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ALTERNATIVE HEALTH DELIVERY SYSTEMS:  
CAN THEY SERVE THE PUBLIC INTEREST IN  
THIRD WORLD SETTINGS?

Occasional Papers

Sponsored By

The National Council for International Health

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## FOREWORD

The environment for donor assistance in the Third World health sectors is changing more significantly in this decade than at any time during the past twenty years. In 1977, the realization of "Health for All" did not seem beyond the reach of the world community. However, since then, global economic conditions have deteriorated considerably while social and political uncertainties have increased. Adequate funding of existing health priorities and programs in developing countries has become increasingly difficult for recipients of aid to maintain, even with donor assistance. If it is true that the rapidly rising costs of providing health services are now outpacing the ability of governments to finance their expansion, and if governmental health sectors are overextended and underfinanced, then what are the alternatives and how might these alternatives serve the public interest?

Given these harsh economic realities, why should we suggest the need to transform the traditional method of delivering health services through the expansion of alternative systems? Perhaps because it is in the worst of times that the best of opportunities present themselves. At the onset of the Great Depression, an emigrant physician from Lebanon formed the first prepaid group health cooperative in Elk City, Oklahoma, as a means of providing affordable, quality health care to that area's low income farm population. Dr. Michael Shadid, who initiated this effort in 1929, is considered by many to be the "father" of prepaid group practice concepts. Subsequently, industrialist Henry Kaiser adopted these concepts to provide health care services at isolated construction projects such as the Grand Coulee Dam in 1938. The prepayment arrangements for construction workers and their families at this site evolved ultimately into the Kaiser-Permanente

Medical Care Program, currently the world's largest group prepaid practice health plan.

Prepaid group practice concepts moved to the national legislative agenda in 1973 when the U.S. Congress enacted the Health Maintenance Organization Act. This is a federal statute designed to promote the establishment and growth of HMOs. Among other things, the HMO Act generally provides that employers with more than 25 employees who offer conventional health insurance benefits must also offer an HMO as an alternative health care system to their employees if requested to do so by an HMO operating within the relevant service area.

HMOs have the potential to be one of the most cost-effective operational models for health services delivery in this country. In recognition of his signal contributions to the development of prepaid group concepts and to the initiation of an alternative health delivery system in the United States, Dr. Shadid was elected to The Cooperative League of the USA's prestigious "Hall of Fame".

The prepaid group concepts first developed in Elk City have shown a remarkable resilience over time and beyond national boundaries. They have taken hold in many countries. Over 10 million people receive their health services through HMOs in Brazil. Thus, these Papers do not purport to discover new delivery systems; they disclose various types of alternative or complementary systems which are already in operation. Although, in some cases, these systems have been in place for many years, their emergence in difficult times has served to raise the consciousness of the donor and recipient community to the recognition of their importance and significance within the context of overall health development policy.

One of the more attractive alternative delivery systems in Third World countries, especially in view of the continued expansion of the wage-based

labor force, is socially-financed prepaid health insurance, in which the costs are shared by employers and employees alike. However, as these Papers point out, premiums need not presuppose monetized wages. In India, cooperative members represented by the National Dairy Board have their health premiums deducted when they turn their milk production in to the cooperative. A set portion of the milk is then converted to monetary terms sufficient to cover the members' prepaid health premiums.

Some believe that social insurance, particularly social security financing for medical care, is expensive and benefits only those from the wage-based sector. Yet, even where health services are provided free of charge through ministries of health, those most in need--those in the lower income groups and those in the non-salaried population--receive a limited portion of health resources. Those most able to pay will continue to absorb an unequal share of ministry-provided free services until such time as governments make alternatives available to this growing population group.

Socially financed health insurance and prepaid group practice concepts offer attractive options to Third World governments seeking alternative methods of organizing and financing health service delivery. The United States has a comparative and competitive advantage in the program utilization of prepaid concepts through Health Maintenance Organizations, cooperatives, and social security-type delivery systems for medical care.

Conclusive data are now emerging to support the cost-effectiveness of these concepts in operation. For instance, The Rand Corporation recently completed a comparative study of a randomly assigned population of 1,580 volunteers--individuals as well as families--who received free care for three to five years in one of two ways in Seattle, Washington. One method was traditional, fee-for-service care from any physician they chose. The

other was membership in a large HMO, the Group Health Cooperative of Puget Sound. Also studied were another 733 Group Health members who were already enrolled and 782 persons paying for part of their fee-for-service care, just as they would pay for health insurance. The two groups--HMO patients and traditional doctors' patients--were equally matched for health, age, sex, race, family size and income.

When the study was completed, results showed that HMO members in the cooperative had 40 percent fewer hospital admissions and days in the hospital than the fee-for-service patients, and their total care was 28 percent less. Thus the conclusion is now well established: the lower cost of HMOs cannot be explained by differences in population.\*

The sponsors of these Occasional Papers are pleased to present this publication in the hope that it will serve to engage public debate on the utilization of alternative health delivery mechanisms within development policy. The steadily increasing importance of this subject in the donor and recipient community justifies a new development strategy in health.

Donors need to reconsider their purposes in relation to health development assistance, and in regard to the fluidity of structural and demographic patterns abroad. The justification for donor assisted programs has been too concentrated on sub-components of the health sector rather than on the sector at large, and too dependent on the assumption that financial problems are the a priori cause for the failure of projects to be sustained. Health projects need both an organizational and a financial base. In this regard, it is useful to recall that Japan's National Health Insurance system, covering some 46 million non-salaried farmers, fishermen, etc., had its origins in agricultural cooperatives. In 1919, these cooperatives organized

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\* "A Controlled Trial of the Effect of a Prepaid Group Practice on the Use of Services" by Willard G. Manning, et. al. in the New England Journal of Medicine, Vol. 310, #23, page 1505, June 6, 1984.

medical services for their membership in response to the government's inability to make these services available in rural areas. This community based initiative was nationalized in 1957 into its present form.

In a world where impermanence is the rule, we cannot expect indefinitely to buy time with yesterday's prescriptions. This admonition is derived from our own domestic experiences. In 1978, government planners pronounced the Social Security system to be in sound health until the year 2025. By 1982 it became clear that the force behind rapidly changing lifestyles was creating an upward surge of unanticipated numbers of enrollees surviving the actuarial tables; the subsequent drawdowns on benefits had been imprecisely calculated by planners. According to the American Heart Association, the mortality rate for middle-age males from heart attack had fallen 37 percent in the past 20 years--largely in the absence of a medical intervention.

We must prepare for the unexpected in international health development assistance. To the extent we fail to assist Third World governments in making alternatives available in their health sectors, those most in need of free services will continue their de facto subsidization of these services to those most able to pay. We cannot secure public policy in this area until that issue is exposed to full examination.

Let us begin by giving recognition to the alternative systems now in place; perhaps from this point we can determine how they might best serve the public interest.

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## INTRODUCTION

With the publication of these Occasional Papers a mist that has obscured the emergence of alternative health delivery systems from the donor community's view begins to lift. After more than three decades of development assistance to health activities in the governmental sector, changing socio-economic patterns in developing nations now bring into sharper focus the potential for new forms of donor assistance in the non-governmental and private sectors. The Papers are indicative contributions from practitioners in the field, rather than the product of empirical research. As such, their basic thrust may serve to point the way toward operations research into the broad subject area of alternative health delivery systems within the context of international development assistance. In Chapters I and II the grain and texture of the presentations are country-specific, while the totality of the Papers as described in the Notes and in this Introduction leans in the direction of generalization.

The contributors cannot be held to blame for this state of affairs. It is the Editor who has aggregated their specific experiences to a global format. This scale holds the risk of insensitizing the reader to the realities of human hardship in many areas of the world where the majority of the poor remain without access to basic health services. Thus, the use of generalization to dramatize a message: It is a paradox of development assistance that this condition (lack of basic services) will worsen in spite of the best efforts of donors and recipients alike. And it will continue to worsen for this target group in the absence of a reorientation of public policy within the health sector at large, a reorientation which will permit alternative health systems to emerge and to be financed by a

growing portion of the population willing and able to pay for the services they now receive free of charge from the public sector.

In reading these Papers, three points should influence the readers' perceptions:

1. governments are decreasing their investments in publicly supported health activities;
2. independent of what governments do, people have altered their expectations, both about the government's role in the provision of health services, and the public's demand for a role in seeking alternative health services; and
3. governmental encouragement and support of health delivery systems in the non-governmental and private sectors can be consistent with the public interest.

The Occasional Papers are presented in three chapters for the purpose of reviewing our knowledge of what exists in the field of alternative health delivery systems utilizing prepaid concepts, and for determining if the general concept of group prepayment is applicable to other Third World settings.

- Chapter I - On April 28 and 29, 1983, The National Council for International Health (NCIH) and The Cooperative League of the USA (The League) co-sponsored a Workshop entitled "The Application of Cooperative Concepts in Health Delivery: An International Perspective" at the National Academy of Sciences. Speakers included physicians, public health administrators, business administrators, economists, directors of health care organizations and officers of development assistance agencies. Participants represented major Health Maintenance Organizations (HMOs), cooperatives, academia, and the health industry.\*

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\* Speakers and participants are listed in Annex A.

The Workshop was convened to examine the experience of alternative health care delivery systems in the United States and Third World countries which employ cooperative concepts: HMOs, cooperatives and prepaid group practice programs. The Workshop attempted to identify what we know about these systems, assess what applications could be made on the basis of this knowledge, and determine whether useful opportunities exist to encourage the use of these mechanisms as helpful options in a mix of possible health services in developing countries.

The need to examine alternative health care systems has become pressing as economic conditions in nearly all developing countries preclude the scale of public sector financed expansion that is necessary to bring basic services to the still underserved populations of the Third World. Consequently, country governments and donors are exploring ways to expand health services without subjecting government budgets to impossible increases.

The search for alternative health care systems on the part of country governments and major donors dovetails with AID's interest in promoting non-governmental and private sector involvement in development efforts. As M. Peter McPherson, Administrator for the Agency for International Development, remarked during his address to the Workshop:

"It is in all our interests to seek and find innovative financing alternatives in primary health care--alternatives that will offer new opportunities to increasingly use the private sector in meeting health care objectives."

The presentation of the Workshop's proceedings in Chapter I centers on three major themes: "What Do We Know About Cooperative Concepts In Health Delivery?"; "What Can Be Applied From What We Know?" and "What Do We Do With What We Now Know?".

- Chapter II - In this Chapter, HMOs and their potential applicability to Third World settings are examined. As a complement to its International Health Seminar Series, the NCIH co-sponsored with the Group Health Association of America, Inc., (GHAA) a forum at the Pan American Health Organization headquarters building on June 2, 1983. Two officials from operating HMOs were identified and invited to Washington to discuss the essential requirements for HMOs in developing countries. The Seminar was attended by representatives from AID, the World Bank, the Department of Health and Human Services, the PAHO, the NGO and PVO community, academia, the private sector, and the Group Health Association of America, Inc.

- Chapter III - In the final Chapter, two noted economists discuss recurring patterns and issues of health care financing in the developing countries. Their underlying concern is to identify those elements which affect the viability of particular health care systems. Through their analyses, the emergence of alternative health care delivery systems can be conceptualized as part of a larger process of economic rationalization within the health sector at large rather than simply on single elements of the sector, i.e., the Ministry of Health.

- The Need for Consideration of Alternative Health Delivery Systems - These Occasional Papers are presented at a time when both the donor community and Third World governments have come to the realization that continued provision of free health services is unrealistic. The expansion of the Third World's industrial, manufacturing, and service sectors has, in effect, removed a growing number of people with wage-based income from the need to seek their health coverage through government channels, thereby creating the opportunity for alternative health delivery systems in the non-governmental and private sectors.

The incipient movement of groups away from publicly provided services to alternative delivery systems is rooted in three significant events since 1960:

1. the shift in the structure of production from agriculture to industry, manufacturing and services;
2. the decline in fertility; and
3. the change in the composition of morbidity.

Industrialization, on a world-wide basis, is a recent phenomena. In 1850, Britain was the only country in the world where the agriculture population had fallen below 50 percent of the labor force. Today, some 34 Third World countries already have achieved this rate in their labor forces.\* The significance of an expanding wage-based labor force is that it represents a socio-economic situation vastly different than what existed in most of these countries at the initiation of independence; it now allows governments to meet the increased demand for services by offering alternative health care delivery systems.

Concurrent with the change in the structure of production is the change in the structure of population. Fertility decline (rather than increased life expectancy) is the main determinant of population aging. In Africa, the percentage increase in the population 60 years and older was 70 percent during the period 1960-80, and is projected to be 87 percent during the period 1980-2000. The success in the program to treat and prevent infectious and parasitic illnesses and the success in reducing fertility through effective family planning programs are producing both a changed pattern of mortality and morbidity and a changed population structure in the Third World. The number and proportion of older persons in the popula-

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\* W. Arthur Lewis, The Evolution of the International Economic Order, Princeton University Press, 1978.

tion are rising and, as populations "age", disorders such chronic respiratory conditions, neoplasms, and many of the cardiovascular diseases will account for an increasing proportion of the morbid conditions affecting the population.\*

Changes in the composition of morbidity and mortality are relentlessly forcing ministries of health to devote more of their shrinking resources to expensive, fixed-based curative care in hospitals. Changes in the levels of morbidity and mortality, in therapies, in the availability and costs of health care contribute to rising utilization levels and patterns. Whatever else happens, however, it can be expected that the projected changes in the size and age distribution of the population would alone have a significant impact on utilization and consequently on expenditures.\*\*

The increases in life expectancy, as a derivative of fertility decline, and the improvements in child survival rates (aged 1-5) are unprecedented in human history, and they have led to a change in morbidity patterns. The change in the composition of morbidity represents a dynamic shift in the distribution of diseases presented to a system for treatment/cure; of causes of death; and, of resources devoted to health and availability of choices among alternative services.

Present governmental systems cannot be expected to provide equity in service delivery to an expanding population base which is increasingly healthier yet ultimately succumbs to the need for costly curative care and

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\* Demographic Aspects of the Health of the Elderly to the Year 2000 and Beyond", World Health Statistics, Vol. 35, Nos. 3/4, World Health Organization, Geneva, 1982.

\*\* Dorothy P. Rice, "Projection and Analysis of Health Status Trends", presented at the 106th Annual Meeting of the American Public Health Association, Los Angeles, California, October 17, 1978.

treatment. The "modernization" of the cause of death structure has important implications for donor policy. Roughly one-half of the population of the developing world now lives in countries with a cause of death pattern similar to that of developed countries. When assessing the health care needs of the Third World, the difference between countries with regard to their success in reducing mortality from the traditional killers must be taken into account so that resources can be more equitably rationalized within the health sector.\*

Immunization, essential drugs, maternal and child health care, and management of diarrheal disease, could considerably reduce mortality in Third World countries. The fact that the simple yet cost-effective technologies (i.e. ORT) can be applied without radical changes in beliefs or culture greatly increases the likelihood that they will succeed.\*\*

For instance, the introduction of oral rehydration therapy (ORT) for the treatment of diarrheal disease is illustrative of the growing capacities of medical technology and field cadre to control and target a specific disease. Investigators at the International Institute for Rural Reconstruction in the Philippines report that in Silang, Cavite there was a subsequent decrease in hospital admissions for diarrheal disease after mothers were trained in the home preparation of oral rehydration solution, and that the problem of dehydrated children in the area virtually disappeared.\*\*\*

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\* "Taking Off into Health for All by the Year 2000", World Health Statistics, Vol. 35, No. 1, World Health Organization, Geneva, 1982

\*\* Fredrick Golladay, Ph.D., "Health Programs and Policies in the Developing Countries", World Bank Staff Working Paper No. 412, The World Bank, Washington, D.C. 1980.

\*\*\* Jon Rohde, M.D., et al., "ORT Country Assessment Report: The Philippines", THE PRITECH Project, Management Sciences for Health, Washington, D.C., May 1984.

- Consequences of These Factors - In almost every Third World country, ministries of health are charged with the promotion and protection of the health of their entire population. Yet, increasingly, they are underfinanced and overextended. Their current infrastructure does not permit them to conduct efficient operations to serve the group least able to pay for health services of any kind.

With the exception of industrial marketing economies, the chart below lists percentage declines of central government expenditure as a percent of total expenditure for 118 countries divided into the following World Bank economic categories:

Central Government Health Expenditure as a % of Total Expenditure *		
	1972	1981
Low-income economies	6.2w	2.9w
China and India	..	..
Other low-income	6.2w	4.4w
Middle-income economies	6.2w	5.3w
Oil exporters	5.7w	5.6w
Oil importers	6.9w	4.6w
Lower-middle income	4.8w	4.2w
Upper-middle income	7.0w	5.5w
High-income		
Oil exporters	5.5w	5.5w
Industrial market economies	9.9w	11.4w

It is plausible to assume that per capita expenditures for health in the private sector have increased as per capita incomes have risen and that decreased governmental expenditures do not necessarily mean decreased per capita expenditures on health. Evidence for this statement emerges from

\* World Development Report 1984, The World Bank, Washington, D.C., 1984.

World Bank studies in three countries which reveal that reported public spending for health may represent as little as one-third of total spending. This information suggests that the quantity of resources being committed to health is much greater than is generally acknowledged, implying that the financial constraints to providing basic health services are much less severe than is commonly asserted. Moreover, a recent International Labor Organization study of household expenditures in two countries indicates that private spending can be redirected (i.e., toward prepayment schemes). Whether this finding is generally applicable is uncertain.\*

In most of the 118 countries listed in The World Bank Report, it can be stated that the lower percentage of government expenditure on health as a percent of total government spending is due to increased internal debt servicing. Thus, all development sectors have less available as a percent of total government budgets. However, in the industrial marketing economies, increases in central government expenditures for health are directly attributable to tax supported programs, such as Medicare in the United States and social security contributions in the Federal Republic of Germany.

On a global basis, policymakers in the donor and recipient community face some perplexing issues about the optimal ways to organize and finance efforts to maintain and improve health. The answers that have been accepted in the past have been premised on an economic reality in the Third World community of nations that is changing rapidly. For many of the more advanced developing countries, industrialization and economic growth have led to secular changes in the preferences and expectations of people in regard to health care services. Countries like Malaysia, Indonesia, South Korea,

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\* Ibid., Fredrick Golladay, page 16.

Brazil, Egypt and Tunisia have seen the emerging wage-based population increasingly seek higher quality non-governmental and private medical care instead of public services. For these industrializing countries, health system development strategies must be responsive to the growing purchasing power and changing preferences of consumers--or government sponsored health facilities will experience even lower utilization rates. For those countries in only the early stages of modernization, there is legitimate concern that the pattern of health services development set now should be appropriate for future patterns of health needs and service consumption.\*

The standard prescriptive formulas for manpower and facilities development recommended by donors are now seen as static solutions to dynamic and evolving situations. While some countries have found them helpful and appropriate for early developmental stages (when donor funding was available and alternatives were not), with modernization and industrialization, the dependence on centralized planning of publicly sponsored facilities has been abandoned by some population groups as an obsolescent development strategy. For instance, 95 percent of Egypt's population has effective, geographic access to a Ministry of Health facility. Yet, utilization of these facilities has fallen dramatically over recent years.

The Sudan has been the recipient of large health resource transfers from the donor community. In April, ministry physicians resigned en masse to protest the government's refusal to pump more funds into the crumbling public health service. The physicians were saying that they would no longer be held accountable to the people for the non-availability of constitutionally mandated free health services. (They have since returned to their

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\* Alan Fairbank, Boston University, "Commentary for the Non-governmental Task Force", First Technical Meeting, The P2ITECH Project, Management Sciences for Health, Washington, D.C. December 14-16, 1983.

posts.) In large part, this situation resulted from donor assistance which expanded health infrastructure beyond the capacity of internal resources to sustain.

In this confusing milieu of changing expectations and preferences on the part of a demanding public, ministries are attempting to compete with an emergent private and non-governmental sector. Some countries, with assistance from the donor community, have opted for investments in high cost curative services, particularly speciality hospitals. In 1974, Japan had a bilateral health account of \$6.2 million; it moved to \$192.3 million in 1981, exclusive of training and technical assistance. Japan's bilateral program in health, which is conducted mainly on a grant basis, is difficult for Third World ministries to resist. Thus, a 1,000 bed hospital in Sri Lanka; a teaching hospital/medical school complex in Nepal; an 850 bed pediatric hospital in Egypt, and a specialty hospital in Bolivia serve to meet the immediate needs of these countries for curative services.

