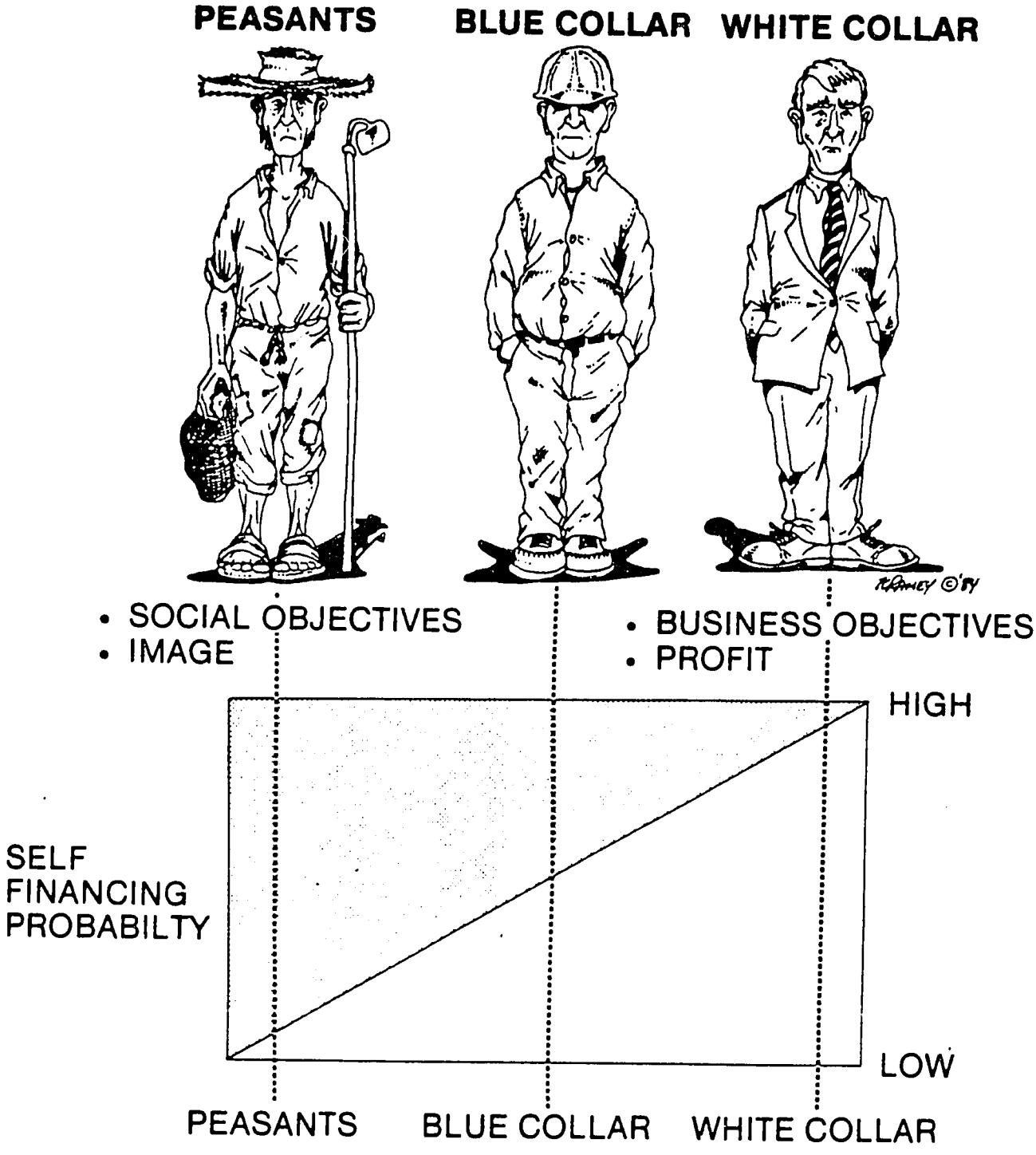


FACILATORS:	• REIMBURSEMENT • SOCIAL TRUST FUND • SPECIAL LEGISLATION • FEES • FINANCIAL CONCESSIONS • SUBSIDIES	• INVESTMENT INCENTIVES • REPATRIATION/CONVERTABILITY • SPECIAL LEGISLATION • INVESTMENT INSTRUMENTS
SERVICES:	• PARAMEDICAL • PRIMARY HEALTH CARE	• HOSPITAL CARE • FULL RANGE OF SERVICES
CLIENTS:	• COMMUNITIES • COOPERATIVES	• EMPLOYERS • EMPLOYEES • INDIVIDUALS
COST CONTROLS:	• CONTRACTS • GOVERNMENT REIMBURSEMENT • BASIC SERVICES • FEE MANAGEMENT	• CONTRACTS • PHYSICAN INVESTORS • INSURANCE COMPANY INVESTORS • QUALITY CONTROL • ACTUARIALS • RISK MANAGEMENT

HEALTH CENTRAL INTERNATIONAL

A HEALTH CENTRAL COMPANY

CLIENTS



HEALTH CENTRAL INTERNATIONAL

A HEALTH CENTRAL COMPANY

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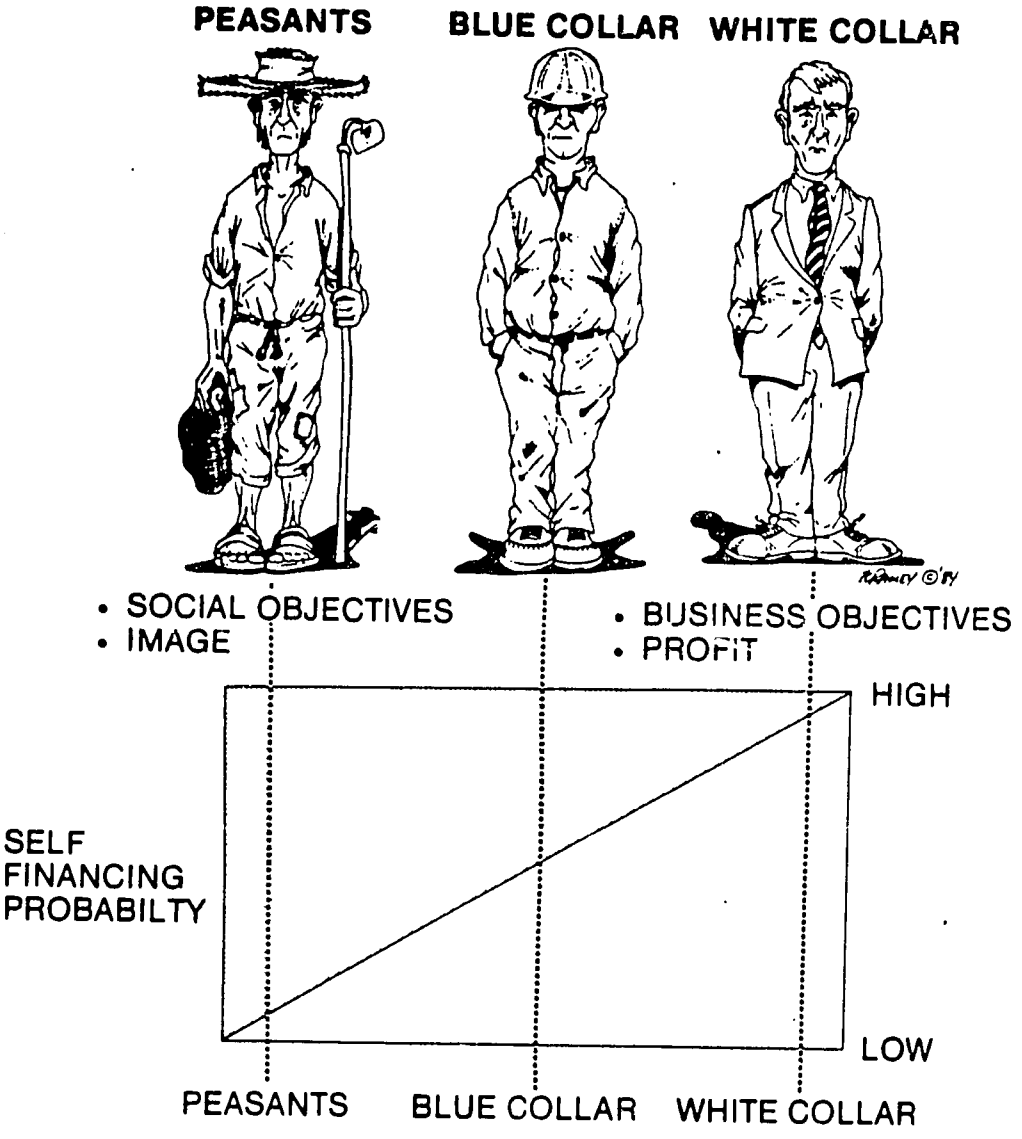


CRITICAL INGREDIENTS:

- INFORMATION
- MARKET
- MARKETING
- SERVICES
- FINANCIAL MANAGEMENT
- QUALITY CONTROL

and

"THE FLOAT"

- WELL NEGOTIATED CONTRACTS = $
- GOOD COST ACCOUNTING/REPORTING = $
- ADROIT FINANCIAL MANAGEMENT = $
- QUALITY OF SUBSCRIBERS = $
- PREVENTIVE HEALTH CARE = $

IX. LESSONS FOR DEVELOPING COUNTRIES FROM THE CHILE EXPERIENCE

As with any operating health system, transposition of one country's health system into an entirely different cultural and socioeconomic setting is problematic. Nevertheless, there do seem to be selected lessons from the Chile experiment which can be considered for cautious adaptation into other countries. More rigorous studies of a longitudinal nature will be needed to define exactly what lessons might be the most valuable to selected countries.

Common issues facing the health sector in developing countries

The following common issues are creating an environment in developing countries conducive to new forms of HMO like programs:

- The continued escalation of health care costs.
- Deterioration of public health services infrastructure.
- Overcrowded public health services facilities.
- Insufficient means to finance national health expenditures.
- Uncoordinated provision of health services between public, social security, voluntary religious and private sectors.
- Uncontrolled service utilization.

Many governments are concerned about their ability to afford the continuing escalation of their investment in health care, and are, therefore, debating alternative policies to secure better returns on their investments in health. Experiments to contain costs have been developed since the mid-70's, more recently in the area of prepaid health insurance, such as the

Chilean experiment and other experiments in Latin America and in Europe.

In many of these experiments, government officials have concluded that (1) innovation in operating efficiencies is frequently stifled within the rigid constraints of public sector bureaucracies and civil service employees, and (2) change within the health sector will be maximized if there is change within the basic economic incentives of the system, i.e., change in how providers are paid for services rendered. There is, therefore, a growing international movement to experiment with public policies in health that simultaneously:

- Encourage private sector leadership and initiatives in the delivery and financing of health care; and

- Alter the financing and payment system to install new economic incentives to reduce unnecessary use of health services, i.e., move from retrospective, fee-for-service payment to prospective per capita payments.

Increasingly these policy debates have been encouraging policy makers to look to the predominantly private U.S. health care sector for alternative strategies. The U.S.' twelve years of experience in prepaid health plans or HMOs may offer particularly useful ideas. A Health Maintenance Organization, or HMO, can be defined in generic terms as:

> "An <u>organized</u> system of health care, providing a <u>comprehensive</u> array of health care services through a <u>group of providers</u> on a fixed fee <u>prepayment</u> basis."

This definition is one commonly used and accepted in the U.S. In drawing conclusions or lessons drawn from HMO experiences, it should be recognized that care must be exercised in the use of the term

"Health Maintenance Organization", as many "HMO-like" organizations develop around the world. These "HMO-like" organizations may have one or a combination of the features described above.

Health Central International's experience with U.S. HMO organizations and the recently described Chilean experiment and similar programs in other countries suggest that a search for lessons can best be distilled from the study of four critical questions:

1. What factors are important to a successful HMO experience?

2. How can the HMO concept best work to serve lower income populations?

3. What role can HMOs play in efforts to find a new balance of the public and private sector roles in health care?

4. What roles should lending and aid organizations play to encourage and monitor HMO initiatives?

Each of these four issues will be considered in turn.

1. WHAT FACTORS ARE IMPORTANT TO A SUCCESSFUL HMO EXPERIENCE?

A. Policy Implementation

The introduction of HMO-like organizations into a country's health system will probably require public policy changes, normally at the national government level. These initiatives are necessary to support the introduction of a new conceptual model of health services delivery and financing for the health sector of a country considering these systemic changes. In the U.S., this occurred in 1972 through Congress' passage of the HMO Assistance Act.

Examples of such policy support from the U.S. and Chile experience:

U.S.A.	Chile
Legislation to enable HMO development, enacted by Congress in 1972.	Acceptance of need for change in health and health services delivery.
Federal grant and loan programs offered to over 200 local groups.	Regulations enabling development of "Isapres", as part of a movement to encourage private sector involvement.
Exemption from certain state level medical practice laws and insurance regulations.	Reform of Social Security system, legislating use of 6% of employee's salary for health and offering choice of public or private to citizens.
Technical assistance available from the Federal government.	Enable employer to deduct insurance premium from employee and pay directly to ISAPRE, not through the government.
Private sector stimulation to invest via advertising.	

B. Environmental Factors

In addition to enabling legislation or governmental policies, certain environmental conditions have been recognized as necessary for successful HMO development. These are listed below. The exact numbers and nature of these variables which must be in place obviously cannot be predetermined, and will depend upon the local country situation. However, the more of these predisposing environmental factors are prevailing, the more likely HMO programs are to succeed.

- A continuing and sustained increase in health care costs in the country, i e., the government is anxious to change in order to gain better control over its health care expenditures.

- Physician support for the HMO concept. This physician support may be provided due to their needs for superior services provided by an HMO which are not provided by the public sector; due to the potential for enhanced financial rewards, or to a desire to work in a well organized and structured system of health services delivery.

- A market of interested employers/employees who may be disenchanted with current health services systems and insurance coverage.

- An increasing number of physicians, and proportion of physicians to population, thus enabling negotiation with physician providers seeking new patient markets (i.e., physicians competing to render care will make them more receptive to new forms of delivery and payment).

- A familiarity within the population with traditional indemnity health insurance, or with receiving care from an employer or employer-sponsored group, e.g. a pension fund system. Convincing population to join a prepaid plan is easier if they are already used to process and concept of budgeting or paying in advance for care that they may not need or use.

- Some level of competition between traditional insurers and between provider and provider groups.

- Incentives to encourage local and foreign investment, and tax incentives which encourage investment in HMOs.

- A disposition of the government to experiment in the area of health services financing and delivery.

- A significant population base whose numbers can sustain HMO development.

- An economy which allows effective cash flow management, i.e., the prepayment "float".

C. Management Expertise/Systems:

HMOs must have management and operational strength in the following areas to have succeeded in the development of an effective insurance/delivery system:

Data - effective systems for clinical and financial data for management decision making.

Capable Management - experienced in finance, cost control, budgeting, marketing and negotiation.

Control Systems - to monitor service utilization trends and thus cost control of participating providers, including physicians and hospitals.

Risk sharing financial incentive programs for participating providers.

Marketing expertise - particularly in countries where the HMO concept itself requires communication, in addition to individual HMO entities.

Actuarial analysis, to determine risk and premium structures for covered populations.

2. HOW CAN THE HMO CONCEPT BEST WORK TO SERVE LOWER INCOME POPULATIONS?

Extension of the HMO concept to serve needs of lower income groups is possible and desirable. Its benefits to lower income groups should parallel the generic benefits found in prepaid health plans in the U.S. and in Chile:

- A more cost effective means of health service delivery than the traditionally fragmented and fee-for-service systems.

- The integration of insurance and provider functions to assure better coordination of access to reasonably priced services for enrollees;

- Capitation fee system separates doctor's clinical decisions from remuneration.

- Encourages competition for enrollees on quality, range of services in the benefit package, and price .

- Attracts investment capital for new facilities and services.

- Rewards are available for efficient administration and delivery of services at the least intensive level of care that is feasible.

Modifications are necessary, and issues exist in the application of the HMO concept to serve low income groups. The HMO movement as developed in the U.S. and other countries has been a phenomenon principally of the private sector of health care, or as a health insurance and delivery system for upper middle income employer-based groups. Only after its role in the private sector has been well established is it generally possible to extend the concept to encompass low-income or publicly assisted patients. For example, the Medicare and Medicaid populations are now being increasingly covered by HMOs in the United States, but only after eight years experience and experimentation.

<u>Alternative models of a government support of HMO's for low income groups</u>:

Each of the alternative models proposed obviously requires public policy and legislative involvement:

- Government purchases a benefit policy from an existing HMO or HMOs on behalf of a lower income population.

- Government owns the HMO and designs its own economic incentives and risk sharing systems.

- Government provides financial incentives to existing HMO's to serve lower income groups.

Issues to be addressed when applying the HMO concept to lower income groups are:

- How can the government pay the HMO premium on behalf of the low-income individual?
- Who delivers the service - an existing or specially organized HMO?
- What restrictions will be placed on the HMO system in terms of abuse of services and use of a controlled "list" of providers?
- Will existing health services infrastructure be used, or a reorganizing of resources be necessary?

3. WHAT CONTRIBUTION CAN HMOS PLAY IN EFFORTS TO FIND A NEW BALANCE OF THE PUBLIC AND PRIVATE SECTOR ROLES IN HEALTH CARE?

HMO's can potentially:

- Attract private sources of capital into predominantly public sectors, if there is an availability of cash flow from HMO operations and the interest income earned on large, prepaid insurance "floats" or cash flows.
- Relieve pressure from a strained public health system which has limited and diminishing resources by enabling selected groups to "opt-out" of the public sector to seek care in the private
- Introduce new management systems and economic incentives leading to efficiencies, which can be transferred to public sector facilities and services.
- Create "Foundation" or "Trust" funds from HMO earnings, using these monies to fund services for low income groups.
- Provide different levels of service for lower income levels, from a range of options.

4. WHAT ROLES AND STRATEGIES SHOULD INTERNATIONAL LENDING AND AID ORGANIZATIONS PLAY TO ENCOURAGE AND MONITOR HMO INITIATIVES?

A number of initiatives, some already underway and sponsored by the U.S. Agency for International Development, and other lending agencies, could yield positive results in HMO developments in the third world These actions include:

- Seminar sponsorship to expand knowledge, skills, and attitudes toward concept of prepaid health plans.
- Publish case studies on HMO like experiences in other developing countries to show a) it can be done, and b) how it can be done to maximize benefits to the population.
- Publish guides to HMO development.
- Grants and low interest loans for start-up planning and operations.
- Publication of model legislation and regulation, to launch HMO initiatives.
- Publication of model contracts between government and HMO. HMO and enrollee and HMO and providers which describe useful policies and procedures for quality control, service use, and service payments, and cost containment.
- Provision of consulting support to start-up HMO's.

The HMO organization has been successful in the private sector. Through its experience in a number of developing countries, the authors believe that the HMO concept can be applied to more than the private sector population, if sufficient public policy support and the necessary external and internal factors are present within the local country's socioeconomic context. While the Chilean experiment is uniquely designed for the Chilean people and culture, parts of the system can be applied to other developing countries both within and outside Latin America.

HOSPITAL CORPORATION OF AMERICA

SLIDE PRESENTATION

HCA

↓

HCA INTERNATIONAL

↓

HCA AMERICAS REGION

↓

AMICO

ASSISTÊNCIA MÉDICA A INDÚSTRIA E COMÉRCIO LTDA.

BRAZIL - 1960

- Private medicine was expensive
- Government Programs underfunded - not meeting population expectations
- Government did not oppose the HMO movement
- Growing middle class
- No major indemnity insurance sector

CHARACTERISTICS OF AMICO FORMATION

- Formed 1966 by doctors after studying USA HMO groups
- Started by providing inpatient and outpatient health care to large manufacturing firms in industrial São Paulo
- First private entity to offer health care on Pre-Paid basis
- Sufficient providers to support and staff the company
- Government agreed to reimburse portion (30%) of health tax employer selected HMO.

POPULATION/HEALTH CARE SOURCE BRAZIL

%	Nº OF PEOPLE	SOURCE OF CARE/ PAYMENT
80	105,000,000	INAMPS (Gov. financed progress)
8	11,000,000	Prepaid health plans
2	3,000,000	Indemnity insurance programs
2	2,000,000	Private Sector
7	9,000,000	Other - Military - Municipal - Without Coverage
100%	130,000,000	

INCOME DISTRIBUTION - BRAZIL (NOV, 1984)

SALARY	% OF POPULATION
- Under $ 180 /month	77
- From $ 180 to 300/ month	10
- From $ 300 to 600/ month	8
- Above $ 600/month	5
	100%

AVERAGE COST OF HEALTH CARE BRAZIL

GROUP/PLAN	COST
INAMPS	Funded from payroll tax 1984 Budget - $ 1/person/month
Prepaid Health Plans	$ 450/person/month
Indemnity Insurance Program	$ 18/person/month
Private	$ 250/patient day in average hospital

COMPARISON
PUBLIC VS . PRIVATE SECTOR

	PUBLIC	PRIVATE	TOTAL
Hospitals	1000	4200	5200
HMO's	5	225	230

CHARACTERISTICS OF PRIVATE SECTOR HOSPITALS

- Most under contract with Inamps, the national health insurance organization.
- Majority are owned and operated by doctors.
- Low percentage participation in multi-hospital systems
- Number of national companies delivering care 2 to 3

CHARACTERISTICS OF PRIVATE SECTOR HMO'S

- 230 HMO's covering 10 million people (8% of the population)

  USA

- 280 HMO's covering 13 million people (67% of the population)

- Most are local entities started and run by doctors

- Average monthly cost of coverage for a family $ 10/month

LEGAL ASPECTS

- No specific HMO enabling legislation
- Law Passed in 1966 indirectly allowing HMO operation
- To date - no regulations issued

AMICO SERVICES

- Type Services
- Physician Office Visits
- Physician Hospital Visits
- Physician Surgery and Anesthesiology
- Physician In-Area Emergency Service
- Diagnostic X-Ray Services
- Diagnostic Lab Services
- Out-Patient Mental Health Service
- Dental Services

AMICO SERVICE

Type Service

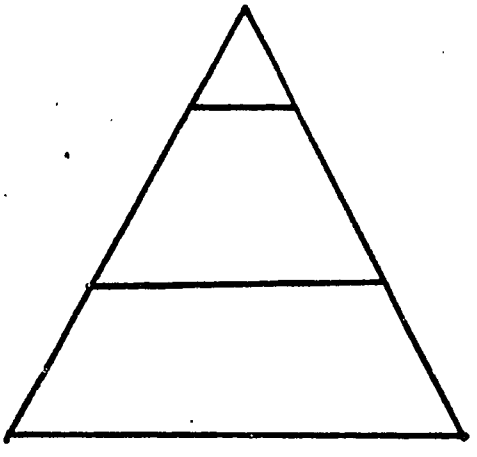
- Eye Examination
- Physical Therapy
- Ambulance Services
- Prescription Drugs (Inpatient Emergency)
- Basic Hospital (180 days)
- Health Education
- Limited Out-Of-Area Emergency Care

AMICO

Plan Exclusions

- Psychiatry
- Cosmetic Surgery
- Outpatient Drugs
- Prosthetic Aids
- House Calls
- Special Education Needs
- Work Accidents
- Tuberculosis Treatment

ENROLEE PLAN DISTRIBUTION



Insurance Free Choice .5%

P.P.O. Free Choice .5%

HMO Owned Services .99%

HCA CONTRIBUTIONS

- Created an organization based on professionalism and sound business practices as foundation for future growth.

- Provide the capital to upgrade facilities and improve quality

- Impl .mented a business planning process with accountability systems.

PRIVATE SECTOR CONTRIBUTIONS

- Providing care for 8% of the population through HMO's in a country with free care.
- Running 75% of the nations hospitals.
- Relieving government of huge burden.

HCA/AMICO CAPABILITIES

- Management of health care facilities for the owners
- Health care consulting
  - . Research and Feasibility Studies
  - . Planning and design of facilities
  - . Equipment evaluation and selection
  - . Systems Development and Management
  - . Staff Recruiting, Education and Training.

AMICO CHARACTERISTICS ENROLLMENT

Total	760,000 enrolees
Employees	304,000
Dependents	456,000

Possibilities for HMO-Type Organizations in Less Developed Countries

U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Health Resources and Services Administration
Office of Health Maintenance Organizations

299

Possibilities for HMO-Type Organizations in Less Developed Countries

October 1984

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In addition, my colleague, Theodore Weinberg, worked with me in the initial conceptualization of this paper and in providing comments.

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Introduction

The purpose of this paper is to provide a description of health maintenance organization (HMO)-type entities which will assist individuals new to the HMO field in evaluating the feasibility of starting an HMO in a new setting. The difference between an HMO-type organization and a typical Ministry of Health (MOH) managed health services delivery system will be discussed, terms will be defined, and guidelines for analyzing the existing financing and delivery system in a Less Developed Country (LDC) will be provided. Finally, a development strategy will be suggested.

In February-March, 1984, a team organized by the Latin American Bureau of the Agency for International Development visited four countries in the Eastern Caribbean to assess the feasibility of establishing private financing schemes for the delivery of health services. The health services delivery system in all four countries — Dominica, St. Kitts, St. Lucia, and Montserrat — is modeled after the British system, with most health care professionals delivering care on the islands trained in British institutions. Montserrat is a British dependent territory. Dominica, St. Kitts and St. Lucia are independent.

AID's objective was to explore possibilities for reducing the burden of health care financing which is presently borne by the government of the islands (approximately 12-14% of the annual budget). Based on studies done by Carl Stevens of Reed College, there is evidence that some consumers in less developed countries are willing to pay for private physician services in order to be treated in a more personal and timely manner. The theory posed is that if a large enough group of consumers is willing to pay fees for physician services, they could be organized into a scheme which would require pre-payment of a monthly premium in return for access to private physicians whenever needed. By creating alternative financing, the pressure on the government sector to provide curative care free of charge would be reduced, and government resources could be more effectively used for curative and preventive care for those unable to pay.

But in the course of the assessment conducted in early 1984, several additional possibilities began to emerge. The suggestion was made that where the individual consumers are not in a position to pay for participation in an alternative scheme, it might be possible for the government to act as the HMO, exerting the power that it derives from being the dominant financier of health care to create changes in the way health care is organized and managed. A variation on this idea would be to have the government create a parastatic entity to perform the functions of an HMO, thereby achieving the same goals. Yet another, more radical, approach would be for the government to contract out the health care system to a private entity paying only that amount required to cover the benefits of the indigent.

Health maintenance organizations entered the health care scene as an alternative to the traditional U.S. systems for health insurance, such as Blue Cross/Blue Shield and Aetna, which represent more typical financing methods for health care. Under these systems, the patient chooses any physician or hospital he

prefers and is charged a fee-for-service at the time of the visit. An insurance company then reimburses the patient an amount which is reduced by the required copayments and deductibles. Thus, the insurance company and the physician have no relationship to each other. Any insurance company could be hired to provide medical insurance and any doctor can be used. The consumer has an endless combination of insurers and doctors available to him.

HMOs are different from traditional forms of health insurance because they combine in one entity the financing and delivery of care. In other words, the doctors and the insurance company are part of the same organization. To maintain a financially viable and competitive business, the HMO managers must budget for an expected level of service utilization, and the participating physicians must impose tight controls on the health care system to assure that only medically necessary procedures and hospital admissions are ordered. Through this organized and managed system of health care, the per capita costs are reduced. Other benefits accrue as well. Due to the high cost of hospital care, disease prevention programs are not only a public health consideration, but also an economic necessity.

Because of the vast economic and cultural differences between the U.S. and the Caribbean countries, total reliance on the HMO model as we know it in the U.S. is not appropriate for the analysis of the less developed countries. But one important similarity does exist. In every instance of HMO development in the U.S., these organized delivery systems had to be created in order to bring about the greater efficiencies in the private practice of medicine. Likewise, in less developed countries, organized systems of delivery will have to be built up in order to make alternative financing a feasible option.

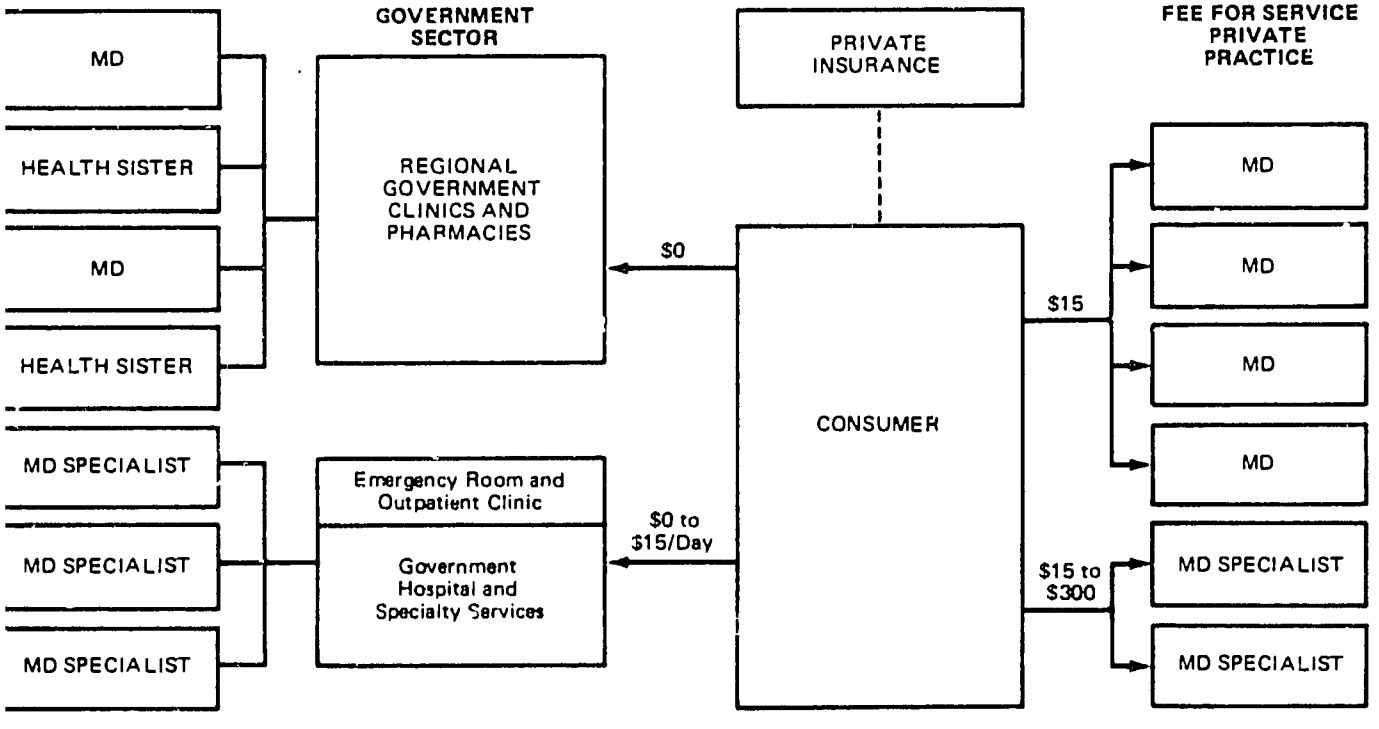
SECTION I: THE END PRODUCTS

Before embarking upon a lengthy description of the steps one must follow to assess the feasibility of establishing a HMO-type organization, a clear understanding of the end product we are aiming for is desirable. This section will be devoted to describing an HMO-type organization — how it works and how it achieves savings in health care costs. By grasping a sense of how the pieces of an HMO-type system fit together, the assessments that contribute to a determination of feasibility can be more focused. In addition, one can more easily examine ways to modify the model to achieve desired goals.

As indicated previously, an HMO-type organization combines a financing system for health care with an organized delivery system. How does this translate into an operational organization? This will be illustrated by contrasting the traditional system with the HMO-type system. Diagram I shows a traditional system of health care financing and delivery in a LDC and diagram II shows a HMO-type system.

Diagram 1 TRADITIONAL SYSTEM

Consumer Choice Model: At the Time of Illness Consumer Either Pays or Waits for Care



Typical Traditional System in a LDC

The typical traditional system of health care financing and delivery in a LDC is a government financed system of health care which offers primary and specialty care as well as hospital services. This system, shown in Diagram I, dominates the health care sector and is devoted to curative as opposed to preventive care. User fees are charged for some services, but they are set at token levels. The primary care services are decentralized to maximize accessibility to care.

While the government financed system would appear attractive to a consumer on first glance, it becomes apparent rather quickly that the system is overloaded due to understaffing, excessive demand for service, or poor management of resources.

The cost of this system to the governments of the Eastern Caribbean is about 12-15 percent of the GNP. About 50 percent of the Ministry of Health budget is used for hospital services.

Another option for the consumer in this system is to seek care on a fee-for-service basis. The fee-for-service system exists for those who can pay for physician services. Generally, all physicians in the country are salaried by the government, but many choose to supplement their income through a before or after hours fee-for-service practice. The advantages for the consumer using the fee-for-service system are that there are: no lines and delays in getting service; longer and more personal visits; and services that are generally available whenever desired.

Where there is a dual government and fee-for-service system, the consumer decides each time he gets sick if he can afford to see a private M.D. or if he must use the government facilities. Generally, the wage earners choose to see private physicians, while the elderly, women and children seek free care.

Even when care is available for a fee, access is constrained by ability to pay. The traditional system is consumer driven and resource constrained. Where outpatient care is available free of charge, the restraints on utilization of services are imposed by queues, scarcity of drugs, and physician resources. In other words, people can have physician attention as often as they want, if they are either willing to pay for it or to wait for it. Physicians spend their time on the most demanding rather than the sickest patients.

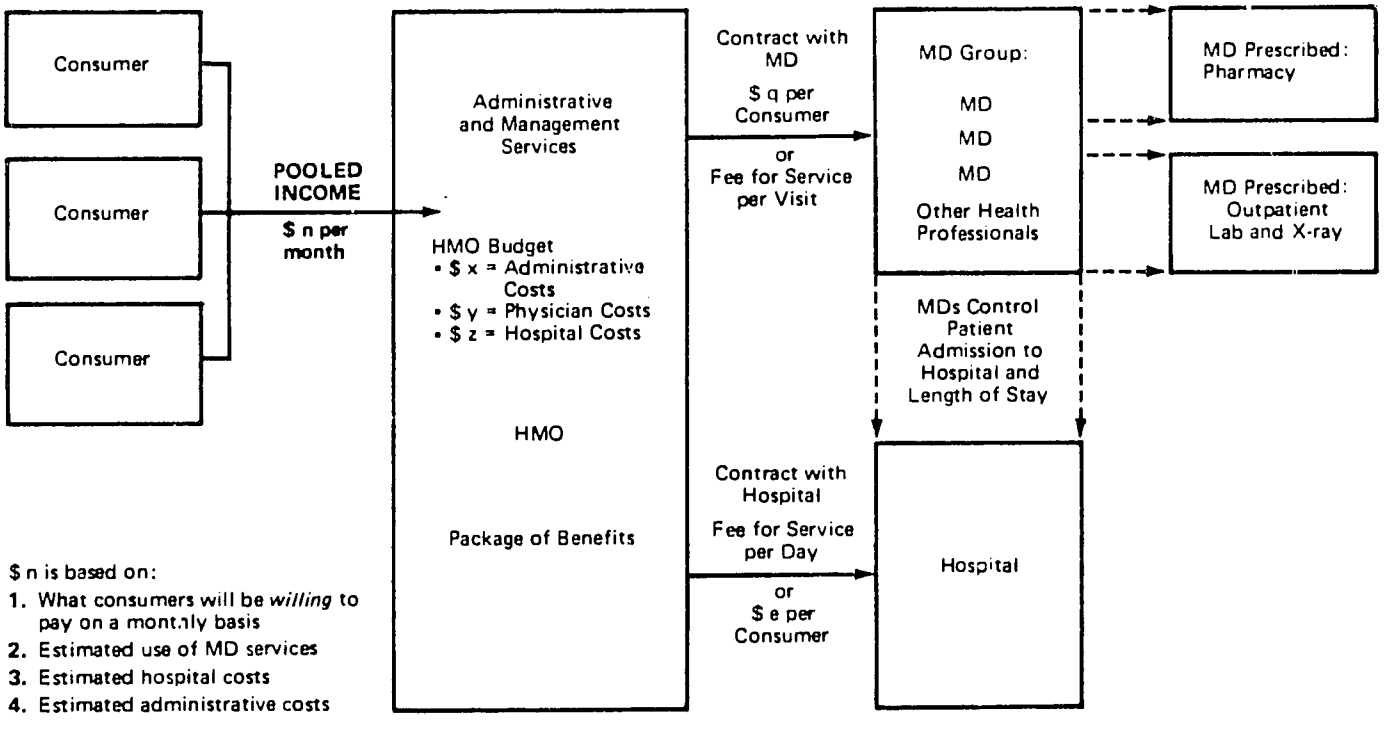
In the LDC environment, hospital care presents a special situation in that it is not totally consumer driven. M.D.s control non-emergency hospital admissions. User fees for hospital stays are very low and are waived if a person is unable to pay. Occupancy rates of hospitals are within the control of physicians who decide

whether a person's physical and mental condition along with his family circumstances, warrant a hospital stay. The length of time a person is allowed to remain in the hospital is also within the control of the physician, but it is influenced by the occupancy rate of the hospital. In other words, hospital care, the single most costly commodity in the health care system, is rationed by availability of beds and by physician concurrence. A common benefit offered to workers with insurance policies in LDCs is "sickness pay," or replacement income, for periods during which the person is unable to work due to hospitalization. The net effect of such a benefit is that the worker has no financial disincentive to continued hospitalization, either because of the user fee or because of lost income.