Subsequently, these hospitals become national symbols in the health sector; resource allocation decisions by ministries of finance tend to direct primary funding to the tertiary system while leaving the primary health system at the end of a line which is getting progressively longer. In Nigeria, 70 percent of capital expenditures and 86 percent of recurrent expenditures in the national health budget go to teaching and specialized hospitals.\* In Pakistan, 70 percent of the total national health budget is allocated to hospitals in urban areas where only 28 percent of the popula-

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\* "Health Services, Health Manpower, and Universities in Relation to Health for All: A Historical and Future Perspective", John H. Bryant, M.D., American Journal of Public Health, Vol. 74, No. 7, American Public Health Association, Washington, D.C., July 1984.

tion lives. In the Philippines, the poorest 20 percent of income groups consume only 14.3 percent of all government provided free services.

The rapid rising costs of providing health services are outpacing the ability of governments to finance their expansion. In particular, donor financing of health projects in the public sector leads to onerous recurrent cost problems through the requirement for counterpart funding as a condition of most loans or grants. In the aggregate and across all development sectors, the increasing burden for vast amounts of counterpart funding to sustain donor initiated programs is becoming an uncomfortable load for recipients to bear. Funds to continue donor efforts can be raised in only three ways: increasing tax revenues; reducing imports financed through foreign loans; or printing more money. The first two options have political repercussions which most every government avoids in the extreme; the latter is used most often as a short-term palliative with an even shorter fuse on a country's capacity to service internal debt.

During the past 30 years of development assistance, governments have invested heavily in capital infrastructure (roads, communications, electric power, education, etc.) across all sectors. In the health sector, there has been a considerable investment in human capital (physicians, laboratory technicians, non-physician providers, etc.). Without this foundation of public sector investment, the non-governmental and private sectors would be unable to emerge as complementary systems. Now, governments can take advantage of past investment strategies, and changing socioeconomic conditions, to encourage the continued emergence of alternative health systems as options which reflect the contemporary diversity of the sector.

These systems, utilizing prepayment schemes, hold potential for recipient governments to stimulate internal capital formation; the operation of the systems themselves are dependent on user financing. The alternative health systems which result will still be recurrent cost intensive; the objective of public policy is to structure cost recovery so that it is borne by that portion of a growing population base which is willing and able to pay for services such that subsequent recurrent costs are internally intensive and thus sustainable.

- Summary - Given the conditions outlined in this text, it is a form of public policy abdication to entrust the future of the free health services concept to an assumed theory of equity without recognition of the fact that the bulk of these services are utilized now by those most able to pay. The health sector needs to tailor a new development strategy to new circumstances.

Health sectors in many Third World countries are in a state of rapid transition. Industrialization, urbanization, the change in the patterns of morbidity and mortality, and the increase in per capita income have altered expectations, both about government's traditional role in the provision of health services, and the public's incipient demand for a role in seeking alternative services. What are the alternatives and how can these alternatives serve the public interest?

Can these alternatives provide the necessary competition to the inevitable expansion of health service delivery capacity in the fee-for-service private sector? Further, can these alternative systems relieve ministries of health from some of their heavy financial liabilities, such as curative care in high cost tertiary centers, so that more of their decreasing budgets

could be targeted toward the professional conduct of public health functions? The Occasional Papers begin to examine these issues.

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Jeremiah Norris\*  
Editor

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\* Mr. Norris served as the NCIH Coordinator for the Workshop. He is presently with The PRITECH Project, Management Sciences for Health, Washington, D. C.

CHAPTER I

THE APPLICATION OF COOPERATIVE CONCEPTS IN HEALTH DELIVERY:  
AN INTERNATIONAL PERSPECTIVE

A Workshop

By

The National Council for International Health

and

The Cooperative League of the USA

at

The National Academy of Sciences

28-29 April 1983

Washington, D.C.

## Chairman's Opening Remarks

For some of us, cooperative concepts in health delivery may invoke images of highly centralized, specialized systems that are relatively new in the industrialized countries and hardly relevant to the health of the Third World. It may be useful, consequently, to quickly review several important facts.

First, we must realize that large gaps still exist between the developing and developed countries, if I may use these two imprecise terms that reflect certain economic and demographic criteria. In 1980 per capita GNP averaged \$711 for the developing countries and \$8,262 for the developed countries. Using 1982 figures, average birth rates for the developing countries was 32/thousand and 15/thousand in the developed countries. Average life expectancy was 59 in the developing countries, 72 in the developed. Average infant mortality was 96/thousand live births in the developing countries and 19 in the developed.

And yet, important changes are taking place in the developing countries. Infant mortality rates are decreasing, life expectancy is increasing, and the percentage of populations that are educated is on the rise. Population in the developing countries continues to grow, at an average annual rate of 2.4 percent in the decade 1966-1976.

Industrialization is a continuing phenomenon in the developing countries. Between 1960 and 1979, the share of the labor force in industry and services increased 5% in the low-income countries and 15% in the middle-income countries. Urbanization increased, of course; of the projected 2.2 billion increase in developing-country populations in the last quarter of this century, some two-thirds will occur in urban areas.

The developing countries, seen in broad perspective, are changing rapidly. People are living longer and are more educated, industrialization is expanding, population is increasing and is increasingly urban. These changes in the social and economic fabric lead to changes in the nature of health problems. At the same time, the developing countries with over 75 percent of the 1981 world population of 4.5 billion people have only 21 percent the total GNP. In 1960, the non-OPEC developing countries produced 14.8 percent of world exports. In 1980, their share of world exports had decreased to 12.1 percent.

The point of all these numbers is to illustrate that the rapid change in developing countries is taking place in a context of scarce resources. There is not enough money and not enough trained personnel to adequately meet all needs, and the provision of alternative forms of public services becomes important.

The Workshop focuses on alternative mechanisms for health services using cooperative concepts. Perhaps we should stress the "concepts" part of that term, because we will examine several approaches including health cooperatives, Health Maintenance Organizations, and prepaid health insurance.

John Hurley, Director  
Board of Science and Technology  
for International Development  
National Research Council  
Washington, D.C.

I. "WHAT DO WE KNOW ABOUT COOPERATIVE CONCEPTS IN HEALTH DELIVERY?"

1. **Presentor:** Carl Taylor, M.D., Professor, Department of International Health, The Johns Hopkins University, Baltimore, Maryland.

**Title of Presentation:** "Small Scale Community Financed Prepayment Schemes: India, Indonesia, Bangladesh and Sri Lanka."

Continuing problems with payment mechanisms frequently undermine primary health care planning, projects and programs. Unless funding problems in each locale can be identified and solutions sought, it will be impossible to maintain effective and continuing coverage for primary health care. Since establishing a health program generates additional recurrent costs, it is essential to build local capacity and develop self-reliance. This presupposes that primary health care should be at least partially self-reliant in funding. When primary health care services start with external funding, patterns of dependency tend to be established which make subsequent efforts to promote community financing difficult. International agencies are now beginning to realize that current donor funding mechanisms may hamper subsequent self-sustaining development.

Community-based self-reliance requires new patterns of organization. A major function of primary health care services should be to increase the capacity of communities and individuals to solve their own problems. In India, various financial mechanisms are being used to fund health services. Mission hospitals, for instance, have experimented throughout the years with prepayment schemes. As long as the hospital maintained strict control, these seemed to work well. The participating groups tended to be small and consisted mainly of salaried employees of local businesses or of the mission. Generally speaking, when there was no regular flow of money from which the premium could be withheld, it was difficult to maintain consistent payments to sustain operations.

One approach used in several pilot projects involved having the village councils assign common land to be farmed by volunteers so that the produce could be sold to pay village health volunteers and the costs of care. Although this worked well for a while in a few villages, it was difficult to sustain. Organizational mechanisms such as young farmers' and womens' clubs were then tried with greater success. These groups raised money and enlisted volunteers. The flexible prepayment system varied from village to village but always focused on paying acute care costs and supplementing the small stipend that the project paid village health workers. The project was flexible enough to cope with these varying arrangements on a small scale, but this raises the question of whether a large program could be sufficiently flexible.

One of the world's outstanding cooperatives is the National Dairy Development Board program that started in Kaira District Gujarat in the mid-1940's. It has steadily expanded to 4,500 cooperatives with over 2 million members. The greatest weakness of most cooperative programs in India has been that they have been imposed by government bureaucracies and manipulated by wealthy landlords. The Dairy Cooperatives, however, have succeeded in maintaining autonomous decision-making and a focus on the poor. The success of this non-governmental cooperative scheme can be attributed mainly to the flexibility, imagination, and personal leadership of Mr. Verghese Kurien who was able to develop a solid financial base and create the mutual trust necessary for true cooperation.

In Indonesia, a national prepayment scheme is being implemented under the label Dana Sehat, or "fund for health." Dana Sehat grew out of a general community development project in villages around Solo in Central Java, in which local funds and village labor are combined to promote improved agriculture, irrigation and a goat cooperative.

Dana Sehat organizers first met with village people to find out what they wanted and then conducted a local health survey. In order to start general development activities requested by the villagers, the project provided expert advice and food-for-work grain. Once a productive activity was established, the health services could be funded from the money flow established. This arrangement worked well in initial projects. Subsequently, more systematic ways of organizing money collection for Dana Sehat have been attempted.

The national primary health care effort has adopted the scheme and is now trying to implement it in one-third of the villages of Indonesia. Village people contribute to a fund which is used for health care provided by health promoters. Varying arrangements for payment have been tried in various parts of the country but funds are usually handled by the office of the Lurah or political leader of the village. The government is trying to standardize procedures and set up more uniform provisions for premiums and the handling of funds. Responses have not been as enthusiastic as in the original Solo 1 project and it is still too early to predict whether the program will be successful.

In Bangladesh, several different projects organized by private groups provide diverse patterns of experience. One of the first groups in Bangladesh to organize a health insurance scheme to try to reduce health service dependence on outside funding was the Gonashasthya Kendra. They started as a health service but have since moved progressively toward community development and income-generating activities. Extension activities from a rural hospital emphasize curative, preventive and family planning services for the poor.

Their efforts to promote health insurance in 1973 and 1975 were largely failures, however. Because of extreme poverty, families could not pay the premium because the money was needed for immediate daily subsistence needs. Many people did not understand insurance and thought that they should get back their premium at the end of the year, if they had not used the services. Recent efforts seem to be more effective in generating support for health services. A three-tier costing system has attracted about 45,000 people from the project area of 93,000. The poorest 20 percent are charged only Tk 0.5 per visit. (There are 25 Tk to the U.S. dollar.) The majority of the people who are at subsistence levels pay an annual premium of Tk 10 per family plus clinic visit charges of Tk 2. The upper 15 percent of the population pay the yearly premium of Tk 10 per family plus much higher clinic charges. About 60 percent of all health expenses are now covered by insurance payments and clinic fees. The projections are for this proportion to increase in the future.

Another successful community development project is the Sarvodaya program in Sri Lanka. Beginning in 1958, the program has mobilized volunteers from all ages and socioeconomic backgrounds to work in village development projects. Currently, six Regional Development Education Centers coordinate 74 village extension services. Village workers conduct health activities as part of their overall community development work. Out of these varied experiences around the world some tentative generalizations can be drawn!

1. Local patterns of funding should fit local conditions. Any primary health care program will probably be stronger if it has more than one funding channel. An axiom of primary health care is that solutions should evolve from local decision making. Finding out what has worked and not worked under various circumstances will help in formulating local decisions about what is appropriate under different circumstances.

2. Prepayment schemes that work best are those affiliated with a continuing money flow. Cooperatives have the advantage that they tend to have a broad financial base. Where people receive money from productive activities, the possibility of withholding premiums is greatly enhanced. Support will be more consistent than when people are expected to pay into a fund for health care, even if this is called a cooperative.

3. A prepayment scheme will attract subscribers only if the services provided meet community demand. The major inducement to participate is always curative services. An effective comprehensive program may use curative services to pay for preventive activities. A period of careful education is usually necessary to get people to understand the insurance concept of spreading cost. Even more, educational effort is required to convince the people of the value of prevention and since this will not happen spontaneously; it must be nurtured in a deliberate effort. In general, however, preventive services will have to be funded from public tax-supported sources. In a combined approach, curative services can be paid for directly by the people through a prepayment program or direct fees and preventive services can be tax supported. Public funds should be used only to pay for activities for which there is inadequate effective demand. They should not normally be used to get political support by paying for those activities for which the demand is high.

4. Developing an effective prepayment mechanism should not be considered the responsibility only of economists concerned with financing mechanisms. Equally important is the role of health care specialists in defining how the care will be provided. It is impossible to begin calculating costs until we know what the services will be, and what people are willing to pay.

5. One of the most difficult dilemmas is how to balance self-reliant community financing with the social objectives of equity and health for all. Primary health care coverage can be achieved best by using surveillance to identify where the need is greatest and targeting services to those in greatest need of health care. Invariably, it is the poor who are least able to pay. They are also less likely to join prepayment programs than to pay fees for direct services. Most societies try to make some arrangements for the medically indigent but it is difficult to fit charity care into prepayment mechanisms. Many questions arise. Should separate programs be established with public funds being used to care for the poor and pay for prevention? Should prepaid services deliberately and openly distinguish their high quality care from poverty medicine in order to attract subscribers? Should premiums for those who can pay finance care for the poor? In situations where it is difficult to get any care out to rural areas where people are poor is it better to have a single system of health care that meets the needs of everyone? Innovation is needed to discover ways of mixing funding equitably.

2. **Presenter: Michael Halse, Ph.D., International Consultant (formerly, FAO Team Leader, India).**

**Title of Presentation: "The National Dairy Board: Prepaid Health Services Through an Agriculture Cooperative in India."**

In India, a dairy cooperative movement started in Kaira District in 1946 as an economic off-shoot of the drive for national independence. By 1965, milk cooperatives had been established in six other districts. That year, under the aegis of India's Ministry of Agriculture, the National Dairy Development Board was formed as a non-profit charitable trust to replicate the non-governmental cooperative structure in all the country's major milk-sheds. The concomitant establishment of cooperative pre-paid veterinary services served as an example of how comparable human health care services could be implemented. Such services were subsequently attached to village dairy cooperatives as part of a larger integrated rural development program.

By 1970, the Board had launched a \$100 million investment program called "Operation Flood," so named because the ultimate intention was to produce a flood of rurally-produced milk in India. Another major task of this program was to organize India's 10 million dairy farmers into viable cooperatives. "Operation Flood II" was launched in the late 1970s, involving \$650 million of investment for dairy development. When this program is fully developed over the next ten years, there will be dairy cooperatives in 100 districts (in contrast to 65 at the present time). Assuming each milk producer represents one family of six, the cooperative structure will embrace 60 million members. By 1982/83, a total of 23,493 village cooperative societies had already formed.

Although the total sale of milk by the cooperatives averaged four and one-half million liters per day in 1982, the average sale per member was only

between one and two liters per day. These figures demonstrate how a well-organized cooperative can bring together a large number of milk producers, each of whom has very little resources. But even then, at one or two liters, a landless person who has one or two buffalos, typically, is enabled to double his income, which would otherwise depend wholly on seasonal labor. For a subsistence farmer, with less than a hectare of land, his milk income is likely to be about 30 percent of his family's total income.

The village milk co-ops collect milk and pay the producers. Usually they collect milk twice daily and pay 12 hours later in each case for the milk. The district union of milk co-ops organizes the collection of that milk and brings it to the plant, processes it, and either the union or the federation manages the marketing of milk and milk products.

The milk cooperative is run on a competitive basis with professional management. But, in addition, after the margins earned on milk, certain milk production services are provided to the membership. These services are usually organized and managed by the district union and consist of artificial insemination services to upgrade animals. Artificial insemination is carried out by lay inseminators--villagers who have trained for the job. Animal first-aid services are also provided. Each animal first-aid worker is a lay worker--a villager trained to do the job by the district union.

The union's job is to see that the system is serviced by professional veterinary doctors who visit each village once a week on a pre-determined schedule. If they do not arrive on time, somebody quickly complains to the union. Thus, certain problems experienced by the government-run veterinary system (which is not responsive to the villagers because of issues related to ownership and community management) are avoided. In any case, it is easy to

see that the chief actors in these milk production cooperatives are the village level animal first-aid worker and the village level artificial inseminator.

In the process of cooperative development, general social values and problems came to light. Beginning in the early 1970s, the managers of the cooperative began to notice that the milk producers would frequently express the hope that in their next incarnation they would be a buffalo so that they could have three meals a day, and receive the tender loving care of first-aid workers and veterinary doctors. The women (who manage the milk business in the family) were brought to the center where bulls are kept and semen produced for artificial insemination. When no male was present, it was found that women wanted to broaden the discussion. What they were most interested in was the relationship between using a glass tube on a cow, and somehow getting a calf. Thus, they figured, if the process were modified on humans a woman could not become pregnant. Out of this experience emerged the perception that villagers needed more health care education and facilities. The demand and determination grew to find a way of using the cooperative structure to build a health care program with emphasis on mothers and children.

At this stage, the National Dairy Development Board became interested in the same issues. A consultant team was put together and they wrote a distinguished report which covered almost every aspect of health care and human development. The main problem appeared to be how to use the cooperative structure for a new service function. The consultant team concluded that the dairy program in cooperatives worked because of zeal and well-paid professional management. For this reason, they recommended that the new service

function in health should depend primarily on reasonably well-paid professional management to run it. Thus, a program was created whereby the co-op system would provide basic prepaid health care to its members, especially for mothers and infants in villages.

In 1975, a charitable, non-profit making trust, the Tribhuvandas Foundation, was formed and began operations in 1980. Maternal and infant health services became its major action item, backed-up by a supplementary feeding program. In the maternal and infant care scheme, village health workers provide basic treatment while a mobile health care team makes regular visits to each participating village. By 1982, 82 villages participated in the maternal and infant care scheme and 30 villages had supplementary feeding programs for malnourished under-five children.

The same principles that guided the milk producers' cooperative structure were used for the new health component. Members participate regardless of caste, creed, or community membership. The village health worker must be identified by consensus. Unless the villagers agree to this, the Foundation does not offer its health organizational services to the village. Secondly, the milk co-op has to agree to support the health program by paying one-half the cost. The costs are covered by withholding a portion of the dairy earnings. In some cases, a levy is placed on each liter of milk sold. The milk cooperative also has to form a health care subcommittee consisting of a managing committee of interested village women and local physicians.

After the women health workers are selected, they are trained by the Foundation, first in the classroom and then on the job with other village health workers. After her training, the health worker returns to the Foundation, at first once a week and then once every two weeks, to learn new

techniques. The health worker dispenses medicine, keeps accounts, manages supplemental feeding programs and helps organize income-generating activities for women. The field staff carry out vaccinations and health education in addition to family planning and hospital referral services.

Once a village has joined the scheme for maternal and infant health care and supplementary feeding, it may become involved in a variety of other projects -- e.g., young farmers' clubs, or family viability programs. The latter helps members find employment. Women may be taught how or what to sew or may receive help in obtaining sewing machines. There is a program for general environmental improvement, which provides financial assistance for implementation. This program may focus on cleaning up a pond or providing drainage or clean water.

The National Dairy Board has proved its vitality as a modern organization in a variety of areas. Like other organizations, cooperatives tend to broaden their scope and undertake "lateral" functions in addition to their basic functions. However, in order to undertake health care functions, the National Dairy Board was unable to use the cooperative structure per se. It found it could only undertake this new activity through the formation of a Foundation which, in return, conducted health activities through the cooperative structure. Thus, a cooperative may be enabled to undertake lateral health care functions provided appropriate adjustments in their structures are made.

3. Presenter: Edward Hinman, M.D., Executive Director, Group Health Association, Inc. Washington, D.C.

Title of Presentation: "Cooperatives and Health Maintenance Organizations": The U.S. Experience."

All HMOs work on an annual, fixed, prepaid fee. Risk is shared between the providers and consumers of care. In consumer-owned HMOs, profits, if any, are returned to the co-op members in the form of improved services or reduction of future premiums. Investor-owned HMOs, on the other hand, offer sale of stock to the general public and operate at a profit which accrues to shareholders.

There are several different forms of HMOs in the United States. A consumer cooperative HMO, e.g., the Group Health Cooperative of Puget Sound, is owned and operated by its members. Membership is voluntary and control is democratic (one member, one vote). Other HMOs are investor owned, e.g., U.S. Health Care Systems, Maxicare of California, and Health America of Nashville, Tennessee. Still others are operated through insurance plans, e.g., the Blue Cross system, which now owns some 45 HMOs in the United States.

Present cooperative HMOs had their antecedents in the group practice movement which began at the end of the 19th century at the Mayo Clinic. In the early 20th century various groups, lodges, and benevolent mutual aid societies developed insurance programs, some of which paid physicians directly for services provided to their members. At this same time, industry (mining, lumber, railroads) in remote areas of the country began offering pre-paid medical services through payroll deductions. These industrial groups provided services through company hospitals, or by contracts with local providers, physicians and hospitals.

In 1919, major labor unions became involved. Several locals of the International Lady Garment Workers in New York City banded together to form a health center. Within several years, all the unions in New York City were availing themselves of this health center's services.

One of the turning points in utilizing cooperative concepts in the U.S. resulted from the Committee on Costs and Medical Care, which operated between 1927 and 1932. In their report, the committee stated that all citizens should have access to preventive and curative medical services provided by organized groups of physicians and other health providers. Preferably, services should be organized around a hospital base, and a package of benefits should be offered including home, hospital, and office health care. The report further recommended provisions for the maintenance of professional standards (including quality of care). It urged that a personal relationship between the physician and the patient be maintained. Finally, the financing of the delivery system should be through group payment, primarily through insurance or taxation or some combination thereof.

In 1929, a health cooperative, the Community Hospital Association, formed in Elk City, Oklahoma. This became the forerunner of the Kaiser Health Plan and the Group Health Association (GHA) in Washington, D.C. The GHA started as a group of 1,000 individuals (providers and administrators), who came together and declared "we can do a better job than the system as it currently exists can." They proceeded to establish a consumer health cooperative based upon prepaid group practice concepts.

Once the GHA was formed, a major legal battle ensued which was subsequently adjudicated by the Supreme Court. The District Medical Society (DMS)

and the American Medical Association (AMA) contended that the GHA was practicing medicine despite the fact that a corporation could not be legally licensed to practice.

The DMS not only expelled GHA physicians from its ranks but also prevented them from obtaining access to district hospitals. The AMA argued that the GHA was responsible for destroying the traditional direct relationship between patient and physician (by acting as an intermediary between the two). It also claimed that medical care under GHA auspices was inferior in quality. The GHA argued that the AMA and DMS were conspiring to restrain the trade of the GHA in violation of the Sherman Anti-Trust Act which prohibits restraints inhibiting the public from freely receiving goods and services.

In 1943, the Supreme Court ruled definitively in favor of the GHA. It upheld that the GHA was engaged in business (or trade) and it was thus immaterial whether or not physicians were engaged in it. Thus the legal precedent for the growth and expansion of the current HMO-cooperative movement was settled.\*

The successful implementation of HMOS in the United States has presupposed the fulfillment of certain conditions:

1. Sponsorship - the driving force to make it work. This can be a cooperative, a labor union, industrial group, or government.
2. Membership - those to whom you can market the services. In the U.S., this requires large groups to whom one can go and sell the product; e.g., labor unions who wish to obtain health services for their members.
3. Payroll deductions - a mechanism for collecting the dues. Because this eliminates having the member pay directly out-of-pocket, it assures a steady and predictable cash-flow to the HMO.

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\* See Katherine Puder, "The Anti-Trust Suit Against the AMA, 1939-1943," in Social Work in Health Care, vol. 33, 1978, and Harold Mufson, A History of Group Health Associates, Inc. 1937-1955, M.Sc., Catholic University, 1955.

4. Staff - a medical group willing to practice this form of medicine. This requires a willingness on the part of the staff to enter the community and work as partners with individuals who will become their patients.

Ideally, an HMO should have coordinated levels of service, and a comprehensive benefit package - including a full range of ambulatory services (both curative and preventive), as well as hospital, emergency, out-of-area and certain mental health services. HMOs typically face certain difficulties, however, in delivering services.

1. Facilities can be a major problem. Most HMOs do not own their own facilities and therefore have no direct control over pricing of hospital services. An exception to this is the Group Health Cooperative of Puget Sound, which owns and operates its own hospital and clinics. Most HMOs, however, contract with existing hospitals and lease space for ambulatory care.
2. Financing is the critical issue. Capitalization must be present upfront because once enrolled, members will come in for services. If services are not provided because of inadequate financing, prospective patients will soon leave and the plan is dead. Capital can come from investors, government loans and contracts, or from private contracts.
3. The legal climate (the corporate laws, professional medical societies' structures, etc.) may also affect the viability of HMOs. Even though the Supreme Court had ruled in favor of the GHA in 1943, the Group Health Cooperative of Puget Sound had to repeat many of the GHA legal battles at the state level when it organized in 1948. In order to achieve privileges of medical group membership and hospital practice, the cooperative had to fight the state of Washington's medical society.

The U.S. form of cooperative HMOs has not been successful in three areas:

1. Providing service to the poor.
2. Providing services to rural areas.
3. Providing services to areas where physicians and other health providers are mal-distributed.

Experiments are now being conducted to remedy this situation. Networks of rural primary care facilities are being linked to well-established urban HMOs. The HMO, acting as a referral and back-up mechanism, can provide a full range of services and enable individual rural centers to maintain their economic viability.

The Medicaid program in various states has experienced difficulty in getting enrollees to participate in HMOs. In some areas, HMOs are reluctant to deal with Medicaid programs. However, in places where good working relationships have been established between the public structure running the Medicaid program and the HMO, the enrollment of this population group has been shown to be successful.

4. Presenter: Dieter Zschock, Ph.D., Department of Economics, State University of New York at Stony Brook.

Title of Presentation: "Medical Care Under Social Insurance in Third World Countries."\*

Medical care under social insurance in developing countries has had a bad press. There are many misgivings about the assumed exclusivity of social insurance coverage for medical care, the high costs attributed to medical care under social insurance, its strong emphasis on curative care, and its alleged lack of concern with preventive care. The problems attributed to or associated with social insurance do not, however, differ significantly from those of public health. Public health, perhaps, has had too good a press. A reassessment of public health services, medical care under social insurance, and of the role of cooperative concepts generally in both public and private sector approaches to health services delivery is in order at this time.

In the last several years, the U.S. foreign aid program, the World Bank, and the Interamerican Development Bank have recognized that the health sector in most of the Latin American countries and in many other Third World countries includes significant social and private insurance components. U.S. corporations in the health services field also have begun to take note of the expanding role and begun to market cooperative concepts, such as health maintenance organizations, that may serve the social insurance and private sectors in developing countries.

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\* Much of the material presented in this paper was derived from the author's recently completed study for AID's Latin America Bureau on social insurance financing of medical care in 16 South American countries. Additional material was gathered from the author's work with the International Social Security Association during its inter-regional Round Table Meeting in Brasilia, Brazil, November 1981, encompassing the theme: "Medical Care Under Social Security in Developing Countries."

Medical care under social insurance comes in two varieties:

- (1) the direct provision of medical care services by social insurance organizations (a system more prevalent in Third World countries than in advanced countries), and
- (2) the indirect pattern, involving reimbursement, or prepayment of expenditures for either individual, private medical practice, or for group practice.

There are structural parallels between the direct pattern and HMOs, while under the indirect pattern, contractual arrangements in the private sector HMOs are possible.

Insurance schemes and HMOs also share other similarities as well as certain problems. One element of social insurance that makes it similar in concept to HMOs and other cooperative approaches is its apolitical nature. Social insurance is meant to be apolitical; it is typically established as a semi-autonomous institution which operates independently of changes in political influence and power. A common problem is that coverage for HMOs, as for insurance, favors a relatively homogeneous population that is capable of financially supporting the program. How to serve the urban poor, outlying rural areas, and other under-served segments of society are problems frequently associated with social insurance and HMOs alike. It is interesting to note, however, that social insurance coverage for medical care in Japan had its beginnings in the form of rural community HMOs, covering non-salaried farmers, fishermen, etc.

Although public health services may very well be larger in organizational terms than the social insurance system in most developing countries, it is mistaken to assume that all those who do not have financial access to private medicine and are not covered by social insurance are, in fact, covered by public health care. The lower the level of per capita income in a country, the greater is the percentage of the population lacking any

access to modern health care (up to 80 percent in the lowest-income countries and as much as 50 to 60 percent in what the World Bank refers to as the middle-income countries).

In Latin America, public health services do not serve substantially more people than does social security and private medicine. In Colombia, for example, a middle-income country, the Ministry of Health itself claims that, at best, it reaches only one-half of its target population . . . and this in a country that has close to \$1,000 per capita income. Something like one-third of the total population (essentially one-half the rural population), has no access to modern medical care. In Mexico, a relatively more advanced country, social insurance provides medical coverage to most of the urban population and about one-third of the rural population.

It may be appropriate then to look more critically at public health services delivery. Is it really the only or best way of providing health for all, of extending health services coverage to those currently served inadequately or not at all? How extensive is the coverage provided under social insurance on a worldwide basis?

The World Bank's annual World Development Report covers 90 countries in the Third World. Over half of these countries have medical care programs under social insurance, providing coverage for approximately 300 million people, according to a recent study sponsored by the International Social Security Association. Because of its characteristic financing through compulsory contributions based on labor laws, social insurance is less viable in rural than in urban areas. Urban areas of these countries account for an estimated 300-400 million people in the low-income countries and 400-500 million in the middle-income countries, or approximately 40 percent of the

Third World population. Medical care under social insurance thus covers approximately one-third of the total urban population.

The middle-income countries may be approaching maximum possible coverage of medical care under social insurance, given current levels of development and the size of the wage-based population. In low-income countries, we are not close to reaching that same point. Among low-income countries, medical care under social insurance coverage in urban areas can potentially cover more of the labor force and dependents than is currently the case. Once covered, workers and their dependents no longer need the health care services provided by the public health authorities. Thus, such coverage can help rationalize and potentially reduce public health expenditures for medical care.

Social insurance and HMOs may not only be complementary but may be mutually reinforcing. In Brazil, for example, medical care coverage under social insurance is estimated to be close to 80 percent. Significantly, Brazil has a social insurance scheme based on the indirect pattern of services delivery. In 1971, the social insurance program owned only 8,000 hospital beds (essentially the same in 1978). Most hospital beds, physicians, and curative medical services are provided by the private sector. Increasingly, services are provided by HMO-like organizations. AMICO, run by the Hospital Corporation of America in Brazil, is the world's largest HMO. In June 1982, it had 640,000 members. AMICO provides both preventive and curative services for something close to one percent of the Brazilian population. The potential for HMO and other cooperative ventures is therefore barely tapped in this country and others, such as Argentina, which also rely on the indirect pattern.

Some claim that social insurance reflects social stratification, maintains class privilege and excludes those who are not fortunate enough to be wage earners with steady incomes. This problem has been overcome in middle-income countries, such as Mexico, Brazil, and Argentina, countries where social insurance covers between 50 and 80 percent of the population. These examples suggest that social stratification can be overcome (but perhaps not at lower levels of development). The case of the People's Republic of China makes one reconsider even this assumption, however. Its health care system, based on cooperative arrangements among brigades at the commune level, resembles HMOs in organization and operating principles.

The Chinese system of paying for medical care starts with mandatory contributions which are wage-based or deducted from communal resources or earnings. As a system of financing, organizing and delivering medical care this "social insurance system" covers approximately 25 percent of the world's total population. China came to organize a national health system only after the "public"--largely the masses of impoverished, illiterate, and unhealthy peasants--had become an important health interest in the socio-economic development strategies of an egalitarian system.

If the WHO goal of "HFA/2000" can do the same for other developing countries, the Latin American and Chinese examples demonstrate the potential of social insurance coverage for medical care at all levels of development. This potential may be less easily realized, however, under the direct pattern of medical care which predominates in Latin America, at least in terms of numbers of countries if not necessarily in terms of numbers of people covered. The indirect pattern, that is, reimbursement schemes or prepayment approaches which rely heavily on private medicine (including HMOs), accounts for at

least one-half of the Latin American population served by the modern health sector. Frequently, the direct pattern of care provided through ministries of labor or parastatal institutions, has been very expensive and highly curatively oriented. Expansion has been difficult because of high capital and recurrent costs. Despite this tendency, more and more examples have emerged which illustrate that these problems can be overcome. Among the problems to be overcome in expanding social insurance coverage are the following:

1. Because of economic fluctuations (i.e., recessions), the unemployment rate increases and enrollees lose their eligibility.
2. Increases of the total benefit package under social insurance, for the wage-based population has dampened employer inclinations to bring on new employees.
3. In the direct pattern, there is a tendency to provide more and more coverage for the beneficiaries rather than expand the base of beneficiaries.
4. In many countries, only the employee is covered and not the employee's dependents. But progress is being made in the middle income countries to include dependent coverage.
5. Extending social insurance to the rural population may be a problem. Attempts to do so in Brazil, Mexico, and Ecuador have met with some limited success, but the payment procedures are complex and unstable.

The notion that public health is less expensive, and provides more services to more people, is questionable. Donor agencies, by focusing only on public health, have unfortunately failed so far to question this assumption. If one compares public health services with medical care under social insurance and other cooperative mechanisms, the unit costs probably do not differ greatly. They are all more or less inefficient and ineffective, partly because of lack of coordination and cooperation among the sub-systems within the health sector at large. The donor community should begin to look at social insurance coverage of medical care - not only as an idea that merits

further study but also as a system that is already in place in many developing countries around the world, as well as in most of the advanced capitalist and socialist countries.

## 5. Notes on Discussion/Conclusions

Although limited, our knowledge about cooperative schemes already in place both here and abroad is expanding. As people from around the world come to the U.S. to learn and as we advise and share our experience with them, we should be careful not to suggest that others can automatically replicate procedures that have worked here. Methods need to be developed that are appropriate for each local situation. Self financing by most of the world's people is needed to achieve health for all. It is clear that prepayment mechanisms have great promise in financing a large part of this medical care. This can be done in multiple ways.

Cooperatives can be part of the solution especially since many have long institutional histories, are service-oriented, possess managerial talent and fiscal integrity and operate within the cultural value system of their members. Although prepayment mechanisms vary in form from country to country, they all pool risk at the user level. The co-op HMO model can be a viable one in diverse settings. What specific forms will be most attractive in a mixed economy or expanding market depends on local conditions ... income threshold, other available forms of health care, cultural acceptability, political constraints, etc.

The collectivization of demand through prepayment schemes can be an effective mechanism for shaping supply for the benefit of the consumer as well as provider. The incentive structure of health insurance packages or HMO enrollments can shape provider functions as well as consumer behavior. The virtue of cooperative concepts generally, and of HMOs in particular, lies in their offering subscribers comprehensive medical care--preventive, diagnostic, outpatient, and hospital services--at a higher level of quality and at lower cost than fee-for-service payments.

Recent studies in the United States by Alain Enthove and Harold Luft, for instance, conclude that the total costs of medical care for prepaid group enrollees was 10 to 40% lower than for comparable individuals enrolled in traditional insurance plans.\* Cost savings may be achieved without sacrificing quality.\*\*

If a major function of primary health care services is to increase the capacity of communities and individuals to solve their own problems, then they must enable people to learn how to make better use of their own efforts and resources. Cooperatives can be one of the best organizational channels for enhancing this capacity if they can maintain their autonomy from excessive bureaucratic rigidification and avoid being captured by the affluent. Pre-payment schemes offer budgetary predicatability and serve to achieve equity in terms of financing the cost of care--important factors in developing self-reliance.

How to establish a continuing money flow to pay for health services depends on local circumstances. The major constraint to the success of cooperative schemes is lack of financial imagination and organizational prowess rather than absolute unavailability of resources. Sometimes the medical profession may resist implementation of prepaid schemes ... in which case, regulatory issues and legal constraints need to be overcome. Frequently insurance or cooperative schemes principally serve the middle classes. However, by relieving governments of the task of providing inexpensive services for all, such schemes give Ministries of Health the option of focusing on the poor rather than attempting to provide universal care.

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\* See "Health Maintenance Organizations," by Ernest Sward and Scott Fleming, Scientific American, Oct. 1980, Vol. 243, #4

\*\* Ellwood, Paul - "Competition," Grp. Practice J., #31, July 1982

As was made clear in the presentations, even now MOH services do not cover large percentages of the population in many countries. At the same time, significant numbers of people already have access to health care services through social insurance schemes or other cooperative prepaid financing mechanisms. Donor agencies should be aware of these developments in order to render their aid most effective.

## II. "WHAT CAN BE APPLIED FROM WHAT WE KNOW?"

1. Presenter: Martha Fernandez, M.D., M.P.H., formerly Public Health Specialist, World Bank, Washington, D.C., presently Physician-Anthropologist, National Indian Institute, Mexico, S.A.

Title of Presentation: "Cultural Factors in Rural Areas Related to the Utilization of Cooperative Concepts in Health Delivery: The Consumer Perspective."

In Mexico, primary health care is delivered to rural areas through a social security scheme under the Government's Institute for Social Security. This program reflects a recent attempt on the part of the Government to include the poorest and most marginal population groups in a social security scheme covering ten million Indians.

The program's distinguishing feature is the method of payment by the consumers of health services. Because the consumers are peasants, who are not part of the wage-based economy or modern sector, the form of payment is non-monetary. The Indian groups pay for health services through communal works which benefit the community at large. They participate, for instance, in the construction of a school or road, or in activities which provide the community with safe water supplies.

The health program with the Indian population, which began in 1978, required coordination among the Institute of Social Security, the National Indian Institute, the Office of the President, and community organizations in 54 regions of the country. The Institute of Social Security was responsible for the organization and delivery of the health services. The community organizations, where the administrative units were located, were responsible for organizing a collective community work system.

The National Indian Institute, operating since 1951, had accumulated a lot of experience in community-organizing. Basically, the Institute had been employed by the Government as an alternative development agency to promote rural development through programs in agronomy, education, agricultural economics, land tenure, community organization, legal defense, and primary health care.

Thus, since 1951, the Institute had been involved in preventive and curative health services for most of the common diseases which affected the population; i.e., upper respiratory infections, parasitic diseases, and malnutrition. Its health program had been flexible enough to interact with traditional practitioners and village midwives, thus giving consumers an option of choosing services consistent with their own values and beliefs about the origin of health and diseases.

The Institute knew the needs of the people and how the communities would respond to a new program. The program to deliver primary health care through social insurance began in 1978 with a goal of serving ten million people. During the first four years of the program, the cost has been very high, approximately \$200 million. Since much of this expense has been for capital infrastructure, future costs might well be reduced from this high level.

Although the financing of health services is an important factor in determining a community's receptivity, so too are cultural factors. The Indian community was able to accept the social security scheme in part because it drew on indigenous social values which stressed communal work for the social benefit of all. This new scheme for health services did not produce a negative response among the Indian population for various reasons. Traditional practitioners were allowed to continue their healing practices.

Other medical specialists participated on a referral basis, allowing traditional practitioners to continue their other economic pursuits (e.g., agriculture, handicrafts, etc.). Finally, because the Indian population is so poor, private physicians were not affected in the marketplace.

The program has, however, faced several constraints. First of all, even though this large scale program was initiated on the basis of community participation, the decision to launch the effort was a political one rather than a community decision. Secondly, because referral from peripheral units to secondary levels has been difficult, the program does not operate at a level sufficient to meet demand. Thirdly, besides the high capital costs for launching the program, the cost of supervision and organization has been unexpectedly high.

The Government is presently evaluating this large scale program. Although the Government imposed the program independent of community initiative, the program was able to move forward. Its successes would have been impossible had an extensive infrastructure (the Mexican Institute of Social Security) and administrative units (the National Indian Institute) not already been in place. That its methods of service delivery were also consistent with established community and cultural values also facilitated its acceptance.

2. Presenter: Albert Henn, M.D., M.P.H., Coordinator for Primary Health Care, Harvard Institute for International Development, Harvard University (formerly, AID Health Officer, Cameroon Republic and Tanzania).