The issues of cost of service and true medical necessity do not influence the hospitalization decision. Over-utilization of hospital services is not monitored and is believed to be quite high.

Diagram 2

HMO MODEL
MD Controls Consumer Use of the System



HMO-type System

Diagram 2 shows an HMO-type system. An HMO is a formally organized system of health care delivery that combines the delivery and financing of care, and provides services for a fixed, prepaid fee to a defined population. Under this system, monthly payments ("pre-payments") are made by consumers to cover the cost of their health care. The payments are pooled by the HMO which prepares a budget to finance the health care services needed by consumers. The health care costs of this group are paid out of the pool.

The phenomenon of pooling income has four important salutary effects. First, because the pool finances health care for a consumer group which is diverse in health status and health care needs, the risk associated with the cost of care of any one person is spread across a large group. A person who uses less care than he has paid for subsidizes the sicker person. If the pre-payment levels are actuarially derived, the group pays for itself and the need for further government subsidization is not necessary.

Pooled income also generates an enormous source of purchasing power for the HMO, which is exercised when it approaches selected physicians to serve the group. The HMOs guarantee a certain number of patients, a certain number of visits and, thus, a certain income level to physicians in return for their willingness to provide a discount on their fees. In addition, the HMO offers participating M.D.s an incentive to control hospital costs through an arrangement called "risk sharing." If the participating M.D.s reduce hospitalization below a certain budgeted level, they share the savings with the HMO. Whereas, if the level of utilization rises above the budgeted level, the physicians personally assume part of the excess cost incurred. Thus, the physicians are "at risk" to practice medicine efficiently.

As physicians come to realize that their behavior as a group can generate economic rewards, physician integration and organization are stimulated. Group values will begin to emerge. When these factors are combined, the result is that the leverage which comes from pooled dollars, invariably drives the M.D.s into more cost effective standards of practice and places them in a role as managers of the health care resources within the system.

The third beneficial effect of pooling income is that the HMO-type organization which is responsible for arranging the health care is able to budget the costs of care. Finite resources can be managed most efficiently in such a setting. Staffing patterns, drug supplies and facility capacity and location are only a few of the health care system components which can be more rationally controlled in a budget setting environment.

Finally, extra income is generated for the system through short-term investments which are possible because excess cash builds up due to the lag between the time service is rendered and the bills are paid.

Participating physicians continue to have the flexibility of choosing the location of their practice (i.e., in their own office or as a group member practicing with many physicians under one roof). When a consumer enrolls in an HMO by paying his monthly or bi-weekly fee, he selects or is assigned a personal physician. This physician maintains his complete medical records and is responsible for coordinating the treatment he will receive whether it is prescription drugs, specialty services or hospital care. The personal physician is sometimes referred to as the "gatekeeper" for this reason. Thus, even though a physician may continue to sit in his own office, he subscribes to a different standard of medical practice.

The continuous relationship between the consumer and physician enhances the quality of care, since information on a patient's full history and complexity of conditions is available each time he sees the physician. The cost of duplicate lab and x-ray testing can also be eliminated.

In summary, the most striking features of the HMO-type system are that by combining the responsibility for health care delivery and financing in one organization, the end result is that health care providers are at risk for the services they deliver. With a given amount of money (the pooled income), the system is structured to assure that care is delivered in the most economical way to those that need it. Physicians participate in utilization control programs in order to derive economic benefits from efficient practice. In addition, it encourages early detection and treatment in order to avoid more costly spells of illness. If the budget is inadequate to pay for services, the physicians' income is reduced. Waste is eliminated from the system through physician incentives, careful budgeting and control, and cost accounting procedures. Since hospital costs account for the largest percentage of total health care costs, the physician incentives are tied directly to their ability to control hospital usage. A capsule summary of the key concepts follows.

Characteristics of an HMO-type Organization

1. An integrated system combining alternative financing with an organized delivery system.

2. Financing System for Health Care

   - The HMO-type organization collects premiums on a biweekly or monthly basis from consumers;
   - Income from consumers is pooled to spread risks and to increase purchasing power for quality services at a good price;
   - Price per person is based on actuarially derived assumptions regarding use and cost of services;
   - Health care is financed by pooling income from premiums paid by individuals desiring a certain level of health care service;
   - A negotiated compensation arrangement provides an incentive for physicians to participate and to control patient utilization of the system;

- Health care services are arranged for consumers by the HMO-type organization through contracts with M.D.s;
- M.D.s are compensated by the HMO-type organization and not by consumers. Options for M.D. compensation include fee-for-service, capitation, and salary.

3. Organized and Manageable Health Services Delivery System

The success of alternative financing schemes (HMOs) is dependent upon the existence of an organized delivery system around which the financing scheme can be wrapped. An organized delivery system is different from fee for service private practice of medicine because it entails accountability of individual physicians to a larger group of doctors. The components of an organized system of health care delivery are:

- The purchasing power provided by the pooled income creates sufficient financial pressure on the health care sector to bring about a restructuring of the delivery system into an "organized delivery system."
- Physicians participate in managing the resources of the organization through the coordinated practice of medicine;
- Physicians continue to operate out of their own offices;
- Physicians operate with group values;
- Management systems for control of health care utilization and costs are present;
- Medical group practice is a by-product of the new reimbursement arrangements. Doctors participate in the management of resources; accept accountability; coordinate their practice and control utilization to achieve economies in the system which will benefit them financially;
- A delivery system is created that has the capacity to provide all services offered in a health benefits package;
- A mechanism for assigning patients to the most appropriate level of care is built into the system components;
- M.D.s and nurses coordinate their practices in the care of an individual patient;
- M.D.s serve as the gatekeepers to the secondary and tertiary levels of care, so patients can self-refer at the primary care level only;
- A utilization control system geared to achieving utilization levels consistent with medical necessity and financial viability is implemented;
- Data collection and analysis to monitor practice patterns is required;
- M.D.s, nurses and administrators cooperate in identifying solutions to problems related to the efficiency of health care delivery.

Section 2: Benefits of an Alternative Financing Scheme in a LDC

The primary advantage of the HMO-type system is that it diverts the flow of dollars away from the hospital and into primary care. Hospital costs account for almost 50 percent of most MOH budgets. Because this is the costliest single component of the health care delivery system, careful conservation of these resources can pay tremendous dividends. As an example, by just reducing hospital expenditures 10 percent in St. Kitts and shifting these funds to ambulatory care services, the dollars available for primary care (district health services) could be increased by as much as 33 percent, or dollars available for family planning could be increased by 400 percent.

The unit cost (i.e., cost per day) of hospital services is so great that one unit (i.e., day of care) saved translates into about 10-20 units (clinic visits) of ambulatory care. The extra dollars which become available to finance disease prevention and early detection programs can improve the health status of the population. In the Eastern Caribbean countries, the population is homogeneous. However, between countries there were significant differences in the average hospital length of stay overall and by department. Exhibit 1 shows the hospital utilization characteristics in selected countries of the Eastern Caribbean. As can be seen, occupancy rates do not appear to relate to the differences in utilization. These findings suggest that in most countries savings can be enjoyed by implementation of hospital utilization controls.

In the U.S., HMOs are noted for their ability to provide more health care for the same dollar amount as private insurers. The reason is that the typical insurer spends 60 percent of its medical services budget on hospital care and 40 percent on ambulatory care. The HMO, on the other hand, controls hospital utilization so tightly that its typical budget shows the reverse allocation (i.e., 40 percent for hospital services and 60 percent for ambulatory care). Studies have shown that there is no difference in the health status of groups served by the HMO and those served under the fee-for-service system.

The economics of health care underpin the cogency of the concept of HMO-type financing. Any system that succeeds in eliminating unnecessary use of hospital services will free up an enormous reserve which can be used for a variety of other services. As you will see more clearly in the next section, every component of the HMO system supports the objective of keeping people out of the hospital unnecessarily.

Implementation of an alternative financing scheme in a LDC requires either restructuring of the existing system, or introduction of a parallel system which will serve part of the population. In Chile, Argentina, Brazil, Mexico and Uruguay, examples of the later approach have been adopted, and they appear to be working well. But thus far, the HMO-type organizations that exist in LDCs have been developed to serve the employed (non-indigent) population. Models of a parallel system which serves the indigent as well as a completely restructured system are, therefore, not available. However, with the proper adaptations to meet the needs of the indigent population in the LDC context, either of these two approaches could provide a vehicle for improving the quality, efficiency and cost-effectiveness of the health care system. The dollars available through a MOH budget could go farther and work harder for the population.

EXHIBIT 1

CLELAND/WEINBER

June 1984

HOSPITAL FACT SHEET

NAME OF HOSPITAL (Date of last available data)	MOH BUDGET (% of Nat'l) Hosp. Budget	ALOS/Occupancy Rate						Cost per day / Cost per admit.	Days of Care	Hosp. Staff	Oper. Suite
		Overall	Ob	Med	Surg.	Ped.	Other				
St. Lucia (population 122,000) Victoria (1978) 210 beds	$17.3M 13.7% $5.5 M E 32%	90% E	1978 Report unavailable. No report since 1978.					$79.75 E per day	68,985 total days	19 MDs	2
St. Jude (12/83) (mgt. contract) 113 beds	$1.8 grant 10% MOH 3.6M total	5.62 42%	2.06 45%	7.53 56%	7.34 31%	7.89 25%		$231 per day $1,298 per admit.	16,471 total days	6 **	2
*Dominica (population 74,089) Princess Margaret 180 beds	$9,513,850 13.6% $4,421,790 46.5%	90-95% E	NA	NA	NA	NA	NA	$80 per day E	735/1000 E	14	2 surgery 2 deliver
Montserrat (population 11,600) Glendon Hospital 67 beds	$3,671,800 15.7% Est. 500,000 40 8%	5.2 39%	NA	NA	NA	NA	NA	$175 per day $910 per admit	668/1000	4 with admitting privileges	NA
St. Kitts (population 40,000) Joseph France (12/83) 164 beds	1984 $6.7M 15% 3.4M 51%	10.3 67%	5 50%	8 67.5%	15 87.5%	8 70.8%	15 (private) 83%	$83.54 per day $860 per admit	822/1,000 E	5 admit MDs 11 pract. MDs 229 non-MDs	1

**Additional MD services are donated by visiting specialists. The value of donated services has been included in the hospital budget figure based on the local wage scale

E=Estimated
NA=Not Available

*Dominica
Budget information: Hospital does not include portion of central lab budget (384,420) that suggests inpatient services
Occupancy Rate: The hospital administrator estimates occupancy at 90-95%; however, there were no statistics available to suggest this.
Cost per day: Based on hospital administrators estimate of occupancy (90% occupancy results in 54,500 patient days per annum)
Days per 1,000: Based on estimated 54,500 patient days per annum

Regardless of the sponsorship of the HMO -- private sector or public sector---and regardless of the relationship to the existing system -- restructured or parallel---the efficiencies are achievable. The success of the system depends upon physicians changing their attitude and practice vis-a-vis hospital admissions. The HMO system includes incentives which make it economically advantageous for M.D.s to undergo this change.

The options and the advantages of each are as follows:

Restructured National System

Through a major restructuring of the health care delivery system an overall reduction in hospital services can be achieved. The objective of such a drastic measure is to assure that only those services which are medically necessary are utilized. Savings generated from reduced hospital use can be invested in disease prevention, early disease detection and basic primary care services.

1. Government managed restructured system

This restructured system would serve the entire population and have a sliding fee scale to capture income from those able to pay. The government would pay the cost of its dependents only, and the system would be self-supporting.

2. Privately managed restructured system

This option differs from the one above in that the government would remove itself from its traditional role as provider of direct services. Instead, the management of the health care system would be contracted out to a private entity. The components of this public-private partnership would include use of all government facilities, negotiated monthly payments to cover the premiums of the government dependents, and sale of a benefit package to employed people. Through some capital investments by the private entity to improve facilities and good patient management, profits might be generated which would either be shared with the government, or not shared, depending upon the terms of the contract.

3. Restructured system managed by a parastatic entity

The difference between this option and the one above is that the HMO would be managed and controlled by a quasi-governmental unit, such as a Social Security Fund. It would have full use of government facilities, but any profits generated by the HMO would be reinvested in the HMO and used for improved facilities, equipment or benefits.

Introduction of a Parallel System

1. For those able to pay

An approach which can be used for those able to pay for their health care segregates this group into a self-supporting system which is parallel to the MOH system and which is sponsored by a private entity. Such segregation would result in a reduction in the number of people demanding care from the MOH system, thus increasing the service capacity of the system for those most in need of free care.

The segregated system would offer those able to pay an organized and efficient approach to health care which would provide a range of benefits at the lowest possible cost.

2. For those not able to pay

If the MOH chose to restrict its services to the indigent, the government could sponsor an HMO-type organization parallel to the fee-for-service system. Through the economies that are derived from an HMO, funds available for health care service would be re-allocated within the system allowing increased ambulatory care as hospital costs dropped. In addition, by serving only the indigent, the MOH resources would not be siphoned off by individuals who do not require government aid. Should those able to pay wish to participate, they could pay a monthly self-supporting premium. Otherwise, they would have to make private arrangements for insurance or pay full fee-for-service when using hospital facilities, physician services and ancillary services.

SECTION 3: FEASIBILITY EVALUATION

Now that the system has been described and the advantages of implementing the new approach cited, we will turn our attention to the task of determining the feasibility of establishing an HMO-type organization in a LDC.

A. Analytical Framework for Determining Feasibility

Five different options for HMO development have been discussed. These translate into the following:

Option 1. Segregated system: Privately managed
Option 2. Segregated system: Publicly managed
Option 3. Restructured system: Privately managed
Option 4. Restructured system: Government managed
Option 5. Restructured system: Quasi-government managed

Exhibit two summarizes the differences in the options.

The primary difference in the five options above is that when discussing sponsorship by a private entity, the single most important fact is that private dollars rather than public dollars drive the system. It is a way for people who can afford to pay for service to contract with an entity to meet the full range of their health care needs. The definition further implies that there are people who desire a special arrangement for health care (and the reasons may vary), that there is an entity with the capability to deal with the purchasers of service and the providers of service, and that health care can be arranged by such an entity. Because financial breakeven would be the primary objective of the managers of the alternative system managers, success of the scheme is dependent upon formalized arrangements for hospital and ambulatory care because of its need to budget and control costs. For this reason, each part of the delivery system must be managed in a way that supports the production of data on the services delivered and the costs associated with those services.

All four of the other options assume that the government is contributing a monthly premium to the HMO-type entity to cover the costs of the indigent. The government is, thus, influencing the way health care is delivered through its enormous purchasing power.

The last four options differ in several ways. First, in the extent to which participation in the system is voluntary for employed individuals. Second, the management and sponsorship of the systems are quite different. Third, the use of profits or funds generated from efficient operations vary significantly.

As the characteristics of the country are matched with the objectives of the government in adopting an alternative delivery system, the decision regarding which of the five options is most suitable should become clear.

Exhibit 2

Options for HMO - type organizations in a LDC

Option	Health care system structure	Sponsor	Management	Who served	How are profits used
1.	HMO parallel to MOH system	Private	Private	Employed	Return on investment (ROI)
2.	HMO parallel to FFS system	Public	Public	Indigent	N/A
3.	Reorganized national health care system	Public-private partnership	Private	Total population	Shared between government and private entity
4.	Reorganized national health care system	Public	Public	Total population	Return to Treasury
5.	Reorganized national health care system	Quasi-public	Quasi-public	Total population	Expanded service capability

B. Four components of the HMO-type system

The analytical framework for determining the feasibility of developing an HMO-type organization in a LDC is bounded by the four components of a HMO-type system. The integration of these four parts, or subsystems, of the HMO-type system is necessary to achieve the objectives of an HMO. As indicated earlier, the four parts are as follows:

- A financing scheme
- An organized delivery system
- A supportive political environment
- A sponsoring entity

A capsule summary of how these four parts interact follows. The economies generated by an alternative financing scheme are achieved through the efficient operation of an organized delivery system. A complete health sector assessment must be conducted to identify the normative financing and delivery systems within the country. The findings of the assessment (financing and delivery of care) are then compared to the components of an HMO-type system to determine areas in need of change to achieve HMO-type operations. It is not surprising that significant structural change in the health care system is usually necessary to create an organized delivery system. Due to the government's dominant role in the health sector, structural change will only become possible if there is a supportive political environment. In addition, an alternative financing scheme may diminish the government's direct involvement in providing health care for the population. Since the governments of many less developed countries count the provision of health care as an important political plus, a diminution of their role in this arena could be threatening. The political environment must be assessed carefully. Finally, until an individual or organization emerges that is willing to initiate the effort to establish an alternative financing scheme, the concept will lie dormant.

Each of the four parts is discussed in greater depth in the pages that follow. They are treated as separable components of one system. The differentiation of the parts is designed to promote the idea that replicating a whole system may be impractical in a country, but parts of the system can be implemented to achieve specific objectives. Furthermore, before moving to an HMO-type system, a transition plan will have to be developed. The analytical framework presented in the following pages allows one to evaluate the discrete factors that contribute to a successful organization. By so doing, a checklist of items that are present or not present can form the basis for a determination as to whether it is feasible to proceed further. The feasibility determination hinges on whether the structural changes can be made which are necessary to adjust the local circumstances to be HMO compatible. Once a full assessment of these factors is complete, action plans can be developed to overcome the barriers to an alternative system.

C. Steps in the Feasibility Analysis

There are five steps that must be completed before reaching a decision. They are:

Step 1: Conduct an assessment of the normative system of financing and delivery of health care, political environment and potential sponsors.

Step 2: Compare the country characteristics to the criteria for development of a HMO-type organization.

Step 3: Identify areas where criteria are not met.

Step 4: Compare the profile of criteria which are met to the profile required for sponsorship in certain sectors.

Sept 5: Determine whether changes can be initiated which would result in criteria being met.

Step 1: Conduct an Assessment of the Normative System of Financing and Delivery of Health Care Environment and Potential Sponsors

To identify the structural changes required to establish an organized delivery system, a complete health sector assessment should be conducted. By defining the normative level of service and patterns of care, a baseline of information is established. The assessment should cover the following:

Step 1.1 Description of the Public System of Delivery

a. Bureaucratic structure of health sector within the government
b. Number, location and specialty of health professionals
c. Number, location, size and services available through each health facility.
d. Transportation system providing access to health facilities
e. Availability of services in each geographic area and waiting time
f. Organization of primary, secondary, tertiary care
g. Number of primary, secondary tertiary care facilities
h. Role of the M.D.s, nurses and hospital administrators
i. Beneficiaries of public services (by law vs. by practice)
j. Management of the health care system

    - quality of medical personnel
    - accountability

- reporting systems
- coordination of practice/utilization review (existence of Tissue Committees, Audit Committee, etc.)
- medical records

k. User fees imposed for use of each service provided by the public system

- level of fee
- who pay fees
- how user fees are collected
- statistics on collectibility
- costs of collection

l. Perceived quality of care

1.2 Description of the Private Delivery System

a. Number, location, and specialty of health professionals in the private sector
b. Number location, size and service capability of private facilities
c. Transportation/accessibility
d. Services only available privately
e. Cost of service
f. Estimated total M.D. income from private practice

1.3 Linkage Between the Public and Private Sectors

1.4 Government Financing Systems

a. MOH
b. Social Security System
c. Sources and Application of Funds
d. Nationalized health insurance schemes

1.5 Political Environment

a. Platform of the ruling party (socialistic or capitalistic philosophy)
b. Status of the economy (expanding, declining)

1.6 Focal Point for Developing an Alternative Scheme

a. Consumer groups, such as agricultural cooperatives, unions, etc.
b. Large Business
c. M.D.s
d. Government

Step 2: Criteria to Evaluate the Feasibility of Establishing an HMO-Type Organization

Up to this point, we have discussed the concept of HMOs, the five options for HMO sponsorship, and the need to develop a complete understanding of the environment within which the new system will be created. For simplicity in this step, we will describe the criteria for developing a privately sponsored parallel financing scheme. Once all the component parts are presented, the applicability of these parts in the context of the other systems will be shown. You will note that a discussion of the delivery system is not included. This is because there is an assumption that the pooled dollars can be used for leverage in recruiting physicians to take part in the alternative scheme. From this impetus, the organized system of delivery takes shape.

A. Marketplace Characteristics

1. Ability to Pay

The first prerequisite of a privately financed system is that there is a certain portion of the population that has the financial resources to be able to pay for health care that they cannot or do not want to get from the public sector.

The analyst should look at either the income levels of different segments of the population, or if this is not available, the size of the existing market for fee-for-service medicine should be estimated. Since data may not be available, a survey of physicians and government officials regarding the private office hours maintained by M.D.s can be used as a starting point. If typical office visits last 10-15 minutes, the weekly office hours can be divided by four or six and then multiplied by the number of physicians in private practice. When multiplied by the fee-for-service, the total consumer expenditures can be estimated.

2. Willingness to Pay

The second prerequisite is that this same portion of the population will be willing to budget in the manner prescribed. (i.e., allocate a certain portion of their income to the pre-paid premium).

a. Presence of Risk

For this group, the advantage of participating in an alternative financing scheme is that by budgeting health care costs on a monthly basis, they can avoid the risk of becoming a victim of either the unpredictable "catastrophic" costs associated with fee-for-service medicine or the deficiencies inherent in the public system.

There are three potential risks associated with health care: (1) the risk of financial loss due to the high cost of an extended illness; (2) the risk of poor quality due to inadequate training or availability of personnel and (3) the risk of poor access due to overloaded systems or supply shortages. If these risks exist and if there is an option, the health care consumer may be motivated to use his discretionary income to protect himself from these occurrences.

The presence of financial risk or other incentives which would provide motivation for parts of the population to participate must be evaluated. Information such as the level of user fees for different services must be collected to assess the risk to the population of catastrophic financial loss due to illness (e.g., lab, x-ray, hospital, private physicians visits, primary care visits, and prescription drugs). In addition, barriers to care should be identified (i.e., the accessibility of specific types of care at acceptable prices) and barriers to quality should be noted (e.g., waiting time and length of visit with the nurse or physician). Any of these three "risks" could provide sufficient motivation to the population to pay a fixed account each month in order to avoid them.

b. Scope of Available Insurance Coverage

Another indication of the population's acceptance of the idea of supplemental or alternative coverage is the insurance protection currently available in the countries and the type of coverage preferred by buyers (i.e., are the consumers purchasing hospital or physician insurance, sickness pay protection, disability insurance, etc?) is an important factor to consider in establishing the feasibility of an alternative scheme. If the population prefers sickness pay coverage over insurance for protection against hospital or physician costs, this reveals that the population's risk is tied more to their loss of income than to the cost of services.

3. Large Enough Population

The third prerequisite is that this segment of the population that fulfills the first two criteria is large enough to assure that there is an actuarially* sound population base. Specifically, the population must be large enough

*Actuarial analyses determine the health care utilization patterns across different types of populations. For a population to be actuarially sound, it must show a diversity of age and health status.

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so that the pooled income will be adequate to cover the costs of the health care services consumed over a period of a year or more. This prerequisite relies on the notion of spreading risk by pooling income from a group.

To determine whether the population that will be targeted to pay into the scheme is sufficient to support a privately financed system, the following should be evaluated:

a. The total employed population
b. The total employed population as a % of the total population
c. The average family size
d. The percentage of population under 18, between 18-65, and over 65
e. The life expectancy and leading causes of death

The information should be analyzed to determine: 1) if the population segment provides an actuarially sound base (i.e., enough contributors to cover the anticipated costs of health care); and 2) if the population covered by a new entity will be large enough to provide an incentive for M.D.s to participate in the new scheme as a way of capturing more of the "private pay market."

4. "Population that can be accessed"

The fourth prerequisite is that the population segment can be accessed in a fairly simple fashion, so that routine monthly contributions can be collected.

A requirement for any financing scheme is that there be a mechanism to collect premiums from the participants. This is necessary in order to reduce overhead of the scheme as well as to facilitate identification of potential participants for marketing purposes. Factors to be reviewed in assessing this requirement are:

a. Type of industry.

   Of particular concern are "job" laborers, such as dock workers who do not have continuous presence in the labor force. It is possible that these workers belong to various or other associations that could serve as a conduit for weekly collections. Workers in hazardous industries should be avoided since the potential for health care utilization is much higher in these areas. Premiums that are priced to cover the high utilization will probably be unattractively high.

b. Organization of the labor force

Self-employed workers present significant problems because of the difficulty in identifying who they are and in finding an efficient means for weekly collection of premiums. In addition, the erratic nature of their income stream creates disincentives for voluntary participation in a routine contributory program.

Many self-employed persons are members of cooperatives or associations which might serve as collection agents. However, the cooperatives usually have a very limited view of their role in relation to their members. Typically, cooperatives serve as distributors and marketers for their members and are unwilling to consider a broadened role, such as benefits coordinator or bargaining agent.

c. Size of the employers

Larger employers generally have some type of employee benefit programs. Thus, the mechanisms are in place to allocate a portion of wages or salaries to a separate account and to provide regular payments to a health care financing scheme for the group.

There are high administrative costs associated with servicing small employers (10 or less).

B. Availability of Financing

The fifth prerequisite is that a source of financing will be available to cover developmental costs and operating deficits incurred in the first years of operations.

There will be start-up costs associated with the introduction of a private financing scheme, and the sponsor of the scheme must be able to estimate these costs and secure financing to cover them. The costs incurred prior to initiation of operations include direct labor associated with demographic data collection and analysis, employer assessment, legal evaluation, government relations, management system development, assessment of hospital and physician costs, collection and analysis of utilization patterns, and planning for establishment of an organized delivery system.

It is typical for an HMO-type organization to lose money in the early months and years of its existence due to the need to build up a large enough enrollment to cover the fixed costs of managing the system. (It is assumed that all variable costs can be covered by premiums from the first day of

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operations). A source of funds should be readily available to the scheme sponsor for financing of operating deficits. Estimates as to the amount needed would be derived by preparing pro forma financial statements for four-five years.

C. Staffing

The sixth prerequisite is that managers are available who possess the personality, authority and knowledge to make decisions that will support a financially viable business. There are three critical service components in an alternate scheme - the hospital, the physicians, and the entity that organizes and manages the scheme. Each of the three components must be managed with sensitivity to the dramatic changes being promoted and with the objective of continuing their financial viability. Thus, managers for each component must be competent and capable of understanding the economics of this HMO-type system. In addition, they must have professional skills to enable them to function effectively on a day-to-day basis.

1. Management

Alternative financing schemes are complex organizations that require coordination and monitoring of diverse organizational functions. The competence of individuals available to manage the system components must be carefully assessed. Individuals who understand the cultural underpinnings of enterprise in the less developed countries, possess experience in business and are educable about organized delivery systems must be found to manage the system. Of particular importance is that the individuals have demonstrated an ability to take action and make constructive changes in operations when problems have arisen. Managing for the bottom line may be a foreign concept to individuals who have built their career in a publicly financed system. Because the new system will require significant changes in the way the existing entities operate (i.e., the hospitals and the physicians), prospective successful managers must exhibit an attitude of acceptance to change as well as an understanding of the business principles upon which the new system will be structured. A planning orientation is also necessary to assure that the transition into the new system is facilitated.

2. Technical Staff

The seventh prerequisite is that technically capable individuals are available who can develop health care utilization assumptions, perform financial forecasting and pricing functions, design methods for educating and enrolling the target population, and record and collect data on the costs and use of primary, secondary, and tertiary services.

In less developed countries, trained staff may not be available in the technical disciplines of cost accounting, marketing, information systems and utilization control. Thus, attention should be focused on the level of

skills currently possessed by the professional employees and the opportunities that exist in or near the country for appropriate education. The feasibility of the alternative system rests heavily on the quality of management and technical staff available.

D. Legal

The eighth prerequisite is that the legal environment within the country is not prohibitive of a new financing scheme.

Insurance codes, business codes and laws affecting the practice of medicine may exist which could slow down or prohibit entirely the creation of an alternative or restructured financing scheme. Available through the Government Printing Office, laws governing insurance and health care should be evaluated.

E. Health Services Utilization and Cost Data

The ninth prerequisite is that baseline data is available for estimating the cost of service and the use of services within the proposed system. There must also be a potential for implementing cost accounting systems.

1. Pricing

One of the most complicated aspects of establishing a completely self-sufficient financing scheme is calculating the appropriate price to be charged for the coverage. The price obviously must be tied to the cost of services, the volume of utilization of service, and the administrative costs. It can be adjusted downward by reducing utilization levels, thereby lowering the costs of operation. But baseline data on existing utilization and cost levels aids in establishing the upper limit to the cost and, thus, the price structure. Through utilization controls, an integral part of an organized delivery system (discussed in section F), utilization levels can be lowered and economies achieved. When an initial ballpark figure for the price has been determined, a second analysis of the marketplace must be conducted on the question posed earlier, "Ability and willingness of a population segment to pay for an alternative system."

Information sources for cost and utilization are as follows:

- Private physicians
- Government physicians
- Primary care nurses
- Hospital Administrators
- Permanent Secretary

2. Cost Accounting

Since hospital care is the costliest service provided by the system, data on the use of hospital services is the most critical to be monitored. In less developed countries, hospital cost accounting systems are not yet widespread.

Eventually, cost accounting will have to be implemented and an assessment made of the retraining and system development that will be necessary to assure that this occurs.

3. Financial Projections

To develop estimates of the financing required to operate an alternative system, pricing levels as well as cost and utilization expectations must be calculated. With this data, pro forma financial statements can be prepared. Target utilization levels and prices can be evaluated in the context of the operating deficits generated over a certain period of time. If adequate funding is not available to cover the operating deficits,then revised utilization and price targets will have to be developed. Ultimately, the issue faced is whether the physicians and the scheme managers can achieve utilization levels that are in a range to yield marketable prices on one hand and acceptable financing requirements on the other.

F. Health Service Delivery Capability

The tenth prerequisite is that there is a health services delivery capability upon which a new system can be structured.

The feasibility assessment would be limited to an estimation of the numbers and kinds of health care professionals and accessible hospital beds required to serve the projected enrollment. This estimate compared with the actual supply of health professionals and hospital facilities provides an indication of the leverage that an HMO-type entity will have in recruiting professionals to participate. For instance, if a private entity projects an enrollment of 10,000, it must contract with two-three M.D.s and six-eight allied health professionals to service this enrollment. If there are 10 M.D.s in the service area, the private entity has a significant bargaining chip.

We assume that since the existing health service delivery system has to be reshaped and reordered to generate the efficiencies of an HMO, this reshaping will come about as a byproduct of the financial incentives offered to the physicians.

G. Identification of a Willing Sponsor

The eleventh criterion for feasibility is that there is an entity willing to be the driving force in organizing and promoting the HMO-type organization. Some of the most likely sponsors are:

- agricultural cooperatives which desire an expanded role vis-a-vis their members;
- employers wanting to improve benefits to employees with the objective of reducing absenteeism and improving the health status of employees;
- unions hoping to provide a richer package of benefits to their members;
- private businesses desiring an investment which could return profits; and
- government seeking to reallocate or reduce its health care costs by achieving greater efficiencies in the delivery of care.

H. Acceptable Political Environment

The health care system is viewed in most LDCs as an important political plus by the government. It is tangible proof of the government's power to provide services to the population. If the establishment of an alternative financing and delivery system is viewed as a diminution of this role, the government officials must be educated as to the advantages to them and the country of a new system. A well-planned "sales job" will probably be needed.

Step 3: Identify Areas Where Criteria Are Not Met

The criteria discussed in Step 2 related to a privately financed HMO-type organization. All other options require a subset of these criteria to be feasible. For instance, the necessity for a population that has both some form of risk and a willingness to pay for health care coverage is obvious when considering a privately financed alternative scheme. On the other hand, if the government were to establish a new scheme which would provide service to the indigent, the economic characteristics of the target group would be quite different.

Therefore, should all critical criteria discussed in Step 2 not be met, it may reveal a situation that is not conducive to a privately sponsored HMO. However, this may mean that a different option is more appropriate. In the next section, we will discuss the applicability of the criteria in the context of other sectors (i.e., public, quasi-public, etc.).

Exhibit 3

Requirements of an HMO-like Organization

COMPONENTS	APPLICABILITY BY OPTION				
	(1) Private	(2) Public	(3) P-P	(4) Public	(5) Quasi
A. Marketplace Characteristics					
1. Ability to pay	X		S	S	
2. Willingness to pay					
- presence of financial risk			S	S	
(i.e., fee-for-service system)	X				
- presence of quality risk	X		S	S	
- presence of access risk	X		S	S	
3. Current insurance coverage					
4. Large enough population	X	X	X	X	X
5. Population that can be accessed	X	X	X	X	X
6. Mandatory subscription		X	X		
B. Availability of Financing to Underwrite Losses	X	X	X	X	X
C. Staffing					
1. Management	X	X	X	X	X
2. Technical staff	X	X	X	X	X
D. Legal Acceptability	X	X	X	X	X
E. Health Services Util. & Cost Data					
1. Util. Info. Population	NR	NR	NR	NR	NR
2. Cost Accounting	NR	NR	NR	NR	NR
3. Data collection capability	NR	NR	NR	NR	NR
F. Adequate health service delivery capability	X	X	X	X	X
G. Willing Sponsor	*	*	*	*	*
H. Acceptable political environment	X	X	X	X	X

* = most critical factor in determining feasibility
NR = not required, but if present, enhances planning
S = Applies to non-indigent

Step 4: Compare the Profile of Criteria Which Are Met to the Profile Required for Sponsorship in Other Sectors

After assessing the feasibility of private sector sponsorship of an HMO-like organization (Option 1), the analyst should turn his attention to possibilities that exist for sponsorship by other sectors. Specifically, these are a completely public sector sponsored entity, a public-private partnership, and a quasi-public sector sponsored entity. Recognizing that the objectives of the public sector and the quasi-public sector are significantly different from the private sector objectives, it is reasonable that the criteria for feasibility would have to be adapted accordingly. For the purpose of this discussion, the following definitions are useful:

- Public sector (Option 2 and 4) -- directly financed and managed by the government. Staff belongs to the civil service and enjoys the privileges of government employment, such as retention rights.

- Public-private partnership (Option 3) -- financed through private and public contributions, but managed by the private sector. The government would contract out management of the government facilites to the private entity or lease the facilities to the private entity.

- Quasi-public sector (Option 5) -- financed through a combination of private and public contributions, but managed by an entity which is legally independent of the government. The entity carries out certain fiscal functions for the government and, therefore, has a financial management capability.

Exhibit 3 summarizes the feasibility criteria and their applicability to each sector. The major difference in the options appears in regard to the economic characteristics of the population -- i.e., their ability to pay and their willingness to pay.

Public System

In a publicly sponsored HMO, the issue of the population's economic status is not important for Option 2 because the government pays for all the health care services. The government serves as the surrogate for private purchasing power. It translates its considerable strength as a financier into leverage that is used to secure physician cooperation in the implementation of the new approach. In this way, it imposes a reorganized delivery system that generates improved efficiencies and a more rational allocation of resources.

The population's economic status is relevant for Option 4 because in a completely restructured system, the government pays for its dependents, but because non-indigent people are covered as well, it requires contributions from some of the population. An assessment of the potential for this group to pay a portion of the cost of its care is essential when determining the total cost to the government of a new system.

Quasi-public System

As shown on Exhibit 3, the feasibility criteria for the public sector (Option 2) and the quasi-public sector are the same. The differences come in the preferred role of government in administering a new system. If a quasi-public system is implemented, it could be much easier to tax wage earners and assure that a contributory system is created. Basically, the government would contribute the premium for the indigent. Through a separate fund of this kind, the financial self-sufficiency of the system would be an acceptable political imperative. Whereas, if the system is publicly managed, the pressure on the government to subsidize shortfalls from general revenues and, therefore, cover up poor management would be great.

In order for the quasi-public sector to be an effective sponsor for the HMO, the responsibility for other major financial programs should reside with it. The best example is a Social Security or Provident Fund because these provide both a partial data base on the population and a means of collecting, recording and investing the monthly contributions. The Fund probably has information on all wage earners in the country, though identifying the self-employed and indigent would be difficult.

Public-Private Partnership

The issue of a public-private partnership revolves around the management of the system -- the HMO as well as the hospitals and out-patient facilities. Otherwise, it is no different than a restructured national health care program that is either sponsored by a public or quasi-public entity.

Step 5: Determine Whether Change Could be Initiated Which Would Result in Criteria Being Met

As indicated before, for purposes of a feasibility evaluation, the economic characteristics are the only deterministic criteria. This means that the population per se cannot be changed, and an HMO-type system will have to be designed to address this fact. All other criteria are somewhat controllable, and actions can be taken which will improve the environment for HMO development.

Some examples are as follows:

1. Presence of Financial Risk

   Even though hospital costs account for the largest percentage of the total health care bill, most LDCs have instituted token user fees for this service. The actual cost of the service can be computed, and it is clear that even for those able to pay, the government underwrites the hospital costs to a significant extent. One way to generate more interest in alternative financing schemes by the employed is for the government to increase hospital user fees to a more reasonable level. This measure would not only provide a disincentive against individuals staying in the

hospital and serve as an important new revenue source for the government, but it would also create an impetus for people to seek insurance coverage to protect them in the event of a long spell of illness.

2. Willingess to Pay

Since the people in less developed countries have often come to expect government financing of their health care, regardless of their economic status, a special marketing effort will have to be undertaken to sell the population on the advantages to them of having a new system of delivery and financing. This initial educational program should be mounted even before an HMO-type organization is actually available as a way of setting the stage for the HMO's arrival.

3. Large Enough Population

Where an HMO is privately financed, it may be possible to enlarge the target population by broadening the geographic service area. For instance, in the Eastern Caribbean, some of the very small islands might not be able to support an independent HMO, but if the populations of several islands were covered, the administrative expenses per island could be reduced significantly. Such an approach would result in a centralized HMO management group, with a decentralized system of delivery.

The advantages of this type of organization could be great. For instance, specialty care which cannot be supported by a small population base could be made available to a group of countries on a rotating basis.

4. Organization of the Labor Force

A strong educational campaign may be needed to interest agricultural cooperatives in assuming a social services role. Success will be dependent upon the strength of the economy at that time and the ability of the cooperative managers to see the benefits to them of broadening their role. The person who approaches the cooperatives regarding participation must have a well-planned strategy. In other words, the benefits to the cooperative should be described by the HMO representative and not left to their imagination.

5. Availability of Financing

In all probability, a good analysis of costs and prospective prices will have to be completed by a third party and presented to a prospective financier in order to get support. The analysis should focus on both financial and social returns to the investor.

6. Staffing

The specific technical skills required for an HMO will take time to develop in LDCs, but with a strong leader who can recruit promising

individuals and explain the framework and details of the HMO, the effort can proceed. Ideally, the leader would be a local person with a good reputation in the health care sector. He or she would need to have excellent "people skills" for dealing with the government, the physicians and the community. In addition, by serving as the primary trainer for the administrative staff, he or she would, of course, need to be well versed in all aspects of HMO operations. Off-site training of the leader at another HMO-type organization is one way these skills can be acquired.

7. Adequate Health Service Delivery Capability

Before the HMO can be priced or sold to the public, the "benefit package" that will be offered to the enrollees must be designed. In a LDC, this package must be developed within the practical constraints of the available medical personnel and facilities. Thus, one of the first steps in HMO development is the recruitment of physicians, nurses, and other health care professionals who can serve the HMO members. The ultimate enrollment goals should be based on the number and types of health care professionals available; and ratios of professionals to enrollees would guide this process.

The HMO's task of recruiting physicians should not be underestimated. In any culture, change is difficult; and the essence of an HMO's eventual success rests with modified behavior patterns on the part of physicians.

The most effective way to initiate the physician recruitment and education program is to hire a prominent local physician on a part-time basis for this purpose. By personally backing the project and serving as a leader in the early planning stages, this physician can focus the attention and interest of the medical community on the HMO very quickly.

Programs to educate M.D.s about the HMO-type concept, the benefits they can derive from it, and the mechanics of the integrated delivery and financing systems should be initiated as early as possible. This should be an on-going effort. Another method for stimulating physician interest is to ask them to participate in the planning of the system they will join. The area where physician input is particularly important is in the procedures governing the utilization review and quality assurance programs.

8. Willing Sponsor

As with any new idea, someone or some group must take the initiative to bring together the resources necessary to get it off the ground. The list of possible sponsors is long, and if one group shows disinterest, another should be tried. Some of the likely sponsors are:

- Agricultural cooperatives
- The government
- Large employers
- International health car organizations
- Health care management firms
- Insurance companies
- Community leaders
- Physicians
- Entrepreneurs interested in health care
- Unions

A "prospecting trip" should be conducted to talk with these groups and determine their level of interest in either initiating the HMO and/or in supporting the HMO once developed. Possibly a coalition of groups would be willing to work together to introduce the HMO.

The sponsor must have a capability for raising money, hiring managers and promoting the concept in the community, with the government, with the people and with employers.

PROVIDING PRIMARY HEALTH SERVICES THROUGH THE PRIVATE SECTOR: A QUESTION OF FINE TUNING

Experiences gained from the first 15 months of operations of the Self-Financing Primary Health Care project (511-0569) developed by USAID/Bolivia.

Presentation by
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At the April, 1982, LAC Health Officers Conference, I had the opportunity to share a concept paper that examined the merits of delivering primary health care services through and to the members of rural agricultural cooperatives. The theory was that agricultural cooperatives represented an infrastructure that would facilitate the delivery of primary health care services to rural Bolivian communities not reached by the Ministry of Health because (1) co-ops are investor-owned and (represent an acceptable form of capital formation to rural Bolivians, particularly where social programs are involved); (2) cooperatives, as private institutions, offer flexibility in program design, staffing, implementation and financing; and (3) the participating cooperatives were already offering other activities complementary to a comprehensive health

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program and they wanted to participate in an expanded health program.

BACKGROUND

After the conference, the concept was further expanded with the potential participating cooperatives: La Merced, based in the city of Santa Cruz; an affiliation of rural cooperatives based in the town of Minero, and San Julian serving a government-sponsored colonization project. Both Minero and San Julian cooperatives are located to the north of the city of Santa Cruz. There was every indication of interest and the willingness to participate.

The basic design of the project was taken from the terminated Montero Rural Health project which provided a three tier delivery network ranging from the rural community or peri-urban neighborhood staffed by two promotors (level 1), a small health post staffed by an auxiliary nurse (level 2) and a clinic with no more than 10 beds (level 3). The management of the delivery system itself would be the responsibility of "provider organization". The types of service to be provided would be a combination of curative and preventive interventions with emphasis on providing primary health, life-saving interventions ranging from immunizations, first aid, and ORT to growth monitoring and assistance to pregnant mothers with birth and better child rearing practices. The key element of the project, as the name implies, was to experiment with payment schemes which would allow the project to continue after A.I.D.'s initial financial participation had terminated.

The Project Identification Document (PID) was presented to the DEAC in AID/W on January 10, 1983, and the Project Paper (PP) was completed in July of 1983. The Cooperative Agreement launching the project in the real world was signed on the 31st. of August 1983 with the La Merced cooperative and that's when the fun began.

The 15 intervening months have given way to several design and other unexpected problems that have recently been surmounted with the result that the project is approximately one year behind its original implementation schedule.

KEY CONSTRAINTS ENCOUNTERED

As documented in numerous public health publications, the constraints to the delivery of public health interventions are not

in the lack of our technical advances in medicine, but rather how these advances are applied in users populations. Public health interventions are clearly dependent on effective management people, commodities, and financial resources and the "Co-op health project", as the project is known, was no exception.

The brief chronology of the past 15 months can be highlighted as follows:

The two rural cooperatives, San Julian and Minero made it known that they resented the fact that they were left out of the direct management of the project's resources as only La Merced was designated the beneficiary on behalf of the other two. The other two cooperatives insisted on forming a Board of Directors composed of the three cooperatives to oversee the implementation of the project. This Board was formed within two months of the signing of the Agreement, but it became a forum for launching attacks at one another rather than for advancing the objectives of the projects.

La Merced resented the intrusion and having to share its power with the rural cooperatives and by the 12th month of the project, requested that USAID allow them to operate the project alone until the project was fully designed, staffed and the services were defined. USAID did not support this request, feeling that if the rural cooperatives would be denied participation in the project at this time, they would no longer participate. Consequently, La Merced stated that it would withdraw from the project.

In an effort to fill the vacuum left by the departure of La Merced, the remaining co-ops, with USAID's assistance, explored the possibility of setting up an independent service delivery organization which would work with the three cooperatives as contemplated in the final stage of the project. These efforts were haulted when the Mission recognized that changing grantees at this stage of the project would require considerable work in rewriting the project documents and reissuing congressional notifications, all of which would require more staff time than was available.

The more obvious project support elements in the form of long and short term technical assistance was to be contracted by the

Mission on an individual basis. That is, the Mission planned to establish contracts with a total of six individuals: one long term advisor and five short term advisors in various speciality areas. The first long term advisor arrived in April 1984 for an initial period of consultation, but was never heard of again. Therefore, in June 1984, the Mission opted to contract a firm to provide all the technical assistance. The final contracting procedures are underway and it is expected that the long term advisor will arrive in Santa Cruz by December of this year followed by the short term advisors in January.

Under the terms of the Cooperative Agreement, La Merced, the grantee, was expected to hire the core staff of the "provider organization", referred to under the project as the Management Support Unit (MSU). While La Merced has several physicians on its Board of Directors and it does operate a very reduced physical referral program, they have little experience in the organization of a large scale delivery program; consequently, they did not want to hire any local staff until they could obtain the advice of the technical assistance team. Upon further examination, what La Merced was facing was an internal crisis over salary structures. The project required more specialized personnel and higher salaries than La Merced was paying its current staff. La Merced did not know how it could keep its low in-house salary structure and pay salaries up to three times as much for the project staff. USAID solved the problem in the short term by contracting the MSU staff directly, thus making sure that a local staff was on board by the time the long term assistance arrived.

USAID's own internal management of the project was hampered by its strong involvement in disaster relief work which went on during the initial stages of this project. (The Project Manager for the project was also the Mission's Disaster Relief Officer). The Mission's local employee who was assigned to assist the development of this project left the Mission in November 1983 due to the low wages that the Mission paid its staff at that time. Without a full-time manager or local coordinator to stimulate all parties to carry out their roles in the project, the project fell behind schedule.

As was contemplated in the PP, an operation research project funded by PRICOR was to be initiated shortly before the signing of this project in order to provide information regarding types of illnesses encountered, expenditures currently being made for health care and the sources of the health care. The original institution selected for this operations research activity was not able to participate in the project and, consequently, a new organization, FIDES, had to be identified. The FIDES/PRICOR research effort is well underway now thus being able to provide the MSU with considerable information which will be used in the defining services and structuring payment schemes as planned.

As if the above events were not enough, Bolivia is going through its worst political and economic crisis in recent years. The country is facing rapid decapitalization of its productive sectors, massive inflation of over 1,000% per annum and social unrest resulting in paralyzing strikes affecting major sectors of the economy.

LESSONS LEARNED TO DATE

The above events will give you a flavor of the problems encountered after the signing of the Cooperative Agreement. Many of the events are unique to the actors involved, to their personalities and to their immediate cultural environment all of which were overlayed on this project.

Despite the unique circumstances surrounding the implementation of this project, there are lessons to be learned that are of a generic nature which are shared below:

1. Keep the Purpose of the Project Simple

   During the initial stages of the project, expectations were divided into two camps: Those who saw the project having definate public health objectives in terms of reduction of disease specific mortality and those who saw the establishment of a viable self-financing delivery organization as the purpose. The Project Committee felt the purpose of the project, as stated in the Log Frame, should be:

   Establish a pilot self-financing primary health care

system, including Management Support Unit, which will serve the population within the influence of 2 rural and 1 semi-urban cooperative and which will serve as a model for other private sector health programs.

This statement of purpose clearly highlights the business-like and entrepeneurial direction of the project. However, because of the social orientation of the cooperatives involved there is great concern as to who controls the current MSU or the future delivery firm.

2. Initiate Project Implementation with Adequate Staffing in Terms of USAID Support and Technical Assistance

Projects that are destined to implement innovatiive systems can depend only in small part on the currently institutional capacity of the grantee. As soon as possible, the grantee's capacity to implement the project must be enhanced. The late arrival of TA delays project implementation and frustrates the grantee, creating a negative attitude toward the project.

3. Attempt to Achieve a Common Understanding of Project Purpose and How it Will Function

This is a difficult task for two reasons: From USAID's point of view, the exact operation of the project was not understood in its full details. This was a new kind of project for USAID/Bolivia and for AID in general. While there are several clearcut steps to be followed in setting up an HMO-like organization, the project development committee was well aware of the limits of imposing foreign models on local problems. Implementation, in these cases, becomes reiterative and very programmitic. For example, the details of a fully operational drug distribution system will only be known after it has had a chance to run for a few months and the same applies to the application and adoption of payment schemes. From the point of view of the participant or beneficiary groups, there is only partial knowledge on what is their understanding of the project. For example, well into the

project one participating co-op wanted to know how the properties of the project would be distributed to them at the end of the project. Their concern came from the fact that in Spanish, the English word "grant" is translated as "donation". They felt the project would distribute its property to the co-ops at the end of the project. When they were informed that the properties would remain with the delivery organization to enable them to provide a service to the members of the participating co-ops, they felt cheated.

While the project intended to work through co-ops, it is clear that the original design of the project was not sensitive regarding how co-ops work. Co-ops, by their very nature and legal status, are independent businesses who respond to their own Boards of Directors and the needs of their members. Co-ops often buy goods and services from "centrales" or from the headquarters of an association of co-ops. The co-op, in turn, sells these goods to their individual members for a small profit margin. Thus, in the chain from "central" to co-op to the individual member, every party makes a small profit. More importantly, it is the custom that each co-op have complete control over the use of any resources it delivers to its members.

The project development committee, on the other hand, recognized that to maintain some form of quality control and uniformity of services, it could not simply turn over its resources to the management experience. The project will continue to examine ways to work through co-ops and yet control quality of services.

Another aspect of co-ops is that they are fiercely independent and do not care to be subjugated to the will of other institutions. In the context of the health project, one co-op (La Merced) was selected as the beneficiary of the three participating co-ops. To make matters worse, there appeared to be a natural antagonism between La Merced, a large urban co-op with a white middle class Board of Directors composed of mostly

professionals compared to the rural co-op made up mostly by former altiplano and valley Indian immigrants who are mostly farmers with small land holdings.

To recognize the differences between the co-ops and to build upon their strengths, the MSI has recently adopted a strategy whereby it will set up service delivery contracts with each co-op which will define the services to be delivered, the degree of co-op and community participation in the delivery of services, prices and who will act as collection agent, etc.

4. Develop Marketing Strategies that will Meet the Goal of Self-financing

The project has learned that to meet its goal of self-financing, it cannot remain locked in a single marketing strategy; many approaches must be explored. With regard to income, the project knew that it must explore fee-for-service, prepayment, membership fees, and other income generating mechanisms. It is now recognized that the project must outreach to many more use populations than those represented by the original co-ops. The project will explore establishing service contracts with many intermediaries including religious groups, private employers, producer groups, etc. to reach a large enough population to meet the self-sufficiency goals of the project.

5. Limit the Geographical Focus of the Project

This project proposed to deliver services to two rural areas and one peri-urban area. In retrospect, this coverage is too ambitious. To have set up a successful pilot project in an urban area or a single rural area would have been a major achievement. The project will still have an urban and rural focus, but no doubt the number of rural areas will probably be reduced in order to not dilute the efforts of the project staff by trying to accomplish too much in too short a time.

IN CONCLUSION

Because this project has not advanced further, many additional hard questions have simply not been faced. For example, it is not known how much can the target populations pay for health services under the current economic situation. Also, the reaction or

erference of the Ministry of Health or other interest
ot known.

r area of concern is the compatability of USAID regula-
procedures with private sector activities. For example,
al supply of drugs ~~have~~ HAS to be purchased through A.I.D.
a long involved process that doesn't always guarantee
est prices. As A.I.D. moves more into private sector
t implementation, it appears that projects will have to be
greater freedom to meet guidelines by a variety of means,
as buying FDA approved drugs from U.S. wholesalers.

It is my suggestion that Jerry Bowers, the new Health Officer
r USAID/Bolivia report to us on the advance of this project one
ear from now and speak specifically to the self-financing
remise of the project.

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

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

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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 useage, 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. However, 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 assessment followed by a full feasibility study. Presuming feasibility is established, there then occurs a pre-implementation phase.

The objectives and activities of the preliminary assessment and feasibility study are:

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

- Feasibility Study--To determine whether all essential aspects and components of the proposed HMO are present or can be assembled and that identified constraints can be overcome. In this phase it is necessary to provide evidence 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 limitations 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 organizational structure of the proposed HMO that will comply with various legal and regulatory requirements. To

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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 com petitive 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.

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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 coverge 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 preagreed 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.

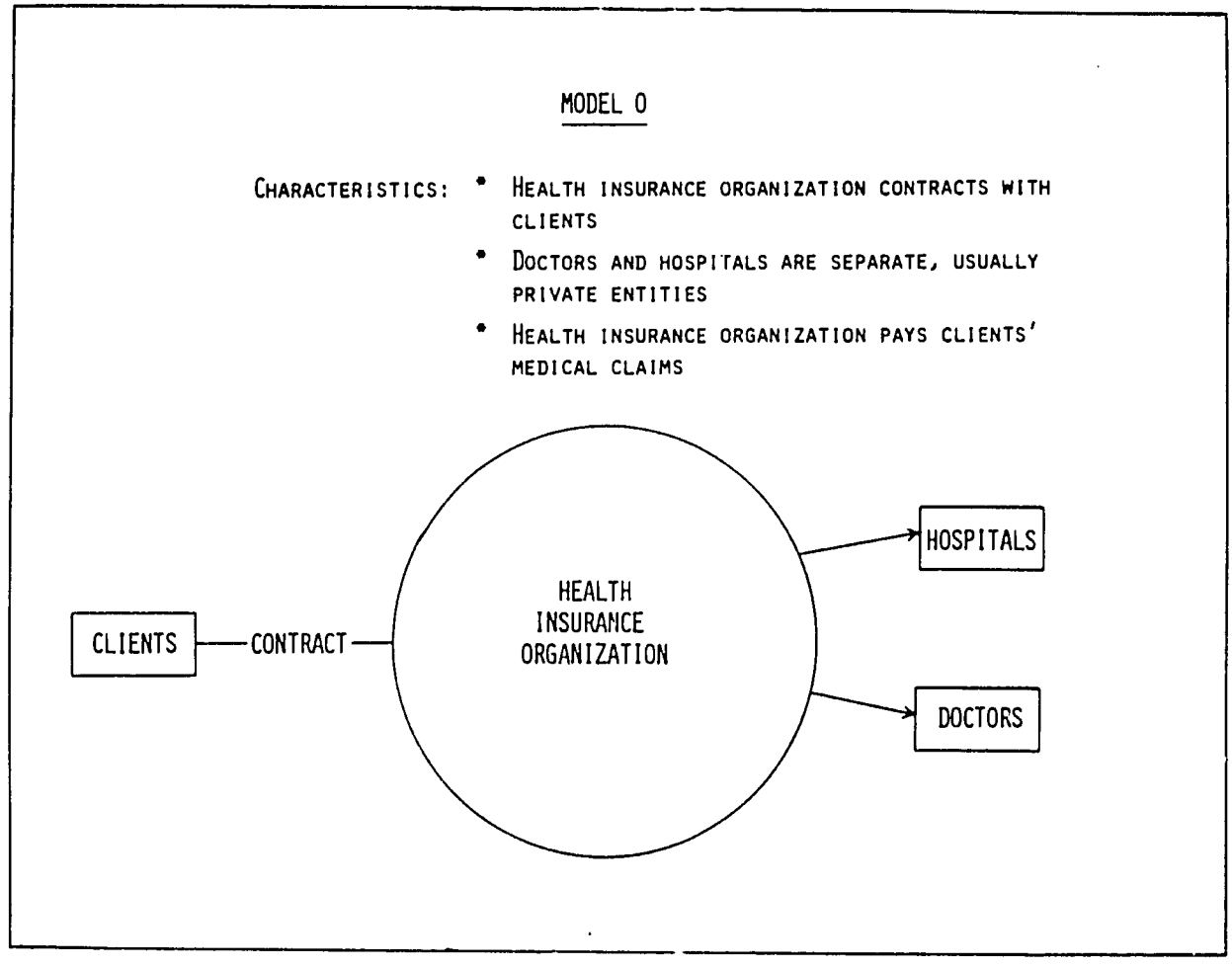
In general, the sponsorship of third-party health insurance is by a commercial insurance firm, a not-for-profit organization or a government agency, and the amount charged for the

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.



3.2 Fixed Per Capita Prepayment Linked To Comprehensive Health Services Delivery

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 elements of health care delivery in a logical, cohesive and efficient manner. In contrast to the fragmentation of the traditional 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 emphasis 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 outpatient 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

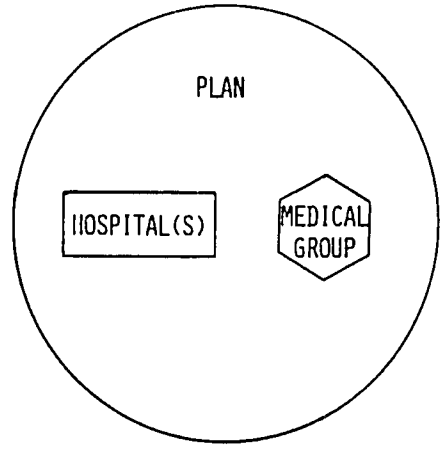
In Model I, the HMO is a highly integrated organization owning or controlling its own hospital and employing physicians as staff. Depending on its size and location, there may

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



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.

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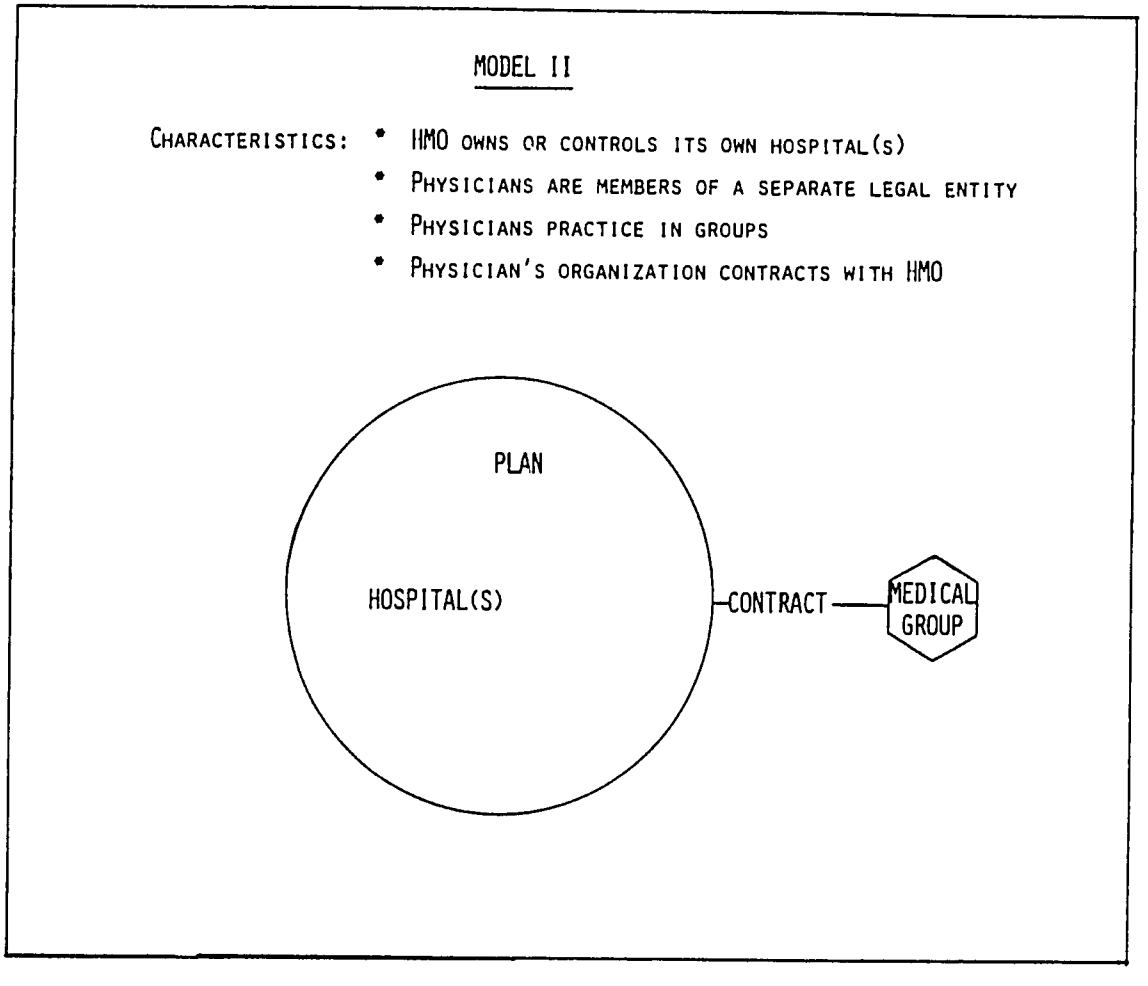
Model II

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.



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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 esentially 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.

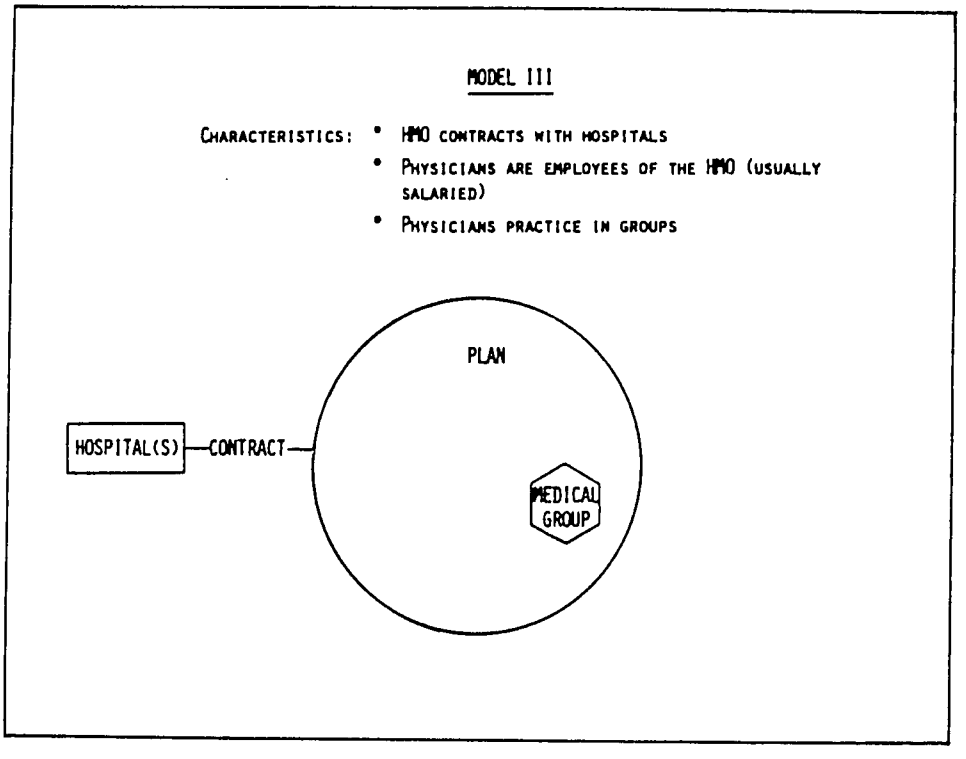
3.2.3.2 Models III-VIII: HMO Contracts For Hospital Services

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.



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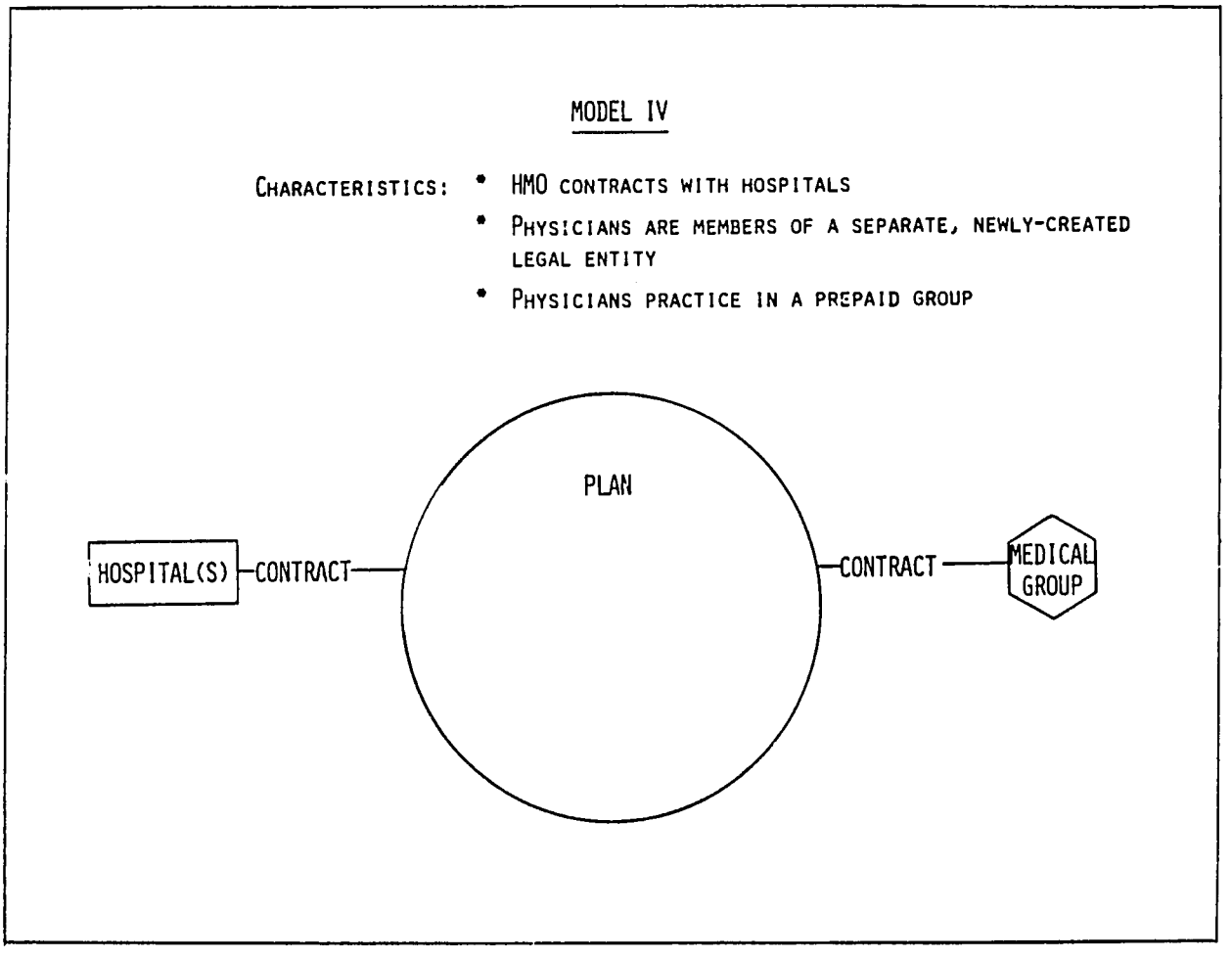
Model IV

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.

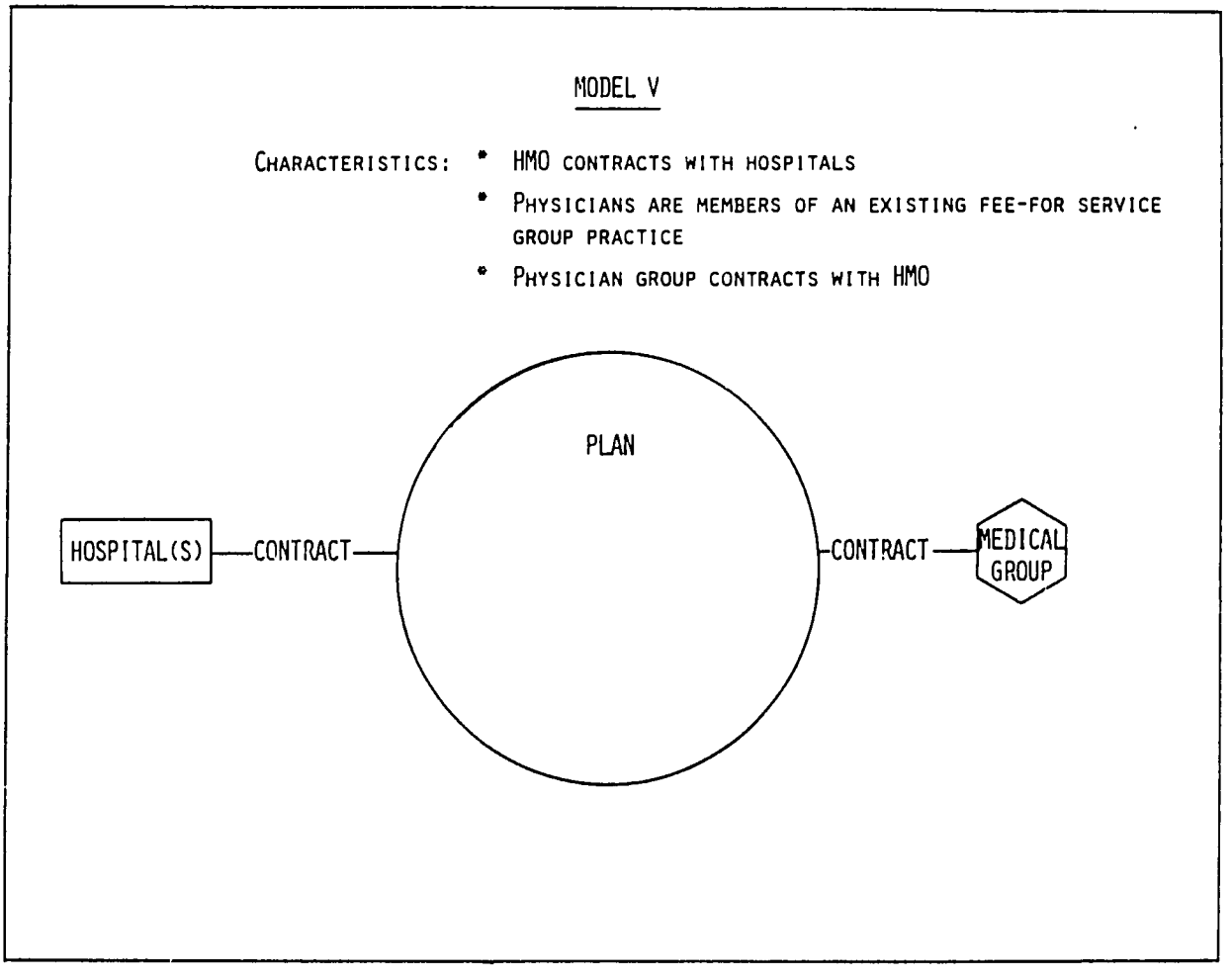
The organizational structure of Model IV is shown below.