Title of Presentation: "Attitudes of Professional Medical Community (the Implementors), and of Ministries of Health (the Operators), to the Application of Cooperative Concepts in Health Delivery."

The attitude of medical professionals toward cooperatives becoming involved in health delivery depends on the economic and political ramifications which ensue when communities take a more active role in managing and financing local health services. If the proposed cooperative activity diminishes neither the political influence nor the economic gain of health care providers, it will be accepted. If, however, their political or economic influence is threatened by a proposed cooperative health venture, health workers will oppose the cooperative. Although a patent simplification of the situation, this generalization can serve as a useful model for predicting the response of health workers to a wide range of cooperative alternatives.

Physicians, nurses and midwives usually support community level cooperative proposals, whereas traditional healers typically oppose them. Cooperatives often represent a new or more stable source of income for those in the modern sector. Sometimes traditional birth attendants, however, find that community health programs (which involve them in the provision of services) also serve to guarantee or stabilize their income. Traditional practitioners are often threatened by cooperative initiatives because organized community efforts to develop, manage and finance local services usually favor a modern pattern of service delivery (involving health workers and modern drug procurement schemes) which can jeopardize the income of traditional practitioners.

The private medical community (composed of physicians, nurses and midwives) has often opposed large-scale cooperative or prepayment schemes such as HMOs or social security systems, because it perceives itself as threatened economically. Cooperative concepts may lead to rate-setting, which deprives providers of their free market advantage over consumers in need of their services. HMOs and other prepayment schemes are still portrayed as willing to sacrifice quality of services in the interest of cost-containment and profit.

From a political perspective, health workers can be expected to react to cooperative concepts as a function of the gain or loss of influence or control. For the physician, nurse or midwife, the assumption of policy responsibilities by a community-level cooperative is not likely to impinge upon the areas of responsibility held by these staff. Hence, these workers will probably support local cooperatives' involvement in health care. However, when cooperatives attempt to assume clinical policy responsibilities; e.g., by establishing a lay medical practice review board, an unfavorable reaction can be expected. In large-scale cooperatives, HMOs, and social security systems, health workers often react negatively to the loss of policy authority to profit seeking managers, or to government officials concerned with containing health services' costs through mechanisms such as rate-setting.

The attitudes of professional health workers toward cooperatives will generally be determined more by economic considerations than by political reaction. Traditional practitioners are usually so removed from the larger cooperative service interventions that their attitudes are not expected to

affect the application of this concept in operational settings. At the community level, economic interests also appear to have more importance than political-cultural considerations. Neither support nor opposition from traditional practitioners appears to play an important role in determining the success of local, community-level cooperatives in which the community members have real management and financial responsibility.

In contrast to the importance of economic issues to health workers, political concerns play a major role in determining the attitudes of government officials. Historically, developing country governments have been highly centralized with little policy and management responsibility held at the community level. Thus, nearly all health services are centrally planned in Ministries of Health, which assume complete managerial and financial responsibility for delivering services to the people. Government officials determine what types of health workers are trained, whom they serve, and how they are paid.

Before the global primary health care promotion began in 1978, attempts at instituting community management and financing of health services often met with resistance from government officials who maintained that all national governments are obliged to provide free health services to their populations. When governments accepted the primary health care accords of Alma-Ata, they soon realized that there was no way public funds, even when augmented by donor assistance, could finance primary health care services for everyone. Alternative financing schemes were needed if primary health care services were to be extended to all communities. Community financing schemes were recognized as the only model which could make available ade-

quate levels of resources over a long, sustained period of time. In this setting, community cooperatives are expected to play an important role in managing and financing local health services.

The present enthusiasm for community participation in health includes a willingness to explore the value of utilizing existing community organizations, such as agricultural cooperatives, credit unions, and women's groups. In some sub-Saharan African states, there has been less official resistance to allowing communities to manage the revenues generated by local health services and drug sales than to having communities take over personnel management (e.g., establishing the selection criteria for hiring and firing community workers). In these countries, government officials are increasingly willing to experiment with community participation models in an effort to determine the maximum, operable level of community responsibility that can be sustained.

3. Commentator: Hakchung Choo, Ph.D., Fulbright Scholar, Harvard Institute for International Development (formerly Senior Fellow, Korea Development Institute, Seoul, Korea, where he worked on health sector planning for the Government).

Title of Presentation: "A Commentary to Dr. Henn's Presentation"

While many different categories of staff compose the professional medical community, doctors are the most influential group. Yet, even within the physician group, there are differences in status and conflicts of interest. For instance, it is one thing to discuss cooperative concepts with public health physicians, and quite another with curative care physicians. The most influential physicians are generally those practicing curative medicine. In many Asian countries, doctors practicing curative medicine are typically the most influential and conservative group among physicians.

Age is a very important factor in defining status in the Asian setting; it commands respect. Thus, when it comes to cooperative concepts or any innovation in the health services delivery field, the age factor may act as a deterrent to successful implementation of these concepts which tend to be associated with the "young." Perceived professional prerogatives, such as earning a high income, may also militate against professional acceptance of cooperative medical schemes. In Korea, the medical profession aims to enable practitioners to make large sums of money. There are two possible avenues for physicians to achieve this: to become the best in one specialty area, or, (as the saying goes), to become proficient at diagnosing a patient's illness, at the patient's expense.

An innovative scheme like cooperatives and Health Maintenance Organizations should be welcome opportunities for physicians and the professional medical community. From a professional standpoint, if a scheme can enlarge

a potential market, increase effective demand, and increase cash flow through insurance features, it should capture the imagination of the professional community. Unfortunately, such innovative ideas are often resisted by the professional medical community, partly because physicians are quite conservative and content with the status quo.

Physicians often fear that the successful adaptation of these concepts will reduce their revenues and their incomes. The reported income of doctors in Asia is a fraction of what they earn. HMOs, cooperatives, and social security insurance schemes have payroll provisions for reporting all income of their employees to government tax offices, thus effectively dampening enthusiasm for participation by physicians in socially financed endeavors.

In addition, where these schemes are successful (both in the United States and in developing countries), non-physician personnel are used extensively within the treatment system. In many countries, the actual "hands-on" treatment of patients is reserved to physicians, a prerogative which they jealously guard. Many recent studies have concluded that 80 to 90 percent of patients presenting themselves to physicians for treatment could be handled effectively by non-physician personnel. In several sub-Saharan countries, physicians are "seeing" 200-300 patients per day. Although no physician can adequately handle this patient load, professional medical societies continue to maintain that this demonstrates the great demand of patients to see and be treated by physicians. Fortunately, we now have the experiences of large systems, like Kaiser and other HMOs, which illustrate that many patients can be adequately treated by non-physicians at no loss in the quality of services but at great increases both to the efficiency of the system and to its financial sustainability.

4. Presenter: Ahmed Badran, M.D., Minister Counselor for Medical Affairs, Embassy of Egypt, Washington, D.C.

Title of Presentation: "Structural Factors/Requirements in Utilizing Cooperative Concepts: A Perspective from the Consumer and Producer Viewpoints."

The health delivery system in Egypt is, at present, in a state of transition. The health policy of Egypt reflects the Government's general policy to provide free education at all levels up to the university, to guarantee jobs for all graduates, and to subsidize many commodities (electric power, flour, etc.) and services. Since the 1952 revolution, this general policy has served to dictate health policy. The constitution stipulates that adequate health care delivery is a human right and must be within the reach of each individual. Thus, the state is committed to "Health for All."

The Egyptian health sector is multifaceted, complex, and not easily understood in Western terms. To simplify matters, the sector can be subdivided into:

1. The Government Sector (Ministry of Health; Ministry of Education, etc.).
2. The Public Sector (Health Insurance Organization; Curative Care Organization, etc.).
3. The Private Sector (Medical Syndicate; traditional practitioners, religious and community groups, private practitioners, and large scale providers; e.g., the Arab Contractors, etc.)

The Government sector is mainly the responsibility of the Ministry of Health, and, to a lesser extent, the Ministry of Education which operates the teaching hospitals and tertiary hospitals. In all, this sector is available to an estimated 70 percent of the entire population (44.8 million in 1982). Admission to out-patient and in-patient facilities is free, irrespective of a person's financial ability.

However, the governmental system is underfunded on current account. The health portion of the national budget has decreased substantially in recent years. The Government spent approximately 5.6 percent of its total budget on health care in 1976. By 1979, the figure fell to 4.0 percent, and to 3.6 percent in 1980/81. Estimates for 1982/83 are now a modest 1.38 percent. This budget decrease must be viewed in light of the fact that the personnel side of that account is increasing at an average rate of 11.4 percent per annum. Thus, salary emoluments consume an ever increasing share of a shrinking resource base.

The Public Sector consists of health care provided under social financing schemes, collective prepayment, contributory insurance principles, and consumer cost sharing. The two institutions responsible for these types of services are the Health Insurance Organization (HIO) and, to a lesser extent, the Curative Care Organization. Together, they cover some 10 percent of the total population. Both of these groups report to the Minister of Health rather than to the Ministry of Health.

The HIO now has about 3.0 million beneficiaries insured as employed groups. Two groups of the wage-based population are included in this coverage. In one, the employee pays 1 percent of his salary while the employer pays 3 percent of salary. In the second group, the employee pays only 1/2 percent of his salary while the employer pays 1.5 percent. However, in the latter case, the insured employee shares some fees for out-patient visits and a part of the costs for medicines (with an upper limit).

Most of those insured by the Health Insurance Organization are workers and government employees. At present, pensioners and dependents of covered employees are not covered, though the HIO is testing dependent coverage in Alexandria, and pensioners are scheduled to be added in 1984.

In addition to those enrolled under the HIO plan, there are about two million more who have health insurance programs provided by their employers. These programs vary widely in their terms and the contributions of both employer and employee. Some of these programs offer a higher caliber of health care than the HIO.

The Curative Care Organization (CCO) operates from fixed hospital bases. These hospitals, nationalized in the 1960s, were later turned over to the CCO by the Ministry of Health. They provide in- and out-patient services in return for reasonable out-of-pocket rates, and participate in health insurance schemes for a limited number of groups who are enrolled by their employers in the wage-based sector. Of the total bed space available in the Organizations' hospitals, 20 percent are reserved for indigent patients. The Minister of Health negotiates an annual fee with the Organization to cover the costs of this service.

The Private Sector depends on out-of-pocket payment and serves, at most, some 20 percent of the population. This sector is concentrated mainly among the high and upper-middle income groups, and operates in Cairo, Alexandria, and other large cities. Providers include physicians, surgeons, radiology specialists, clinical laboratory specialists, etc., and hospitals (ranging from small hospitals owned by a single physician or a group of physicians to large hospitals, some of which are ultra-modern and established mostly as joint venture operations).

Even when the sector is non-governmental or private, the government provides generous subsidies to assist in sustaining their operations. These come in the nature of tax credits for hospital construction, importation of medical equipment and supplies, training of medical professionals, and provision of government facilities (for public physicians' private practice). The pharmaceutical industry receives substantial financial assistance, which is reflected in lower drug prices to consumers across the board.

The Minister of Health is charged with the responsibility of providing health care free to all who cannot pay. However, because of changing politico-economic conditions, it is unlikely that the Ministry will receive significant increases in its funding, and in fact, if the past several years are any indication, funding levels will continue to decline. This increasing financial burden affects the Ministry's ability to perform important promotive and preventive public health services. It lowers the standard of medical care that can be provided to that portion of the population unable to pay for health services.

The Government of Egypt has formulated a plan to extend health insurance to cover the great majority of the population. A major part of the extension of health insurance coverage will be accomplished by increasing enrollment in the Health Insurance Organization of employed groups, pensioners and dependents. The Government feels that it can extend coverage in the HIO to 60 percent of the population by the year 2000. This would leave 20 percent for governmental free services, and 20 percent for the private sector. Such a policy would relieve the Ministry of Health of the burden of services now financed by declining general tax revenues, allowing it to devote more of its fiscal and technical capacity to its primary role in fostering public health activities.

Though it may appear difficult to extend coverage under the Health Insurance Organization in the urban wage-based economy, the difficulties in rural areas with agricultural workers are still more formidable, though not insurmountable. There are now "cooperatives" in almost every village. These cooperatives act as purchasing agents for crops, and provide fertilizers, seeds, and pesticides to members (items which are subsidized by the government). The cooperatives are governed by a Central Bank for Agriculture Development. Possibly, this Bank could act as a collection agent for the contributions of farmers to an insurance scheme based on a percentage of their annual financial dealings with the cooperative.

## 5. Notes on Discussion/Conclusions

Most governments in the Third World are interested in exploring the extent to which cooperative arrangements (HMOs, large cooperatives, and social security type systems) can take the pressure off the public health sector system. The challenge for each government is to find models which are compatible with the financial capability at the local level, and which can be sponsored by the government in such a way that the government has some control over services, costs and standards of care.

The need to develop alternative health care services will intensify as changes in the structure of demand emerge. As socioeconomic conditions and patterns of morbidity and mortality change, so too will patterns of demand for health care services. Increasingly, government officials in the Third World are coming to believe that their governments should not be expected to provide direct free medical care for all. In some instances, as is the case in Egypt, the government may negotiate an annual rate of payment with cooperative organizations to cover the costs of its providing care to a specific percentage of indigent patients. What is important to remember is that recurrent costs associated with the development of nongovernmental health care services can be met in several ways.

Payment in advance of receiving services may be less viable the lower the level of economic development. Payment mechanisms should remain flexible. For example, arrangements can be made to receive services and then incur some sort of debt. Payments can be structured by reference to the community's cycle of seasonal economic activity rather than on a strict monthly or regular basis. Financial viability may be strengthened if the

cooperative forms part of a federal system of cooperatives structured at the regional and national level. In many cases, however, the major stumbling block to organizing cooperatives will not be lack of money but lack of management skills and capable leadership.

A number of factors aside from economic viability may influence the success rate of cooperatives. In many instances, health care may not be the first service sought by communities which are more concerned with improving agricultural production, acquiring credit, installing sewerage systems and the like. The schedule of benefits and prepayments should accord with the community's priorities and capacity to pay. Cooperatives should be encouraged to engage in general developmental activities as a way of enhancing the community's ability to solve its own problems. The success or failure of earlier cooperative efforts may also figure in a community's receptivity to new cooperative schemes.

As the presentations made clear, cooperative concepts may meet resistance from different segments of society. Most notably, physicians, fearful that their incomes will be reduced and their influence diminished, may oppose the development of prepayment schemes and community-controlled health services. Strongly hierarchical societies may militate against the success of cooperatives, since cooperative structures presuppose a certain level of community participation and a degree of democratic control. In some instances, governments may succeed in introducing cooperatives as a seedling mechanism for the purpose of community development.

Frequently, health cooperatives are based on the initiative, demand and involvement of women. Therefore, the cultural and economic position of

women in a society may indicate the likely success or failure of a cooperative health service. The extent to which women contribute to family earnings and control allocation of household expenses may ultimately affect the degree to which a community accepts a cooperative health scheme.

Community education may be very important in launching a cooperative project. This requires marketing and exchanging ideas with the public, with physicians, other social service organizations as well as government officials. Potential opposition can be defused and support elicited through targeted education and promotional efforts. In particular, medical professionals may have to be convinced that cooperative health services can enhance or secure their income rather than reduce it. Physician monopoly over treatment and other regulatory/legal constraints may also have to be overcome before cooperatives can be organized or move forward to deliver health services.

### III. "What Can We Do With What We Know?"

1. Presenter: Hakchung Choo, Ph.D., Fulbright Scholar, Harvard Institute of International Development (formerly, Senior Fellow, Korea Development Institute, Seoul, Korea).

Title of Presentation: "National Policy Requirements for Implementing Health Insurance in Developing Countries"

In coping with developmental issues, planners and policy-makers generally adopt one of two approaches. They learn by doing or else learn from others' experience. The former approach is generally time-consuming and fraught with political risk and financial burden. Applying models drawn from others' experience, on the other hand, can be a timely and inexpensive way of deriving policy prescriptions. If certain preconditions do not exist, however, the applicability of others' experience may be extremely limited. Unfortunately, decision-makers do not usually have the time to analyze whether the underlying social conditions required for a conceptual model to be applied successfully exist.

Health needs are critical in determining demand for health services. A proportion of needs may remain unmet, be met or even be overmet. This is true at the national, regional, community or individual level. For health insurance to work, met needs should be small, especially relative to unmet needs. In many developing countries, the portion of needs met is higher in large cities than in villages or towns. If the few public health services available are located in urban (i.e., politically significant) areas, it may be difficult to introduce health insurance which generally requires a large number of subscribers to be financially viable and operationally meaningful.

If health insurance schemes are to function effectively, certain supply and demand conditions must be met. The health delivery system should already have a public and private sector and cover rural as well as urban areas. primary health care should already extend to the rural areas. Ministries of Health can phase out their secondary and tertiary care functions (leaving these to the private sector) and extend primary health care to hard-to-reach areas. Various incentives must be devised to attract medical professionals into rural areas. Non-physician personnel can also be used.

Frequently, in developing countries, functional division between different levels of care is not clearly established--a fact which tends to reduce efficiency. The internal efficiency of the health delivery system must be raised. Unless certain social conditions are already met, the premature introduction of health insurance may rigidify the inefficiency and ineffectiveness of the existing health care delivery system. Many people simply bypass the primary level and go directly to the secondary and tertiary levels. Moreover, pharmacists and traditional healers also influence patients' treatment strategies. An effective system of referral can reduce inefficiency considerably. A functional division of labor and operations should be promoted. At the same time, we need to recognize and use traditional healers. Medical administrators also need to act as community leaders and health administrators which may require further training in business management.

The general public should have their basic needs met. Rising expectations on the part of the public must be curbed or political instability will result. Donor agencies should be aware of the danger of stimulating public expectations that cannot be met.

No single form or method of organization will solve all problems. Health cooperatives can work in rural areas, especially when an institutional infrastructure already exists. Health insurance can also work, especially in urban areas. It should be borne in mind, however, that health professionals may resist the establishment of cooperatives more readily than they would health insurance.

Health insurance is a financial device which presupposes an environment in which disease occurs randomly and relatively rarely while treatment necessitates enormous expenditures beyond ordinary individual financial capabilities. Health insurance schemes facilitate the financing of necessary expenditures by spreading the financial burden among all their beneficiaries. The larger the number of subscriptions, the more financially viable health insurance becomes.

Health insurance programs can improve health care delivery systems in developing countries because of their ability to:

- enhance the complementary role of the public sector in expanding preventive and curative services at the primary level in rural areas. (Public sector secondary and tertiary care services might be phased out in urban areas.)
- introduce feasible low-cost primary care services (preferably manned by non-physicians) in hard-to-reach areas, at least in the short run.
- induce private practitioners to practice in these areas by providing attractive incentives, both pecuniary and non-pecuniary.
- introduce referral systems and establish a network of health delivery back-up systems.
- integrate traditional healers and pharmacists into the system.
- promote the division of labor among health personnel and encourage further utilization of underutilized health personnel.

- train health personnel, particularly physicians, not only as capable professionals but also as community leaders and health administrators.
- expose health personnel to the trade-off problems between professional and private interests and national/public interests.

As previously mentioned, if health insurance schemes are to succeed, certain conditions must be met. In order to secure a large number of subscribers, basic needs (in terms of food, clothing and shelter) of the target population should already have been met. The very poor are probably unable to pay the prepayments. In some cases, the government may pay their premiums. Self-help and self-reliance in implementing programs should be emphasized. It may be necessary to time prepayments in certain societies, for instance, according to the harvest season. Otherwise, farmers may be unable or unwilling to pay their prepayments on social insurance for health, even in-kind payments. The initiative to develop alternative health financing should come from the relevant ministries.

Government must make a minimal but critical effort to satisfy basic health needs of the poor by expanding primary health care services. Resources may be tapped from social costs already borne or from the underground economy. Planners should try to raise the level of internal efficiency of the health delivery system so that health insurance can be extended to cover the entire population.

The concept of a single-purpose (e.g., health) cooperative is not likely to work in developing countries. Planners should concentrate instead on developing multi-purpose self-help programs which include cooperative activities (e.g., consumer, credit, health, etc.). Health insurance can expand

the potential market for modern health care service. Thus the principal beneficiaries in the long run of health insurance are health care providers. If they can be persuaded of this, their support for health insurance can be obtained.