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.



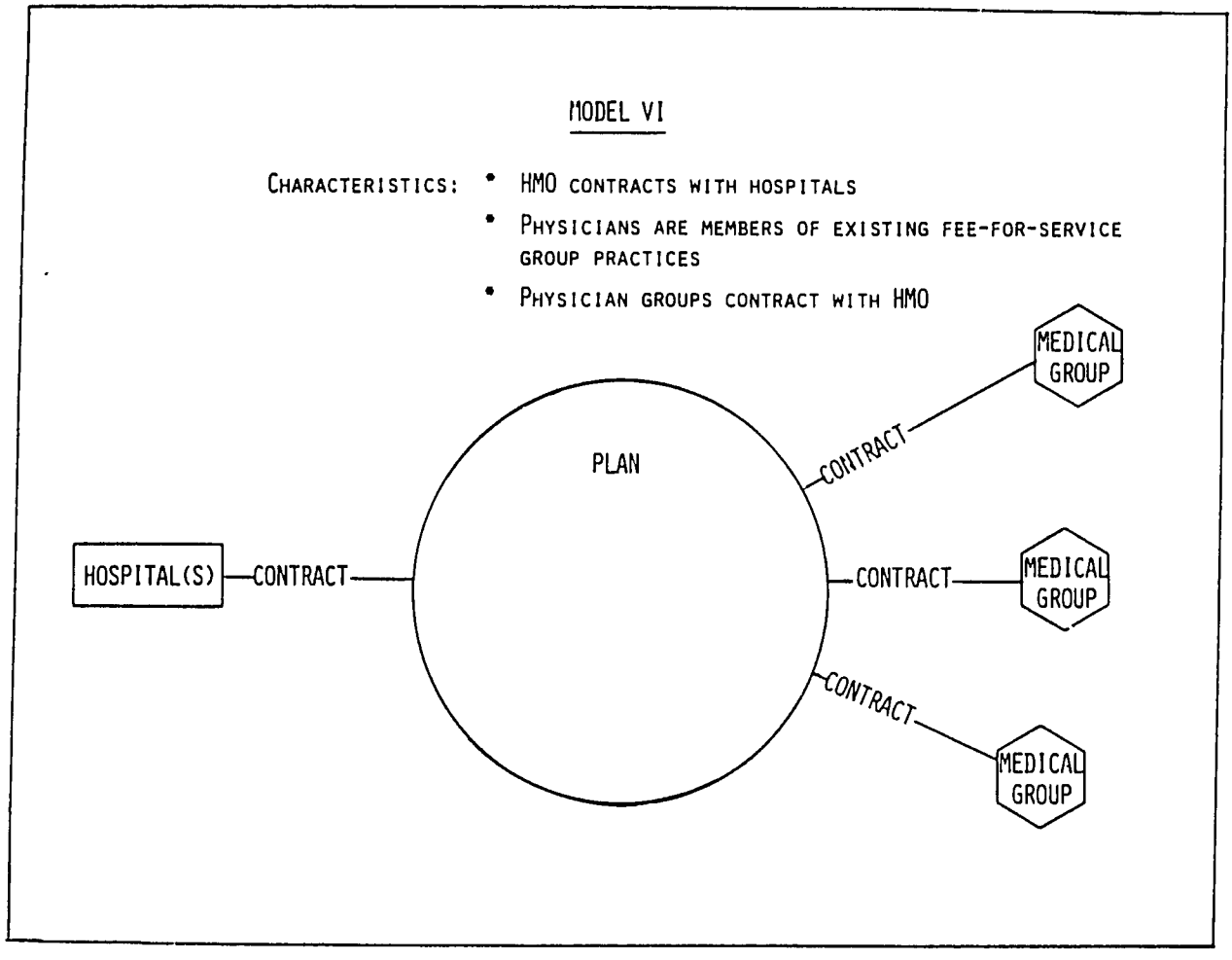
Referring to the illustrations of Models IV and V, it will be seen that they are identical. However, in Model IV, a newly formed physicians' group is created for the purpose of providing prepaid care, while in Model V physicians' services are provided by an existing fee-for-service, generally multispecialty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

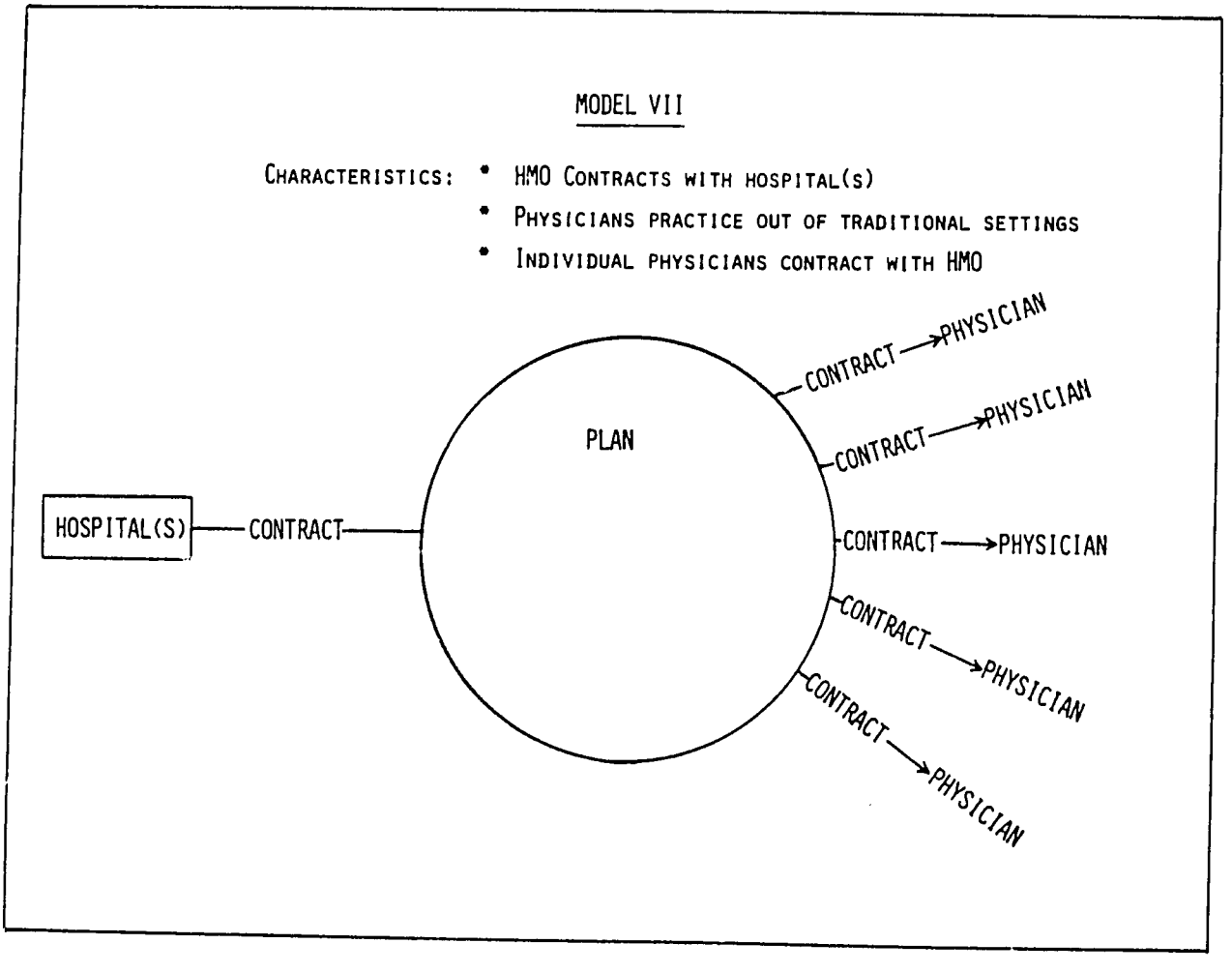
There is considerable variation among IPA plans as to which physicians in a community are eligible to participate. An arrangement where any qualified physician is accepted is known as an "open-panel" program.

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.



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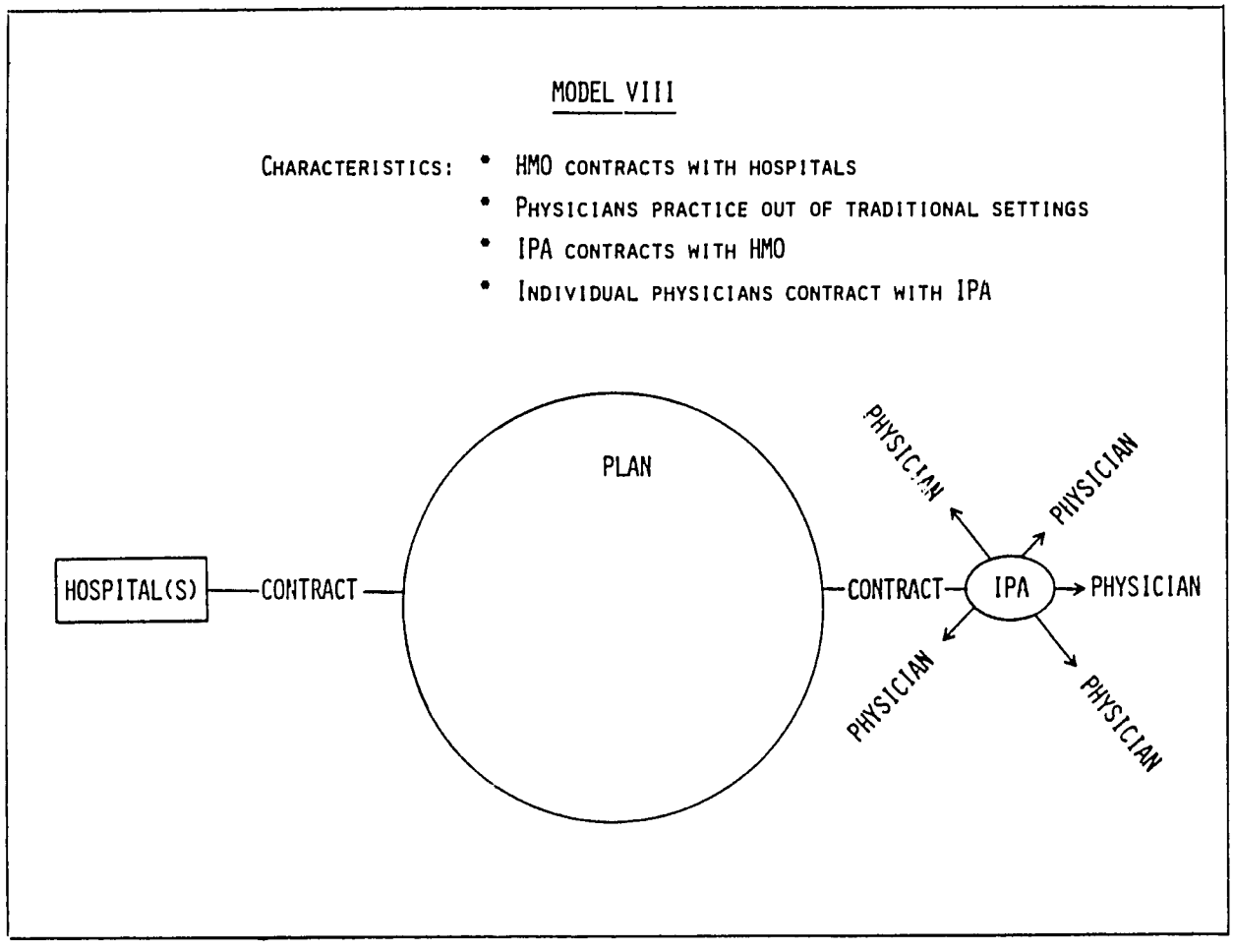
Shown below, Model VIII differs from Model VII in that the physicians belong to an independent organization, the individual practice association. The HMO contracts with the IPA and the IPA with each physician participant, rather than each physician directly with the HMO as in Model VII. Although organizationally different, Models VII and VIII operationally are very similar.



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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;

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- 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.

. 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.

<u>Phase II--Feasibility Study To:</u>

. 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

5.0 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 predominantly 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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1/ Birch and Davis, Associates, Inc., "A Guide to Health Maintenance Organization Feasibility," Office of Health Maintenance Organizations, Department of Health and Human Services, Contract No. 282-79-0076 SH, 1980.

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.

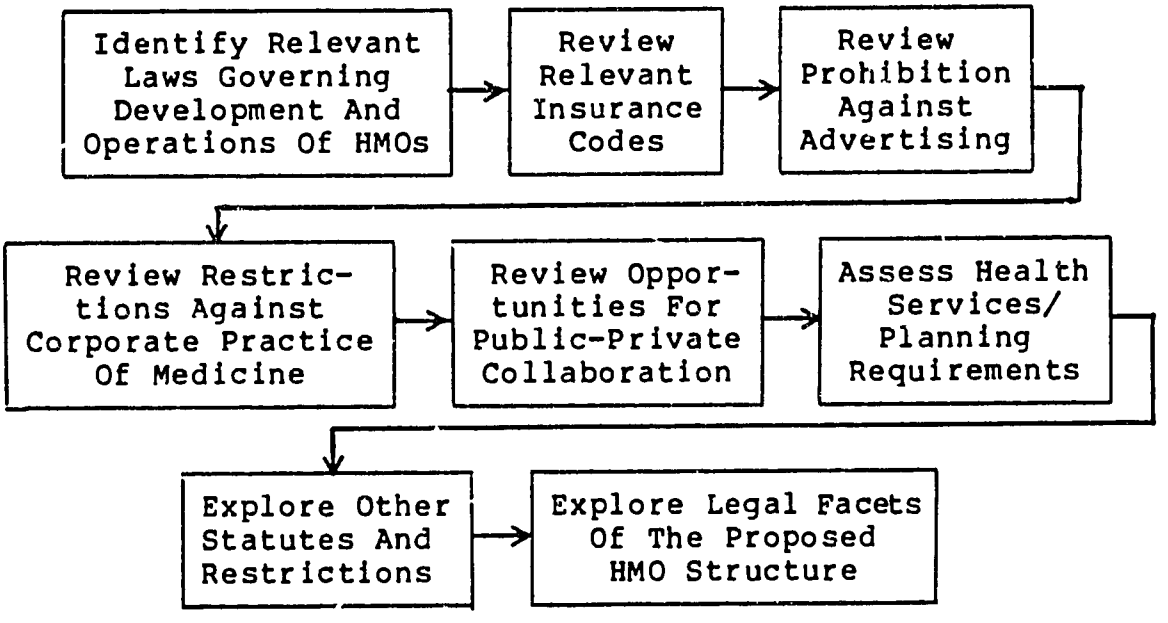
There are many cases in the U.S. that revolve around the common law rule against the corporate practice of medicine. The rule generally followed is based on consideration of

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.

EXHIBIT 7-1

MAJOR TASKS REQUIRED TO CONDUCT AN HMO LEGAL FEASIBILITY STUDY



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 feasibilty 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:

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EXHIBIT 8-1

BASIC SERVICES REQUIRED FOR U.S.FEDERAL QUALIFICATION AND OPTIONAL SUPPLEMENTARY BENEFITS[1/]

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

[1/] Federal Register, Vol. 44, No. 139, Wednesday, July 18, 1979, 42, CFR, Subpart A, 110.102.

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- 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.

- 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

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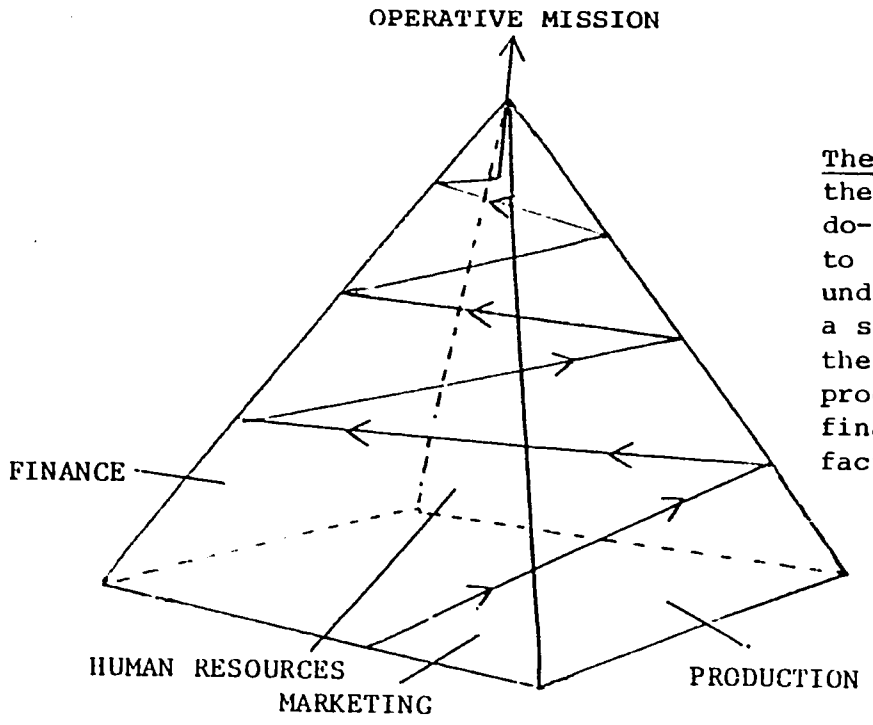
EXHIBIT 8.2

THE PLANNING PYRAMID[1/]



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.

POLICY GUIDELINES AND ENVIRONMENTAL FACTORS
- Physical
- Socio-cultural
- Economic
- Legal Regulatory
- Technological
- Political

MARKETING
- Needs Assessment
- Scope of Services
- Promoting Services
- Price Impact

PRODUCTION
- Facilities
- Operations
- Maintenance
- Transport
- Communications
- Logistics

HUMAN RESOURCES
- Needs Assessment
- Staffing
- Training
- Staff Development
- Evaluation
- Rewards/Incentives
- Conditions of Service

FINANCIAL
- Sources of Funds
  - Capital
  - Operating
- Use of Funds
- Control of Funds
- Budgeting

1/ Adapted from Adizes A. and Zukin P. A Management Approach to Health Planning in Developing Countries. Health Care Management Review/Winter 1977; 19-28.

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.

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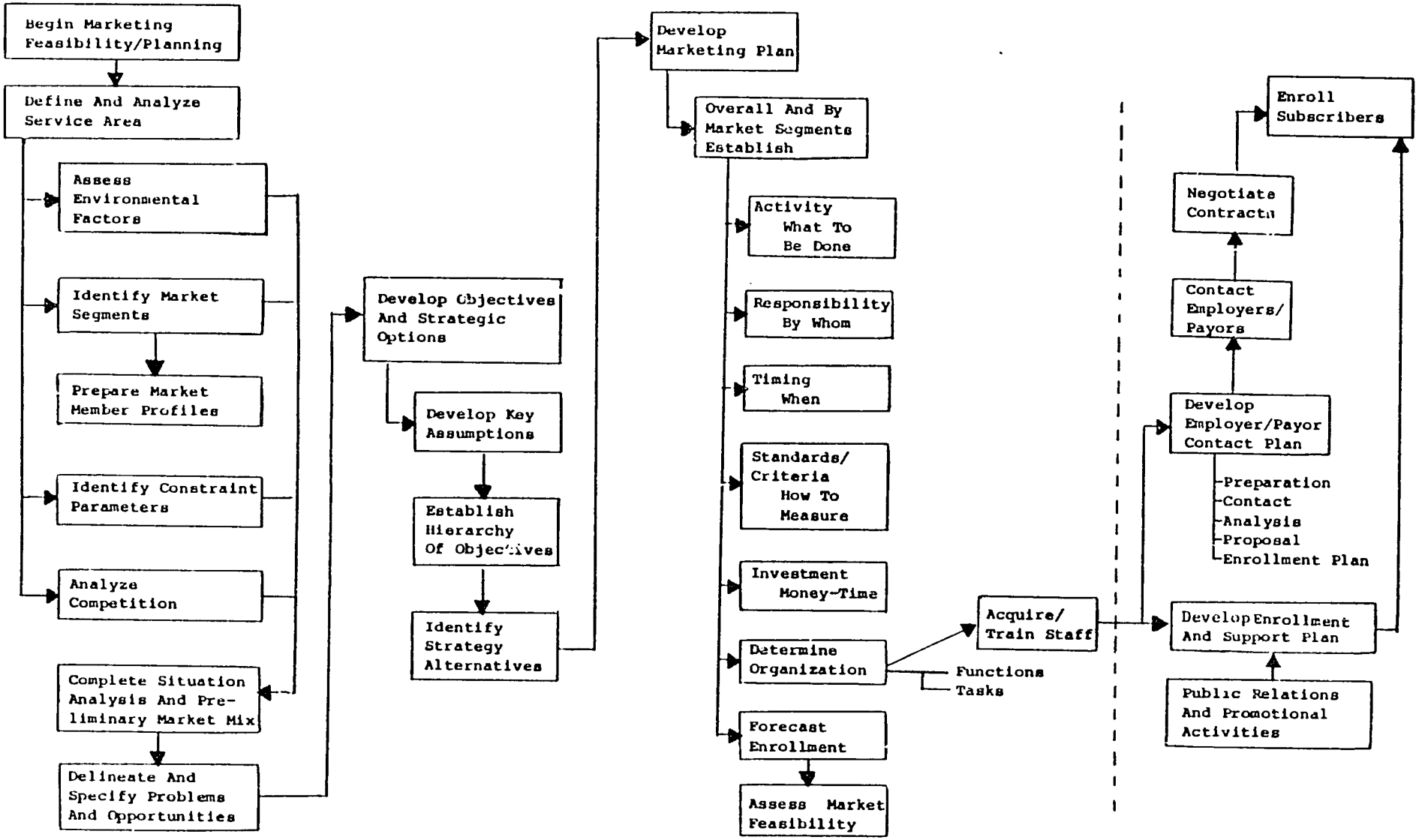
EXHIBIT 9-1

MAJOR ACTIVITIES HMO MARKETING FEASIBILITY/PLAN
SCHEMATIC OF STEPS



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 detrmine 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 timetables; 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.

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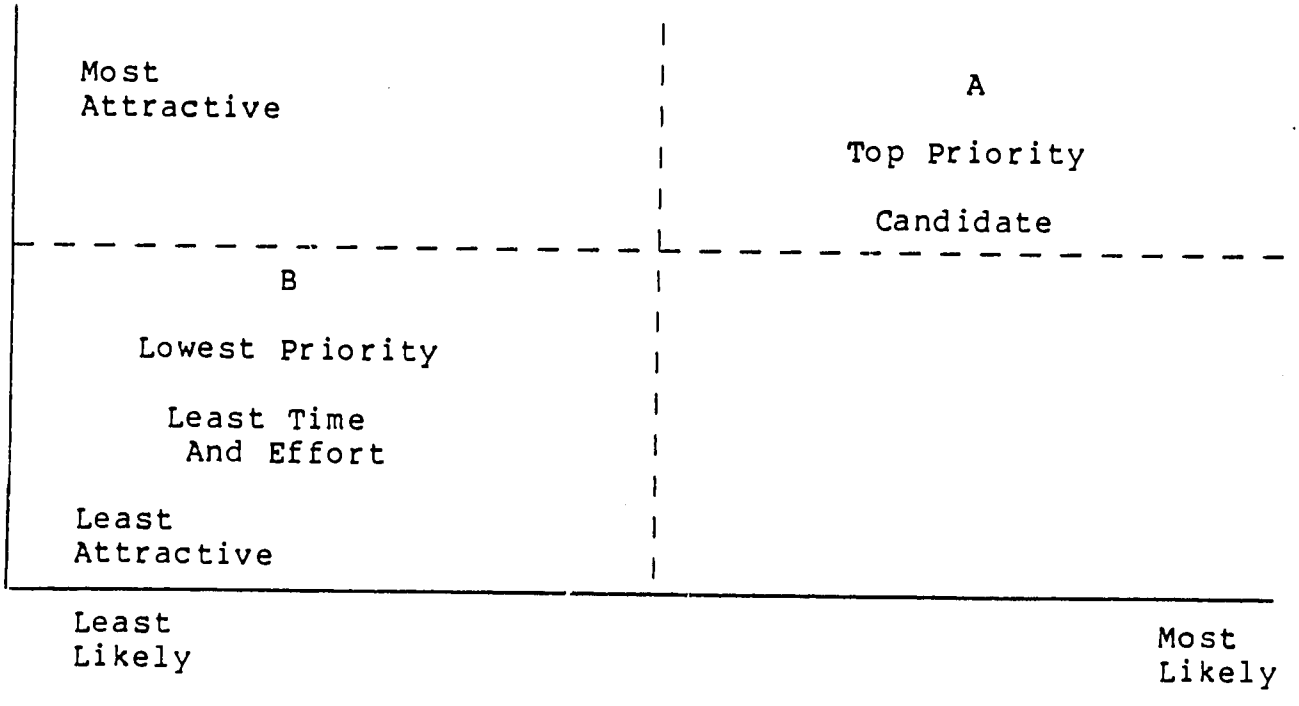
EXHIBIT 9-3

PROSPECT PRIORITY GRID

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.

Chart 1



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

Employer

1. Health care costs are high and increasing at an alarming rate.

2. Company has appointed a special task force, committee or project team to look at health care cost containment alternatives.

3. Headquarters city.

4. Concentration of employees in the area.

5. Company is active in civic and community affairs.

6. Employer has a comprehensive health benefits plan and pays all the costs.

Area

1. Medical care costs are high.

2. Surplus of hospital beds.

3. Shortage of primary care physicians.

4. Many major corporations have headquarters in the city.

5. There is strong employer, civic and community cooperation and spirit.

6. Access to, and availability of, medical care is perceived as a problem by community.

CHART 2

SUMMARY HMO SITE PROSPECT PRIORITY GRID

Most Attractive	**Employer(s)** 1. Company is concerned with health care costs (high, rapid increase) 2. Company has headquarters and substantial number of employees (2,000 plus) 3. Employee benefits manager strong and influential 4. Company active and involved in the community **Area** 1. Population relatively new and growing 2. Good transportation system 3. Primary physician care ratio 4. Surplus of hospital beds (low occupancy rate 5. No HMO in area now
Employer(s) 1. No major private sector employer with headquarters 2. Employers have low level benefits 3. Low wage scales (low discretionary income) 4. Health care costs not a major concern **Area** 1. Old, established, declining population 2. Old plant and facilities 3. Problems with tax structure and new business incentives 4. Several HMOs already in existence Least Attractive	

Least Likely — Most Likely

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.

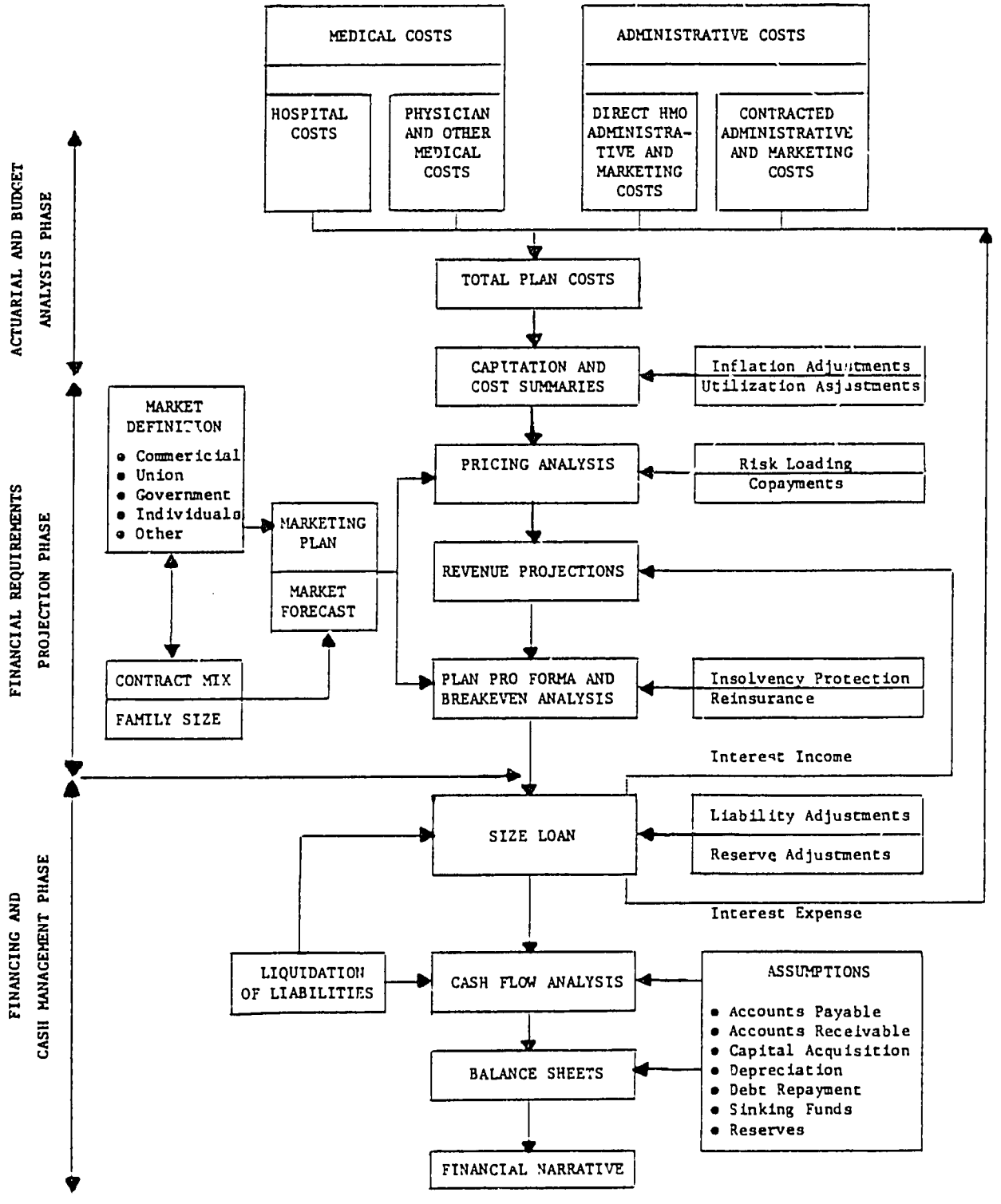
For the purposes of this general analysis, readily available information has been used such as that contained in Chapter V of Birch and Davis Associates, Inc., "A Guide to Health Maintenance Organization Feasibility." Several of the Birch and Davis Associates, Inc., exhibits are reproduced to illustrate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

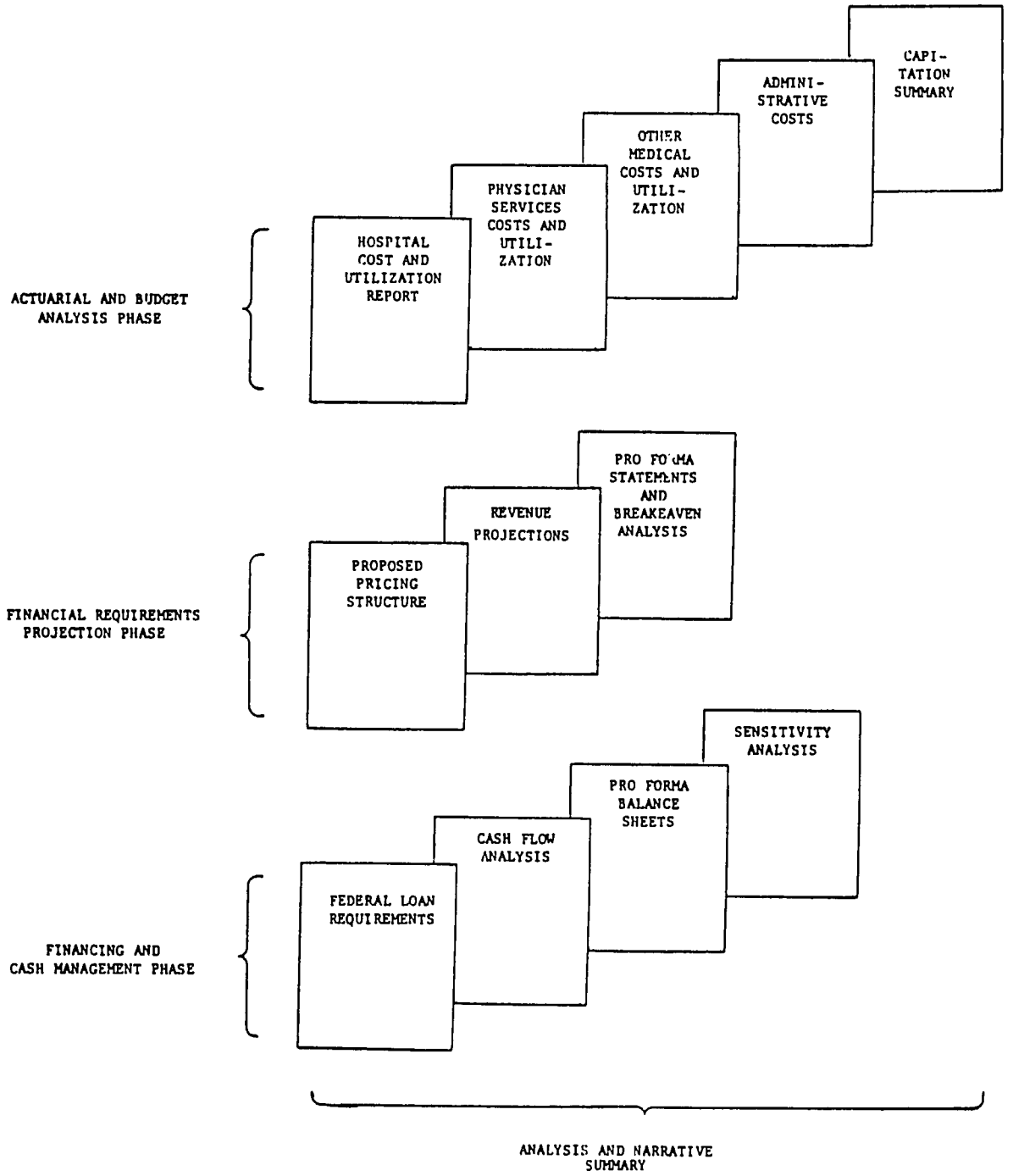
The marketing analysis bears both on the budget analysis and financial requirements projection phases. The scope of health services and their delivery stem largely from the market study and these services directly relate to the costs to provide care. In the case of financial requirements, the pricing 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.

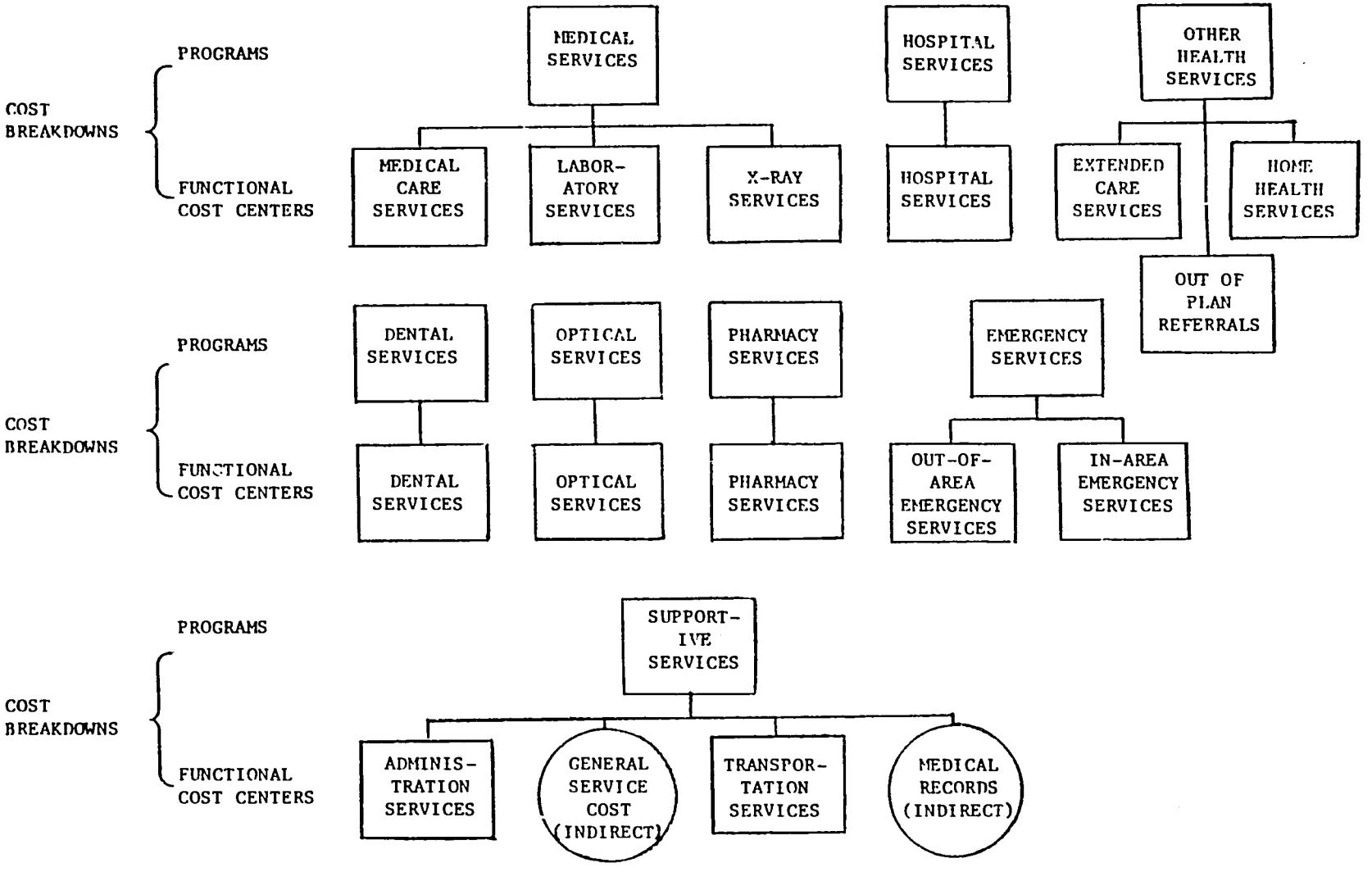
10.1 Establish Proposed HMO's Anticipated Costs

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

EXHIBIT 10-3

SAMPLE FUNCTIONAL COST CENTERS



Source: Adapted from Birch and Davis Associates, Inc.

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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,

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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.

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EXHIBIT 10-4

CATEGORIES OF ADMINISTRATIVE/MARKETING EXPENSES

- Salaries and Fringe Benefits
- Professional Services (Accounting, Actuary, Legal)
- Facilities/Occupancy (Lease plus Deprecation)
- 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.

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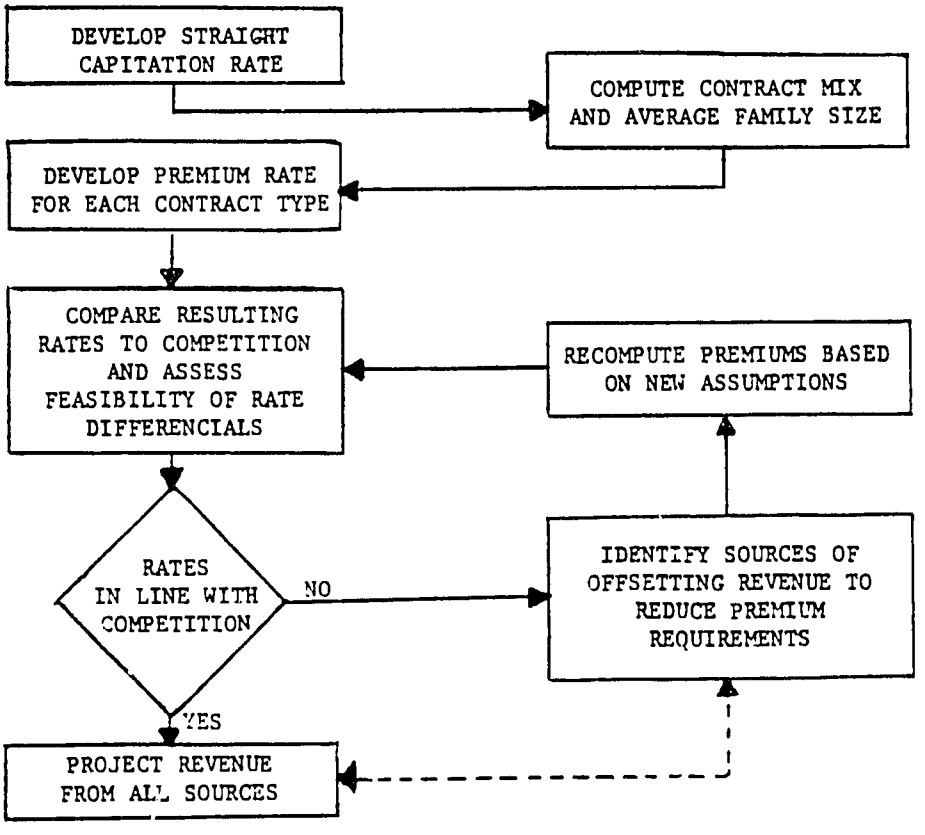
EXHIBIT 10-5

STEPS REQUIRED TO CONSTRUCT THE PREMIUM RATES



Source: Adapted from Birch and Davis Associates, Inc.

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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 reloaning 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[1/]

YEAR 2, MONTH 13-18

	(13)	(14)	(15)	(16)	(17)	(18)	Total	Per Capita
ENROLLMENT								
Membermonths	6,406	6,506	6,822	7,781	7,851	8,305	43,671	--
REVENUES								
Premium	243,049	257,939	271,865	316,847	319,763	339,416	1,758,879	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	7,504	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	3,535	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								
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	11,008	11,220	11,826	13,783	13,910	14,765	76,511	1.75
Data Processing	3,203	3,253	3,411	3,891	3,926	4,153	21,836	.50
Reinsurance	15,054	15,289	16,032	18,285	18,450	19,517	102,627	2.35
Bad Debt	253	258	272	317	320	339	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)								
Period	(108,009)	(108,478)	(88,302)	(75,450)	(75,942)	(76,175)	--	--
Cumulative	(873,596)	(982,075)	(1,070,376)	(1,145,827)	(1,221,769)	(1,297,944)	--	--
LOAN								
Loan Balance								
Proceeds	950,000	--	--	--	--	--	--	--
Repayment	--	--	--	--	--	--	--	--
Balance	1,725,000	1,725,000	1,725,000	1,725,000	1,725,000	1,725,000	--	--
Draw Down								
Period Draw	108,009	108,478	88,302	75,450	75,942	76,175	--	--
Cumulative	873,596	962,075	1,070,376	1,145,827	1,221,769	1,297,944	--	--
Escrow Account								
Deposit	950,000	--	--	--	--	--	--	--
Draw	108,009	108,478	88,302	75,450	75,942	76,175	--	--
Balance	851,404	742,925	654,624	579,173	503,231	427,056	--	--

1/ Source: Adapted from Birch and Davis Associates, Inc.

EXHIBIT 10-7

BREAKEVEN CHART

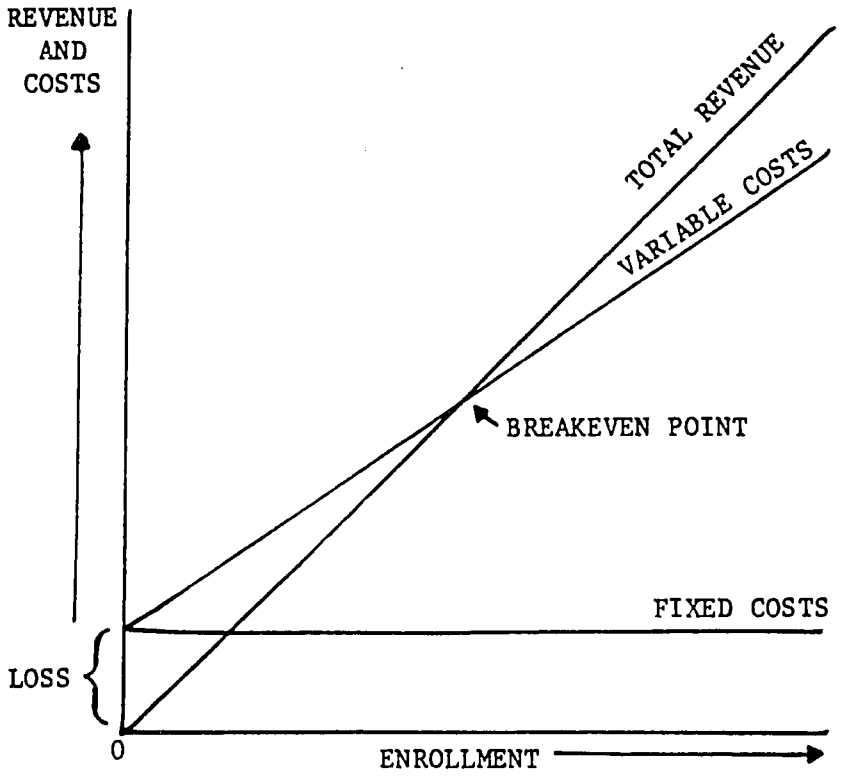

EXHIBIT 10-8

APPROACHING BREAKEVEN

END OF MONTH	PER CAPITA REVENUE	PER CAPITA EXPENSE	SURPLUS (DEFICIT) PER CAPITA
6	$45.69	$99.55	$(53.86)
12	43.35	68.95	(25.60)
18			
24	46.60	53.64	(7.04)
30	48.28	53.65	(5.37)
36	50.57	52.28	(1.71)
42	53.01	53.76	(0.75)
48	$55.70	$53.27	$ 2.43
54	58.82	57.74	1.08
60	$61.83	$57.60	$ 4.23

POST BREAKEVEN

Source for both exhibits: Birch and Davis Associates, Inc.

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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 determing 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.

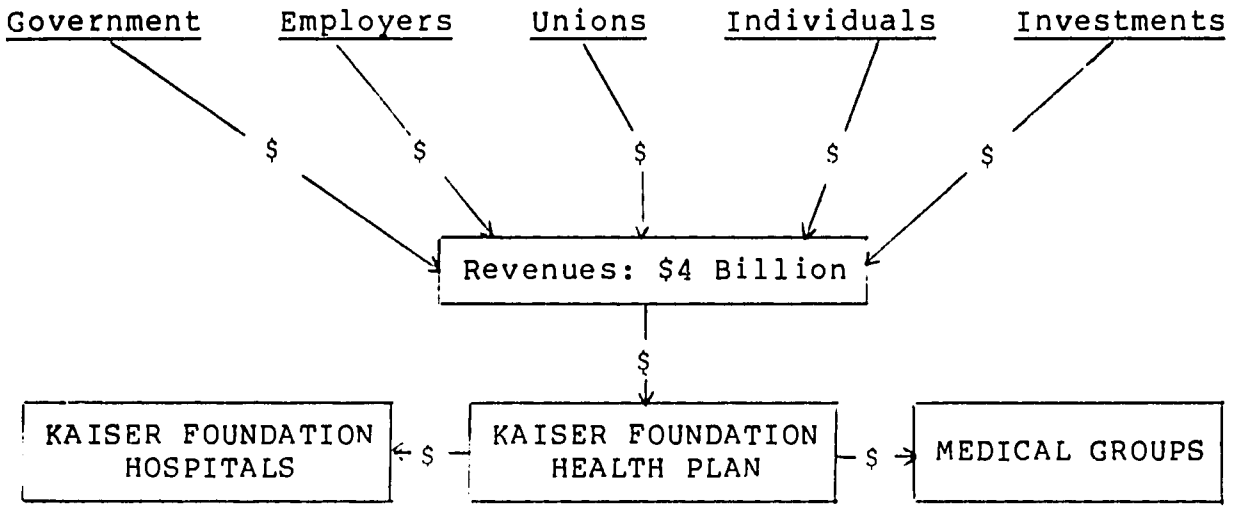
Having discussed various costs and sources of revenue for an HMO, it may be of interest to examine these from the most macro perspective for the world's largest HMO, the Kaiser-Permanente Medical Care Program. The program, with revenues of over $4 billion annually, serves a population in excess of four 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



Budgets For

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

Earnings

- Used to fund improvements and expansion

Provides

- Plan administration
- Contracts for members and with hospitals and medical groups
- Retirement program for all components
- Purchase of supplies and equipment for facilities and medical groups

Budgets For

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

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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.

11.0 ORGANIZATIONAL AND MANAGEMENT FEASIBILITY

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.

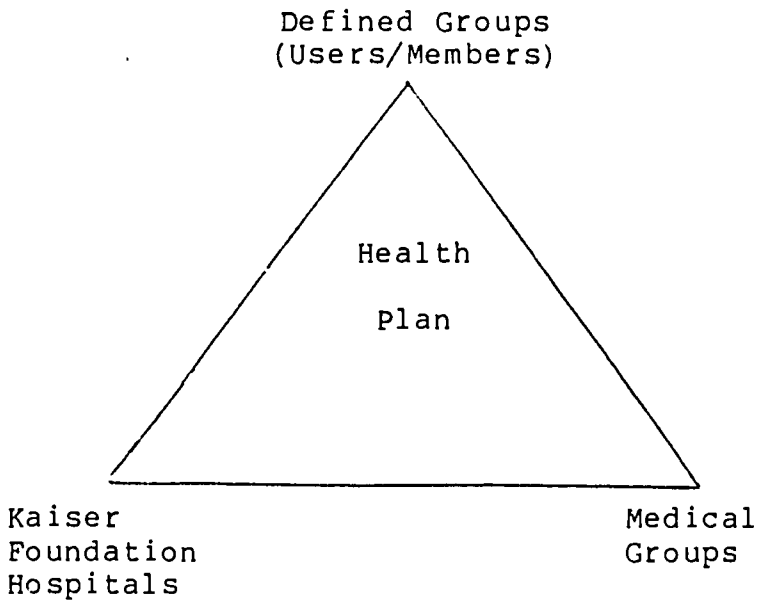
The factors that go into deciding which model is most appropriate in a given situation have been discussed in previous chapters. These include legal, financial, marketing, health service considerations, and others. The model that is selected will largely determine the management requirements and these 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 arragements 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.

EXHIBIT 11-1

KAISER-PERMANENTE MEDICAL CARE PROGRAM
FUNCTIONAL ARRANGEMENTS



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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;

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- 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

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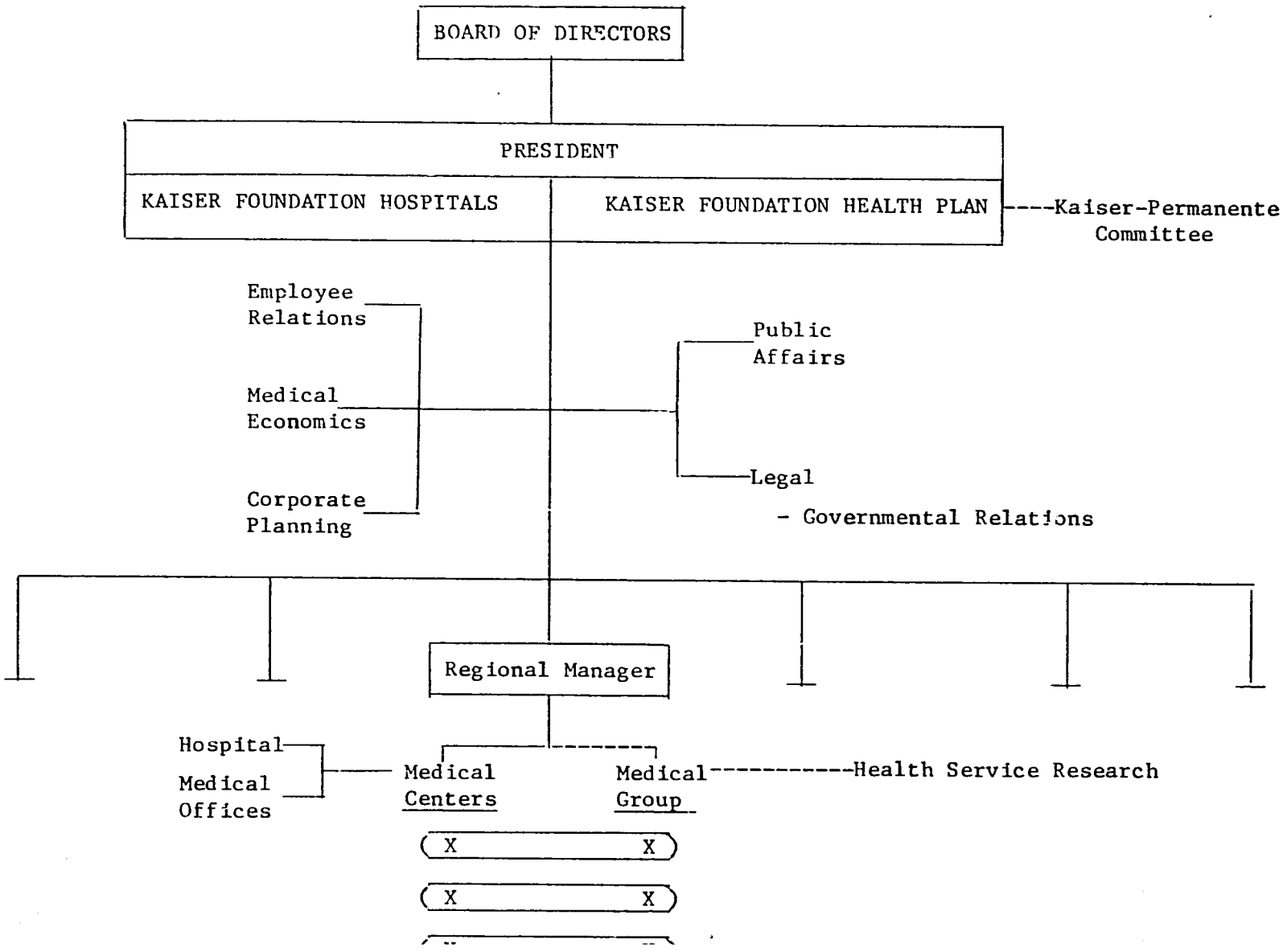
EXHIBIT 11-2

KAISER-PERMANENTE MEDICAL CARE PROGRAM



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.

12.0 MANAGING THE FEASIBILITY ASSESSMENT

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

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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 involement 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

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

. Preliminary suggestions for utilization control and quality assurance programs.

Exhibit 12-1 ...

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)

	Total Elapsed Time
_____, Physician, HMO Planner	
_____, Health Information Specialist	
_____, Hospital/Facility Administrator	
_____, HMO Manager	
_____, Survey Specialist	
_____, HMO Sponsor Representative	

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Exhibit 12-1 ...

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

Activity	Month 1	Month 2	Month 3
• Organize Assessment Team	X——X		
• Catalog Data Sources	X——X		
• Determine Health Status And Service Needs	X————	——X	
• Inventory Provider Resources (Facilities/ Physicians)	X————	——X	
• Meet Providers And Consumers	X————	————	——X
• Meet Government Representatives	X————	————	——X

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Exhibit 12-1 ...

Activity	Month 1	Month 2	Month 3
• Assess Health Services Feasibility	X———	———X	
• Design Health Services Plan		X——X	
• Decide On HMO Model		X——X	
• Design Recommended Provider Network		X———	———X

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 referall 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.

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Gary Gereffi
November 29, 1984
Gettysburg AID Health
Officers' Conference

Outline

THE PHARMACEUTICAL INDUSTRY AND ITS IMPACT IN LATIN AMERICA

I. Overview of the Global Pharmaceutical Industry

Worldwide production of pharmaceuticals: $84 billion in 1980.
- Developed market economies: 70%
- Centrally planned economies: 19%
- Developing countries: 11%.

Worldwide consumption of pharmaceuticals in 1980.
- Developed market economies: 70%
- Centrally planned economies: 16%
- Developing countries: 14%

International trade of pharmaceuticals: $14 billion in 1980.
- Developed countries (including centrally planned economies): 96% of world exports, 68% of world imports.
- Developing countries: 4% of world exports, 32% of world imports.

Pharmaceutical manufacturers: about 10,000 globally.
- Top 50 companies supply about 50% of total world shipments of pharmaceuticals
- Top 25 companies supply about 36% of the total.

The world's 50 largest pharmaceutical companies are all transnational corporations. They sell their products in foreign markets, and usually engage in manufacturing and research and development activities abroad as well.

Their distribution by country of origin in 1980 is as follows:

United States:	17 firms	$15.9 billion (pharmaceutical sales)	38% (of top 50 sales
Japan:	15 firms	$ 7.6 billion	18%
Federal Republic of Germany:	6 firms	$ 7.2 billion	17%
Switzerland:	3 firms	$ 4.7 billion	11%
United Kingdom:	4 firms	$ 3.4 billion	8%
France:	1 firm	$ 1.0 billion	3%
Others:	4 firms	$ 1.8 billion	5%
	50 firms	$41.6 billion	100%

The top 13 companies are all American, West German, or Swiss (see Table 1).

II. The Pharmaceutical Industry in Latin America

Pharmaceutical consumption per capita in Latin America varies considerably across countries (see Table 2).

- There is a moderately strong correlation between pharmaceutical consumption per capita and GDP per capita.
- Although the biggest countries in the region have the most pharmacies, the relationship between market size and the number of pharmaceutical products and presentational forms is quite uneven.
- All of the Latin American countries import substantial amounts of pharmaceuticals by value, but with the exception of Mexico they export very little.

The level of development of the pharmaceutical industry in Latin America and the Caribbean can be presented in terms of five different stages of vertical integration (see Table 3).

Each level of development has a distinctive set of constraints.

The degree of domestic owership in Latin American pharmaceutical industries like the extent of vertical integration, is relatively low (see Table 4).

- In all countries locally owned firms account for less than one-half of domestic drug sales.
- The distribution of medicines in Latin America moves predominantly through private channels.
- The twenty-firm concentration ratios in these countries tend to be higher than the corresponding indices for developed countries, although there is considerable variation within the region.
- The data on pharmaceutical employees and the number of laboratories suggest notable differences in productivity and capital intensity.
  E.g., Argentina, Chile, and Uruguay are far more productive in terms of pharmaceutical sales per employee than Ecuador or Peru.
- Domestically owned pharmaceutical companies are relatively strong, as evidenced by their rank amid all of the top drug firms at the national level, in Argentina, Chile, Venezuela, Uruguay, and Peru, and surprisingly weak in Brazil and Mexico.

III. Major Elements of an Integrated National Drug Policy

National drug policies should be viewed as part of broader health policies, which in turn are a key component of a country's overall development strategy.

Obviously, drugs cannot take the place of decent housing, clean water, sanitation, and overall improvement in living standards. The cycle of poverty, malnutrition and disease cannot be broken just by medicine, or indeed, by better health care alone. Drugs must be seen in their true role as partners in the provision of health care services.

In 1977 the World Health Organization (WHO) adopted a resolution calling for a global strategy to achieve health for all by the year 2000.

This ambitious goal was to be achieved through primary health care, as described by an International Conference on Primary Health Care held in Alma-Ata, USSR, in 1978.

As stated in the Declaration of Alma-Ata, primary health care includes at least eight basic elements, two of which (appropriate treatment of common diseases and injuries, and provision of essential drugs) relate directly to medicines.

Essential drugs are those considered to be basic and indispensible for the health needs of the population. According to WHO, which launched its Action Program on Essential Drugs in 1977, "they should be available at all times, in the proper dosage forms, to all segments of society."

WHO drew up a list of about 200 essential drugs, which developing countries were called upon to adopt and modify in accordance with their local needs.

It is believed that the establishment of national programs on essential drugs will improve the utilization of national resources in the health sector.

The establishment of a list of essential drugs is a first step in the implementation of a national drug policy.

Most countries in Latin America and the Caribbean have drawn up such a list for the public sector.

Experience has shown that centralized procurement schemes for the public sector lead to the rationalization of drug consumption, to the standardization of packing and presentations, and to considerable savings in the import of finished drugs and medicinal chemicals.

Pooled procurement by several cooperating countries can also provide significant savings.

An effective drug policy is intersectoral in nature.

In its implementation national drug policy requires the leadership of the Ministry of Health and the cooperation of other ministries (e.g., Planning, Industry, Finance) and related institutions.

It is desirable that the public and private sectors play complimentary roles in the implementation of a national drug policy, including production of essential drugs.

Brand names contribute to product proliferation and high prices in the pharmaceutical industry.

The use of international non-proprietary names (generic names) is becoming increasingly accepted both in developed and developing countries. This has resulted in substantial savings in the cost of health services.

The number and share of multisource (generic) drugs in the pharmaceutical market is increasing worldwide. Because of the ongoing expiration of patent this trend will continue.

Transnational corporations are the leading producers of multisource pharmaceuticals, and there are indications that this segment of the market is of growing interest to them.

This poses a challenge to small domestic companies who compete primarily in the generic market on the basis of price. Preferential government purchasing policies have been a major means used to support these indigenous producers.

Joint ventures can be an important mechanism for promoting the transfer of technology.

Recently, pharmaceutical firms from the most advanced countries in the Third World, as well as transnational corporations from some of the smaller developed nations (e.g., Sweden), have been particularly interested in setting up joint ventures in developing countries.

IV. Selected National Experiences

Argentina

Brazil

Mexico

Peru

Honduras

Table 1

The World's Fifteen Largest Pharmaceutical Companies, 1980

Company	Country of Origin	Pharmaceutical Sales[a] (US$ millions)	Profit (US$ millions)	Profit Margin (percentage)	R & D (US$ millions)	R & D as percentage of sales
1. Hoechst	FRG	2,413	NA	NA	660	4.4
2. Merck and Co.	USA	2,287[b]	607[g]	26.6	234	8.6
3. American Home Products	USA	2,193[c]	603[g]	27.5	102	2.5
4. Bayer	FRG	2,182	NA	NA	630	4.3
5. Warner-Lambert	USA	1,926[d]	271[g]	14.1	72	6.2
6. Bristol-Myers	USA	1,905[c]	379[g]	19.9	129	6.8
7. Ciba-Geigy	SWI	1,805	NA	NA	217	12.0
8. Pfizer	USA	1,644[d]	388[g]	23.6	160	5.3
9. Roche-Sapu	SWI	1,461	130[h]	3.0	389	11.8
10. Eli Lilly	USA	1,426[e]	330[g]	23.2	201	7.8
11. SmithKline	USA	1,376[b]	468[i]	30.1	136	7.7
12. Sandoz	SWI	1,339	114[h]	4.1	170	12.7
13. Boehringer-Ingelheim	FRG	1,267	27[h]	3.5	139	11.0
14. Rhone-Poulenc	FRA	1,255[b]	126[g]	9.9	302	4.5
15. Glaxo	UK	1,214[f]	194[j]	16.0	106	8.8

Source: IMS Pharmaceutical MARKETLETTER, 11 January 1982, p.4

Notes:

a) Sales figures are for human pharmaceutical preparations unless otherwise indicated.

b) Human and animal health.

c) Prescription and packaged medicines.

d) Health care.

e) Human health.

f) Includes food products.

g) Pre-tax segment of operating income.

h) Corporate net profit.

i) Operating income, health care.

j) Trading profit.

NA = Not available.

Table 2

Latin America: Pharmaceutical Industry Indicators, 1980

(Twelve Countries)

Countries	Pharmaceutical consumption per capita (U.S. dollars)	Number of products	Number of dosage forms	Number of pharmacies c/	Pharmaceutical exports (millions of U.S. dollars)	Pharmaceutical imports (millions of U.S. dollars)
ARGENTINA	68.8	3,400	7,000	7,100	34 c/	479
BOLIVIA	5.7	8,000	NA	NA	—	24
BRAZIL	12.7	5,043	10,843	12,600	40 b/	215
COLOMBIA	20.8	9,000	15,000	6,000	NA	30
COSTA RICA	13.3	6,000	NA	NA	NA	34 a/
CHILE	17.8	3,300	NA	1,400	—	38
ECUADOR	11.9	NA	NA	1,000	3.5	NA
MEXICO	15.7	NA	14,000	7,800	107	217
PARAGUAY	13.3	2,993	NA	NA	—	22
PERU	11.3	NA	10,500	2,000	NA	NA
URUGUAY	32.1	2,400	4,300	820	1.9 c/	14 c/
VENEZUELA	18.1	5,200	12,500	2,600	1.2 c/	

Source: Asociación Latinoamericana de Industrias Farmacéuticas, 1981: 12, 15.

Notes:
a) 1977.
b) 1978.
c) 1979.

NA = Not available.

Table 3

Levels of Development of the Pharmaceutical Industry in Latin America and the Caribbean, 1979

STAGE OF PHARMACEUTICAL PRODUCTION	COUNTRIES
Group 1 Countries which have no manufacturing facilities and therefore are dependent upon imported pharmaceuticals in their finished form. In many of these countries there is insufficient trained personnel, limited public health services and poor distribution channels	Dominica Grenada
Group 2 Countries which have started to repack formulated drugs and process bulk drugs into dosage forms	Bolivia Costa Rica El Salvador Guatemala Haiti Trinidad & Tobago
Group 3 Countries which manufacture a broad range of bulk drugs into dosage forms and manufacture some simple bulk-drugs from intermediates	Colombia Ecuador Peru
Group 4 Countries which produce a broad range of bulk drugs from intermediates and who manufacture some intermediates using locally produced chemicals	Chile Cuba Venezuela
Group 5 Countries which manufacture most of the intermediates required for the pharmaceutical industry and undertake local research on the development of products and manufacturing processes	Argentina Brazil Mexico

Source: United Nations Industrial Development Organization, 1978: 3, revised and amended.

Table 4

Latin America: Pharmaceutical Market Size and Market Share Data, 1980

(Twelve Countries)

Country	Pharmaceutical sales (millions of U.S. dollars)	Number of laboratories	Market share of the 20 largest laboratories (percentage)	Market share of the nationally-owned laboratories (percentage)	Rank of the 4 largest nationally-owned laboratories	Sales to the private sector (percentage of total sales)	Sales to the public sector (percentage of total sales)	Employees
RGENTINA	1,920	225	52%	47%	1, 3, 10, 16	92%	8%	37,000
OLIVIA	32	12	—	NA	NA	50%	50%	NA
RAZIL	1,554	489 a/	46%	22%	7, 24, 30, 54	80%	20%	62,000
OLOMBIA	560	325	53%	12%	NA	70%	30%	15,000
OSTA RICA	28	13	82% c/	18%	NA	70%	30%	NA
HILE	198	41	74%	42%	1, 2, 5, 14	80%	20%	5,970
CUADOR	96	75	62%	11% b/	1, 19, 34, 49	NA	NA	6,000
EXICO	1,100	315	45%	28%	31, 36, 48, 51	77%	23%	43,000
ARAGUAY	40	24	—	NA	NA	90%	10%	NA
ERU	200	80	61% d/	26%	4, 10, 19, 27	75%	25%	17,000
RUGUAY	94	69	71%	39%	10, 12, 15, 18	80%	20%	2,860
ENEZUELA	270	75	48%	22%	2, 5, 17, 23	74%	26%	7,600

Source: Asociación Latinoamericana de Industrias Farmacéuticas, 1981: 12, 15.

Notes:
a) 1978.
b) 1979.
c) In 1977 only three laboratories accounted for 82 percent of total production.
d) The 25 largest laboratories

NA = Not available.

Reprinted with permission from Gary Gereffi, "The Global Pharmaceutical Industry and Its Impact in Latin America," in Profits, Progress and Poverty: Case Studies of International Industries in Latin America, edited by Richard Newfarmer (Notre Dame: University of Notre Dame Press, 1985), pgs.280-297.

THE PHARMACEUTICAL INDUSTRY IN LATIN AMERICA

Latin America is a very diverse region. This diversity is evident with regard to health and development indicators, as well as in the structure and performance of national pharmaceutical industries. Some of these differences, along with important underlying similarities, will be outlined below.

Pharmaceutical consumption per capita in Latin America varies considerably across countries. Nonetheless there appears to be a moderately strong positive correlation between pharmaceutical consumption per capita and gross domestic product (GDP) per capita (see table 8.2). While the biggest countries in the region have the most pharmacies, the relationship between market size and the number of pharmaceutical products and presentational forms is quite uneven. Bolivia offers the second largest number of drug products in Latin America (8,000) even though it has one of the smallest populations and the lowest GDP per capita. Colombia sells more than twice as many dosage-form pharmaceuticals as Argentina yet has fewer inhabitants, while Brazil and Peru offer similar numbers of dosage-form medicines despite the fact that the former nation has over seven times as many people as the latter. All of the Latin American countries import substantial amounts of pharmaceuticals by value, but with the exception of Mexico they export very little.

One of two complementary strategies normally followed when developing nations begin to establish a local drug industry. The first strategy is vertical integration which, in its usual backwards direction, means increasing the productive capability of the local industry starting with packaging, working up to various kinds of dosage formulation, and ending with the manufacture of bulk drugs or intermediate chemicals. A second approach involves the use of ownership controls, which require domestic production facilities to be at least partly held by national capital (private or governmental). Whereas vertical integration affects the level of development reached by Third World countries, ownership controls try to shape its direction by tempering the global norms of TNCs with the nationalist orientation of local entrepreneurs.

Table 8.3 presents the level of development of the pharmaceutical industry in Latin America in terms of five different stages of vertical

integration. Each level of development has a distinctive set of constraints (UNIDO 1979, pp. 11-12). At the first or lowest level, the resources made available for health care from the national budget are very limited and there is a serious shortage of trained personnel. Countries at this level tend to have small national markets, unrestricted imports, proliferation of different brand named products, and no national policy concerning the drug industry. Countries that have reached the second and third stages of development have difficulty obtaining suitable formulation technology, bulk drugs and raw materials on reasonable terms and they may also have trouble convincing doctors and patients of the quality of domestically produced drugs. For the nations that have reached the fourth or fifth stages of pharmaceutical industry development, the constraints are essentially the same. In large countries where packaging and chemical industries are already well established, there is a move to begin local production of the equipment and machinery used by the pharmaceutical industry. Manufacturers in Argentina, Brazil, Egypt, India, and Mexico are willing to sell pharmaceutical plants to other Third World nations (UNCTC 1979, p. 91). India is on the forefront of this movement. It has begun to concentrate on producing plants of small-scale capacity (less than one ton per day) that can make a variety of chemically related synthetic drugs on a batch basis.

The degree of domestic ownership in Latin American pharmaceutical industries, like the extent of vertical integration, is relatively low as table 8.4 indicates. In all countries locally owned firms account for less than one-half of domestic drug sales. Nationally owned pharmaceutical laboratories are strongest in Argentina where they nearly match their TNC rivals in sales volume, and weakest in Ecuador and Colombia where local market shares are barely over 10 percent. Brazil and Mexico, which like Argentina have relatively large pharmaceutical markets in terms of sales, nonetheless have a much lower level of participation by locally owned laboratories in total industry output. The strength of domestically owned pharmaceutical firms in the region is further evidenced by their overall size amid all of the top drug firms at the national level. In Chile there are four local laboratories among the top fourteen pharmaceutical enterprises in the country, and in Argentina there are four local companies among the top sixteen drug firms. Uruguay, Venezuela, and Peru also have a number of prominent nationally owned laboratories. The domestic drug industries in Brazil and Mexico are shown to be weak according to this measure, however, with the largest Brazilian-owned laboratory ranking seventh and Mexico's biggest local drug firm standing thirty-first on their respective national lists.