2. Presenter: Maureen Lewis, Economist, Office of Program, Policy and Coordination, Agency for International Development, Washington, D.C.

Title of Presentation: "Relevance of Cooperative Concepts to Third World Health Sectors."

Primary health care has been the focus of donor and Third World government health initiatives over the last several years. That has meant, by and large, free government health services to rural and urban populations. Unfortunately, numerous donor programs in PHC have folded when donors withdrew, despite the relatively modest cost of the PHC efforts. Provision of free health care, even basic care, is a costly proposition for government... essentially because health care generates high annual recurrent costs. The end result has been relatively limited coverage at a high cost to Ministries of Health. Despite primary health care's emphasis on community participation, the question of how to involve the community in the payment of services has been neglected. AID and other donors are now beginning to consider alternative forms of user financing for health services at the community level, including cooperatives and HMOs. Such relief is essential if public entities are to promote sustainable health programs and raise health status.

It has become apparent that free health care for all is simply unaffordable. Donors are realizing that there is a firmly established market for health care, which generates profits for suppliers and meets the needs of users. Functioning health care markets in rural areas (in the form of traditional practitioners) and, in more urbanized areas (health clinics) have provided health care services on a fee-for-service basis for years. Yet, these have not, by and large, been harnessed by Third World governments to expand the supply of health care. Nor have these governments adopted the successful delivery structure and organization of private programs.

In attempting to expand the supply of health services, a wide range of organizational and financial alternatives are being studied, and prepayment schemes are central to this review. Most prepayment schemes organize, deliver and finance health care, thereby directly providing services. However, a broad range of models exists, varying from the total indirect approach of insurance companies to the total care of group practice HMOs.

The prevailing governmental mode of service delivery is a direct role. That is, the government provides the services directly, rather than indirectly through reimbursements to private groups and/or contractual arrangements with private institutions. But there are more efficient and perhaps more effective options to Third World governments for meeting health needs. Some of these involve prepayment programs.

Five particularly promising and appropriate roles exist for governments in expanding accessible, sound, health care delivery through private prepayment schemes.

1. Promoting quality care through seed capital grants or loans to promising institutions and organizations, such as cooperatives, for developing and establishing consumer-oriented care.
2. Training or retraining a broad range of health providers to enable them to provide higher quality health care services.
3. Modifying the tax system to encourage modern private sector expansion, especially into areas which are currently inaccessible.
4. Establishing and enforcing health care delivery standards so that the type of expansion which is being encouraged does not sacrifice quality.
5. Subsidizing preventive health care where the demand for, say, infant growth monitoring, family planning and immunizations is low (but the need serves the public interest) and people are not as willing to pay for these services.

Prepayment schemes offer important community controls which have been absent from health care programs as now implemented. For instance, under prepayment schemes, users determine the health services that are provided. Consequently, the technology and costs of health care are kept in line with what users can afford. Expensive x-ray machines are not imported, unless the community of users can afford the expense, can maintain it and, most importantly, is willing to pay for it. These aspects of community control and participation are, presently, absent from primary health care programs. Prepayment schemes, particularly those using the indirect method, develop benefit packages that are more in line with peoples' perceived needs and with their incomes, because users are expected to contribute toward the cost of the system.

There are two major drawbacks to the implementation of cooperative concepts using prepayment as a means of organizing and delivering services to beneficiaries. First, such implementation requires management capacities which are in short supply in the Third World. Secondly, there needs to be a pre-existing institution upon which to add health services. Neither the donor community nor Third World governments possess good information on cooperative concepts. They lack a useful understanding of what works, where, and why; and there is little understanding of what conditions promote effectiveness. We know very little about the many and varied experiences with prepayment programs from the developing countries. The health community needs a better documentation of these experiences, and analyses of why various approaches work and others do not, if such schemes are ever to be adopted on a large scale.

Prepayment schemes can be an effective component of organizing primary health care delivery programs, but appropriateness of various models varies

according to a number of factors. One particularly important discriminator is density of residence. The degree of urbanization implies differences in social/economic organization and health needs:

1. In rural areas, there are many well-organized and established agricultural cooperatives. These community-owned and operated cooperatives could effectively add health care to their service functions.
2. In semi-urban areas, which in many Third World countries are growing rapidly, there is often a homogeneous population which shares common agricultural interests or engages in small-scale industry. The population living in these semi-urban areas is monetized. In largely wage-based economies, a private modern health care cooperative could be sustained on a relatively large scale. HMO type systems (along the lines of a Kaiser model) might in these cases provide the organizational mechanism for health service delivery. Multipurpose agricultural cooperatives, or other cooperative institutions, can expand services to their membership by adding on health as a component of their total delivery package.
3. In urban metropolitan areas, the heterogeneity of the population and the range of (existing and potential) alternative health care options suggests an expanded role for insurance companies and employer-based HMOs, especially Individual Practice Associations (IPAs). Urban populations are generally more willing and able to pay for health services, while demanding more in terms of quality and range of care. In these settings HMOs and prepaid insurance programs are already growing, and there is considerable scope for expansion in the coming years.

Given the public sector's continuing interest in health status and access to care, there are several ways in which governments in Third World countries can promote cooperative concepts in health, and simultaneously allocate resources more efficiently:

1. Removing unnecessary legal restrictions and introducing incentives for promoting prepayment schemes represents a critical first step. Legal restrictions apply both to governments and to professional medical societies. For instance, many countries have constitutional guarantees to provide free health care to all their citizens. In some countries, Ministries of Health restrict private groups from delivering primary health care services and medical societies bring political pressure to bear to prevent private groups from utilizing non-physician personnel.

2. Governments need to make seed capital available for the establishment of prepayment plans, either on a loan or grant basis, to institutions willing to organize, establish and run cooperatives, or other prepayment forms of health care delivery. Cash flow tends to be a problem in the early years of operation, and this is one way to mitigate the difficulties.
3. Lack of information on alternative forms of prepayment health organizations retards the establishment of workable schemes. Both potential subscribers and likely organizers of prepaid care require information on benefits, legal impediments and costs of HMO and other cooperative forms of health delivery before it is realistic to expect experimentation or establishment of prepaid schemes on any extensive scale. Government is ideally situated to provide such information to existing local cooperatives, institutions and firms, and to promote private information dissemination as well.
4. Related to information requirements is the need for technical assistance for feasibility studies and for structuring a sustainable system. Given the uncertain path of large prepayment programs like HMOs in the U.S., technical assistance early on promotes development systems that use scarce managerial and financial resources efficiently.

As one donor agency, AID will be searching for ways to utilize cooperative concepts to see what works and how we can modify them in other settings. The time has come to look seriously at this service alternative, and to see how governments and donors can play a role in trying to promote these kinds of efforts. Cooperative concepts may prove to be an important vehicle for expanding the quality and range of health care services in developing countries. But additional evidence to promote these concepts is critical.

3. Presenter: Hyung Jong Park, M.D., M.P.H., Ph.D., Public Health Specialist, World Bank, Washington, D.C. (formerly, President, Korea Health Development Institute, Seoul, Korea).

Title of Presentation: "The Extension of Social Insurance to Rural Residents."

In September 1975, the Government of the Republic of Korea (ROK) and the Agency for International Development signed a loan agreement to initiate a primary health care demonstration project. A presidential decree subsequently established the Korea Health Development Institute (KHDI) to implement the project. A National Health Secretariat was organized within the Korea Development Institute\* to provide for systematic evaluative research of the project's activities for senior economic planners in the ROK.

In April 1976, KHDI started to develop its goals, objectives, organizational plan and action plan. The basic goal of the KHDI project was to develop a new system for providing better health care to low-income Koreans. However, the goal was to be achieved without imposing excessive financial burdens on the individual receiving services of the ROK. Since the delivery of "low-cost" services was a new area of concern for Koreans, experimental activities had to be undertaken to develop and field-test alternative delivery schemes appropriate for local conditions. The results of such experiments then had to be objectively evaluated by the National Health Secretariat and passed on to national economic planners in the form of policy and program recommendations.

In order to assist the project in implementation at the local level, a National Health Council was formed as part of the loan agreement. The Council was composed of members from ministries of health and social affairs, education, agriculture, and home affairs; members from professional medical socie-

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\* Korea's macro economic and public policy 'think tank'.

ties; universities; and from the private sector. The principal functions of the Council were to determine national policy regarding implementation of the Health Demonstration Project, coordinate mobilization, and enlist resources and participation of related agencies or sectors involved in health care services at the national as well as provincial levels. On recommendation of the Council, through the KHDI health care project, an administrative ordinance was put into effect in the three provinces selected as demonstration sites. Its purpose was to establish and operate a Provincial Health Promotional Council with 14 or less members representing various concerned bureaus and civic organizations such as the Korea Medical Association, the Korea Nurses Association and other public and civic hospital representatives, including, in addition, one or two representatives of the country populace.

At the initial stage, the KHDI's role was to develop the project while introducing such innovations as:

1. Training and utilizing non-physicians to actually provide selected preventive and curative services which were then available only from physicians.
2. Introducing integrated public health care services and making these available at the local level.
3. Conducting extensive efforts to promote good health through public information and education.
4. Using prepayment, health insurance, or other schemes to test alternatives for financing of community health services.

In searching for a financing mechanism, the KHDI reviewed the country's experience with prepayment. The ROKG had already implemented a medical insurance program for the urban population. This program covered all government servants, military personnel and dependents, employees in large industries, and teachers, both in the public and private sectors. About 30 percent of the Korean population is covered by this insurance program. Although

the program was making steady progress in urban areas among a wage-based population group, the KHDI had a difficult time locating a suitable institutional structure which could handle prepayment among a population that was primarily non-salaried and rural based.

Initially, the KHDI attempted to work with established agricultural cooperatives, but officials of the agricultural cooperatives showed little interest in adding on a health component. Their lack of interest stemmed from past experience. Previously, the cooperatives had built health clinics which were supposed to have been staffed by Ministry of Health physicians and nurses. However, the Ministry of Health felt that rather than cooperatives requesting assistance from the Ministry, health services in these areas should be part of an agricultural program. The resulting problems of coordination among the ministries concerned caused various problems in recruiting staff. Thus, the cooperatives were very reluctant to get involved in the KHDI program.

Next, KHDI attempted to develop independent health cooperatives, using three guiding principles:

1. Errors committed in developed countries should not be repeated. To avoid this possibility, KHDI officials visited several other countries so that they could learn the factors responsible for the relative success or failure of these systems.
2. The nature of the prepayment system developed in this demonstration project should not have a deteriorative effect on the development of Korea's economy. In other words, the ultimate result of the KHDI prepayment program effort should not create a financial burden for the Government.
3. The implemented program would be considered successful if it was replicable so that someday the entire country could be served by it.

Several cooperatives were established in the demonstration areas. Communities organized them and selected board members. When established, the

cooperative paid out-patient and hospitalization expenses for enrolled members. The membership decided the amount of the premium payment which is paid monthly, quarterly, bi-annually, or yearly, at the convenience of the members.

During the implementation of the cooperative program for health services, these problems were encountered:

1. The Collection of Premiums. KHDI tried to channel this through established agricultural cooperatives, but it was not successful. Next, collectors were recruited to go around to each of the villages to collect premiums. This proved to be expensive, and increased the administrative expenses of the cooperative far beyond project figures in the planning stages.
2. The Nature of the Membership. Since membership was voluntary, those who joined tended to have health problems, or young children with high risks. Healthy families were unwilling to join since they did not expect to use the cooperative. This limited membership to 60-70 percent of a village population and skewed the membership toward those who anticipated high utilization on a prepayment basis.
3. The Transportation Problem. This kept people in peripheral areas of the village from coming in for treatment, and subsequently from sustaining their membership.
4. The Existing Physician Cadre. Physicians were not keen on new approaches, particularly those in solo practice who saw the cooperative as a threat to their market share.
5. The Opposition from Pharmacists. Approximately 60 percent of Koreans use the pharmacist as primary health care providers before seeking any other type of medical or health assistance. The cooperative threatened their place in the market, especially when pharmacists saw the cooperative's potential for central purchasing and quality control.
6. Cost Containment. The cooperatives and the KHDI program were unable to standardize costs throughout the system for medical procedures. The program was also unable to standardize the application of medical technology from one site to another, or from one physician to another. As a result, the quality of care among patients being treated for the same medical problem differed from one site to another.
7. The Fear of Bankruptcy. Since there was a limited data base in rural areas on which to develop the actuarial analysis necessary to establish price or operational and investment requirements, issues of risk pools, benefit package definition, copayments and deductibles, and beneficiary definition were not planned in a manner which reflected sound business practices in the insurance field. Because the membership pool was small, the cost of treating serious illness and long-term hospital care threatened the cooperative with bankruptcy.

However, during this demonstration phase of the KHDI project, the ROKG decided to extend the medical insurance program to the rural population. This program was first tested in the KHDI demonstration areas beginning in 1978. Prior to implementing the actual program, KHDI first conducted extensive studies to determine the medical need of the population and expected number of hospitalizations; inventoried medical facilities in the area, including out-patient clinics; estimated medical expenditures on a per capita basis; calculated costs of hospitalizations, including out-patient referrals, administration and primary health care centers and clinics; and estimated income levels of people in the demonstration areas.

Once this information was analyzed, a premium level was selected which corresponded to levels of income. Since those who were poor were not expected to pay the premium, the ROKG subsidized KHDI to cover this population group. The Government also subsidized administrative expenses related to the operation of the demonstration health insurance program.

The ROKG called this program "Class II Health Insurance," to distinguish it from "Class I Health Insurance" intended for workers and their dependents in large urban areas. Class II was originally designed as a voluntary community-based insurance plan for the self-employed and for the employees of small businesses. However, by the time the national health insurance program was implemented in July 1981, membership had been made compulsory. The premium rate for subscribers in the system was set at 400 Won per month (approximately \$.85 U.S.). While those classified as non-poor paid the entire premium, the ROKG paid the KHDI a subsidy to cover the premiums of those too poor to pay. In order to reduce administrative expenses, personnel from local government units have been seconded to staff the system, and the County

Chief assumed the responsibilities of Chief Executive Officer for insurance plans within their counties. Class II started in July 1981 in three counties in three provinces; it was expanded to an additional two counties and one city in 1982. The expansion of this program through the KHDI continues apace today.

The ROKG and KHDI have found that in order to implement primary health care in rural areas, a prepayment financing mechanism is necessary. From the KHDI demonstration projects, it has been determined that:

1. It is impossible to provide health services to rural residents unless facilities and providers can be brought together in close physical proximity to the places of livelihood for rural residents.
2. It is necessary to subsidize that portion of the population in rural areas who are too poor to pay health insurance premiums.
3. It is necessary to involve local governmental authorities in the conduct and administrative maintenance of social programs which can affect rural residents. Otherwise, administrative expenses can consume 30 percent of all operating costs.
4. It is necessary to encourage program planners to find ways in which an insurance program, once introduced, can advance primary health care, and vice versa. For instance, an effective primary care program can reduce substantially hospital bed days among a given population, thus reducing costs of premiums.
5. It is necessary to find ways to integrate service delivery through a balanced approach to curative and preventive care. Otherwise, the demand for curative services will always outweigh that of preventive services, and impact adversely on costs.
6. It is necessary to conduct an active program of education among the consumers so that they do not bypass the existing primary health care network and go directly to physicians and hospitals. This is particularly true when, as in Korea, the KHDI project used non-physician providers for common ailments. If subscribers think they are not getting professional care, they will not use the system.
7. It is important to have continuing medical and health education programs for professional staff involved in prepayment health programs. Without this, staff feel that they are out of touch with contemporary medicine and its practices.

8. It is important to educate the public, particularly the professional medical societies, so that a prepaid health program does not threaten their market. Oftentimes this group operates on misinformation and rumor. In the absence of information from managers of the prepaid plan, this group will believe the worst.

The KHDI program could not be expected to provide full and final answers to all major questions in prepaid health insurance for rural residents. But it does shed valuable light on some of them -- light that can be helpful in developing and expanding a prepaid rural health delivery system.\* Although the AID-assisted portion of the KHDI program ended in 1980, KHDI continues today with funding from the ROKG as the implementor for Class II health insurance for the non-salaried section of the labor force. Thus it serves as a national laboratory for testing innovative, alternative service schemes for the central government.

The KHDI is a semi-autonomous agency. It undertakes contract research work for the Ministry of Health, and it has been designated a Collaborative Research Institution of the W.H.O. During KHDI's past several years of operations, it has also served to link operations research at the service delivery level with national decision-makers. The Ministry of Health has credited KHDI with providing the economic rationale which subsequently permitted the ROKG's Economic Planning Board to increase resource allocations to health in the public sector. (When the AID demonstration project was funded in 1975, the Ministry of Health had a budget of \$33.5 million; in 1982, its budget was \$346.7 million.) If KHDI had not been in place in 1981, the ROKG would have been unable to implement the Class II prepaid health insurance program to serve a non-salaried population in rural areas, and to provide equity in health services access to those unable to pay the premium.

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\* Mahn Je Kim, formerly President, Korea Development Institute, as quoted in Primary Health Care in Korea: An Approach to Evaluation, Ha Cheong Yeon, Korea Development Institute, Seoul, Korea, 1981. Dr. Kim is presently Minister of Finance, Seoul, Korea.

#### 4. Notes on Discussion/Conclusions

The development of primary health care delivery systems has been difficult. Services are scattered making supervision, measurement of progress and distribution of drugs and supplies a tenuous undertaking. In most developing countries, health delivery systems in the public sector are inadequately funded, overly concerned with curative procedures and lacking in evaluation procedures. Many projects undertaken to develop broadly-based primary health care systems have proven to be disappointing and costly.

It is obvious that governments are unable to afford free health care for their populations, even "low-cost" primary health care. Government promotion of private sector experimentation with prepayment schemes can produce alternatives to uneven government financed care and/or high-priced private care. These functions respond to government's overall consideration for equity and humanitarian objectives, as well as to those of raising the health status of their people. Cooperative concepts need greater consideration, experimentation, and careful documentation in Third World settings. Donors and governments have an important role to play in shifting their resources toward support for a wider application of cooperative concepts in health care for their populations, but knowing how best to do this is a crucial first step.

The developing countries spend more on health than is generally recognized--many countries are spending between 4 and 6% of their national expenditures on health rather than the 1 to 3% which has been generally reported in the literature. In countries which have social insurance systems, health care expenditures may be three times greater than the 1 to

3% we have estimated--when both social insurance and private sector spending, in addition to the public health sector, are taken into account.

One of the principal constraints to effective health service delivery is limited institutional and management capacity. Donor strategies which address this constraint are needed. We must look at the private as well as public sectors to increase health sector effectiveness. Developing institutional capacity within the health sector at large should be the central focus of donor-assisted health projects.

Rural medical services need to be integrated into social and economic development programs. In this case, delivering health services may not require a distinct and autonomous system. Cooperatives can take on "lateral" functions, such as health care, provided appropriate adjustments are made in their structures to enable them to perform new tasks. An organization "with a capacity for embracing error, learning with people and building new knowledge and institutional capacity through action"\* stands the best chance of affecting long-term changes in health delivery capacity. The KHDI is an example of one such organization.

Japan's experience with agricultural cooperatives is another case in point. In 1928, many of Japan's 16 agricultural cooperatives which provided medical services went out of business because they lacked managerial skills, their operations were overly small and they were unable to employ physicians on a permanent basis. At that point, a new medical service scheme was devised which was able to provide medical care at a price within the means of the rural population.

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\* Korten, D.C. "Community Organization and Rural Development: A Learning Process Approach." Public Administration Review, Sept./Oct., 1980.

Since then, medical services have expanded widely throughout poor rural areas.

Developing institutional capacity differs from a project approach which assigns specific deadlines, fixed goals and limited resource requirements. In fact, the project approach may very well be counterproductive in building the institutional capacity necessary for community-based programs such as those in the health sector. A flexible, evolving program rather than a blue-print type project best serves to enhance institutional and managerial capacity. Prepaid health insurance and HMOs offer only some, if important, mechanisms to expand institutional capacity and adaptability to change. A limited number of preventive health services might be handled by local cooperatives. These could then serve as the eventual basis for a more elaborate service scheme later on. The main point is that a whole range of options exist to meet different needs in the health sector.