Several additional findings can be gleaned from the table. First, the distribution of medicines in Latin America moves predominantly through private channels. With the exception of Bolivia, at least 70 percent of pharmaceutical sales goes to the private sector. Nevertheless, in several nations like Mexico and Brazil the public sector demand for medicines is growing faster than the private sector market, and a

number of the largest local pharmaceutical enterprises are state-owned. Second, the twenty-firm concentration ratios in these countries tend to be higher than the corresponding indices for developed countries, although there is considerable variation within the region with the smaller nations showing much higher levels of concentration. Finally, the data on pharmaceutical employees and the number of laboratories suggest notable differences in productivity and capital intensivity. Argentina, Chile, and Uruguay, for example, are far more productive in terms of pharmaceutical sales per employee than Ecuador or Peru.

In order to increase the degree of local ownership, Third World countries have been promoting joint ventures between TNCs and domestic companies. Small and medium-sized firms in the developed countries have started to help developing nations industrialize, particularly through the mechanism of technology transfer. Swedish firms appear to have taken a lead in this area. Astra, a Swedish drug company that already has manufacturing facilities in Argentina, Brazil, and Mexico, has proposed to be a 26 percent joint-owner with an Indian pharmaceutical company and Nitro-Nobel, another Swedish firm, in order to manufacture clofazimine (a leprosy treatment) in India. When Ciba-Geigy, which holds the patents on clofazimine, refused to transfer its rights or knowledge, Astra offered to help develop a production method based on know-how that bypasses the restrictive patents. The project may take one or two years with an annual cost of about $1 million (Developing World Industry and Technology, Inc. 1979, p. 23). While TNCs normally transfer technology only through wholly owned subsidiaries or majority-owned joint ventures, SweDrug Consulting is involved in several projects in Cuba and the Arab countries in which it is either a minority shareholder or has received a lump-sum payment for its expertise (Agarwal 1978, pp. 49-50). The Swedish health ministry is trying to set up another enterprise to provide developing nations with technical assistance to improve the organization, distribution, administration and management of their incipient pharmaceutical supply systems. On the whole, the pharmaceutical industry in Latin America and other developing nations has made a limited contribution to national industrialization. There are signs that this may be changing, however, as smaller firms from the developed countries have begun accommodating demands from the developing nations for increased production capacity.

A wide range of policies has been employed to develop the pharmaceutical industry in Latin America. Although the private sector is generally predominant, the role of the state in the purchasing, production, and distribution of medicines has varied considerably.

The cases of Mexico, Brazil, Costa Rica, and Cuba are discussed below because they illustrate the types of state initiatives being undertaken in both large and small countries to assure a continuing supply of essential pharmaceutical products, to reduce the cost of drugs, and to increase local industrialization. With the significant exception of Cuba, most countries of the region have sought to attain these goals without seriously threatening the interests of private pharmaceutical firms.

Mexico

In Mexico, where drug sales totaled over $1 billion in 1980 (75 percent in the private sector and 25 percent in the public sector), local consumption of finished pharmaceuticals was almost fully met by local production. Over half of the raw materials used are still imported, however, and TNCs account for about 85 percent of total sales and an even larger share of Mexico's pharmaceutical exports. Thirty-eight of the forty largest pharmaceutical companies in Mexico are foreign-owned (Gereffi 1982). Despite the fact that Mexico is one of the leading Third World exporters of pharmaceutical products, the absolute level of its drug imports greatly exceeds drug exports and thus the country has experienced a steadily growing negative trade balance in the pharmaceutical sector (de Maria y Campos 1977, p. 898).

In response to this high level of TNC dominance, the Mexican government has taken a series of measures between 1972 and 1982 to try to reduce the impact of foreign subsidiaries and increase domestic control of the industry. These include three new laws, the creation of two state-owned enterprises (Proquivemex and Vitrium) to control the commercialization of barbasco and the manufacture and distribution of basic pharmaceutical products, the formation of an Intersecretarial Commission for the Pharmaceutical Industry as a technical coordinating organism for public sector activities, and the establishment and initial implementation of an essential drug list to standardize public sector purchases of basic medicines according to their generic name and in the dosages and presentational forms (tablets, capsules, injectable solutions, etc.) most often used.

Of the three laws, the 1972 Technology Transfer Law is generally considered to be the most successful. It established a National Registry of Technology Transfer to review all agreements in which a foreign company charges a Mexican company for technological or marketing know-how. If an agreement is judged too harsh in terms of price, duration, export restrictions, purchase requirements, etc., it is denied

the market share of Mexican firms from 30 to 50 percent and to increase the local equity share of Mexican capital from its current level of 28 percent to at least 51 percent, to raise the share of local inputs to at least 50 percent of the total production cost of pharmaceuticals; to limit royalty payments to a range of 0.5 to 3 percent depending on the type of product and the percentage of equity held by foreign firms; to standardize public-sector purchases through use of the essential drug list; and, to divide the Mexican market for pharmaceutical products into three types—private, public, and social interest (composed of indigent persons who neither work for the government nor are covered by social security)—with lower prices for identical drugs in the latter two markets.

In order to help implement this sectoral program, the Mexican government announced in 1981 that it was setting up a second state pharmaceutical company called Vitrium (*Diario oficial* October 27, 1981). Vitrium is, in a number of respects, a far bolder initiative than Proquivemex whose primary function was to control barbasco supply (Gereffi 1978 and 1983). Capitalized at P $30 million (US$1.2 million), Vitrium will be 75 percent owned by the Mexican government and 25 percent owned by a Swedish state pharmaceutical enterprise, KabiVitrium. The new Mexican firm will be responsible for the manufacture, import, and distribution of basic pharmaceutical products. The decision to create Vitrium was based in part on the findings of a study of pharmaceutical production and requirements in Mexico over the period 1979 to 1986. The study estimated that pharmaceutical consumption in the public sector will grow at twice the rate of that for the private sector and that current installed capacity in the country is insufficient to meet the 1986 demand for drugs (*SCRIP* November 23, 1981, p. 7).

A coordinated, intersectoral effort is being made in Mexico to increase the share of domestically owned firms in pharmaceutical production, to foster the development of local research and technology, and to reduce royalty and technical assistance payments to foreign countries. Mexico's achievements in these areas have required major legislative initiatives at the highest levels (including presidential decrees) in order to promote an integrated plan for the development of the industry. Whether the country will be successful in implementing these objectives remains to be seen.

Brazil

The Brazilian pharmaceutical industry went through a major period of denationalization between 1957 and 1977 when thirty-four

registration. Most of the proposed agreements that have been rejected are redrawn and submitted on terms more favorable to Mexico. The 1973 Foreign Investment Law required that all new foreign enterprises have at least 51 percent Mexican capital irrespective of activity. Despite the intent of this law, however, the vast majority of pharmaceutical firms in Mexico remained wholly owned by foreigners as late as 1977 (Gereffi 1982, tables 5 and 6). This apparent anomaly is explained by a "grandfather clause" in the 1973 law which stipulates that companies established prior to the law will not be affected by the Mexicanization requirement unless and until they decide to expand their operations. This expansion will be treated as a new investment, which means it will be approved only if the foreign enterprise sells a majority share of its stock to Mexicans. Since almost all of the principal pharmaceutical firms in Mexico were set up before 1973, the original owners can retain full control of their company. The Mexican market for drugs is growing rapidly, though, and existing TNCs will be forced to increase the size and scope of their activities just to keep pace. Sooner or later, they will have to give up their long-standing resistance to Mexicanization or withdraw from the market altogether.

The 1976 Law on Inventions and Trademarks is a very ambitious piece of legislation that reduces the period of patent protection in Mexico from fifteen years to ten years, and requires that patents be exploited within four years of the date they are issued or they will expire and fall into the public domain. Trademarks, under the 1976 law, will be registered for five-year periods. Registered trademarks may be renewed indefinitely every five years provided that it can be shown they have been in use in the previous period.

Although its ostensible objective is to "promote and regulate the pharmaceutical industry so that its development contributes to solving health problems at the national level," the Intersecretarial Commission for the Pharmaceutical Industry in fact represents the first governmental body entrusted with formulating policy for the industry as a whole in Mexico. The main lines of policy developed and supported by the Intersecretarial Commission are found in the "Program to Promote the Pharmaceutical Industry" (*Diario oficial* April 25, 1980). This program sets forth objectives for the period 1980 to 1983. While the program is quite comprehensive, its main goals can be summarized as follows: to increase the annual output of pharmaceutical firms at a rate of 15 to 20 percent and to export between 5 and 20 percent of this output, the lower percentage in each case referring to finished drugs and the higher percentage to active ingredients; to keep imports of finished drugs at the present level of 3 percent of local consumption and restrict the importation of raw materials; to increase

of the largest domestic firms were acquired by TNCs. In the hope of increasing the competitiveness of local firms *vis-à-vis* their foreign rivals, Brazil completely abolished patent protection for pharmaceuticals in 1969. A decade after the introduction of the ban, the ten largest national drug companies had increased their share of the market by close to 10 percent. This trend was broken, though, when two of the firms were acquired by TNCs in 1978 and 1979. It is interesting to note that despite the ban on patents, foreign investment in the pharmaceutical sector rose from $113 million in 1971 to $646 million in 1979, one of the highest growth rates of any industry in Brazil. This seems to contradict the argument of those who contend that the absence of patents will keep foreign investors away. In the area of trademarks, Brazil tried to prohibit brand names from being used for drugs containing a single active ingredient. The legal challenge to this measure by TNCs was upheld in the courts and the Brazilian Parliament subsequently enacted a less restrictive bill on trade names in 1977 (UNCTC 1981, pp. 41-42).

The Brazilian "triple alliance" (Evans 1979) between TNCs, the state, and local private capital has led to an unusual compromise arrangement between a rationalized drug list and free market forces involving the state-owned enterprise Central de Medicamentos (CEME) (Evans 1976, pp. 133-136, Ledogar 1975, pp. 61-67). Central de Medicamentos was created in 1971 under the direct responsibility of the president of the republic. CEME's role was elaborated in the four volume Master Plan for Pharmaceuticals. In order to satisfy its original objective of social service for the poor majority in Brazil, CEME set out to rationalize the procurement of medicines for the hospitals and clinics associated with Brazil's system of state medical assistance—the Instituto Nacional de Previdencia Social—and to provide free prescription drugs to the poorest of the institute's clients. In addition, the Master Plan proposed reviving approximately 20 state-owned laboratories and giving preferential treatment to local companies, with the ultimate goal of having the country manufacture most of its own pharmaceutical raw materials by the end of the decade. Other provisions in the plan included tight controls on the sale and promotion of drugs, regulations on the content of drug package inserts, and restrictions on the distribution of free drug samples.

Only part of the Master Plan was ever put into effect and it was done in a way that did not threaten the dominant position or continued growth of private (and especially foreign) drug firms. In 1973 CEME distributed medications to 9 million people. Its target group were those people receiving the official minimum wage or less—in other words, exactly that segment of the population that is normally

excluded from the commercial market for medicines. Thus CEME was not likely to take any customers away from private firms. To the contrary, CEME's activities probably stimulated the expansion of the commercial market. A large share of the medications distributed by CEME not produced by public laboratories but purchased from private companies, many of them foreign-owned. In 1973 CEME increased private-sector sales by a total of $3.5 million (Evans 1976, p. 135). Furthermore, whereas the logic of profitability for private firms lies in maximizing product differentiation, CEME's strategy was quite the opposite: to limit the number of medicines it deals with, concentrating on those needed for the diseases most prevalent among the population it serves. The Master Plan initially contained a list of 134 pharmaceutical products accounting for about three-quarters of the cost of national drug imports in 1971. To the extent that CEME might try to manufacture these products domestically through its system of public laboratories, the only private enterprises likely to suffer would be locally owned ones whose output is less technologically advanced and not the foreign subsidiaries of TNCs.

CEME's budget has risen from 65 million cruzeiros in 1972 to 11.9 billion cruzeiros (US$192 million) in 1981 (CEME *Relatório 1981*). CEME coordinates a network of 22 state laboratories that supply it with essential medicines, which it distributes in 3,750 of the 3,975 Brazilian municipalities. Drug purchases by CEME in 1981 represented about 12 percent of total pharmaceutical sales in Brazil, although this probably undervalues the state firm's importance because its prices are much lower than those prevailing in the commercial market. Sixty-two percent of the medicines distributed by CEME are supplied by the state laboratories, 31 percent come from private drug companies in Brazil, and the remaining 7 percent are imported (ALIFAR 1982a, pp. 7-8). In addition to compiling the essential drug list that currently contains over 400 products and coordinating the activities of the 22 public sector pharmaceutical units, CEME is responsible for the central procurement of medicines, quality control of supplies, the setting of priorities in raw material manufacture, and the modernization of production and distribution facilities. Between 1971 and 1981 CEME spent $1.1 million on state drug research programs (*SCRIP* March 10, 1982, p. 11). CEME approved eight new research and development projects during 1981 with a total value of nearly $600,000, over half of the amount spent in the previous ten years (ALIFAR 1982a, p. 8). Late in 1981 an Interministerial Group on the Pharmaceutical Industry was established in Brazil to develop the national pharmaceutical industry and to promote greater self-sufficiency (*SCRIP* January 27, 1982, p. 9).

The case of CEME in Brazil shows how a government-sponsored procurement scheme, if given political support and sufficient financial and technical resources, can simultaneously rationalize drug purchasing and distribution in the public sector as well as contribute to the country's pharmaceutical research capabilities. The purchasing power of CEME can also be used to influence the production profile of Brazil by stimulating national companies to manufacture essential drugs.

Costa Rica

Costa Rica is an example of an ambitious attempt by a small Latin American nation to implement a series of reforms in the importation, distribution, and export of pharmaceutical products (UNCTAD, 1982). In the late 1960s drug imports supplied virtually all of Costa Rica's demand for medicines and local manufacturing was negligible. By 1977 total local production had grown to $21 million and half of this output was exported by TNCs to other Central American countries, thereby making pharmaceutical products Costa Rica's leading manufactured export in 1975. In addition, the Costa Rican Social Security Fund (Caja Costaricense del Seguro Social or CCSS) now provides health care coverage for 85 percent of the population, it is the country's major purchaser of imported finished drugs, it has set up its own quality control laboratory to inspect imported as well as locally produced medicines, and it has achieved considerable foreign exchange savings through public tenders and bulk purchasing. In order to understand the reasons for Costa Rica's apparent success in pharmaceuticals and also some of the attendant shortcomings, one needs to look at the division of labor that has evolved between TNCs, local private capital, and the state.

The national consumption of pharmaceutical products was $36 million ($17 per capita) in 1977. Seventy percent of this domestic demand was met through imports and the remaining 30 percent by local production. Transnational firms are predominant in local production with three foreign-owned laboratories accounting for 82 percent of Costa Rica's total drug output of $21 million in 1977. Although Costa Rica had not been of much interest to TNCs before 1960, several firms came in after the country joined the Central American Common Market (CACM). Besides allowing for the free flow of goods within an enlarged regional market, the CACM offers pharmaceutical companies a generous package of fiscal incentives if they set up manufacturing operations. Three pharmaceutical TNCs use Costa Rica as a base to export between 50 and 85 percent of their

production to other CACM countries. Two of the TNCs specialize in the manufacture of ethical drugs, while the third produces over-the-counter pharmaceuticals for the domestic market and makes ethical drugs for export only. The foreign exchange earned from these exports was about $10 million in 1977, but almost all of these export earnings ($9.4 million) were absorbed by imports of raw materials and other inputs required in the production process. Thus the trade balance advantage to Costa Rica from the TNCs' pharmaceutical exports was very small.

The ten domestic pharmaceutical companies in Costa Rica supply 18 percent of all drugs produced locally. The nature of their contribution has changed radically since the entry of the transnationals, however. Unable to cope directly with large-scale foreign production units, Costa Rica's nationally owned laboratories have taken one of three courses of action: (1) most stopped producing drugs as their main activity and instead began making cosmetics under licensing arrangements with TNCs; (2) others specialized in the manufacture of popular remedies that had limited therapeutic effect and did not involve competition with the foreign firms; and (3) a few laboratories began to produce generic drugs for CCSS, thus tying their financial security to the purchasing policies of the state social security agency. In short, national firms in Costa Rica's pharmaceutical industry shifted to cosmetics, over-the-counter products, or generics—if they survived at all. The three TNCs, on the other hand, have limited their production to formulating and packaging imported raw materials and semi-finished drugs despite the larger scale of output made possible by the CACM. As a result, Costa Rica continues to import more than two-thirds of the finished drugs it consumes and up to 95 percent of the raw materials needed for local formulation and packaging (ALIFAR 1981, p. 23).

One of the important lessons that can be learned from the Costa Rican experience is the role played by CCSS in acquiring bulk drugs and in using public tenders for that purpose. Created in 1941, the social security agency has increased its health-related coverage of the population from 47 percent in 1970 to 85 percent in 1979. It has been responsible for the procurement and distribution of bulk and finished drugs, it conducts its own formulation and research activities, and it has adopted a list of essential drugs that serves as a guideline for imports and local production. In 1978 the savings to the public sector made possible by CCSS's public tender purchases of drugs were estimated at $3.2 million—i.e., 27 percent of the total value of 1978 orders. The average market price for imported pharmaceuticals (after adjusting for inflation, wholesale and retail margins, and import tar-

iffs) was still three times higher than CCSS's procurement prices. To achieve these savings Costa Rica's social security agency has moved to suppliers of generic drugs whenever possible without sacrificing quality. This is expected to eventually help national firms increase their share of the local market.

Cuba

An examination of the pharmaceutical industry in Cuba illustrates, even more than the Costa Rican case, the profound impact of a strong state sector on pharmaceutical purchasing, production, and distribution. When Costa Rica began to transfer health care to the public sector under the auspices of its social security agency, it did so within a capitalist framework. Cuba, on the other hand, underwent a radical socialist transformation in 1959. This transformation has affected all areas of Cuban society, and the health-pharmaceutical sector is no exception.

According to a recent report prepared by Cuba's Ministry of Public Health for UNCTAD (1980), the health situation in Cuba before 1959 was a dismal one. Life expectancy was between fifty and sixty years, and the infant mortality rate was 70 for every 1,000 live births. Health care was almost totally unavailable in rural areas where it was most needed and instead was concentrated around Havana where the highest profits were to be made. The pharmaceutical industry was dominated by transnational firms that controlled about 70 percent of the market. Seventy to 80 percent of the pharmaceuticals consumed in Cuba were imported as finished products and drug prices were very high. The few drugs produced locally were often of poor quality, there was almost no use of Cuba's raw materials as pharmaceutical inputs, and Cuban technical personnel were badly trained.

This situation has changed considerably. Important steps have been taken in the fight against infectious and parasitic diseases, leading to dramatic reductions in Cuba's mortality and morbidity rates. The annual pharmaceutical consumption per capita in the late 1970s was $37.40 which compares favorably with many highly industrialized countries. The improvements in health conditions within Cuba can be attributed to three main factors: (1) the growth and increased activity of the public health sector; (2) the extension of effective health care to rural areas; and (3) the establishment and expansion of a national pharmaceutical industry. Of particular importance in the Cuban case is the attempt to fuse the pharmaceutical and health sectors into an integrated whole.

As might be expected in a state socialist system, the establishment of a local pharmaceutical industry entailed major bureaucratic realignments. In 1961 the Cuban government consolidated 14 existing drug manufacturing plants to form the state company, Empresa Consolidada de Productos Farmacéuticos. This firm, under the jurisdiction of the Ministry of Industry, was responsible for reorganizing and expanding pharmaceutical production, issuing quality control guidelines, and training (often in other socialist countries) sufficient numbers of Cuban technical personnel. The Ministry of Health decided what pharmaceutical products were needed in the country based on essential drug lists drawn up by the National Formulary Committee that it created in 1962. The Ministry of Foreign Trade was in charge of all imports and exports of medicines. Within this ministry two specialized state trading agencies were set up: Medicuba handled all pharmaceutical imports and exports, including finished drugs, active and inert ingredients, and bulk orders of medicines and medicinal herbs; and Empresa de Suministros Médicos was responsible for a wide range of medical supplies for surgical, clinical, and laboratory use. The distribution of medicines within Cuba came under the jurisdiction of the Ministry of Internal Trade, which established a national network of pharmacies capable of supplying even remote rural areas. This bureaucratic division of labor was in effect until 1965, when all of these activities were centralized under the authority of the Ministry of Public Health.

Of particular importance to the Public Health Ministry is the essential drug list. When the first national formulary was published in 1963, it contained 611 generically named pharmaceutical preparations (compared to the 20,000 registered drug products on the market prior to the revolution). Only drugs listed on the formulary could be produced within the country. By 1979 the national formulary had adopted the new title of "Therapeutic Guide" and contained 689 pharmaceutical products in 855 dosage forms. Medicuba uses this essential drug list in its bulk procurement of medicines, which has produced foreign exchange savings ranging from 30 to nearly 70 percent (UNCTAD 1980, pp. 37-38).

Cuba, in a period of just over twenty years, has moved from a situation of extreme dependency on foreign pharmaceutical products and technology to a position of enhanced autonomy in the industry. Whereas Cuba used to rely on imports for 70 to 80 percent of its pharmaceutical needs, it has advanced to the stage where it now exports both inputs and finished drugs to developing nations in Asia, Africa, and the rest of Latin America. Through cooperation with other socialist countries, Cuba has made efforts to develop a tech-

nological infrastructure that is potentially self-sustaining. Cuba's most notable achievements have probably been made in the distribution of health care services. All medical attention, including drugs, is provided free of charge to hospital patients and to certain other groups, such as pregnant women, the physically and mentally handicapped, people residing in homes for the elderly, and low-income families. The evolution of Cuba's state health sector has also generated, however, a large and complex bureaucratic infrastructure. Future successes in the area of public health will no doubt be measured, in part, by how effectively the Cuban state manages to coordinate its ambitious and multifaceted efforts.

CONCLUSIONS

This study leads to a number of generalizations about the consequences of foreign control, local private control, and state control in Third World pharmaceutical industries.

First, many domestic private drug firms in the Third World contribute more to national goals of resource efficiency and equity than TNCs do. The motives underlying this socially desirable behavior are not altruistic, however. It just so happens that the self-interest of local firms and national development objectives often overlap. The tendency of local companies to reduce their reliance on foreign know-how because it compromises management control coincides with the Third World country's interest in technological autonomy. And whereas domestic enterprises favor bulk drug and generic product manufacture because the absence of heavy promotion and established brand names makes competition with TNCs easier, developing nations also prefer this strategy because it leads to increased vertical integration and lower drug prices, especially for essential items required by the poor. If the transfer-pricing behavior of TNCs, to take a final example, tends to lessen a host country's foreign exchange and tax revenues, the profit incentive that leads indigenous entrepreneurs to set up rival local production facilities may also counteract this national problem by generating alternative cost figures through which overinvoicing may come to light.

The main reason why the divergence between private interests and social interests will be narrower for domestic firms than for TNCs lies in the latter's transnational decision-making framework. TNCs have a worldwide perspective and seek to maximize their global profits, while the production and research functions of these enterprises are often centralized in their home countries. The situation frequently

leads to conflicts between the TNC goal of global efficiency and a Third World country's desire for increased national autonomy. Since the domestic firm's decisions are made in a milieu affected by local scarcities and values, its performance is more likely to reflect these social realities.

There are significant exceptions to the coincidence between local private and societal interests. One such area forms the basis for a second generalization. Neither local private nor foreign pharmaceutical firms can be regarded as having a more socially desirable mix of finished products than the other. There is evidence that TNCs and local companies alike directed their manufacturing efforts overwhelmingly toward drugs desired by upper-income consumers and disregarded products needed by the poor majority of the population.

The third generalization is related. Because the private sector as a whole is frequently unresponsive to important social needs, especially with regard to the poor, a wide variety of Third World nations has decided to rely on state-owned enterprises in the pharmaceutical sector. A number of state firms in Mexico, Brazil, Costa Rica, Cuba, Egypt, and India have played important roles in the procurement, distribution, and production of drugs. The private sector, as a rule, tends to protest the state's entry into drug manufacture far more vehemently than it does state involvement in the purchasing or distribution of pharmaceuticals.

Fourth, many of the larger Third World countries want pharmaceutical TNCs to expand their local production of active ingredients. Some of the TNCs agree, privately if not publicly, that their own interests would be best served by more involvement in active ingredient manufacture. They feel that in the area of finished drugs, government preference for local firms in public sector sales will steadily reduce the TNCs' share of the market.

Fifth, in the countries where the private sector is predominant (such as Argentina, Brazil, and Mexico) product differentiation and promotional expenses tend to be greater than in countries with large public sectors (such as Cuba, Costa Rica, or Egypt). The price of drug products could be lowered and the position of local firms in the industry improved if some of the more pernicious aspects of pharmaceutical marketing were better regulated. Two priority areas can be singled out here. One is the mandatory usage of generic names in advertising and prescribing pharmaceutical products. The institutionalization of essential drug lists, which many Third World nations are adopting, should greatly help generic names to become more widely accepted and used. The other area is the excessive use of free samples by detailmen in promoting their companies' products. For

instance, the usual practice when introducing a new drug into the Mexican market is to give away an average of four capsules for each capsule sold in the first year, three capsules for each capsule sold in the second year, and so on until a level of one to one is reached (de María y Campos 1977, p. 901). This heavy reliance on free samples, which usually originates with the TNCs, multiplies the promotional costs for local firms to successfully enter the market. If such practices were restricted, competition would increase and the cost of many drugs would come down.

Sixth, adequate quality control in pharmaceutical production continues to be one of the biggest problems plaguing many Third World drug industries. This is an area in which the TNCs generally excel. If domestic pharmaceutical companies hope to effectively compete with their foreign rivals, they will have to meet stricter quality control standards. TNCs, on the other hand, are also prone to want to relax selected quality standards when these relate to the excessive claims or suppressed warnings for some of the prescription drugs no longer approved in their countries of origin.

Finally, a variety of cases indicate that successful pharmaceutical industry reforms need continued governmental support. In countries like Brazil, Mexico, and Sri Lanka, major reform attempts were overturned or vitiated because of shifting political circumstances and the withdrawal of regime support (Gereffi 1983). Transnational firms, local private laboratories, and the local medical profession tend to band together to preserve the status quo, irrespective of the varying kinds of reform being promoted. Effective change in the industry thus requires, along with technological and organizational capability, a strong commitment by the government to assure full and lasting implementation of new drug policies.

AGAPCO

In August 1980, Haiti's Ministry of Health and the United States Agency for International Development launched a major new project designed to strengthen the Ministry's management systems and greatly expand the health services provided in rural areas. Called the Rural Health Delivery System's Project or RHDS, the overall objective of this bilateral effort was ambitious: at the end of 5 years there would be functioning "a community based health care service system [that] would provide preventive health care services to about 3,000,000 rural Haitians."

One component of the Project that had provoked considerable and often heated discussion among the Ministry's senior decision makers was management of drug supply. Over the 5 year life of the Project the seemingly enormous sum of $3,174,000 would be made available to purchase drugs. To many of the Division Chiefs this seemed like a windfall solution to the chronic problem of inadequate drug supplies, and they greeted with approval the Project's plan to dispense the drugs without cost through the Ministry's network of health care facilities. Others, most notably Dr. Claud DeFay. Chief of the Division of Public Assistance, were somewhat skeptical.

"Oh sure. Everything will be fine as long as the Project lasts." he told a group of his colleagues at the Director General's monthly planning meeting. "It will provide us with about $635,000 for drugs each year. That added to the $240,000 that we are already spending will give us an annual drug budget of $875,000. But what are we going to do when the Project runs out? Where will the drugs come from then?"

No one had a definite answer to these questions. But those who knew Dr. DeFay understood that he had posed them rhetorically. "Now I have here a proposal", he intoned solemnly, "that would make the Ministry self sufficient in drugs..."

Several times over the past year and a half, Dr. DeFay had attempted to interest the Ministry in a plan to institute a National Drug Sales Program, called AGAPCO, that would procure pharmaceutical products through a central agency and distribute them for sale through a network of community owned pharmacies. Slowly but surely he was making headway and it appeared that his colleagues were ready to take the plan seriously.

If adopted, the proposal to sell drugs would mark a dramatic departure from the Ministry's traditional policy of giving them away. For

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this reason, the Director General asked his senior decision makers to carefully consider the feasibility of selling drugs for the Ministry's Health Care system. He, himself, had several questions to pose: Why, exactly, would the Ministry have to sell drugs? How would this improve health care? What about competition from commercial pharmacies? How did the RHDS Project figure into the proposal? How would the drug sales program work?

Dr. DeFay realized that he would need to provide concrete answers to these questions if his proposal was to become a reality.

Principal Health Problems

In 1978, the most recent year for which data were available, Haiti had a population of 4,500,000 of which 77% or 3,700,000 persons lived in rural areas. The table below presents some of the basic demographic statistics:

Total Population	4,500,000
Population Density/Arabal Land	410 persons/km^2
Crude Birth Rate	36.8/000
Mortality rate for 1 to 4 years	45/000
Average Life Expectancy at Birth	52.2 years
Population Growth Rate	2.0%

In a report submitted to the National Palace that year, a former Minister of Health * made the following general assessment:

> The most pressing general health problems are protein and calorie malnutrition, tetanus and gastro-intestinal diseases. It is estimated that 80% of the Haitian population under 5 years of age suffers from mild to severe malnutrition. Tetanus, especially among babies of 1 year's age or less takes a heavy toll. Umbilical tetanus accounts for a large part of the 149 per 1000 live birth rate of infant mortality. Lack of sewage disposal and clean water contribute heavily to health problems in both urban and rural areas.
>
> Among the communicalbe diseases most frequently reported are the following: Influenza 22%, worms 21%, malaria 18%, diarrheas 14%, respiratory diseases 8% and tuberculosis 7%.

*For reasons of administrative convenience Haiti's President for Life changes his Ministers of Health every 11 months, on average.

Communicable diseases cause approximately 26% of all deaths from known causes. Of these, 63% are children under 5 years of age. This high figure reflects the mutual reinforcement of nutritional deficiency and communicable disease.

Overview of the Pharmaceutical Sector

When serious discussion about the AGAPCO drug sales program began in April 1981, the information available on Haiti's pharmaceutical sector was neither complete nor consistent. A review of facts and figures covering the preceding 4 years provided a composite description of activities.

The CIF* value of pharmaceutical products imported into Haiti during the fiscal year October, 1977 through September, 1978 was estimated at $5,938,000. Of this figure, finished products represented 90% or $5,349,500. The remaining 10% or $588,500 worth was imported as raw materials and compounded into finished form by local manufacturers.

Of all the drugs available, an estimated 86% or $4,886,000 worth reached the public through commercial distribution channels. There were 41 wholesale distributors in Haiti (including 5 concerns that could be also classified as manufacturers). They distributed most of their products through a network of 143 commercial retail pharmacies. Of this number, 114 pharmacies were located in and around Port-au-Prince and 29 were located in Haiti's other cities including 9 in Cap Haitien, 5 in Gonaives, 5 in Jacmel, 4 in Cayes, 3 in Jecemie, 2 in Hinche and 1 in Fort Liberte. (See Annex One.) With this geographic distribution, about 25% of the population had ready access to commercial pharmacies.

Some of these drugs--the exact proportion was not known--reached the public through the non profit segment of the private sector. This consisted of religious and philanthropical organizations that provided primary curative health services through 159 clinics, most of them located in small towns and serving rural populations. These organizations also imported some drugs directly, and though the quantity was difficult to estimate, it was not thought to be great.

The public sector, primarily the Ministry of Health, distriubted the remaining $1,052,000 worth of drugs. The principal channels of distribution were the Ministry's network of 178 clinical facilities and the National University Hospital. The Ministry's share was $740,000 of which $240,000 was purchased locally from its own operating budget and 500,000 was provided by assistance agencies such as AID, UNICEF, UNFPA, and PAHO. The National University Hospital directly purchased $312,000.

Import duties were fixed at 15% for finished products and 30% for raw materials. Inadequate information on prices made it difficult to determine average wholesale and retail mark ups. Several distributors placed wholesale prices at about 30% over wholesale costs and retail prices at about 10% over

*Cost, insurance, and freight.

wholesale prices. Applying these percentages to the value of drugs imported in 1977-78 produced the approximations shown in Annex Two.

The 41 wholesale distributors represented approximately 300 laboratories located in 40 different countries. No system for drug registration existed in Haiti and so it was not possible to determine how many different products were being imported. By one loose estimate, the figure was in the range of 4,500 to 9,000 products.

Public advertising was not permitted for ethical products, except of course in medical journals. Accordingly, promotion of these products was handled primarily by "demarcheurs" or detail men who worked for the wholesale distributors. They visited physicians, pharmacies and clinical facilities at a rhythm of approximately once a month depending on demand. The clinical facilities, both public and private were a low priority because they received most of their drugs from the Ministry of Health or private donors. The detail men spent most of their time on physicians, because, as one of them stated, "there are so many products on the market that we have to keep giving out samples to keep the name in their minds when writing out prescriptions."

The results of these marketing efforts are given in Annex Three which shows Haiti's 15 top selling pharmaceutical products for 1979.

The Ministry of Health

Administration and Finance

The Ministry of Health is responsible for supervision and control of all public health activities in Haiti. Employing approximately 6,000 persons in 1981, the Ministry was structured in 3 levels as shown in Annex Four. The principal organizational features were:

* The Central Ministry, containing the administrative or management support divisions and the technical divisions, which provided normative guidance for the delivery of health services.

* The health districts, which constituted an intermediate level of administration through which policy, determined at the central ministry, was transmitted to health care providers working in clinical facilities at the local level. There were 11 districts, each managed from a bureau located within the district.

* Three of the districts had been organized into 2 health regions--the North and the South. Eventually, all of the districts were to be organized into 5 such regions, but the process by which this would occur was not defined and the Ministry had no clear plan for achieving this goal.

A major portion of the health services in Haiti were provided through the non-profit private sector. Charitable and philanthropic organizations staffed and supplied 131 clinical facilities.

Between those purely public and those purely private, there was an intermediate category of health service facilities. There were 28 pf these "mixed" facilities, which generally were managed and supplied by private organizations but staffed by Ministry of Health personnel.

Types and numbers of facilities in each of the 3 categories are shown in Annex Five. Average numbers of patient contacts for these facilities are shown in Annex Six. Finally, the types and numbers of personnel working in the Ministry's own facilities are shown in Annex Seven.

Overall, the Ministry could be described as a system designed to produce health services by using 3 inputs: physical facilities and equipment, personnel and expendable supplies. The recurring costs of these inputs were financed by the Operating Budget, for which Annex Eight presents the figures for fiscal year 1980-81. Annex Nine shows the monies allocated for the Ministry's operating budgets for the 5 years from FY 1976-77 through FY 1980-81.

Foreign assistance programs, both international and bilateral, financed virtually all of the development costs of the Ministry's health system. This financing included building construction, procurement of vehicles and other equipment, and specialized staff training. The principal donors were USAID, the World Bank, UNICEF and UNFPA. An analysis of the Ministry's 7 principal development activities estimated that they would add $10,100,000 to annual operating costs over the next 5 years.

Approach to Drug Supply

For private and mixed facilities, drugs were supplied by their sponsoring organizations. For the Ministry's hospitals, health centers and dispensaries, this responsibility was undertaken by the Section of Supply and Procurement. Each month, the Section purchased approximately $20,000 worth of drugs from local suppliers. Although there was no official list, by custom the Section procured the same products each month varying only the quantities of certain products depending on the exact amount of money available for spending. The 15 largest purchases for a typical month are shown in Annex Ten. In addition to this there was another $500,000 worth of drugs made available by assistance agencies on an annual basis.*

Storage conditions at the Central, Regional, District and facility levels were, more often than not, inadequate. The central warehouse, for example, flooded each fall during the rainy season. There were no system wide stock control or other supply management procedures. In general, it was the responsibility of recipients to collect their stocks from the central warehouse once each month. The manner in which these supplies were divided up was not uniform. In some cases (North and South), entire regions received one

*There is some divergence between list of drugs provided by assistance agencies and the list purchased by the Ministry from its own budget.

shipment. This was broken down for redistribution to individual facilities at the regional level. The same was true for some districts (Port-au-Prince and Gonaives), For other districts (Port-au-Prince and St. Marc), each facilit sent a representative to pick up its allotment. In all cases, once the drugs reached the clinical facilities they were dispensed free of charge on a "first come-first served" basis.