Recurring questions arise as to whether the poorest can be reached through prepayment schemes or whether they should instead be covered through the public, tax-supported system. If the poor are to be included in prepayment health cooperatives or other socially financed mechanisms, how should the cost of their participation be covered? What range of services can the poor pay or be subsidized for? How can the cooperative's responsiveness to its members be preserved if a major portion of those participating are subsidized? These can only be answered by reference to specific local conditions.

Price subsidies tend to alter organizational behavior in a way that subsidizing training or capitalization does not. Subsidies which produce

ongoing dependence should be avoided. If possible, selective subsidies should be administered on the local rather than the national level. Ideally, subsidies should be "hidden" so that they do not alter the basic responsiveness of the organization toward its members.

Government officials in many developing countries have developed an aversion for further pilot and demonstration projects. Part of their frustration derives from the fact that the design for many such programs has been imported without due regard to local differences. People responsible for program design and analysis are often far removed from the field. However, we should not mistake this for unwillingness to explore alternatives. The KHDI project in Korea was implemented without resident consultants from the U.S., even though it was an AID funded undertaking. Any national health program requires initial experimentation. Implementation by phases is a desirable approach. The initial phases of establishing cooperative based health services might include lobbying, searching for funds, field testing and data gathering.

Donors, by considering health cooperatives, health insurance and other private sector arrangements, can adjust their health assistance policies to help develop these institutional capabilities. As outsiders, donors can act as a catalyst to enable internal changes to occur. Donors can play an important role in helping identify areas of innovation and helping people, often with modest funding, to do things better or differently. Solutions cannot be imposed, however. It makes little sense to promote a particular

solution if a host country neither desires nor needs it. Marketing certain values and concepts can be achieved, however, through collaborative effort between donors and host country groups. Ultimately, however, the driving force of the health care system will depend on the community which bears financial and management responsibility for sustaining the operation.

CHAPTER II

HMOs: ARE THEY APPLICABLE TO THE  
DEVELOPING WORLD?

An International Health Seminar Series

By

The National Council for International Health

and

The Group Health Association of America, Inc.

at

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## HMO's: Are They Applicable to the Developing World?\*

- Introduction - An HMO (Health Maintenance Organization) differs from conventional health insurance, such as that generally provided by Blue Cross and Blue Shield, and the conventional fee-for-service health care delivery system in several important respects. An HMO is an organization, either investor-owned or not-for-profit, that accepts contractual responsibility for the delivery of a stated range of health care services to its enrollees for a predetermined, prepaid fee that does not vary with the nature or extent of service provided to any particular enrollee during the covered period.

Conventional health insurance generally provides reimbursement for the charges of physicians, hospitals and other providers of services, whereas an HMO provides the health care service itself through direct employment and contractual arrangements with physicians and other providers. While the individual enrollee's choice of physicians and other providers may be more limited than under conventional health insurance (since the enrollee must use physicians and other providers employed or under contract with the HMO), the individual enrollee generally receives more health care services for his fee than are covered by most conventional health insurance programs.

Secondly, under the conventional system, those who provide health care services are paid in direct proportion to the amount and complexity of the services actually furnished. HMOs, on the other hand, receive the same amount from their enrollees irrespective of the amount of services provided

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\* The first two papers were delivered at the NCIH's Health Seminar Series, June 2, 1983 at the Pan American Health Organization. Both papers were revised subsequently by the authors in June 1984. The "Notes on Discussion" represent a summary of the question and answer period which concluded the presentations.

and thus have an economic incentive to provide only those services necessary to maintain patient care consistent with medically-accepted standards. Consequently, a principal rationale for HMOs is the delivery of quality health care at a lower overall cost than the conventional fee-for-service health care financing and delivery system.

A 1978 independent study published in the New England Journal of Medicine concluded that total medical care costs were lower for HMO enrollees than for a comparable population group with conventional health insurance. A 1981 United States General Accounting Office report concluded that, for the 12 HMOs studied, hospital utilization rates were less than half of what might have been expected based on national utilization rates for persons of the same age, sex and location. According to a Johns Hopkins University publication, available evidence indicates that the quality of care provided by HMOs is equal to or better than that provided by other delivery systems.

Although HMOs have been operating in the United States for half a century, their popularity began increasing in the 1970's in response to rapidly escalating health care costs and enactment of the Health Maintenance Organization Act of 1973, a federal statute designed to promote the establishment and growth of HMOs. Among other things, the Act authorized loans and grants to community organizations to establish HMOs and required employers with more than 25 staff to offer HMOs as alternative health care delivery systems to their employees.

According to the National HMO Census published by the Office of Health Maintenance Organizations, U.S. Department of Health and Human Services, the number of HMOs in the United States increased from about 30 in 1970 to 243 in 1981. Currently, there are some 323 HMOs operating throughout the United States. HMOs are primarily an urban phenomenon--over 90 percent of current

HMO enrollment and 71 percent of all operational plans are located in areas with populations of 500,000 or more. HMO enrollment has increased at an annual rate of 14% from 2.5 million to 13.6 million, and industry revenues have grown approximately 21% per year from \$600 million to over \$5 billion. Dr. Paul Ellwood, President of InterStudy, predicts that by 1993, 50 million people will have enrolled in HMOs. Already HMOs

"have reached a critical mass in many areas, and they have attracted the health-care dollars of highly regarded Fortune 500 companies that want quality care for their employees ... They are becoming mainstream medicine in many places and are forcing, albeit grudgingly, fee-for-service doctors to rethink their willingness to assume economic risk, to practice in groups, to alter their practice patterns and their use of the hospital."\*

Historically, the HMO industry has been dominated by not-for-profit organizations such as Kaiser Health Plans, but has more recently attracted investor-owned companies including The Prudential Insurance Company of America, Cigna Corporation, U.S. Health Care Systems, and HealthAmerica. While Kaiser Health Plans is still the dominant factor in the industry with approximately 40% of national HMO enrollment, the investor-owned sector has been growing rapidly. One advantage of an investor-owned HMO is that it has easier access to capital than a not-for-profit HMO.

Increasingly, as aggressive for-profit organizations embrace the HMO movement, the market for health care services will change. Since 1983, seven for-profit HMOs have offered their stock in return for the promise of profits in the future. In the face of such competition, some not-for-profit HMOs have begun to convert to for-profit status. The need to protect

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\* Dr. Paul Ellwood, interview cited in "Health Policy Report" by John Inglehart in The New England Journal of Medicine, Vol. 310, #18, page 1204 May 3, 1984.

their current coverage is driving non-profit HMOs to redesign their financial operations. For example, recently four of the largest non-profit HMOs agreed to form a separate for-profit corporation that would acquire and develop HMOs in areas other than where they currently operate.

Restricting the market for direct service medical care delivery should serve to bring down the cost of health care over all. As Kenneth Abramowitz, a noted Wall Street health stock analyst, wrote in regard to the American scene:

"Health Maintenance Organizations appear to be the ideal solution to the cost escalation problem facing this country. They can achieve a high degree of cost-effectiveness by integrating all aspects--primary, secondary, tertiary--of health care delivery."\*

Apparently, this is proving to be the case in the U.S.; the application of this concept in Third World settings is less certain, though examples continue to emerge. The HMO is not, per se, a panacea to existing Ministry of Health systems. These systems do, however, need to be relieved of their major task of financing curative services, allowing ministries to focus on improving their preventive/promotive health functions. In the absence of this shift in resource allocation, the prospects for effective expansion of primary health care activities are tenuous. Social financing of secondary and tertiary care through cooperative concepts (HMOs, prepaid group practices, cooperatives, etc.) is an organizational mechanism which can bring about such a shift in orientation.

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\* Cited in "Health Policy Report: HMOs (For-Profit and Not-For-Profit) On the Move" by John Inglehart, New England Journal of Medicine, Vol. 310, #18, May 3, 1984

1. Presenter: Harris A. Berman, M.D., Co-founder and Executive Director, Matthew Thornton Health Plan (a not-for-profit HMO), Nashua, New Hampshire

Title of Presentation: "The HMO as an Alternative Health Care System."

The term "Health Maintenance Organization" suggests that preventive medicine plays an important role in HMO services. However, in fact, pre-paid group medical practices in the U.S. are not particularly concerned with promoting preventive health measures such as immunization, proper sanitation, nutrition or health education. Rather, here HMOs are principally concerned with managing patient care. They would be better termed "Health Management Organizations". While sanitary and health conditions could be improved in this country, much of the basic work in these areas has already been accomplished. In Third World countries, however, HMOs may have a greater opportunity to engage in preventive medical activities than they do here. In this sense, HMOs in developing countries may really serve as Health Maintenance Organizations.

In this country the HMO's are important because they provide an alternative health care delivery system. HMOs are not a panacea. No one believes that HMOs will take over the world or that HMOs will become the predominant form of health care in this country. What is important is that the HMOs represent an attempt to gain control over a health care system whose costs are out of control. We are all aware of the fact that health costs in the U.S. have skyrocketed. In 1970, the health care industry was costing \$64 billion dollars. At the time, this was considered an astronomical figure which might climb to \$100 billion and break the bank. The industry is now over \$340 billion, or more than 10.4 percent of GNP, and the end is nowhere in sight.

Very recently, the medical community in this country has come to realize that the bank is going to break. Even physicians anticipate the breakdown and change of the current system. The incipient revolution in health care delivery also reflects the success of a nascent HMO industry. HMOs in this country are, in effect, changing the entire system of health care by introducing strong price competition. They supply the same, better, or more services at a lower cost than other providers.

In developing countries, HMOs may not offer less expensive services but they may be able to establish competition in the quality of medical care. The example they could set in improving the quality of medical care might serve to shake up the rest of the health care delivery system. Every country is different. Generalizations drawn from experience in one, two or several developing countries may not be valid in another. Many countries, however, have two tiers of health care. Government or district hospitals may provide a minimal level of care available to all. A whole separate health service world may take care of the upper class. The applicability of an HMO in such a setting depends on the class structure and who is paying the bills. If the HMO is competing with a national health care system, its services would presumably be more expensive, higher in quality and more personalized. Nevertheless, HMO services may be less expensive.

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 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 resources 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 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 (or some combination thereof), 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 services 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. The HMO can run for a while on that--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 get good physicians.

There are very real benefits for physicians practicing in HMO settings. The HMO provides a secure practice site, particularly for physicians recently out of training. By practicing with other physicians, they are not left entirely on their own at a time when they feel most insecure. They can choose who they are going to work with by deciding which group to join. Also, HMOs are nice physical settings in which to work. There is no intrinsic reason why physicians should not be attracted to an HMO, unless salaries are not commensurate with those which can be obtained elsewhere.

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

How funding might be obtained for establishing an HMO varies, depending on the source--bank loans, a public offering of stock, floating tax-exempt bonds, charitable donations, government sponsorship, etc. In many developing countries, the corporate sector may be an important source of funding. Insurance companies might be a source of capital and managers for this kind of health plan. In the U.S., insurance companies are now getting involved in HMOs. Many run HMOs in addition to their regular lines of business. Blue Cross and Blue Shield organizations across the country sponsor over 50 HMOs. Prudential and the CIGNA have between 15 and 20 HMOs each. Investor-owned HMO management and development corporations are another source of funding. HealthAmerica, one such organization, manages or owns 20 HMO health plans.\* Hospitals or hospital chains can also provide capital.

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\* In July 1983, HealthAmerica made its initial offering of stock to the public raising \$23.8 million on the first day. This represented the value of the entire subscription.

The Hospital Corporation of America, for example, already runs one of the world's largest HMOs in Brazil. Clearly, the business sector is one place to turn for capital, expertise and management.

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 one-third 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 safe.

The final thing necessary for running an HMO is good management and marketing skills. These skills are easy to talk about and not so easy to obtain. More and more people are learning how to run and manage HMO health care systems. Now there is more managerial and administrative talent around. There is still enough missionary zeal in the industry that everyone is moving to help everybody else. Those who are interested in learning more about how to organize an HMO in developing countries would find all of us in the HMO industry willing to share our experience and willing to help in any way we can.

2. Presenter: William S. Kneedler, Vice President, Peak Health Plan, Pueblo, Colorado (a for-profit HMO).\*

Title of Presentation: "The HMO in U.S. and Third World Settings."

The HMO concept is not a new phenomenon in Latin America. A large plan, with approximately 680,000 enrollees, is located in Brazil and managed by the Hospital Corporation of America based in Nashville, Tennessee. Other HMO-type plans have also been established in Mexico and Argentina, for example. It appears that the the HMO concept is gaining ground as a possible alternative to existing systems of health care in Latin America as in other parts of the world. The emergence of alternative health care systems in Latin America is an exciting development, since they allow cost savings (particularly in the area of hospital care) when many governments find themselves struggling with spiraling inflation rates and supporting top heavy national health care programs.

In my own experience with HMOs (in Pueblo, Colorado, and Cordoba, Argentina--a city some 400 miles northwest of Buenos Aires), I have found that establishing an HMO requires extensive initial education. One has to educate health care providers in the community, employer/labor groups, prospective members who may be interested in enrolling in your program, and community hospitals about principles that govern HMOs. These groups are critical targets to reach in order to achieve understanding and eventual acceptance of the concept.

What is an HMO? HMOs provide a wide range of prepaid health care services to their members in return for a fixed monthly premium. The HMO

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\* Several months after this presentation, Peak Health Plan was authorized by the Security Exchange Commission to offer its stock to the public. On the first day of its offering on Wall Street, the entire subscription was sold out and \$10 million was raised for capital expansion.

contracts with physicians, hospitals and others to provide such health care services to its members. Arrangements with physicians usually provide for fixed per-member payments by the HMO which do not vary with the frequency, extent or type of health services actually furnished. Further, the HMO assumes the ongoing responsibility that health care services are indeed rendered to members, and that such services are of high quality, cost-effective and readily available. Thus, the HMO differs dramatically from the traditional insurance company, which generally provides reimbursement for charges of physicians, hospitals and other providers.

For example, one of the things that happens when an HMO contracts with a medical group is that the doctors assume both a risk and a responsibility. In the HMO in Pueblo, Colorado (and in Argentina) the doctors must provide all covered professional services to enrolled members. In this setting, fiscal responsibility is placed squarely on the shoulders of the physician. That responsibility creates an awareness of and sensitivity to the need of providing care that is not only appropriate but also cost-effective. I have seen this occur in Pueblo, and elsewhere in the prepaid health care field. Doctors begin to look more judiciously at how they practice, at different modalities of care, at services that may keep members healthy and out of the hospital and at ambulatory surgical procedures that could be done safely outside the hospital environment--thus avoiding the high cost of hospital care.

For the HMO, the hospital component is an expensive and volatile element of health care. In Pueblo, our HMO is spending over \$500.00 per bed day and in larger cities, such as Denver, Los Angeles, etc., the average cost is much higher. Hospital expenses represent a substantial portion of the HMO's total budget for the year and thus quality assurance

and utilization controls are an absolute necessity to the HMO's continued viability.

When I lived in Argentina, I noticed that there were several levels of care in the delivery system. People who wanted, and had the resources, could receive fee-for-service care. A social security program financed medical care and a national health service system provided free services to all. Perhaps HMOs could fill the gap between fee-for-service and free services in some Third World countries. Many in the wage-based population utilize government-provided free services simply for lack of an alternative. Their utilization of these services may deprive those who are underemployed or unemployed from effectively participating in government-provided services.

Because government health services are concentrated mainly in urban centers, and hospitalization consumes the highest percentage of the government's health budget, few resources are left over for people in need in rural areas. In this situation, the HMO may be a viable concept offering an alternative for governments to consider, particularly when there appears to be a growing demand from consumers and providers for rationally organized, alternative health delivery mechanisms.

In the early 1960's, Kaiser officers spoke to doctors in Cordoba, Argentina, about forming a prepaid health plan. Moving the idea forward required a great deal of education. Practicing medicine in an "HMO" setting, prepaid financing, utilization, contracts and a host of other topics were discussed at great length. The Cordoba HMO subsequently contracted with a medical group which agreed to provide health services to enrollees based on a fixed payment per member per month. In the United States, we call this a capitation payment, or a per capita arrangement. The providers

are paid in advance for services to members who are enrolled in the HMO. As mentioned earlier, the HMO pays that amount to providers regardless of utilization of services by the member or of his or her age, sex, etc. Each month, as the membership grows, the capitation amount increases because it is based on a fixed amount per member per year.

In addition to arranging for services, the HMO can also assist the medical group in arranging for outside specialty care. Usually, a physician group is not able to provide all the different kinds of services that are required. The HMO can help doctors to develop contracts and relationships with outside providers for specialty referral care. HMOs look very carefully at utilization rates and quality assurance, to insure that the services provided are appropriate and of high quality.

One major concern, not only in other parts of the world, but here in the United States, is the lack of management skills to make the HMO concept work. Management of an HMO requires a complex variety of skills which range from financial planning and marketing to effective utilization controls and data processing. The HMO is not an easy concept to implement. It takes a great deal of commitment and congress of effort to make an HMO work. There must be commitment and dedication on the part of both the HMO staff and the physicians; there must be a sense that the HMO is a joint venture that is worth doing in a community, whether here or abroad. Given these factors, and with increasing demand from the public for quality-oriented, reasonably priced health care options, HMOs in the United States have continued to grow and to demonstrate that they can be competitive alternatives to fee-for-service and traditional indemnity health insurance plans. In my view, the HMO concept may indeed have a very real place in Third World countries and should be pursued actively.

### 3. Notes on Discussion

Following the two presentations, the floor was opened for discussion. The question was raised whether any studies had been conducted comparing the relative effectiveness of HMOs vs. other types of health care delivery in reducing morbidity and mortality. It soon became apparent, however, that the critical issue was not so much whether HMOs were having a significant impact on morbidity and mortality but whether HMOs increase access to health care in settings where economic resources are limited. Are HMOs a more efficient system of providing health services to populations which have unmet expectations?

While the relative impact of different forms of health care delivery on morbidity and mortality was regarded as difficult to assess, it was felt that conclusions could be drawn regarding other factors of comparison. Several studies show, for instance, that health care services in HMOs, qualitatively, are at least as good as, if not better than, those available elsewhere. One can only surmise that since HMOs are more preventive-oriented than are most other types of formal health care services, their impact on morbidity and mortality must be as great as, or greater than, that of rival health care services.

HMOs can be cost-effective depending on the level of management skills available to the organization. Numerous studies indicate that out-of-pocket expenses HMO members experience is 30-40 percent less than under conventional forms of health insurance in this country, largely because HMOs can reduce the number of patient-days spent in hospital. Today in the U.S., the average number of hospital days per year per thousand enrollees in conventional insurance plans is 894 compared to 412

among HMOs. To achieve comparable figures in developing countries would probably, however, require initial training in management and administration skills.

Since most of the data presented dealt with middle-income countries such as Brazil and Argentina, one issue which emerged (but remained largely unaddressed) concerned the applicability or experience of HMOs in the very poor countries of Africa and Asia. One discussant responded by noting the existence of an HMO-like program just beginning in Bolivia, a low-income country. In this particular case, AID is involving existing institutions (which had shown previous management capabilities, and ability to collect from farmers in rural areas) to provide health care services. Minimal payments are required to establish an insurance pool for hospitalization, some treatment of major diseases and skeletal clinical and preventive medical services.

The group then turned to consider Uruguay's fairly extensive experience with HMO's. In Uruguay (a middle-income country), 47 percent of the total population is covered by 23 HMO groups which are regulated by the Ministry of Health. The government provides technical assistance to improve management skills, data collection systems, and utilization and review capabilities. The government also regulates the amount of income an HMO can receive. A major issue centers on how much income they should receive and what kind of quid pro quo should be established given that a certain amount of income is provided. By controlling the premium, the government controls the resources allocated to the HMO system. Consequently, HMOs in Uruguay frequently lack the resources necessary to provide adequate services.

The HMOs in Uruguay face a number of difficulties. As in many developing countries, medical equipment is often antiquated. The HMOs face major problems in trying to import necessary medical equipment. Some are trying to generate the revenue necessary to pay for imports. Their ability to improve the level of medical equipment available is, in large part, a function of the overall economic situation and government import-export policy.

Many HMOs in Uruguay have also experienced severe financial problems--largely due to the shortage of skilled manpower, and management talent necessary for running HMOs as effective business operations. To a certain extent, this may be a function of cultural differences--but as economic resources contract, decision-makers will be forced to become more conscious of cost-benefit considerations.

Despite these difficulties in managing HMOs, the Uruguayan leadership supports the development of the HMO system. The government considers the HMO an appropriate, alternative mechanism to provide health care within a context of limited resources. Health officials are trying to establish a health care system based more on private initiative and around the HMO concept. Their enthusiasm for HMOs is understandable in light of the differential in average lengths of stay in Uruguay's hospitals--the average length of stay in a Ministry of Health operated hospital is 21.2 days compared with 4.4 in the HMO hospitals.

Political support for instituting an HMO system in a developing country is generally a critical factor. Frequently legislative or policy changes must be initiated before an HMO can begin to operate within a country. Especially when the HMO concept is unknown, special legislation

or promotion efforts may be required to free the HMO from regulations which may be pertinent to health insurance but which hamper the development of an HMO system. Political support is especially important in view of the resistance on the part of hospitals or segments of the medical community to the innovation. Such resistance can only be ultimately overcome by education. To sell the concept and overcome initial resistance requires marketing skills. To market the idea effectively, management and financial skills are also critical.

In this country, the HMO movement has only really taken off in recent years--as skilled graduates stream out of MBA programs. With the institutionalization of health administration courses on the graduate level, a pool of financially-able health administrators has developed to meet the growing management needs of expanding HMOs. While at present only 7 percent of the U.S. population is covered by HMOs, HMO coverage is rising dramatically and is expected to reach 15 percent by 1990, or 30 million enrollees. In search of ways to cut costs, employers have begun to offer their employees a greater variety of health care coverage. More and more people are opting for the HMO alternative.

With the acquisition of members comes greater power. As a result, the attitude of medical professionals towards the HMOs also tends to change. Once various hindering legal and regulatory issues have been resolved, HMOs are free to move in to fill expanding market demand. By introducing competition, HMOs can, in effect, undercut health service costs inflated by prevailing health insurance schemes and monopolistic control over treatment--whether maintained by medical societies or governments. Initial resistance to HMOs on the part of physicians can be

overcome as consumers assert their power of choice. Once physicians learn that they too can benefit financially by participating in HMOs, their potential or active opposition dissolves. Such has been the case in this country and may very well apply to the situation in many developing countries today. Obviously, this fact has been demonstrated already in Brazil and Uruguay. And, it has been illustrated again most recently in Chile. Here, 83,000 people, who were formerly covered by a quasi public-private service, were enrolled in a new HMO called Ban Medica.

It is clear that governments cannot be expected to continue financing access to free health services to all the people. Both the international donor community and Third World governments are moving closer to agreement on this issue. What now are the alternatives and how can these alternatives serve the public interest?

4. Presentor: Thomas Holshauser, Director Acquisitions and Development/  
Finance, Hospital Corporation of America, Nashville, Tennessee

Title of Presentation: "An Employer-Sponsored, Pre-Paid Health Care  
System in Brazil -- AMICO (Assistencia a Industria e Comercio,  
Ltda.)\*"

Assistencia a Industria e Comercio, Ltda., better known as AMICO, is a member of the Hospital Corporation of America (HCA) group I am always delighted to discuss. This extensive Health Maintenance Organization is a tribute to the fact that effective management can solve environmental and organizational problems, weather economic crises and still produce quality health care in a manner consistent with an efficient private system.

HCA's purchase of AMICO in October, 1979, marked the company's first ownership of an HMO. We felt the time was right. HMOs offer a major alternative to accepted U.S. health care delivery systems, and the concept is one expected to expand in this country and others in the future. At HCA, we knew that experience in adapting our management techniques to an HMO system could be valuable in the years ahead.

Several factors told us the place was also right. Brazil's economy was booming. With the prosperity had come an upswing in the number of people in the middle class and unprecedented demands by those people for quality health care. Added to the bright economic picture were the facts that HMOs represented an established delivery system in Brazil and the government was receptive to such organizations.

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\* Some of the material in this article was drawn from a presentation the author made at the 1982 NCIH Conference on "Financing Health Services in Developing Countries". During May 1984, the author revised the text during a visit to AMICO in Brazil.

In 1979, over 200 HMOs were already in operation in Brazil, providing the major private alternative to the public program which guarantees every working citizen the right to free health care. The original AMICO, founded in 1961, is considered to be the first company to provide organized medical services in Brazil. Through that HMO and others, corporations were providing health care previously available only through the public program or through fee-for-service medical care which was financially beyond the reach of the average citizen.

This was the arena into which HCA stepped, joining in the development and implementation of a relatively young health care delivery system for a rapidly growing country. The HCA undertaking was massive. The company purchased not only AMICO but four other Health Maintenance Organizations as well. They were all merged into the new AMICO operation. At the time of the purchase, AMICO was providing health care services for 430,000 employees and dependents of over 900 corporate clients. The facilities included three hospitals and approximately 15 clinics, making AMICO one of the largest HMOs in Brazil.

To understand the complexities of providing health care in Brazil, you must first be aware of the general living conditions. Malnutrition and poor hygiene are widespread. Potable water is absent in most areas, and sewage systems are often inadequate. These factors combine to create an environment where disease is difficult to control.

The situation is further complicated by the fact that many of the people cannot read or write. Illiteracy fosters awareness about both the basics of health care and the approaches of health care. Thirty to 40 percent of AMICO's occupied hospital beds are used for pedi-

atrics. Many of the children suffer from dehydration and bronchial pneumonia, conditions which could be alleviated or prevented if their parents understood the basic rules of health care.

These inherent problems were coupled with other, unforeseen difficulties. Trained health care executives proved to be non-existent in Brazil. Setbacks in Brazil's booming economy created a situation where inflation soared to 95 percent in 1981, 100 percent in 1982 and 211 percent in 1983. The government, caught in the trap of spiraling inflation, temporarily suspended a program whereby companies are reimbursed for a portion of the costs of providing health care. Under the terms of the suspension, costs for existing HMO programs would continue to be paid, but no new companies would be added to the reimbursement program. This decision created new hurdles for AMICO's marketing program.

New government regulations also added to AMICO's escalating financial burdens. Huge cost accelerations were caused by regulations boosting salaries in excess of their normal rate of increase and requiring the registration of physicians as employees rather than independent contractors. The registration requirement created a new expense in physician benefits which are 60 percent of physician wages.

In attacking these problems, the first step was to design a plan to upgrade facilities to acceptable HCA standards. Equipment was added throughout the system. The basic management reporting system was computerized to improve organization and control, cost efficiency, and service to AMICO clients. Laboratory functions were centralized in a newly-constructed laboratory with automated equipment.

Management was decentralized, enabling each facility to have its own separate management. This move improved cost and service while the centralized reservation system within each facility allowed patients to make rapid appointments.

AMICO's approach to the health education problem was three-pronged. Regular immunization programs and other preventive medicine programs were established. Literature and other materials were provided to the companies for distribution to their employees. At the same time, AMICO continued to concentrate on their health education programs.

Staff members began to maximize the educational opportunities presented by the patients' visits to the health care facilities. Now specially-trained personnel counsel with the patients, advising them on matters of hygiene, on basic health precautions, and on the appropriate use of health care services. For example, when a woman has a baby, the counselor goes into great detail, providing her with literature and telling her what to expect in a normal baby, i.e., signs that would indicate she needs to take the baby in for treatment. Once this process has been repeated a few times, the patient begins to learn and understand. Patient education is a slow process, not given to drastic changes. However, AMICO is making strides to upgrade the awareness of quality health care in Brazil.

Staffing is another area in which AMICO has had to be innovative. It is common in Brazil for the very young to be placed in responsible positions because the country's growing economy has created such demands for executives. The business-oriented health care executive is rare. To combat that problem, the AMICO identified strong young executives and schooled them in effective health care management methods and techniques.

The result is a group of key managers who offer expertise in sound management as well as an empathy for the cultural, environmental and health needs of the people served by their facilities.

All of AMICO's problems have not been so easily solved. The suspension of the government's reimbursement program could have been a major detriment to the marketing of AMICO, and in truth, it has brought about a slower growth rate than expected. However, in 1983 the marketing team added 66,000 new enrollees to the AMICO program--reflecting a recognition of the quality of AMICO services and a refinement of the marketing techniques being utilized.

Two of these benefits affect the companies where they need the most help--on the bottom line of their profit statements. The preventive medicine programs generate more wellness control which results in a high productivity level. AMICO also offers clients an administrative advantage in absenteeism control. Clients are notified as to the time patients report for treatment and the time dismissed. This assists the company in ensuring that no more manhours are lost than necessary.

The new government regulations and inflation rates, together with AMICO's fixed-price, long-term contracts and a price war among HMOs, have created a financially difficult situation in Brazil. However, AMICO has remained marginally profitable and continues to improve. This achievement, in an extremely difficult environment, can be attributed to many factors, among them the implementation of sound management policies. AMICO has improved productivity through cost containment and through the acquisition of three additional HMO's which expanded the size of the company by 50

percent. These acquisitions were in areas where AMICO was already operating, enabling the company to eliminate duplicate overhead and clinic facilities while improving the appearance of facilities and the quality of care.

The acquisitions also expanded the network of hospitals and clinics. AMICO now owns or leases six hospitals and 50 clinics. Contracts with another 100 hospitals and 30 other HMO companies enable AMICO to offer health care throughout Brazil. The organization now serves 680,000 Brazilians.

AMICO's growth also can be attributed, in part, to the versatility of services offered. The physicians and paramedical personnel who staff the owned hospitals and clinics provide total health care services, including all specialities and surgical procedures. The clients have the option of offering complete dental care for the employees as well.

That option is one of several offered by AMICO. Clients may choose from plans in three general categories: standard HMO plans; broader choice plans with many of the characteristics of the P.P.O. programs now being developed,\* and the free choice plan in which the employee can select any hospital or physician he wishes and AMICO will reimburse the company for a portion of the bill.

HCA is proud of the progress AMICO has made. We're contributing to the development of a pluralistic health care delivery system in Brazil. We believe this will make the health care system more responsive to the needs of the Brazilian people. Some trends toward improving facilities and services are already beginning to be seen, especially among other HMOs.

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\* Professional Provider Organization

Other indicators point to a secure future for private health care in Brazil. The economy shows signs of stabilizing, and that fact will have a positive effect on the soaring inflation rates which have plagued Brazil for the past three years. A discussion of lifting the suspension on the reimbursement program for private health care is beginning to be heard. The demands for quality health care from the people of Brazil cannot be met by government, primarily due to lack of resources. Consequently, the private sector will be looked to for services to supplement, not replace government care. This is good for the people of Brazil and assists the government in meeting the health care needs of that portion of society unable to access the private sector.

Brazil has the capacity to be one of the largest producers and exporters in the world. And as Brazil, as a nation, strives to reach her full potential as a contributor to the market places of the world, the Brazilian middle class, which is just beginning to feel its power, will come into its own. With this expansion of the working class will come increased demands for private health care.

The response to some of those demands may be met through the "abertura," or democratic opening of the political process which has been announced by President Joao Figueiredo. This change from appointed to elected officials is regarded by some as an effort to make the government more responsive to the needs and demands of the people.

Brazil is a nation in the throes of growth, and with that growth comes political power, economic progress, and above all--an improved standard of life for the people of the country. AMICO is contributing to the enhance-

ment of daily life in Brazil through patient education programs and the provision of quality health care.

The physical signs of our efforts are there to be seen--the facilities, the physicians and paramedical personnel who devote their skills to the nurturing and care of the patients ... the managers who create the plans and develop the policies which increase the accessibility and efficiency of the health care programs.

The results of these efforts are not so easily identified, but they exist ... in the mother who learns to spot the first signs of poor health in her child, in the worker whose illness is identified and treated before it reaches a life-threatening stage, in the child who is spared the ravages of disease through an immunization program.

Educating patients to use health care services appropriately and effectively is a slow process, but AMICO continues on a steady path of progress. And as AMICO provides these invaluable services for the people of Brazil, we at HCA continue to learn.

Our participation in this massive undertaking affords us the opportunity to apply skills mastered in other systems and other parts of the world to a new concept--the combination of the financing and delivery of health care. As we learn to adapt proven methods and policies for our operation, we will hone our management abilities to provide an alternative system of quality health care delivery for the betterment of the people of the world.

## CHAPTER III

### ISSUES RELATED TO RATIONALIZATION OF HEALTH SECTOR FINANCING

1. Presenter: Michael H. Mills, Ph.D., Economist, Department of Population, Health and Nutrition, World Bank, Washington, D. C.

Title of Presentation: "Health Sector Financing: An Introduction to the Issues"\*

- Introduction - Instead of entitling this paper "Health Sector Financing: an Introduction to the Issues," it was tempting to borrow from a famous publication and use an alternative title "There's No Such Thing as a Free Health Service". In particular the latter title would have emphasized that all activities and outputs have real resource costs, which need to be financed in one way or another. But on reflection, it seemed that the alternative title might also cause laughs of irony among those responsible for the delivery of health services in many developing countries, as they are all too aware of the heavy costs involved and the severe constraints under which they are forced to work.

The objectives of "Health For All by the Year 2000" are of course laudable, but in the context of many countries they are also extremely ambitious. Even in developed countries, where in the last decade health care costs have been growing markedly faster than gross domestic products, there is increasing concern about health financing issues--it is of little wonder, therefore, that such issues have become of paramount importance in developing countries with meager financial resources available for the operation and development of their health systems.

Questions concerning the financing of the health sector are part of the wider domain of health planning. Once agreement has been reached, either explicitly or implicitly, on the objectives for improvements in health status, then attention must turn to the most efficient ways in which

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\* The views and interpretations in this paper are those of the author and should not be attributed to the World Bank, to its affiliated organizations, or to any individual acting on their behalf.

these objectives can be attained. Efficiency essentially has two dimensions: allocative, which involves raising finance and allocating resources so as to minimize the net benefit to society; and operational, which involves devising financing mechanisms and least-costly methods of producing and delivering given health services to achieve the required improvements in health status. Attention is here being focussed primarily on the efficiency of the financing mechanisms--i.e., on the raising of the resources rather than on their subsequent use--but it should not be forgotten there are important inter-relationships between the two. For example, high taxes on alcohol and tobacco might not only raise funds but at the same time reduce associated health problems; on the other hand, high user charges might reduce demands from the poor for certain types of health service which they genuinely need.

As a final point of introduction, it may be stressed that while the health sector does have some special features which affect the analysis of appropriate financing policies (and especially the design of user charges), there is nothing strange in the economic approach used. All activities do have resource costs, and the alternative ways of financing these can be appraised using standard public finance techniques. For each possible (or indeed existing) source of finance, the following dimensions can be considered: (i) yield (i.e., the revenue--in gross terms, and also in net terms excluding the administrative costs); (ii) incidence (i.e., who is doing the paying?); (iii) reliability (i.e., how much does the revenue fluctuate from year to year?); (iv) elasticity (i.e., how much does the revenue increase as the economy grows?); (v) flexibility (i.e., how easily can the system be changed or adjusted in light of new circumstances?); (vi) social and politi-

cal acceptability; (vii) displacement (i.e., would a new source of revenue displace rather than complement existing ones?); (viii) effect on service provision and functioning (for example, quality of service may possibly increase if the health staff are being paid directly by patients through user charges); and (ix) impact on health and illness behavior (as in the above mentioned examples). Quite clearly it is not likely that one single source of financing will be optimal according to all nine of the above criteria, and a balance of sources may be desirable--and the appropriate balance or mix of them may vary from one situation to another.

- Analysis of the Problem - Before considering issues and options for changing or augmenting the present health financing system, it is crucial to have a firm understanding of: (i) the existing situation; (ii) past trends; and (iii) anticipated future directions (in the absence of new measures). Only in this way is it possible to analyse the nature of the existing financial problems in the health sector, and to justify any proposed policy changes.

- The Existing Situation - Financial data are the only convenient measure which enables all resources to be included in an overall view of the situation, and health planners and managers can only assess existing efficiency in the health system if they know about total spending from all sources of finance. Despite a considerable increase in the interest shown in the last few years in health sector financing and expenditure surveys, there are still many developing countries (and indeed developed countries) where health administrators know only about the funds directly under their own control. Often virtually nothing is known by them about other health

sector expenditures, including those by other government and state bodies, social security agencies, private insurance firms, charities, foreign aid, industry, and last (but certainly not least) by individuals.

In analysing the existing situation, there are three basic questions that need to be addressed:

- (i) how much is the total expenditure on the health sector?
- (ii) from where does the finance come, and how much does each source provide?
- (iii) on what are the funds spent?

The purpose here is not to explain the methodology involved in carrying out simple and inexpensive surveys designed to answer these three questions, as that has been done elsewhere,\* but rather it is to discuss some of the typical results obtained. On the first question, for example, it is often found that total expenditures may be two or three times the amount quoted in the official statistics, partly because the official statistics often exclude some public health expenditures (for example, those by local authorities or by other central government ministries besides the Ministry of Health) and also private sector health expenditures. Expressed as a percentage of GNP, amounts up to 4-5 percent are not uncommon in developing countries. For example, in Zimbabwe (a country in which the author recently carried out such a survey), it was found that 5.3 percent GNP was devoted to the health sector in 1980/81; whereas in Sri Lanka the comparable figure in 1982 was 3.5 percent GNP (or 5.1 percent if health-related activities are also included), despite the relative reduction in priority afforded to the social sectors by the Government there in recent years. Even

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\* See for example: Griffiths, Adrian and Michael Mills, Money for Health - A Manual for Surveys in Developing Countries. Sandoz Institute for Health and Socio-Economic Studies, and Ministry of Health, Republic of Botswana. Geneva. 1982.

in Pakistan, a country where it had earlier been claimed that only about 1 percent of GNP was going into the health sector, this author calculated that a more accurate estimate in 1981-/82 was about 3.2 percent of the GNP. Correspondingly, these expenditures expressed in terms of US dollars per capita were considerably more than often assumed--\$33 for Zimbabwe, \$14 for Sri Lanka, and \$13 for Pakistan. The same is true of most of the countries for which comprehensive estimates have been made.

Some interesting patterns have also been discerned in the sources of finance. Often, for example, the private sector provides considerably more than the public sector. To continue with the above three examples, payments by private individuals in Zimbabwe accounted for over a third of all recurrent financing in the health sector; in Sri Lanka these payments accounted for about 45 percent of the total; and in Pakistan the comparable figure was as much as 58 percent. Again these findings are not in any sense atypical. On the capital side, on the other hand, it is not unusual to find foreign aid accounting for a substantial proportion of the total funding--as high as over 90 percent in the case of another sub-Saharan African country, Botswana. Cost recovery, the revenue raised by the Government through charging fees for health services, tends to be equivalent to only a very small proportion of expenditures--nearly always less than 15 percent and sometimes nothing at all.

Regarding the third question--the use of funds--there are many formats in which expenditure patterns can be examined. Breakdowns of expenditures may be possible in any of the following: (i) by type of service (e.g., hospitals, clinics, programs); (ii) by diagnostic group (e.g., main disease

categories); (iii) by geographic areas (e.g., region, district, urban/rural); (iv) by population group (e.g., by age, sex, social class); (v) by input category (e.g., by staff, drugs, equipment); and (vi) by service provider (e.g., by various levels of government, private providers, missions). In some cases it may even be possible to analyse expenditure patterns by a combination of these; and in the case of government expenditures, the actual figures may also be compared with budgets or earlier estimates. Whatever breakdowns are used, though, what is fundamentally important is to be able to get some idea of actual resource utilization--from both aspects of efficiency, and also from the equity point of view. In this way, and particularly when these expenditure breakdowns are related to the efficacy or effectiveness of the respective services and activities, an evaluation can be made of how the health sector is operating in practice.

- Past Trends - The activities of the health sector are not static, but rather need to be considered in a dynamic context. To do this, it is appropriate to analyse the trends over time in total expenditures, their sources of funds, and the patterns of utilization. Given the usual paucity of data, especially for the private health sector, such an analysis is likely to be easier to undertake for just the private sector; and yet some trends in private spending may also be obtainable if, for example, consumer expenditure surveys have been conducted intermittently.