The quantities of drugs that the Ministry was able to supply were considered very inadequate by the district directors and the administrators of their clinical facilities. "It's about a week's supply," said one person interviewed, "and the drugs they send aren't the ones we need." Site visits to numerous facilities indicated that most of the drugs provided by the Ministry were distributed primarily to the district hospitals and larger health centers. Remote facilities including most dispensaries received little or nothing at all.

The RHDS Project and the Ministry's Drug Supply

The Ministry of Health and AID agreed to collaborate on the RHDS Project for the purpose of creating and progressively expanding a primary health care system that would eventually serve 3 million persons.

At the Central, Regional, and District levels, the RHDS Project envisioned improvements in specific areas of management support services required for effectively administering a national health care system: finance, personnel, transport, supply, and building maintenance. As the Ministry's capacity to manage these support services improved, a rural health services delivery system would be put in place and progressively expanded. The system was to be based on a cadre of lower echelon health workers that would eventually include 550 dispensary-based nursing auxiliaries and 1500 community-based health agents. The Ministry's health centers and hospitals would continue to form the upper echelons of the referral system, but they would not receive attention under the RHDS Project. To assist the Ministry in carrying out all of these activities, the Project provided for a technical assistance team consisting of 8 advisors. Annexes Eleven and Twelve summarize respectively the financial resources planned for the Project and the major outputs which they would produce.

RHDS provided for a substantial increase in the Ministry's drug supply. For this purpose, it budgeted in AID grant funds and $2,187,000 in Government of Haiti local currency funds.* To assure the most effective use of these new resources, the Ministry decided to review its current pharmaceutical procurements and develop a standardized drug list on which to base future procurements. A working commitee, composed of Dr. DeFay, the Public Health Physician, and the Supply Specialist from the Technical

*On the basis of an analysis of Haiti's principal health problems and current drug prices, Project planners estimated that drugs for primary health care services would cost an average of $0.70 per person annually.

Assistance Team used available epidemiological information to produce a restricted list of generically named products for treatment of Haiti's priority health problems. (Annex Thirteen.) While other drugs might be required to treat certain conditions, the Ministry decided that it would provide through its own channels only those products on the new standard list.

By March, 1981, the Ministry had approved the list and it was time to start buying. At this point a difficulty arose concerning the specific products that could be purchased with funds from different sources. Under the terms of the Project Paper, AID was committed to spending its funds, which were in US dollars, only for those drugs that would be provided through dispensaries and health agents operating in rural areas. According to regulations US dollar funds could be spent only for drugs that meet FDA standards of quality; in practice, this meant that they had to be procured from the United States or from UNICEF The Ministry was responsible for providing drugs for health centers and hospitals from its own funds, which were in local currency. This situation posed the following dilemma: Many of the "physician prescribed" products that the Ministry wanted for the upper echelons of the referral system were either not available in Haiti or were available only at high prices. At the same time, local manufacturers compounded many of the more basic products that AID was willing to provide and these were available at relatively low prices.

In the interest of rationalizing the procurement of all drugs on the standard list in the most economical fashion, the Ministry and AID reached an agreement based on the following strategy: AID would use some of its dollar funds to procure, from the US or UNICEF, those hospital/health center drugs that were not available in Haiti at good prices. For its part, the Ministry would assure that drugs intended for use at the dispensary/health agent levels, and which were best bought locally, would be available in adequate quantities. Annex Fourteen lists drug procurements by source.

The AGAPCO Proposal

In May 1979, Dr. DeFay had worked with a WHO consultant* to develop a proposal for a national program that would provide drugs for sale at the Ministry's clinical facilities. Revenues from the sales would be used to purchase replacement stocks so that the program would be able to resupply itself independently of the Ministry's operating budget. Because government policy required that all services at Ministry of Health facilities be provided free of charge, the Ministry itself could not sell the drugs. To overcome this obstacle, the proposal called for the drugs to be sold through a network of "community pharmacies."

Under the community pharmacy concept, an allottment of drugs would be given to the communities in which Ministry of Health facilites were located. A community council or other representative body would take charge of the drugs and be responsible for preparing a space in which to set up the pharmacy and for hiring a clerk to sell the drugs to patients on a prescription basis.

*Dr. Remauld Johnson of Togo, which has an active and well developed drug sales program.

Each pharmacy would use the revenues from sales to replace stock, cover losses, cover give-aways to indigents, and pay the clerk. To assure that funds were sufficient for all of these expenses, the pharmacies would sell their drugs at a standard mark-up of 10% over cost.

Resupply for the entire network of pharmacies would be guaranteed by setting up a central management unit that would be responsible for procuring and distributing the drugs. This unit would be an autonomously-managed parastatal organization and was tentatively called the Agence d'Approvisionnement des Pharmacies Communautaires or AGAPCO.

The concept of community pharmacies did not originate with the AGAPCO proposal. At the time that Dr. DeFay and his colleague were preparing their proposal, there were 8 such pharmacies already functioning in Haiti. Individual Health District Administrators had set them up on their own initiative and all 8 functioned independently of one another, each responsible for resupplying itself as best it could from the private pharmaceutical sector.

The results of these separate experiments were mixed. Some did brisk business, while others were marginal-to-failing enterprizes. Some enjoyed high esteem wihin their communities while others were regarded as the source of last resort. One characteristic that they all had in common, however, was shelves cluttered with a wide variety of brand name products that had no apparent relation to Haiti's principal health problems. One The community pharmacy located in the village of Arniquet near Cayes had over 400 items in stock; in many cases this was a matter of 3 capsules of one type of vitamin, a half an ounce of cough syrup, and so forth.

The novelty of the AGAPCO proposal was that in place of a few community pharmacies functioning in a completely independent manner, it proposed a network of pharmacies wherein each one would be autonomous for purposes of internal management, yet part of a unified system for purposes of resupply. In place of stomach churning collections of drugs unique to each pharmacy, it proposed that all community pharmacies should stock only drugs from a standard list approved by the Ministry of Health.

Once his proposal was completed, Dr. DeFay devoted considerable time and energy to promoting the program. He organized a "National Committee for the Promotion of Community Pharmacies" and lobbied for support in every health district in the country. The Committee's efforts familiarized numerous officials at every level of the Ministry's system with their concept of a drug sales program and won widespread sympathy for the plan. Still, the Ministry had not officially endorsed the AGAPCO proposal and had taken no account of it in planning the RHDS Project. It was only once the Project was actually underway that the possibility of diverting some of its resources into AGAPCO was considered.

Developing a Financial Plan

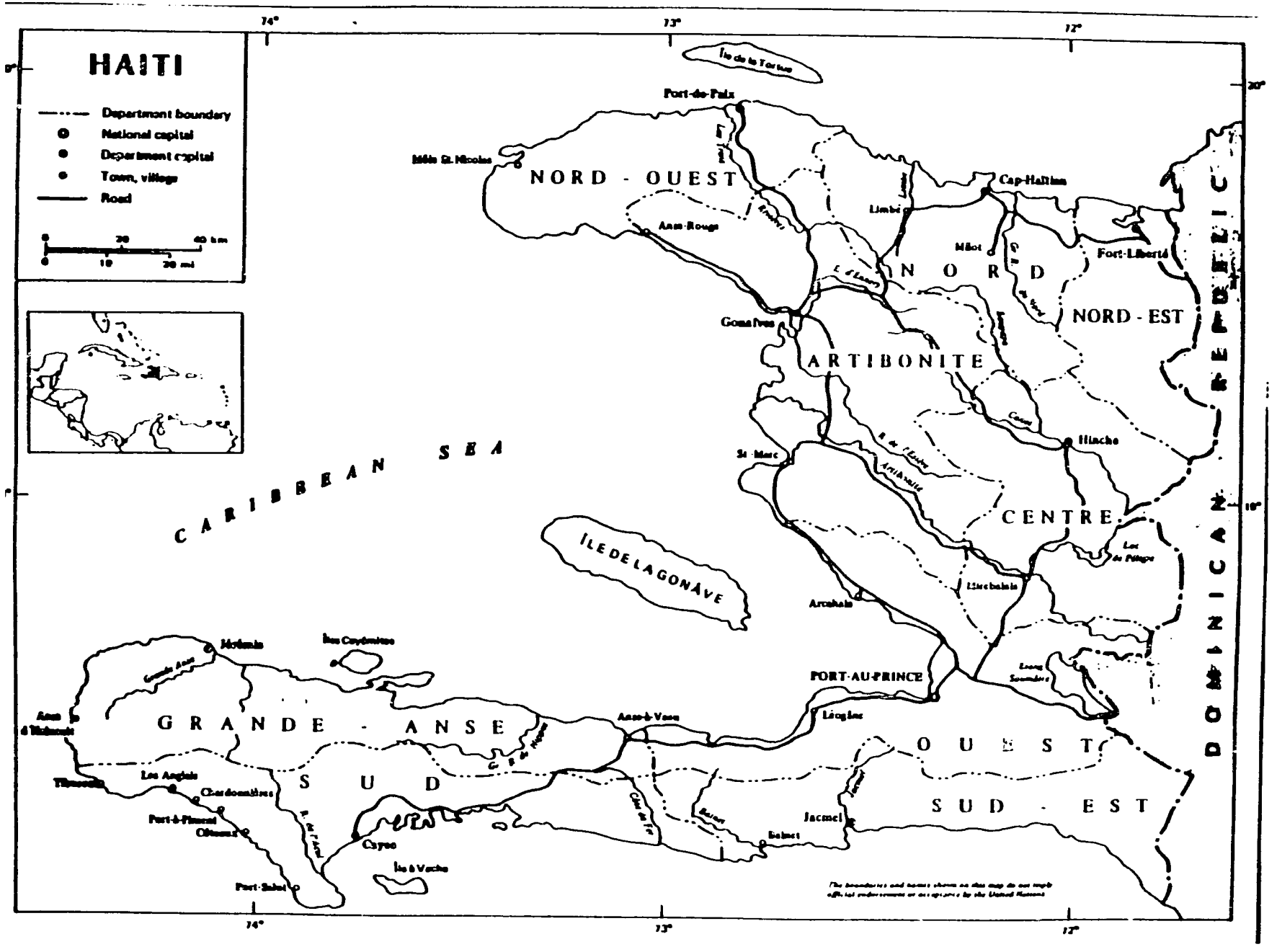
By spring 1981, about the time that the Ministry and AID were preparing to make initial procurements of drugs using Project funds, Dr. DeFay had finally convinced his colleagues to consider the AGAPCO proposal. Under the terms of the bilateral agreement, it was necessary to obtain AID's approval in order to spend Project funds on new activities that were not part of the original plan.

As Chief of the Division of Public Assistance, Dr. DeFay had been involved in the initial Project activities related to drug supply, that is, formulation of the standard drug list and development of the procurement strategy. This had made it convenient to informally circulate the proposal to officials at AID and to members of the technical assistance team. Their response had been mixed. On the positive side, all parties agreed with the idea of selling drugs to patients to pay the cost of the Ministry's drug supply. On the negative side, they had been rather critical of the proposal itself. The principal complaint was that there were no details concerning the financial and management requirements of the drug sales program.

How much start-up capital would be required? How much would each pharmacy need to sell in order to stay in business? On what basis would prices be determined? How much would it cost to staff and equip the central management unit? From where would drugs be procured and how would they be distributed? As written, the AGAPCO proposal provided no direct answers to any of these questions. As far as Dr. DeFay was concerned, these were trivial matters that would resolve themselves automatically once he got his hands on the money. The critics, however, were adamant. And so, making no effort to conceal his distaste, he consented to work with the technical assistance team to produce a financial plan that would respond to the concerns which they had expressed.

Map of Haiti

Annex One



Annex Two

Value of Drugs Distributed by the Public and Private Sectors

	Private	Public	
		Local Purchase	Donated
CIF Value of Imports	$4,886,000	$552,000	$500,000
Cost to Distributor After Payment of Duties	5,707,200		
Wholesale Value	7,419,300		
Retail Value	8,161,300		

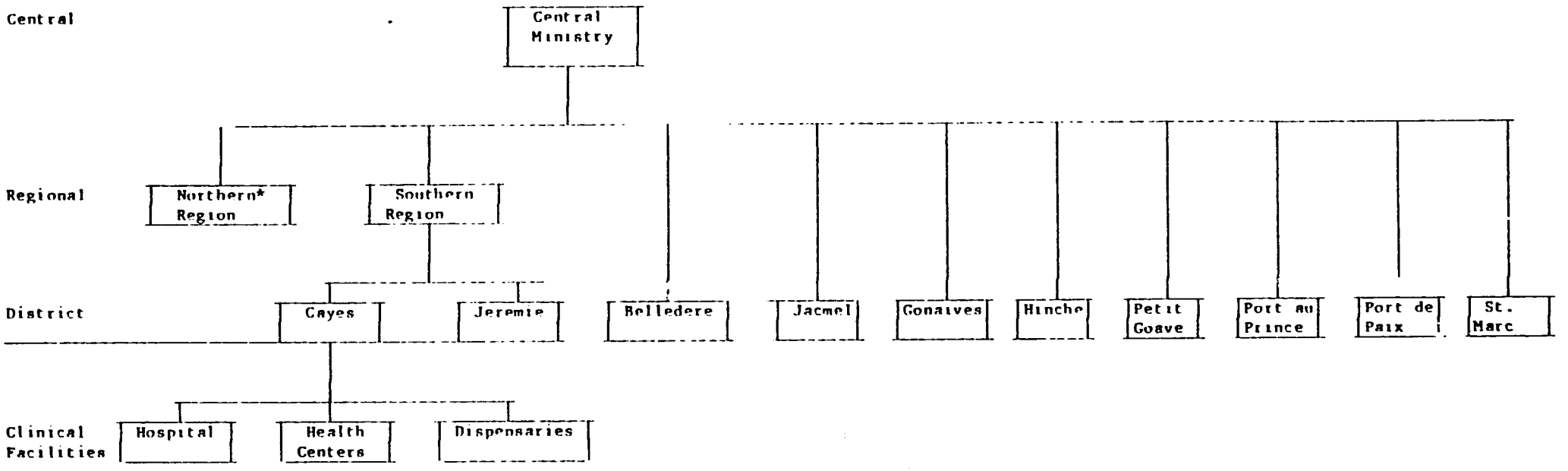
Annex Three

Haiti's 15 Top Selling Pharmaceutical Products for 1979

Rank	Brand Name	Generic Name	Desciption
1.	Saridone	Propyphenazone	Analgesic
2.	Cafenol	Aspirin, Caffeine, Phenacetin	Analgesic
3.	ALS/Sel Andrews	Tertaric acid, sodium bicarbinate, magnesium sulfate, saccharin	Antacid
4.	Mulival Forte	Multivitamin preparation	Vitamins and Antihistomine for Appetite Stimulation
5.	Vicks Vapor Rub	Menthol, camphor, misc. in white paraffin	Mentholated Salve
6.	Mamex	Milk powder	Milk Powder
7.	Milk of Magnesia	Magnesium hydroxide	Antacid
8.	Padrox		Antihelmetic
9.	Valium	Diazepam	Tranquilizer
10.	Tres Orix		Vitamins for Appetite Stimulation
11.	Bufferin	Aspirin (buffered)	Analgesic
12.	Emulsion Scott	Cod liver oil, calcium hypophoxphoste, sodium hyophosphate	Tonic
13.	Coricidin	Aspirin, chlorpheninamine	Antihistamine plus Aspirin for Colds
14.	Anorexol		Antihistamine used for Appetite
15.	Redoxin	Ascorbic Acid	Vitamin C used for Vitamin Supplement

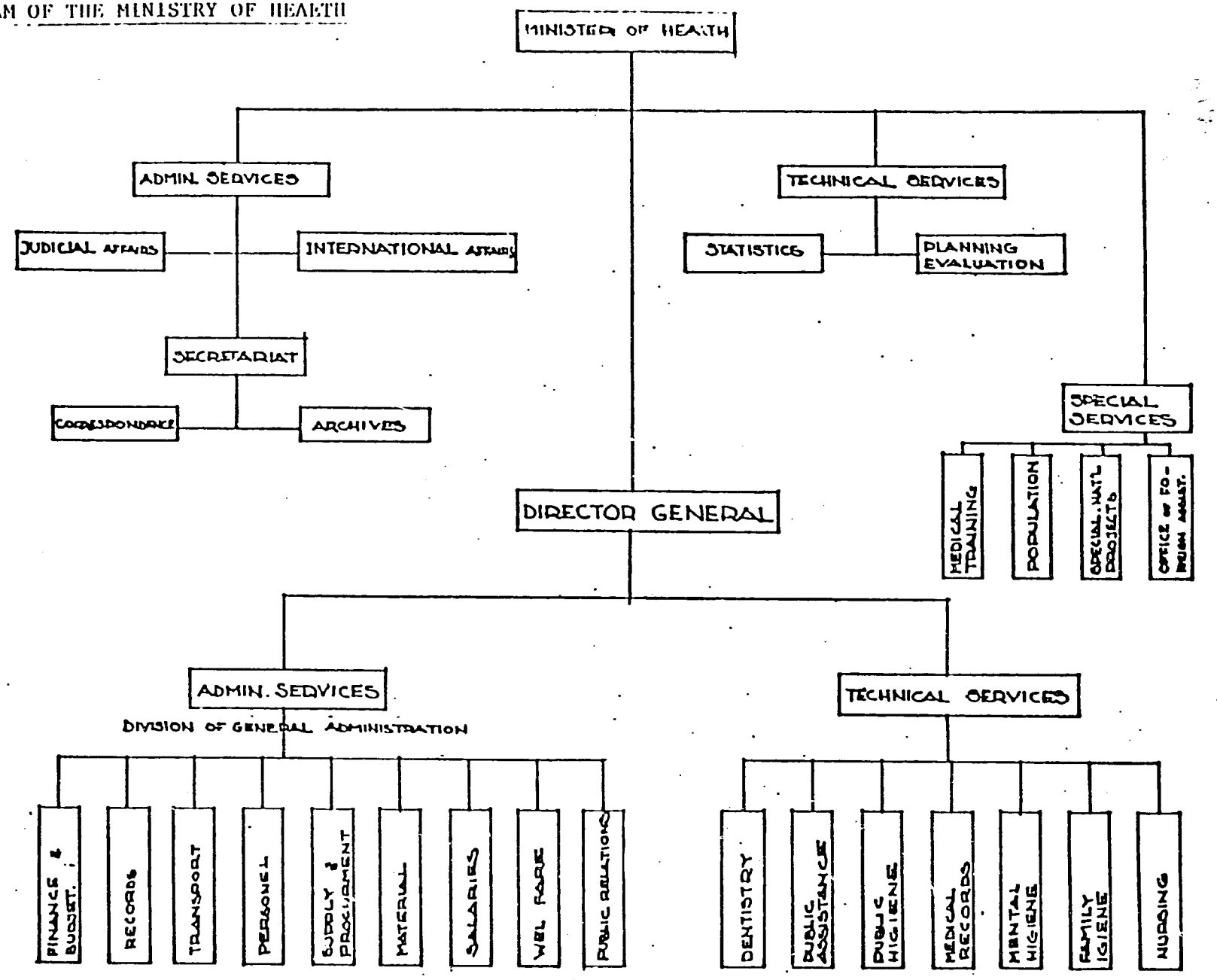
Annex Four/Part One

Structure of the Ministry of Health



*Not Administratively divided into districts

ORGANIGRAM OF THE MINISTRY OF HEALTH



Types and Numbers of Clinical Facilities

District	Population	Dispensary (serves of to 10,000 people)			Health Center (serves up to 40,000 people)			Hospital (serves up to 250 000 people)			Total
		Public	Private	Mixed	Public	Private	Mixed	Public	Private	Mixed	
Belledere	135,404	3	2	0	1	0	0	1	0	0	8
Cap Haitien	606,768	32	27	0	1	5	8	1	0	0	74
Cayes	878,920	15	1	2	1	0	0	1	0	0	20
Jeremie		11	15	3	2	0	0	2	0	0	33
Jacmel	248,524	10	10	0	0	0	0	1	0	0	21
Gonaives	256,230	7	3	1	0	2	0	1	1	0	15
Hinche	113,845	6	6	0	0	0	0	1	0	0	13
Petit Groave	234,620	8	6	3	4	1	0	1	1	0	24
Port-au-Prince	1,577,525	24	20	5	18	5	1	5	8	0	86
Port-au-Paix	186,024	10	9	2	0	5	2	1	0	0	29
St. Marc	287,832	6	4	0	3	0	0	1	0	0	14
Total	4,525,692	132	103	16	30	18	12	16	10	0	
		251			60			26			337

Annex Six

Estimated Numbers of Patient Contacts at Public, Private and Mixed Clinical Facilities for 1979

Type of Facility	Number of Facilities	Annual Estimated Number of Contacts	Daily Estimated Number of Contacts
Hospitals			
Public*	16	468,480	122
Private	10	372,000	155
Mixed	0		
Health Centers			
Public*	30	352,800	49
Private	18	207,360	48
Mixed	12	198,720	69
Dispensaries			
Public	132	601,920	19
Private	103	840,480	34
Mixed	16	115,200	30

*Bed occupancy rates for public sector hospitals and health centers is estimated to average $\geq$ 33%.

Annex Seven

Personnel working in Ministry of Health Clinical Facilities

Position	Dispensary	Health Center	Hospital	Total
Doctor	58	115	321	494
Dentist	12	29	22	63
Pharmacist	5	7	5	17
Nurse	49	59	303	411
Auxiliary Nurse	150	176	484	810
Laboratory Technician	0	41	49	90
X-ray Technician	0	0	13	13
Anesthesia Technician	0	0	21	21
Sanitation Officer	35	111	49	195
Custodian/Maintenance	304	344	933	1724
Total	613	1025	2200	3838

Annex Eight

Summary of Ministry of Health Operating Budget

Rubric	Line Item		$
10 Personnel			
	11.	Salaries	6,709,800
	12.	Per Diems	1,355,000
	13.	Representational Expenses	12,000
		Sub Total	8,076,800
20 Operating Expenses			
	21.	Expendable Supplies*	2,109,800
	22.	Travel and Transport	25,200
	23.	Rental Fees	5,600
	24.	Printing and Reproduction	600
	25.	Contractual services	3,800
	26.	Gasoline, Lubricants and Spare Parts	268,200
	27.	Communications and water	8,400
	28.	Electricity	8,000
	29.	Petty Cash	9,600
		Sub Total	2,439,200
40. Special Expenses			
	43.	Subsidies to Non Profit Organizations	1,196,800
	46.	Exceptional Expenses	48,000
		Sub Total	1,244,800
		Total	11,760,800

*The $240,000 spent annually on drugs is taken from this line item.

Annex Nine

Growth of the Ministry of Health's Operating Budget

Fiscal Year	Current Dollars (000)	Price Index	1980 Dollars (000)	% of Real Change
1976/77	6,860	287.5	8,880	
1977/78	8,360	279.5	11,120	+25.2
1978/79	9,260	315.9	10,900	-2.0
1979/80	12,380	372.1	12,380	+13.6
1980/81	11,760	423.7	10,320	-16.4

Annex Ten

15 Largest Monthly Drug Expenditures by the Ministry of Health

Rank	Generic Name	Purchase Unit	Purchased Monthly	Expenditure	% of Budget
1	Penicillin V Injectable in Water	Vial 4,000.000U	5,000	$ 3,250	16.25
2	Anti Tetanus Serum	Vial 10cc	500	1,250	6.25
3	Dextrose 5% in Water	IV Bottle 1000 cc	500	1,250	6.25
4	Vitamin B Complex Syrup	Bottle 1 Gal	79	948	4.74
5	Tetracycline	Bottle 1000 Tab	30	780	3.90
6 ?	Pentafen	Box 10 Amp	250	750	3.75
7	Chloroquine	Bottle 500 Tab	101	606	3.03
8	Ether for Anesthesia	Bottle 4 oz	300	570	2.85
9	Chloramphenical	Bottle 1000 Cap	20	548	2.74
10	Penicillin V Injectable in Oil	Vial 3,000,000U	1,000	510	2.55
11	Dihexyverine Chlorohydrate	Box 6 Amps	200	480	2.40
12	Acetylsalicylic Acid	Bottle 500 Tab	300	450	2.25
13	Phenobarbital	Bottle 100 Tab	200	440	2.20
14	Vitamins A,C and D Suspension	Bottle 20cc	200	440	2.20
15	Clauden	Box 100 Amp	3	408	2.04
			Total	$12,680	63.4%

The remaining 36.6% of the monthly budget was spent on 26 additional products.

Annex Eleven

Summary of Planned Financial Resources for RHDS*

(US $ 000)

	AID	GOH	TOTAL
Construction/Renovation	5,257	-	5,257
Drugs	967	2,187	3,154
Equipment/Supplies	1,413	307	1,720
Vehicles	1,203	-	1,203
Maintenance	-	1,493	1,493
Personnel	1,630	11,478	13.108
Training	1,855	1,296	3,151
Technical Assistance	2,422	-	2,422
Evaluation	100	-	100
Contingency	1,153	559	1,712
Total	16,000	17,320	33,320
	48.1%	51.9%	100.0%

*Source: AID Project Paper

Annex Twelve

Outputs*

The basic outputs of the project are: (1) 275 dispensaries staffed with 550 trained auxiliary nurses who support 1,500 trained health agents throughout rural Haiti; (2) a supply and logistics operation capable of supporting national, regional and local health delivery system; and (3) trained upper echelon professionals to administer the RHDS at the national, regional, and district levels.

The following table summarizes the major outputs on an annual basis:

Output	Year 1	Year 2	Year 3	Year 4	Year 5
Trained Health Agents	509	213	182	646	
Trained Auxiliary Nurses	136	84	114	226	
Trained Environmental Sanitation Officers	96	48	48	28	
Dispensaries Constructed/ reconstructed		74	39	51	73
Regional Warehouses Constructed/renovated	2	1	1	1	1
District Warehouse Construction/renovation		4	1	2	4
Central Garage constructed			1		
Central Warehouse constructed			1		
Regional Administrative Organizations Established		2	1	1	2

*Source: AID Project Paper

Annex Thirteen

Ministry of Health Standard Drug Li

A. Anesthetics
1. Ether
2. Penthotal Sodium
3. Lidocaine

B. Analgesics
4. Aspirin
5. Codeine

C. Gastro-Intestinal Preparations

6. Tincture of Belladonna
7. Magnesium Trisilicate
8. Mineral Oil

D. Anti-Allergy Preparations

9. Diphenhydramine
10. Dimehydrimate

E. Sedatives

11. Diazepam
12. Phenobarbital

F. Anti-Parsiticals

13. Metronidozole
14. Mebendazole
15. Piperazine Tablets
16. Piperazine Syrup

G. Anti-Tuberculosis

17. INH Adult
18. INH Pediatric
19. INH/Thiacetazone lAdult
20. INH/Thiacetazone Pediatric
21. Ethambutal
22. Streptomycine 5 gr.
23. Streptomycin 1 gr.

H. Anti-Malarials

24. Chloroguine Tablets
25. Chloroguine Injectable

I. Anti Biotics
26. Penicillin V Tablets
27. Penicillin V Suspension
28. Procaine Penicillin Injectable
29. Penicillin in Oil Injectable
30. Benzathine Penicillin Injectable
31. Sulfamethoxazol
32. Chloramphenicol Capsules
33. Cholramphenicol Suspension
34. Tetracycline

J. Vitamins and Minerals

35. Multi Vitamin Tablets
36. Multi Vitamin Syrup
37. Vitamin B Complex Syrup
38. Vitamin A
39. Iron Sulfate

K. Respiratory System Preparations

40. Phenylephrine
41. Epinephrine
42. Aminophylin Injectable
43. Cough Syrup
44. Expectorant

L. Ophtalmic Preparations

45. Silver Nitrate
46. Anti Biotic Eye Ointment

M. Dermatological Preparations

47. Gentian Violet
48. Benzyl Benzoate
49. Calamine Lotion

N. Circulatory System Preparations

50. Digitoxin
51. Digoxin Injectable
52. Clauden

O. Anti Hypertensives

54. Reserpine Tablets
55. Reserpine Injectable
56. Chlorothiazide

P. Hormones

57. Insulin
58. Cortisone

Q .Oxitoxics

59. Ergometrine Tablets
60. Ergometrine Injectable

R.. Blood Substitutes

61. Dextran 70

S. Electrolites

62. Oral Rehydration Salts
63. Dextrose 5% in Water
64. Ringer's Lactate
65. Normal Saline
66. Dextrose 10% in Water

Title: Public Sector Management of Pharmaceuticals in the Commonwealth Caribbean

Presentation by Paula Feeney, LAC/DR/HN

Date: November 29, 1984 at 2:15 PM

Reference Document:
Report on a Study of the Management of Pharmaceuticals by Ministries of Health in Ten Countries of the Commonwealth Caribbean

Focus: Essential Drugs
July 5 - September 30, 1981

Pan American Health Organization, AMR/3610

I, perhaps like Holly Wise, feel wedged into your schedule today among recognized experts in the pharmaceutical arena in international health. Several of you have focused energy and substantial experience in this complex field.

However, I have been asked by the conference planners to take a few minutes to discuss with you a three month field study I conducted in 1981 for the Pan American Health Organization (P.A.H.O.) in ten Commonwealth Caribbean countries entitled "Public Sector Management of Pharmaceuticals." In the context of the English-speaking Caribbean the public sector in health refers to the Ministry of Health since there are no social security health schemes.

There were two personal factors which led me to P.A.H.O. and Dr. Enrique Fefer with my research proposal in hand, first a doctoral thesis requirement and, secondly, my experience with A.I.D. in the Caribbean.

A.I.D was new to the Eastern Caribbean in the late 1970's. We were attempting to assist countries who were becoming independent from the U.K. I worked as A.I.D.'s Caribbean Regional Public Health Advisor 1979-80. The most frequent and repeated request for assistance from Ministries of Health pertained to pharmaceuticals. Generally speaking, the newly indepenedent countries (with the exception of Trinidad and Tobago) had obtained and rapidly used up lines of credit from middlemen/suppliers and pharmaceutical manufacturers and sought our assistance. Our regional health project Basic Health Management Training did provide some technical assistance and training in this arena but the problem of supply of pharmaceuticals continued.

Holly will discuss RDO/C's intended response to the need, but I want to elaborate on the problem facing the countries where my study was conducted: Guyana, Trinidad, Grenada, St. Vincent, Barbados, St. Lucia, Dominica, St. Kitts, Antigua and Montserrat (Note: Jamaica declined the invitation to participate in the study amd Belize was actively celebrating its independence or both countries would have been included in the study). At the time of the study the G.N.P. per capita in the ten countries ranged from $539 in St. Vincent to $4,370 in Trinidad and Tobago.

The Caribbean states face many developmental and financial/economic problems. Although their health status is relatively good (Infant mortality rate of 22-29 vs. averages of 98 in South America or 140 in Africa) they are grappling with the problems common to financing health services in many developing countries:

lack of funds;

distribution of health resources;
rising health costs;
lack of coordination;
inefficiencies in spending.

My research was directly modeled after a 1980 U.S. General Accounting Office (G.A.O.) report entitled "Hospitals in the Same Area Often Pay Widely Different Prices for Comparable Supply Items." The G.A.O. surveyed 37 hospitals in 6 U.S. cities and identified what they called wide differences in prices (over 300% in several cases) paid for similar items. The report concluded that varying prices in many instances bore no relationship to volume, quality, group purchasing or pooled procurement agreements or direct purchasing. G.A.O.'s explanation was that the U.S. hospitals didn't share price information with each other and did not maximize savings.

I took an official copy of the G.A.O. report and peddled it to the Ministers of Health and asked them if they knew how they were faring in prices paid compared to their neighbors in the Commonwealth Caribbean. None knew but all were anxious to know and they were very open to the idea of finding out. Without exception they readily detailed their supply management staff to assist me in the effort.

Just to set the stage:
In these countries the MOH budget for drugs, as a percentage of total health budget, ranged from 5% in Trinidad and Tobago to 20% in Guyana. Imported finished pharmaceuticals are the norm -- the study identified only eight indigenous Caribbean manufacturers.

Of total pharmaceuticals imported 20% - 50% was imported for use in the public sector. Twenty percent of Dominica's pharmaceuticals and 50% of Trinidad and Tobago's were imported by the Ministry of Health. In 1976 the estimated per capita consumption of pharmaceuticals (public and private sectors combined) was estimated to range from $2.42 in Grenada to $17.60 in Barbados.

In summary my methodology was to collect and analyze these factors for each purchase made by each Ministry over an 18 month period for 202 drug dosage forms. Each dosage form included in the study was either in the World Health Organization's list of essential drugs, P.A.H.O.'s Expanded Program on Immunizations (E.P.I.) or CARICOM's Master Contract. The CARICOM (Caribbean Community) Master Contract, although it provides an excellent framework for lowering prices, has turned out to be a very poorly marketed and therefore poorly utilized procurement mechanism in the region.

Data Analysis Identified the Following Factors:

- Unit Issue (e.g., 1000 Tablets)
- Number of Countries Purchasing the Pharmaceutical Dosage Form During the Period January 1, 1980–September 15, 1981
- Number of Manufacturers
- Number of Caribbean Manufacturers
- Number of Agents/Suppliers
- Total Volume Received (Includes Contracts and Donations)
- Highest CIF Price Paid
- Country Which Paid Highest Price
- Manufacturer and/or Supplier Which Charged Highest Price

Data Analysis Identified the Following Factors: (Continued)

- Lowest CIF Price Paid
- Country Which Paid Lowest Price
- Manufacturer and/or Supplier Which Charged Lowest Price
- Volume Purchased at Highest Cost
- Volume Purchased at Lowest Cost
- Percent Difference Between Highest and Lowest Price Paid
- Whether or Not the Pharmaceutical Dosage Form Was Available Through the CARICOM Master Contract and/or PAHO's EPI and if the Dosage Form Was Purchased Through Such a Scheme

A tragic flaw in the CARICOM scheme was that it did not include the high volume drugs. Eleven of the top twenty volume tablets were not on the CARICOM list.

Top Twenty Highest Volume Tablets Purchased/Received
(1 January 1980–15 September 1981)

Pharmaceutical and Therapeutic Use	Amount Purchased/ Received	Is It on the CARICOM Master Contract?
1. Paracetamol 500 MG (Analgesic-Antipyretic)	18,153,644 Tabs	No
2. Ferrous Sulfate 200 MG (Iron Preparation)	11,900,000 Tabs	No
3. Diazepam 5 MG (Tranquilizer)	10,408,240 Tabs	Yes
4. Chlorpropamide 250 MG (Anti-Diabetic Agent)	9,650,100 Tabs	Yes
5. Methyldopa 250 MG (Antihypertensive)	7,812,000 Tabs	Yes
6. Acetylsalicylic Acid 300 MG (Analgesic-Antipyretic)	7,757,000 Tabs	Yes

Top Twenty Highest Volume Tablets Purchased/Received (1 January 1980–15 September 1981) (Continued)

Pharmaceutical and Therapeutic Use	Amount Purchased/ Received	Is It on the CARICOM Master Contract?
7. Tetracycline HCl 250 MG (Antibiotic)	4,593,000 Tabs	No (Only Capsules)
8. Chlorpromazine HCl 100 MG (Tranquilizer)	4,130,000 Tabs	Yes
9. Phenobarbital 30 MG (Sedative-Hypnotic)	3,922,000 Tabs	No
10. Digoxin 0.25 MG (Cardiac Glycoside)	3,463,000 Tabs	No
11. Bendrofluazide 5 MG (Diuretic)	3,272,000 Tabs	Yes
12. Folic Acid 5 MG (Vitamin B Complex-Antianemia)	3,194,000 Tabs	No
13. Chlorpheniramine Maleate 4 MG (Antihistamine)	3,013,000 Tabs	No
14. Phenylbutazone 100 MG (Analgesic-Antipyretic)	2,600,000 Tabs	Yes

Top Twenty Highest Volume Tablets Purchased/Received (1 January 1980–15 September 1981) (Continued)

Pharmaceutical and Therapeutic Use	Amount Purchased/ Received	Is It on the CARICOM Master Contract?
15. Amitriptyline HCl 25 MG (Psychotherapeutic)	2,570,000 Tabs	No
16. Ascorbic Acid 50 MG	2,550,600 Tabs	No
17. Acetazolamide 250 MG (Carbonic Anhydrase Inhibitor)	2,532,000 Tabs	No
18. Diazepam 2 MG (Psychotherapeutic)	2,496,750 Tabs	Yes
19. Glyceryl Trinitrate 0.5 MG (Antianginal)	2,195,700 Tabs	No
20. Trimethoprim 80 MG Sulfamethoxazole 400 MG (Antibacterial)	2,100,500 Tabs	Yes

I expected to find price variations which would exceed even the 300% found by the G.A.O. in the U.S. hospitals. What I documented through examination of individual invoices from the suppliers/manufacturers (other national data sources would have been less reliable) was what Gary Gereffi referred to this morning as "wild variation" in prices.

The price between the highest price and the lowest price varied more than 100% for 119 dosage forms, more than 500% for 24 drugs and for 5 drugs the price varied more than 1000%. Fifteen dosage forms which were available through the CARICOM Master Contract varied more than 500%.

List of 15 (Fifteen) Dosage Forms Available Through the CARICOM Master Contract for Which the Percentage Difference Between the Lowest and Highest Price Paid Varied by Greater Than 500%

Pharmaceutical	Percentage Difference Between Lowest and Highest Price Paid for Pharmaceutical
1. Ampicillin Injection 500 Mg Vial	3289%
2. Furosemide Tablets 40 Mg 250 Tablets	1991%
3. Metronidazole Tablets 200 Mg 250 Tablets	896%
4. Chloramphenicol Capsules 250 Mg 1000 Capsules	828%
5. Diazepam Tablets 5 Mg 500 Tablets	789%
6. Vaccine DPT 10 Ml Vials	775%
7. Indomethacin Capsules 25 Mg 500 Capsules	752%

List of 15 (Fifteen) Dosage Forms Available Through the CARICOM Master Contract for Which the Percentage Difference Between the Lowest and Highest Price Paid Varied by Greater Than 500% (Continued)

Pharmaceutical	Percentage Difference Between Lowest and Highest Price Paid for Pharmaceutical
8. Diazepam Tablets 5 Mg 1000 Tablets	685%
9. Bendrofluazide Tablets 5 Mg 500 Tablets	623%
10. Chlordiazepoxide HCl 10 Mg 1000 Capsules	622%
11. Diazepam Tablets 2 Mg 1000 Tablets	594%
12. Vaccine DT 5 Ml	586%
13. Chlorpropamide Tablets 250 Mg 1000 Tablets	577%
14. Vaccine Tetanus Toxoid 10 Dose (5 Ml)	509%
15. Prednisolone Tablets 5 Mg 1000 Tablets	504%

Please note that Diazepam (i.e. Valium) and vaccines appear on the list several times. Procurement inefficiencies were crippling the MOH ability to provide the most widely used technology in health -- drugs and vaccines.

The results of my applied research served as a discussion document for a May, 1982 P.A.H.O. regional workshop in Barbados on Caribbean Supply Management for Essential Drugs.

My principal recommendation to the Ministries as might be expected from the G.A.O. experience was to develop an ongoing database management informaton system in the Commonwealth Caribbean to share drug price information and sources of supply, both Caribbean and non-Caribbean. The system should track high-cost, high-volume drugs and those with known large price variation.

An interesting finding was that 12% of all purchases studied revealed that a Caribbean manufacturer provided the lowest price, indicating that they, on some items, can be competitive with the multinationals of which we heard so much this morning.

Since 1982 the Ministries have jumped on the information sharing bandwagon to some extent. The Barbados Drug Service regularly publishes their national formulary which includes information on manufacturer and price. Unless there is a recent development Barbados is the only country with such a formulary. Barbados shares their formulary with other Ministries of Health in the region. Much more needs to be done regarding sharing information.

In 1981 my research showed that Barbados obtained the lowest price among the countries only 20% of the time. This was the case even though the now highly acclaimed Barbados tendering system had been developed and was in place under the direction of Mr. John Turnbull. Barbados, on the other hand, paid the highest price of any country 10% of the time.

In conclusion, I recently spoke with a Health Minister from a CARICOM country who told me his government, serving a total national population of approximately 150,000, owes between $600,000 and $900,000 to drug middlemen and manufacturers. There is a big challenge out there for all of us.

HEALTH OFFICERS' CONFERENCE
BUREAU FOR LATIN AMERICA AND THE CARIBBEAN
AGENCY FOR INTERNATIONAL DEVELOPMENT

25-30 November 1984

Dr. Enrique Fefer
Regional Advisor on Drugs
Pan American Health Organization/
World Health Organization
Washington, D.C.

THE REGIONAL DRUG PROGRAM OF THE PAN AMERICAN HEALTH ORGANIZATION

Notes and Highlights

The parmaceutical industry developed rapidly after World War II. The World Health Organization (WHO) responded to the rapid flow of products by concentrating on the scientific and technical elements of drug quality, safety and efficacy.

During the 1970's, governments and WHO became increasingly aware of the social and economic aspects of pharmaceuticals. In spite of increasing public sector drug expenditures, hospitals, health centers and posts frequently lacked necessary drugs. In contrast, pharmacies in large urban areas were well stocked, though many of their products were irrelevant to the real health needs of the population or of dubious efficacy.

In 1981, WHO established the Action Program on Essential Drugs to support government efforts to improve the availability of essential drugs. And, in the Americas in 1983, the Directing Council of the Pan American Health Organization (PAHO) requested the Organization's Director to establish a Regional Program to assist Member Governments in all aspects relating to the development of national drug policies and programs.

In response to this request, PAHO has developed a Program that is consistent with the WHO Global Program and responsive to the particular needs of the Latin American and Caribbean countries.

The Regional Program consists of the following areas:

- Development of national drug policies
- Production of essential drugs
- Pharmaceutical supply systems
- Drug control and quality assurance
- Investigation and evaluation
- Development of manpower resources
- Information systems

Activites relating to investigation, evaluation, manpower development and information systems are integrated into each of the first three areas listed above. Priority is given to programs and projects in the Central American Isthmus.

Some highlights of the existing problems and ongoing PAHO activities are outlined below.

National Drug Policies

Governments spend much effort in responding to the "crisis-of-the-day" in pharmaceuticals, resulting in improvised and ineffective actions. PAHO recommends that governments take the initiative and develop short- and long-term policies and programs that take into account the actual needs of the countries. The Organization has worked with national authorities in carrying out the studies that help provide an understanding of the factors that determine the drug supply in their countries and of the possible interventions to improve essential drugs availability based on explicit government policies.

Drug policies should be consistent with a national health policy. Among the major elements of a drug policy, WHO has identified the following:

- Identification of therapeutic needs
- Selection of essential drugs to satisfy the needs and their quantification
- Information on the proper use of drugs according to the level of use
- Education of the public and health professionals on the proper role of drugs in health and on the value of an essential drugs approach

PAHO/WHO has worked closely with a number of governments in Latin America in the preparation of national drug formularies for the public sector.

A major challenge in developing a comprehensive national drug policy is achieving intersectoral coordination. The interests of the Health Ministry generally differ from those of the Ministries of Industry and Trade. The latter are interested in promoting local industry, expanding domestic and foreign markets, and saving foreign currency through import substitution. Contradictory policies frequently coexist and are implemented by different agencies. Awareness must be created for the need of a coherent drug policy and the Organization has promoted meetings attended by policy-makers of the different sectors involved. In some countries, interministerial committees have been set up to deal with the formulation and coordination of national pharmaceutical policies, and

PAHO has provided consultants to advise governments on specific policy issues (e.g., production, prices).

Production

The Organization is interested in promoting local production when it is economically and technically feasible. It does not advocate government-owned production -- this is a matter of national decision. The Organization, however, will collaborate in feasibility studies at the request of Member Governments interested in producing pharmaceuticals. At present, a number of governments have such facilities and PAHO is working with the authorities to improve the efficiency of their operations and to implement internationally recommended good manufacturing practices (GMPs).

PAHO activities in this area include:

- Publication of a monograph on policies for the production and marketing of essential drugs
- Training activities relating to quality control and GMPs
- Collaboration with the Banco Centroamericano de Integración Económica in feasibility studies
- Coordination of a study on the production of raw materials in Latin America
- Coordination of the exchange of information on raw materials' production among Argentina, Brazil and Mexico
- Collaboration with the Andean Pact on the exchange of information on prices and sources of raw materials imported into the Andean countries

Pharmaceutical Supply Systems

PAHO-sponsored country studies have documented defficiencies at all levels -- from selection and procurement through storage and distribution to dispensing and use. Obsolete physical infrastructure, lack of trained personnel, inadequate budgets and complex regulations and procedures, all contribute to the existing situation, which is further complicated by the lack of foreign currency.

PAHO's activities include:

- Providing information to governments on prices and sources of finished products
- Providing procurement services based on international tenders
- Promoting joint procurement of selected essential drugs among Central American nations and Panama
- Organizing subregional "train-the-trainer" courses on drug supply management
- Sponsoring national courses on drug supply management;
- Publication of technical monographs on the development of national formularies

Drug Control and Quality Assurance

As governments increasingly move to purchase essential drugs as a way to decrease costs, quality becomes a very important issue.

Generic drugs purchased from new or non-traditional sources meet resistance from both consumers and the medical community accustomed to established brand names. This preference is aided by the merchandisers of branded products who explicitly claim that the generic drugs are of

inferior quality. Thus, physicians are reluctant to prescribe them and consumers are reluctant to use them, even though laboratory tests have shown compliance with recognized specifications.

PAHO activities that address quality, safety and efficacy issues include:

- Guidelines for the development of national drug control programs
- Information on drug safety and efficacy, including withdrawals of products from markets
- Training of inspectors and analysts
- Provision of reagents and standards
- Establishment of national collaborating centers to provide services and training and undertake studies on aspects relating to the quality of marketed drugs

Investigation/Studies/Evaluation

These activities can be considered as tools to convince policy-makers on the need for a national drug policy and the appropriateness of the essential drugs approach:

- Diagnostic studies - to document the fragmentation, duplication and contradictions of existing policies
- Drug utilization studies - to evaluate the relationship (or lack of) between drug use and real health needs
- Bioequivalence studies - to provide information regarding the quality of selected generic products vis-a-vis brand-name pharmaceuticals

The above studies, of course, are also useful for monitoring the progress of national drug programs and evaluating their impact.

General Strategy of the PAHO Drug Program

PAHO staff and resources alone cannot be expected to have a significant impact on the existing situation regarding the availability, quality and price of pharmaceuticals. Thus, a basic strategy for the development of regional and national drug programs is the mobilization of national resources, their institutions and professionals. The training and advisory activities sponsored by the PAHO Drug Program utilizes, whenever possible, institutions in and professionals from Latin America and the Caribbean. Examples of this approach:

- The University of Panama has organized regional courses on drug registration and pharmaceutical analysis.
- The Instituto Centroamericano de Administración Pública carried out a Central American course on drug supply management.
- The Directors of the Barbados Drug Service have served as PAHO advisors in neighboring territories interested in improving their drug supply system.
- The Instituto de Farmacología y Bromatología of Argentina will coordinate studies regarding pharmaceutical reference substances prepared by official drug control laboratories in Latin America.

THE POTENTIAL FOR COST SAVINGS IN DRUG SUPPLY MANAGEMENT

Margaret Hume
Thursday, November 29th

Management Sciences for Health

Discussions throughout the day have been focusing on the financing of health care delivery, particularly the cost-effective management of drug supplies. We are all here together because we are all interested in helping the countries of Latin America and the Caribbean to provide essential drugs to their populations within the resources available. As we all know, resources are limited so our goal must be to manage those resources as efficiently as possible. In other words for each dollar spent to derive as much public health impact as possible to decrease the costs of running the system and to increase the availability and impact of drug supplies. This will involve both careful management using approaches that are tried and true, as well as the search for new approaches.

In my remarks I would like to talk about several strategies that offer potential for cost savings in drug supply systems.

- Improved Systems Management
- Revolving Drug Funds
- Drug Sales Programs
- Pooled Procurement Strategies

These are not mutually exclusive strategies. They can be used in combination, as I will discuss. All of them have been mentioned by other speakers today.

Improved Systems Management

The first strategy -- improved systems management should not be overlooked in our quest for innovative approaches. We may need to step back in our thinking and reflect for a moment on the enormous potential for cost savings - greater impact for the funds expended - in simply better management of selection, procurement, distribution, and use. In procurement alone, as has been mentioned earlier today, countries are able to find great savings by just looking around for lower cost high quality suppliers. In Barbados as soon as the Barbados Drug Service was established with the use of careful tendering procedures there was an immediate drop in drug prices of 20%. It is important to note that this was a case of restricted tendering. Barbados limited itself to suppliers who had a distributor in the island of Barbados. It was not an open tender. In Dominica, where I have been working, where there is no such restriction, the country has been able to find even lower prices in some cases.

Purchasing is often restricted to U.S. sources, as has been mentioned several times. I would like to echo what Sue Gibson said this morning about the experience in buying for AGAPCO in Haiti. They hired a procurement agent in Washington who had the time to tender and to monitor orders carefully. The result was a lead time that was reduced in half from what it had been previously, and prices which were significantly more favorable than U.S. government prices. This was a creative response to a situation that didn't seem to offer a lot of options.

Other speakers today have mentioned other management improvements - the development of a restricted drug list to obtain maximum therapeutic benefit from funds available, improved storage and distribution systems, and the possibilities of local formulation and repackaging. Good management has enormous financial implications~

Revolving Drug Funds

A revolving drug fund is a mechanism which facilitates some of these improvements. It is a management concept or structural which involves more careful management of finances and materials simply because the funds are independent from the treasury. There is autonomous management of the revolving drug fund. In this system a value is placed on drug inventory, and drugs and funds then are viewed as two forms of the same asset. This system forces management improvements and accountability. A revolving fund is really like a business. (All commercial pharmacies are revolving drug funds.) A revolving fund changes the incentives for people who work in the drug supply system. Because the drugs are viewed as an asset, there is a push effect, as David Young referred to it this morning, in moving drugs through the system and in getting money back which can be used to purchase new supplies.

AGAPCO, which was the subject of the case study this morning, is a national revolving fund because the management of the fund is at the national level. But each community pharmacy in Haiti is also a revolving fund (a local revolving fund) because there is management at the local level. In the local revolving fund patients are the buyers, whereas for the national revolving fund the buyers are the individual community pharmacies. Therefore in Haiti, with both a national and local revolving fund, there is a two-tiered system.

There are also international revolving funds as in the case of pooled procurement systems where management of the revolving fund is on a regional or international basis and the buyers in that case are individual countries or programs.

The term revolving drug fund is frequently used synonymously with drug sales, as in Haiti. I would like to suggest that a revolving drug fund has a managerial structure which is important to understand whether or not it incorporates consumer cost sharing.

In Dominica a PRICOR-funded project is giving us the opportunity to look carefully at design, implementation, and operational issues of a revolving fund for drug distribution. In Dominica at the present time there are no sales to patients. We could view this as if there were one purchaser of drugs which is the government. In Dominica, as districts and health facilities consume drugs the treasury reimburses the revolving fund for the value of that consumption.

When the idea of developing a revolving drug fund was first conceived in Dominica a great deal of money was owed to suppliers; some suppliers had been waiting a year to be paid. The consequence, naturally, was shortages of drugs in all the health facilities. The expectation, then, from a revolving fund was to bring financial accountability to the drug supply system and at the same time to increase the supply of drugs available. There was also the goal in a second phase to consider sales of drugs to patients.

When the fund was set up independent of the treasury there was the expectation that it would provide liquidity to allow long-term planning of health needs, and in particular to allow purchasing in bulk.. In the past when it was hard to free up funds to pay for drugs, the result was frequent small orders, many of these emergency orders from private distributors who could have supplies flown in from Barbados. As soon as the fund was set up, there began a search for lower cost generic suppliers, and larger orders were placed. Unit costs on some items were reduced immediately to one-fourth or one-sixth of what they had been before. In addition, it became possible to pay suppliers immediately and to clear supplies from the port as soon as they arrived. This saved money on rent fees at the port. It also meant that the drugs had a longer shelf life when they were received, and it increased the likelihood of even more favorable contract terms with suppliers in the future.

In addition to these immediate cost savings there have been other spin-off benefits. In order for the fund to be able to continue to "revolve", it required the development of an accounting and information system. The information available from this system has facilitated even better procurement, inventory, and distribution decisions. Already there is a greater cost consciousness in purchasing and in use. There is a more effective use of resources. Finally, the management responsibility placed within Central Medical Stores has had motivating effects. Again, this has had a multiplier effect on all other supply management functions.

Although the program in Dominica was originally planned as a drug sales program, there have been advantages in delaying the sales component. We have had an extra 18 months to improve procurement, inventory management, and distribution activities; to develop a management information system for accounting and control; and to estimate the capitalization requirements of the fund. This is before we had to face the tough issues of marketing, pricing, and the viability of the revolving fund.

Drug Sales Programs

Drug sales programs are another strategy to consider. These are often developed in conjunction with revolving drug funds, in which case only refinements are needed in the information system to permit proper management of revenues from consumer charges as well as of the pharmaceuticals distributed. But drug sales programs need not be associated with revolving funds. There is a drug sales program in Barbados with no revolving fund; the proceeds from those sales are given directly into government revenues.

It has been widely observed that Ministries of Health cannot afford to provide adequate quantities of drugs free. When they attempt to do so, the result is often chronic shortages. Many patients are obligated to buy drugs through the private sector anyway, sometimes at a great distance and paying higher prices. Repeated studies around the world have shown that even the "rural poor" in developing countries are willing and do spend significant amounts of household income on health care services, much of this on drugs.

Drug sales programs thus tap an otherwise untapped resource. They do not necessarily have a direct influence on bringing greater cost effectiveness to drug sales systems, but they shift the burden away from the government. The result of bringing more resources into the drug sales program in this way is an increase in the availability of pharmaceuticals and an increase in public participation in public health care services.

Drug sales programs in association with revolving funds are also attractive to governments and to donors because they are theoretically self-financing after a one-time capital investment. As long as receipts from sales are sufficient to cover replacement costs, the supply cycle can be repeated indefinitely.

A sales program, even more than a revolving drug fund alone, provides incentive to use pharmaceuticals more cost effectively, because it takes the issue to the consumer level. It increases cost consciousness in consuming drugs and therefore frequently increases compliance. For example, in a free drugs system it is not unusual for relatively healthy villagers going into town for other reasons to stop at a health center with minor complaints with the aim of obtaining some drug supplies. This "convenience stocking" represents a steady drain on supply systems.

A drug sales program can encourage the use of essential drugs through its drug selection, pricing policies, and promotional activities. Finally, since a revolving fund with a sales component can be structured to use both the Ministry of Health infrastructure and the private sector for distribution purposes it can reasonably serve remote markets with limited commercial appeal.

Unlike a commercial pharmaceutical distributor who must recover all of his expenses plus some profit, a publicly sponsored revolving drug fund can be designed with the objective of recovering any of the following combinations of costs:

1) All costs, including repayment of the capital investment.

2) Drug costs and operating costs only, as is the long term objective in Haiti.

3) Drug costs only with the Ministry of Health continuing to support the operating expenses.

4) The partial cost of drugs.

5) Any of the above combinations of costs plus a surplus for supporting community health workers, health centers, or other parts of the health system.

It should be noted that the first strategy, that of full cost recovery, is relatively uncommon for revolving drug funds, and perhaps should not be the objective. But this is largely a matter of local political, economic, and health priorities in a given country or program.

Once the cost recovery objectives have been established a pricing policy must be determined. If effective demand was not influenced by price, and there were no political or social issues related to pricing policy, it could be relatively straightforward, but this is not the case. Many programs decide to subsidize the costs of some items or of all items for certain population groups. Popular subsidy targets include essential drugs, drugs for mothers and children, drugs for the elderly or medically indigent, proven preventive measures such as immunization, and high mortality or chronic diseases with costly but effective treatments such as tuberculosis or diabetes. Sometimes subsidization of certain portions of the population or certain categories of pharmaceutical products is balanced by surcharges in other areas.

I mentioned earlier the option of a mark-up on the price sometimes used to support the health worker or the pharmacist. Sometimes a percentage mark-up is added, sometimes a flat fee on each prescription. It is important to note the effect that this can have on the health worker's or pharmacist's incentives to provide certain items. As an indication of the kind of problem that can be encountered I will give an example from Peru: During a study there in 1983 it was noted that there were seven types of oral rehydration packets in one pharmacy and these varied in price from 48c to $4.95 per liter. The most expensive type sold the best~ This is not surprising when it is understood that the pharmacist was allowed 25% percent profit on what was sold. The idea of a flat fee rather than a percentage removes the incentive for the pharmacist to sell the most expensive products. It is noteworthy that they are moving toward a flat fee structure in Barbados.

Pooled Procurement Strategies

A regional program of pooled procurement, such as the one being planned for the Eastern Caribbean, is an international revolving drug fund. The buyers of the products are the individual countries or islands. The management of such a fund would be centralized in an autonomous new structure serving the region. Such a system is expected to offer cost savings for the individual countries in a variety of ways. Shared information on suppliers would allow countries to locate a wider variety of suppliers and would also improve supplier performance monitoring. There is a great need for this type of shared information, as Paula Feeney mentioned earlier today. In addition, there would be cost savings through the islands compiling their drug needs and ordering in bulk. This would improve the possibility for lower prices. Through this system there would also be ongoing contracts with suppliers based on guaranted minimum quantities and guaranteed prices. This would decrease the likelihood of small orders from individual countries being considered emergency orders.

A pooled procurement system, then, can offer economies of scale. It must also be recognized that such a system requires a well-developed management information system, both for the determination of order quantities and for carefully scheduled and coordinated deliveries.

Conclusion

I have discussed a range of options to consider for cost savings in drug supply system: 1) management improvement; 2) revolving funds; 3) drug sales programs; and 4) pooled procurement systems.

The important point is that there is no pat answer, no one best way to design the system. What is required is a careful assessment of the drug supply system and the special circumstances in each country, in order to determine what options offer the greatest potential for each situation.

HEALTH
INFORMATION
DESIGNS, INC.

INAPPROPRIATE UTILIZATION OF PHARMACEUTICALS: ECONOMIC IMPACT AND STRATEGIES FOR CONTROL

Presented at the Health Officers' Conference
Bureau for Latin America and the Caribbean
Gettysburg, Pennsylvania
November 29, 1984

By: Aida A. LeRoy, Pharm.D.
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Pharmaceuticals have assumed an increasingly important role in the management of many diseases. Rational use of medications provides an efficacious and cost-effective means of treating illness. In many cases, rational ambulatory use of medications can obviate the need for costly hospitalization. Formerly devastating diseases, such as pneumonia, tuberculosis and diarrheal disease can now be treated with medications thus avoiding the necessity of costly hospitalization. Many diseases (such as polio or measles) can be prevented altogether by use of vaccines.

Although up to 40 percent of health care budgets in developing countries are being spent on drugs, the majority of the population does not have access to many of the essential drugs needed to treat prevalent diseases. Frequently, the limited funds available are ill-spent on ineffective, duplicative, unacceptably dangerous drugs or wasted on nonessential drugs which are used inappropriately. Additionally, numerous studies have demonstrated that drugs have the capacity to not only cure, but to harm as well. This paradox of drugs is acutely experienced in developing countries because such a significant proportion of the health care budget is spent on drugs and access to drugs is a symbol of health care to the patient. When drugs are not available, the patient does not get well, is often given an inappropriate substitute, and he/she becomes disgruntled with the entire health care delivery system. On the other hand, if the drugs that are available are irrationally used, therapeutic failures and drug induced illness add significant burdens to the already overburdened health system.

There are numerous examples of irrational drug use/management in developing countries. Some examples particularly serve to underscore the importance of developing mechanisms to improve the delivery of essential drugs. For example, in one country, a patient was given chloroquine to treat a fever and cough when penicillin was not available. In other countries, expensive and potentially dangerous tricyclic antidepressant drops are used for the treatment of school phobia in children while in the same country insulin or mebendazole is unavailable. Thousands of vials of anitbiotics reach their expiration date while sitting in customs awaiting port-clearing, because payment is not made to the supplier. Suppliers default on their contractual commitments and essential drugs must be obtained locally at private sector prices. Limited funds are also wasted due to inadequate inventory control, inadequate storage, stock mismanagement, and inappropriate prescribing and use of drugs at all health care levels.

Developing countries have begun to demonstrate an awareness of the need to rationalize drug use in their health care programs and have begun to implement measures aimed at increasing efficiency and effectiveness of therapy.

These measures include:

1) Development of essential drug formularies based on prevalent morbidities, utilizing criteria of efficacy, safety, and cost.

2) Development of therapeutic prescribing information and standards of care.

3) Improvement of inventory control systems

4) Establishment of management information systems

5) Improvement of procurement systems

6) Implementation of "Level of Use" standards

7) Development of quality control procedures

These measures address important issues affecting the logistical (selection, procurement, distribution, etc.) aspects of the pharmaceutical program, but fail to adequately support patient level pharmaceutical use concerns which play a similarly important role in the overall effectiveness of the drug program. Drug utilization begins with an understanding of consumption of drugs. Establishing realistic estimates of actual drug consumption becomes the basis of developing and adopting meaningful standards of use. From these standards, suboptimal/irrational drug use characteristics can be identified and corrected.

Developing simple and straightforward mechanisms to bring problematic drug therapy patients to the attention of the health care provider is a critical responsibility of a drug utilization project. If the observations gained by the drug utilization projects are not shared with the prescribing practitioner, these projects will fail to accomplish their goal of rationalizing the drug program.

It cannot be emphasized enough that a drug utilization review program that only measures or studies drug consumption but does not feed back that information to the providers will not attain the goal of rational drug use.

The primary goal of a drug utilization review program must be to reduce inappropriate use of drugs whether it be due to overutilization, underutilization, contraindication by concurrent conditions, concurrent drugs, age, or sex. By products, of the monitoring of drug usage include, access to actual use statistics to aid in procurement, identification of patient and practitioner abusers, a more rational use of drug program funds and, most importantly, a decrease in remedial services required to treat drug therapy complications.

BENEFITS FROM DUR

The benefits potentially derivable from a drug utilization review program can be characterized in terms of its influence on the patient, the health care practitioner, the drug program management and overall program costs. This plurality of influences is attributable to the unique role pharmaceuticals play in the cost-effective management of ill patients, particularly on an outpatient basis.

First and most importantly, is the benefit to the patient. The selection of drugs to treat a condition, the dose, the concurrent conditions, and drugs are factors which critically affect the effectiveness of the drug therapy selected. The inappropriate selection of drugs can cause the patient's condition to fail to improve, to worsen, or can cause secondary disorders. The patient thus remains in the health care system instead of moving back into a more productive state of well-being. Therefore, a program that will monitor drug use, identify patients at high risk for drug therapy problems, and communicate this information to the drug prescriber will improve the patient's quality of care.

Health care practitioners (i.e., physicians, nurses, etc.) benefit from the availability of information on the appropriate use of drugs and how their patients are being treated. Practitioners are often forced to make therapeutic judgements based on incomplete information, and thus the effectiveness of the therapeutic discussions are frequently compromised. Patient's experience retarded resolutions of their illness and/or exacerbations of their conditions which, in addition to the obvious adverse health impact, psychologically deminish the trust the patient has in the physician and health care program.

The status of a patient's condition directly impacts on the financial management of the patient's health program. Thus, the impact of inappropriate use of drugs on the system providing health care can be staggering. Many studies have demonstrated that up to seven percent of all hospitalizations may be causally related to the inappropriate use of drugs. These hospitalizations are costly and they can be avoided. In several U.S.A. health care programs (Medicaid), significant savings have been attributed to the operation of a therapeutically oriented drug utilization review program. Hence the health insurer or government health agency not only achieves cost containment but also provides quality health care to the population it serves.

Physician and hospital services represent major cost components of a health care program. Significant effort in some programs has been directed at reducing length of stays and admissions for non-essential purposes. As drug therapy represents one major mechanism for maintaining patients on an ambulatory basis, the rational use of drugs can be

important in reducing hospital utilization, particularly for iatrogenically induced illness. Conversely, inappropriate drug therapy while hospitalized can extend a stay two or three times beyond the originally necessary length or, if ambulatory, can both negate therapeutic action as well as exacerbate secondary disorders or create yet new disorders possibly requiring hospitalization. In a 1978 study in the U.S., it was estimated that nearly $200,000 was expended for hospitalizations of patients with associated inappropriate outpatient drug use patterns. Extrapolated to the state-wide Medicaid population of that state, drug therapy induced hospitalization costs equalled nearly 20 percent of that state's total drug budget.

These figures support the therapeutic approach of the goal of drug utilization review. Unlike traditional drug utilization review programs which seek only to reduce drug program expenditures, therapeutically oriented programs address the quality of care implications of drug therapy.

DRUG UTILIZATION STUDIES

In order to effectively perform drug utilization review, studies identifying current drug use and morbidity patterns must be conducted. The objectives of performing drug use studies and DUR are to:

- Measure the consumption of target drugs within a practice setting.
- Determine the incidence of morbidities associated with the target drug's indication.

- Establish a normative basis for dosage and treatment intervals.
- Review individual patient drug therapy.
- Provide more complete information on patients and unbiased drug information to prescribers.
- Change therapies which place patients at high risk for a drug therapy induced illness.
- Decrease expenditures for remedial services (drug, physician, hospital) required to treat drug induced illness.

Drug utilization studies can be performed from many levels. They can be performed on all drugs, selected groups of drugs, or on an individual drug. These studies can also be performed at the country, regional, hospital, ward, physician, or patient level. They can focus on cost (overall or unit) or quantity (overall or unit).

The methodology to be employed will first necessitate selecting the practice setting to be studied (i.e., clinic, hospital, region, or entire country). The time period to be studied must be specified. The data can be collected retrospectively or concurrently. A six to twelve month period is an adequate time period for study. The data to be collected should include drug name, strength, dosage form, code, quantity of drugs dispensed number of patients, and if available, information on diagnoses/ morbidities reported for patients.

Once the comparisons are made between the drug therapy and disease statistics, identification can be made of drugs that appear to be inappropriately utilized based on population size, morbidity make-up, and average quantity per patient. Additionally, the prevalent diseases should be assessed tc identify those diseases most likely to be caused or aggravated by inappropriate drug therapy. These analyses will be the basis of selecting drugs and diseases for intensive monitoring.

Subsequent to the identification of priority drugs and diseases will be the development of standards of therapy and criteria for monitoring. The criteria developed will be oriented to therapeutic concerns and applied to the drug usage and prescribing behaviors of the population served. Establishment of review criteria that are realistic and workable at the outset is crucial to the long-term success of the DUR program. Therefore the review criteria adopted initially should be moderate in nature and revised based on changes that occur from their application.

From prior experience the high risk disease categories include:

1. Cardiovascular disease
2. Cerebrovascular disease
3. Central nervous system disease
4. Renal disease
5. Endocrine disease
6. Gastrointestinal disease

High risk therapeutic classes of drugs include:

1. Antiarthritics
2. Antihypertensives/Diuretics
3. Antidepressants
4. Cardiac drugs
5. Oral antidiabetic agents
6. Antipsychotic tranquilizers
7. Sedative-hypnotic/Antianxiety agents

Problems most often implicated in, or associated with, inappropriate drug therapy include:

1. Underutilization
2. Overutilization
3. Drugs contraindicated by diagnosis
4. Drugs contraindicated by presence of other d
5. Iatrogenic complications
6. Adverse drug reactions
7. Treatment failure

MECHANICS OF DUR

Once problem areas have been identified through drug utilization studies, the drug utilization review program can be designed.

Drug utilization review programs can range from simple analysis of quantities of drugs consumed to sophisticated computerized systems utilizing both drug and diagnosis data. Whether data collection and analysis are performed manually or by computer the same basic procedures apply:

a) Selection of population to be monitored
b) Selection of drugs and diseases to be monitored
c) Determination of baseline statistics
d) Development of criteria
e) Selection of "exception" cases
f) Evaluation of therapy
g) Communication to providers
h) Documentation of change.

Drug utilization review programs can operate on various levels. The utilization characteristics of an entire population can be monitored using gross statistics of drug movement into and out of warehouses and stock rooms. Selected hospital(s), ward(s), or clinic(s) can be targeted for study. Movement statistics or actual prescriptions can be used for data. Ideally, drug monitoring should be performed on a patient-specific basis. This would entail collecting all drug and diagnosis data regarding each individual patient. Also, review of provider's prescribing activities can be extremely valuable as a teaching tool for the providers. In the selection of the population to be studied, the goal to be strived for is the selection of a population with the potential for changing prescribing and use behavior. Therefore, if a sample is selected for study, it should be representative of the population monitored so that data obtained can be extrapolated to the entire population.

The drugs to be selected for monitoring can be as many as all drugs distributed in the system to as few as one drug or one class of drugs. The drugs can be selected based on frequency of use or cost. From a therapeutic standpoint, the drugs to be selected should be ones used frequently and those with the potential to be inappropriately utilized and would lead to the need for remedial physician or hospital services. To begin with, two or three high risk therapeutic classes can be targeted for monitoring. Furthermore, diseases with a high potential for risk associated with inappropriate drug therapy must be selected for monitoring.

****The collection and analysis of baseline statistics will provide the initial indication of priority situations (e.g., drugs, health settings, types of providers) and furthermore will provide a baseline for comparison in future program evaluations.****

Working with the analysis of baseline information, criteria can be developed. The development of criteria must be relevant to the health care environment to be monitored. Thus, it is necessary that qualified, respected health professionals serve on a committee to develop the therapeutic DUR criteria from the perspective of actual practice characteristics and constraints. Optimally, the review criteria development committee should consist of a representative of the medical school(s) and pharmacy school, the professional medical and pharmacy associations, the financing agency responsible for the health care program, and ad hoc members as required. The committee must keep in mind that the objective of the criteria are to identify inappropriate drug therapy patterns with subsequent remedial therapy ramifications.

Once the criteria have been formulated, cases which exceed these criteria can be selected for in-depth review. They can be program, hospital clinic, provider, or patient specific. These cases should be selected when they exceed one or more of the criteria established. The threshold for selection can be governed by the volume of cases generated by each criteria or combination of criteria.

The evaluation of the cases should be performed by a committee or several regional committees, if needed, of physicians and pharmacists.

These committees could be trained in this evaluation process. They should have routine, scheduled meetings and contribute a practical perspective in the case evaluation.

The most critical process in a drug utilization review program is the communication of drug therapy patterns to the involved providers. Health care providers frequently lack access to complete information (on the drugs and the patient's medical history) so that their prescribing is often "in the blind". When presented with complete information of the drugs or the patient they are able and willing to make rational decisions regarding drug therapy. The communications to the providers must be sensitive, non-judgmental, and in the spirit of education. In many such programs, the response rate from physicians has been 70 percent.

Lastly, it is worthwhile to document changes in inappropriate drug therapy and the subsequent remedial services in terms of quality of care and cost. This is done utilizing pre-implementation or baseline statistics obtained after ongoing operation of the program. Additionally, improvements in individual cases should be described.

All of the above-mentioned steps are pertinent in the operation of a drug utilization review program regardless of the degree of sophistication of the program.

CONCLUSION

Developing countries must begin to address the therapeutic as well as economic ramifications of making pharmaceuticals available to its population through public health systems. Pharmaceuticals do have the capacity to harm as well as cure and thus their appropriate use must be fostered through therapeutically oriented drug monitoring programs.

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