For developed and developing countries together, there is a positive correlation between the wealth of a country--measured in terms of its GNP per capita--and the proportion of its GNP devoted to the health sector. This relationship is quite surprising in some ways--many people, believing that health is a basic right and assuming that expenditures on health would

have a high priority even in very poor countries, expect that the elasticity of spending on health care would be relatively low. In contrast, the evidence suggests otherwise--in general, the wealthier the country, the higher the proportion of resources devoted to health. In addition, examination of household expenditure data usually shows that the elasticity of private health expenditures is more than one. While most of the inter-country data applies to the comparisons between different countries within approximately the same time period, the phenomenon is also believed to apply broadly for individual countries over time. Certainly the latter is proving to be true for those countries which do have reasonably good time-series data--at the extreme, for example, the latest figures for the USA show that about 11 percent of its GNP is now being spent in the health sector. However, if only developing countries are considered, then the relationship between per capita GNP and health expenditures is much less strong--suggesting that especially in the poorer countries there are many varying factors affecting resource allocation decisions for the health sector.

There may also be significant trends over time in the financing sources for the health sector. For example, in a number of developing countries where the resources available to the public health services have been severely constrained but where there have been large increases in the availability of trained health manpower, the balance of funding has shifted increasingly to private sources and particularly out-of-pocket expenditures for private sector care. In some cases, increasing proportionate use has also been made of health insurance and various kinds of prepayment schemes. On the other hand, there are many examples of countries where public sector

cost recovery has fallen steadily as a proportion of total expenditures over the last few years--this, indeed, is typically the case when health fees are fixed without any easy mechanism for their periodic review, and especially when there is significant inflation.

On the third question--the patterns of expenditure--changes over time may also be very revealing. Trying to decide whether an existing pattern of expenditures is both equitable and efficient may often be a difficult task in practice, as too little is known about the trade-offs between spending on one activity or program compared to another. If, however, one can monitor such spending over a number of years, it may well be feasible to conclude that the expenditure pattern is moving in a particular direction which may or may not be consistent with the Government's stated objectives. Such an analysis (especially on the capital side which can be influenced more easily than recurrent expenditures) can sometimes give a good indication of the underlying priorities which are really being followed.

- Future Directions - Looking forward at anticipated changes in the obligations and financing of the health sector is even more important than examining past trends. On the demand side, most developing countries are facing increasing pressures due to population growth, urbanization and rising expectations. In some cases disease patterns are also changing and creating the need for more prevention and treatment for chronic problems; and in other cases additional pressure is being caused by a rapid expansion of available manpower and sophisticated technology. Against this background many health ministries face a future with little real growth expected in their budgets, especially on the recurrent side. Budget projections depend

critically on assumptions chosen for the expected growth of GNP, the proportion of GNP accounted for by the public sector, and the proportion of the Government's budget devoted to health--but in most of the poorest developing countries, prospects are not good for significant increases in government health budgets. If anticipated future population growth is also taken into account, then in many cases expected real per capita growth in health budgets is zero or even negative. Unfortunately, however, health projects tend to have relatively high recurrent cost ratios, typically in the 20-30 percent range; and so the financial feasibility of investment plans is often problematic, especially if other non-project related demands on budgets (such as heavier workloads at existing facilities, and salary increases) are also taken into account.

- Issues and Options - The outlook for the improvement of health services in many developing countries may be bleak, but it is certainly not hopeless. In the second half of this paper, three main groups of issues are discussed: (i) how to improve the efficiency of existing governmental health services; (ii) the question of cost recovery in view of the need to raise additional operating funds for the health sector, the need to cut down on unjustified use of publicly subsidized services, and the need to improve the equity of health service use; and (iii) the potential and desirability of promoting various forms of health insurance in developing countries.

- Improving the Efficiency of Existing Public Health Services - Again the issue of efficiency may be considered from two angles--allocative efficiency and operational efficiency. Regarding the former, virtually all governments have formally committed themselves to the goal of "Health For

All By The Year 2000," and endorsed the concept of primary health care as the main vehicle with which to reach it. And yet in many countries, expenditures on urban and high technology, curative care still predominates. Even in a perfectly functioning health care system, of course, one would expect the higher level facilities to consume a significant portion of the available resources--and by their nature hospitals are bound to be expensive, and yet they clearly have a major role to play in the delivery of health services. Attempts to reallocate resources away from lower priority programs and services, and towards higher priority ones, are likely to be resisted by certain interest groups; and in practice they may be difficult to achieve without transfer of responsibility for some activities from the public to the private sector. In this context it is sometimes argued that the latter should have a larger role to play, especially in the provision of curative care. While there are certainly some advantages in such a strategy, there may also be some disadvantages and dangers too, especially if the private health sector is essentially unregulated.

While the scope for improving allocative efficiency may be relatively small without a reduction in the role of the public health sector, there may well be significant scope for improvements in operational efficiency. For example, economies are often possible in pharmaceutical management, through better systems of procurement, manufacture, storage, distribution and usage, etc. Hospitals can also be made more cost-effective through reviewing average lengths of stay of different categories of inpatients, tightening up administration, and decentralizing outpatient services and maternity care (except for referral cases) to peripheral facilities. It may also be possible to change treatment regimes for some groups of pa-

tients, for example, by using more outpatient rather than inpatient care. Savings may be feasible through improved maintenance of equipment and vehicles, and also through the use of appropriate technology (such as simple incubators or solar water heating). While investments may be needed in order to capture such efficiency gains, any financial savings generated would be particularly important if they reduce pressure on operating budgets.

- Cost Recovery - There is quite a wide range of possible ways in which new resources could be generated for the health sector--but when discussing this subject, the question of cost recovery inevitably attracts particular attention. Although it was earlier argued that standard public finance criteria can be used to appraise any financing source for the health sector, it is appropriate to start an analysis of pricing policy with an examination of the special features of the sector which should influence the design of health charges.

As stated before, there are essentially three possible justifications of levying charges for publicly provided health services: (i) to raise additional revenue to cover some of the cost of providing the service; (ii) to improve the efficiency of resource allocation; and (iii) to improve the equity of health service use. Much of the discussion of the issue of cost recovery in the health sector has, either explicitly or implicitly, focussed on the first of these arguments--the resource mobilization one. Indeed most of the standard public finance criteria listed earlier relate to this argument--but considering resource mobilization or revenue generation alone, health charges do not seem a particularly good source of finance. For example, their gross yield is usually quite low--and although little is known about collection costs, administrative expenses involved in collect-

ing them are probably quite high and so their net yield is even lower (and may even be negative in some instances). Even where there are relatively high charges for government health services, it is very unusual for the revenue obtained to be equivalent to more than 15 percent of the total recurrent costs of providing the service. This, however, may primarily reflect the reluctance of policy-makers to increase fees further, rather than the inability of this financing mechanism to be used to raise larger amounts of cash.

It is also difficult to make a strong case for health charges in terms of their incidence--for example, to the extent that the poor are likely to have a worse health status and more need of using health services, health charges are actually a regressive source of funds. They are also an inflexible way of raising funds, and usually socially and politically unpopular--though the degree of sensitivity is sometimes exaggerated, and is anyway likely to change over time depending on the general political environment. On the other hand, the revenue generated is normally quite reliable, not fluctuating much from year to year unless a major epidemic occurs, and also quite elastic as incomes grow. Finally, before leaving the question of resource mobilization, there is also the issue of to whom the revenue should accrue. The traditional approach would be for the revenue to flow to the Treasury or Ministry of Finance, but a strong case can be made for allowing at least part of it to stay within the health system (and possibly in some of the larger institutions themselves) if this encourages higher collection efforts.

In line with the need to improve the efficiency of the provision of service delivery, much more emphasis should be given to the use of appropriate pricing policy to influence the demand for health services in a

socially optimal way. In other words, the criterion of the effect on illness behavior and demand for health services may be particularly important for the justification and design of health pricing policy. In general, efficiency is served if the marginal cost to society of producing the service equals the marginal benefit to society of its consumption. However, services provided without charge may be consumed beyond this point of economic optimality, i.e., the marginal social cost exceeds the marginal social benefit of the excess consumption.

However, these arguments about efficiency depend on a number of assumptions--for example, that consumers have full information about the services; that the consumption of a service by one individual is independent of the consumption by other individuals; that the benefits of a particular service only accrue to the individual consumer and not to other members of society, too; and that society as a whole does not believe that all individuals should be entitled to these services regardless of cost.

Unfortunately for the theory, these assumptions are not completely valid for all types of health services. For example, there is widespread consumer ignorance about the nature of many health problems and medical interventions; some health programs (e.g., vector control activities) are carried out on a widespread public basis, so that all people benefit collectively; many health activities (e.g., disease prevention programs and also curative care for communicable diseases) have "positive externalities" and benefit a larger group of people than just the individual patient; and it is commonly believed that some health services (e.g., those for unconscious victims of road traffic accidents) should be provided regardless of willingness and ability to pay.

While the special features of the sector do justify some departure from a strict marginal cost pricing policy for health services for efficiency reasons, they do not justify entirely free services. Rather the pricing policy needs to be refined by type of service provided in order to accommodate particular categories of patients. Specifically there are strong grounds for continuing to subsidize, or even have no charge for, activities with positive externalities--these include routine maternal and child health care, health education activities, and treatment for communicable diseases such as malaria. In contrast, there are grounds for charging for other types of outpatient, curative care. Such charges can curtail "excessive" use of services of duplicative consultations. It may also sometimes be appropriate to introduce an additional charge for patients who make direct use of tertiary level services--but only if alternative primary and secondary level services are available to them.

Regarding inpatient and outpatient referrals, the quantity of services consumed by patients is determined primarily by the health staff, so charges would not be expected to lead to better resource allocation through influencing the demand pattern of patients. In practice, however, some patients do sometimes try to influence health staff to admit them into hospital, and so a charge might then have a beneficial deterrent effect. Of more significance, health staff are trained to provide the best possible service for their individual patients, largely irrespective of costs; and so relying entirely on them in a situation of zero or heavily subsidized prices may not necessarily lead to an optimal allocation of resources from the point of view of society as a whole. Inpatient services are the most costly to provide, and so for this reason too some degree of cost recovery may be deemed necessary.

Equity is served if higher income consumers have to pay the cost of services they receive, while basic services received by lower income households are free or subsidized. One of the major criticisms of introducing user charges, indeed, is that they may deter the poor from legitimate use of health services. Although means tests are usually not a practical method of identifying those who should or should not have to pay for publicly provided services, there may be ways in practice in at least some countries whereby it is possible to waive fees for indigents. In many places where fees are now charged this is already the case--charges are simply forgotten for those who are obviously too poor to pay. Another possible way of addressing the equity objective is through having a differential pricing policy by geographic area--for example, charges could be higher in urban areas, and certain rural areas could rely largely on community financing of health services.

On the other hand, there is one common situation where health charges should be raised on grounds of equity (and also on grounds of resource mobilization and efficiency too). This relates to situations where governments operate pay-beds in public hospitals for private patients--is nearly all cases the charges levied are considerably below even the cost of providing the service. Such charges should therefore be raised at least to this level, if not higher in order to cross-subsidize other types of service for general patients.

- Health Insurance - Another type of health care financing which tends to attract considerable interest is health insurance. There is a large literature on this subject, though only a relatively small proportion of it deals with the relevance of the approach to developing countries.\* There are many different kinds of health insurance (for profit or not for profit; formally organized or community-based; compulsory or voluntary; and direct or indirect, etc.), and they span across a range of health systems. At one extreme, health insurance is simply a voluntary means whereby an individual can make a prepayment in order to avoid possibly catastrophic out-of-pocket expenses in the event of a major illness; at the other extreme there are social security schemes which incorporate not only compulsory health insurance for certain groups of the population, but usually income maintenance measures. The latter is normally funded by payroll taxes, often supplemented by user charges and government contributions. This concept of a national health insurance scheme may even approach a national health service system (such as in the U.K.), which is characterized by very substantial governmental financial contributions. In this case, indeed, the payments by employers and employees are more like an earmarked tax rather than actuarially determined premiums.

In view of the diversity of types of health insurance and also enormously different background situations between individual developing countries, it is not appropriate to draw definitive conclusions about the merits or otherwise of the introduction or expansion of health insurance in general. Rather it is more useful to describe some of the principles and advantages

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\* One of the best summary articles on this is: Mills, Anne. Economic Aspects of Health Insurance. In: The Economics of Health in Developing Countries. Ed. Lee, Kenneth and Anne Mills. Oxford University Press. 1983.

of this source of financing for health care, then discuss some of the disadvantages and dangers, and finally lists some of the main criteria to be considered in any particular setting.

On the positive side, first of all, health insurance provides a means by which the risk of major costs arising from disease or ill-health can be shared. This is because such risks are unpredictable for an individual, but quite predictable for a large group. For it to be feasible, however, there must be enough participants for the risks to be spread widely. Also, for the scheme to be cost covering, the levels of premiums should be related to the statistical frequency of the need for care, the average cost of providing the service or reimbursing claims, and an allowance for administrative costs (plus a profit margin for commercial institutions). From an individual's point of view, the demand for health insurance would depend on the price of it, his assessment of the probability of loss resulting from illness, the likely magnitude of such loss, and his degree of risk aversion.

On the other hand, health insurance schemes do have some important disadvantages, and indeed they have been criticized on a number of grounds. Due to the zero or subsidized price at point of service delivery, there is a danger of "over-demand" for health services. These factors can easily lead to major cost escalation as has happened in several developed countries which rely heavily on health insurance schemes to finance the health sector. Traditional forms of health insurance (in contrast to the Health Maintenance Organization model) have also been accused of tending to promote primarily curative and high-cost medical care, and in some cases

administrative structures have also been unnecessarily costly. Most schemes are also inequitable to the extent that they primarily serve the better-off socio-economic groups, and also attract scarce physical and manpower resources away from the public sector (even if not directly financially subsidized by the government).

It is not easy to weigh up the relative advantages and disadvantages of promoting health insurance in developing countries, as so much depends on specifics. It is possible, however, to raise a number of key questions and criteria which need to be considered in evaluating such proposals. Again the first need is to understand the existing organizational form of medical care in the country, their financing mechanisms, per capita income and expectations for medical services, the quality of the public health system, and the demand for additional services, etc. In addition, it is necessary to study national policy objectives, particularly as they relate to the development of private sector health care services and also to the question of equity. Then for the details of any new or expanded scheme, one would have to analyse the proposed population coverage in terms of geographical area, socio-economic levels of likely participants, employment status, and possible group organization. Also crucial would be the proposed range of health care services to be offered, whether both inpatient and outpatient, and arrangements, if any, for providing particularly the highest levels of (expensive) hospital care.

On the financing side, other issues concern the way in which the scheme will be funded; whether copayments or deductibles will be charged; and especially whether there will be any governmental or employer subsidies.

Equally important will be the proposed organizational arrangements, for example through their relationship with the public health system, and also whether the services will be provided directly by salaried staff employed by the scheme, or whether there will be third-party, or indirect reimbursement, perhaps on the basis of a negotiated fee schedule. On balance, if properly designed and implemented, health insurance can contribute positively in certain instances to health sector development. Of particular importance is its potential for facilitating the development of community-based, primary health services.

- Some Concluding Thoughts - This paper should be seen essentially as a starting point for a discussion of some of the issues involved in health sector financing. Some of these issues tend to be intricate, but they are also very topical. Already a great deal of practical information has been learned about the situation in many developing countries, but equally there are still many other such countries which do not have a clear understanding of existing health sector expenditures and their financing. In more cases still, no quantitative analysis has been made of past trends, or of the financial feasibility of being able to move towards stated objectives within set time frames. On the other hand, there is certainly a growing realization about the importance of these issues, and a willingness to examine new courses of action. In this paper, just two of the alternative or complementary financing sources have been discussed--cost recovery and health insurance. For the former, there are four important considerations--viz. the effects on resource mobilization, resource allocation and equity, and the administrative implications. For the latter, on the other hand, it is argued that one must be eclectic--there is certainly scope for using it to provide more financial resources for the sector, though there are also dangers against which one must guard.

2. Presenter: Carl Stevens, Ph.D., Professor, Economics Department, Reed College, Oregon

Title of Presentation: "Rationalizing Health Sector Financing in Less Developed Countries."

- Introduction - There has been in recent years a surge of interest in developing alternative approaches to health sector financing in less developed countries. However, engagement with these issues has tended to be rather piecemeal, focused upon putting out one particular fire or another, e.g., the severe inadequacy of funding for recurrent costs experienced by most Ministry of Health delivery systems. If appropriate financing programs are to be developed, we will require a more comprehensive approach. We should adopt a "systems" perspective, recognizing that health financing events are not independent events which can be engaged seriatim, but rather comprise interdependent elements of a health sector financing system.

In no country setting where financing alternatives are under consideration do we start with a clean institutional slate. Typically, the existing financing system will have been in place for many years without substantial change. It is unrealistic to suppose that this whole system can be swept aside in favor of some "ideal" whole-system alternative. Rather, feasible alternatives will be represented by incremental changes in existing institutions. The systems perspective simply suggests that we attempt to evaluate each particular financing initiative not only in terms of whether it will address the particular problem for which it was devised but also whether it has an impact on other health sector performance problems. Does it help "rationalize" the health sector financing system more generally? Exemplary of important interdependencies in this domain, to be addressed in what follows, is the relationship between the way in which the demand for hospi-

tal services is financed and the availability of resources for primary care.

- Importance of the Private Health Services Sector in LDCs - It will prove helpful for the discussion to follow to remark on this matter at the outset. Owing to the nature of the problems which typically have motivated concern with health sector financing problems in LDCs, there has been a tendency to focus attention pretty much upon the public sector, especially Ministry of Health (MOH) systems. In seeking to rationalize health sector financing, however, it is important to recognize that in many LDCs the private sector is substantial and, in many instances, considerably larger than the public sector. For example, private expenditure as a percent of total expenditure for health has been reported as follows: Ghana 73 percent; India 84 percent; Honduras 63 percent; Philippines 79 percent; Bangladesh 80 percent; Korea 84 percent; Afghanistan (rural) 85 percent; Egypt (at least) 55 percent; Pakistan (of operating and maintenance expenditure) 71 percent.\* Data for many other countries would exhibit this same profile. From these data it is clear that, in many LDCs, if national health-financing policy is to engage consequential health sector events in a general way, that policy must comprehend not only the public sector (which tends to be the sole focus) but the private sector as well.

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\* 1970 data from Ghana, India, Honduras and the Philippines from P. J. Richards, "Some Distributional Issues in Planning for Basic Needs Health Care," World Employment Programme, Income Distribution and Employment Programme, Working Paper, International Labour Office, Geneva, June 1979. Bangladesh (1976) and Korea (1975) from Financing Health Services, Report of WHO Study Group, Technical Report Services 625, WHO, Geneva 1978. Afghanistan, July 1975. Egypt (1978) from Arab Republic of Egypt, Ministry of Health, Health Profile of Egypt, Study on Health Financing and Expenditure in Egypt, Publication No. 10, April 1980. Pakistan data from Pakistan Health Sector Report, World Bank Report No. 4736-PAK, Population, Health and Nutrition Dept., September 30, 1983.

- **Issues of Equity** - The phenomenon of relatively high rates of private expenditure for health services in LDCs immediately raises issues of equity. This is so for various reasons including, importantly, the fact that in most LDCs these private expenditures are overwhelmingly financed by out-of-pocket payments by consumers. In no event, of course, will there be a free lunch in this domain. However the demand for health services is financed, consumers in the aggregate will pick up the tab for the nation's health care bill--by some combination of tax payments, and/or insurance premium payments and/or out-of-pocket payments. Nevertheless, the burden imposed by these payments may be variously distributed among consumers. To achieve an appropriate distribution of this burden, commonly accepted canons of equity (e.g., moving in the direction of equalization, as among consumers of health care, of net lifetime welfare) call for some form of social financing of the demand for care--such that those who are well share the burden with those who are sick.

Tax financing is one form of social financing. Ideally, from an equity point of view, the tax structure would be progressive. In many LDCs, however, only a small percentage of government revenue is derived from income or other potentially progressive taxes. Rather the government relies in the main on import duties, excise taxes and taxation by deficit-induced inflation, taxes which probably tend to be paid by all income groups roughly in proportion to their expenditure. Some LDCs have social security-type health schemes financed by payroll taxes. These taxes may be proportional to income or, perhaps, regressive if there is an upper limit on the wages and salaries which are taxed in this way. Thus, as matters stand, tax structures do not make a contribution to distributional equity and it may be difficult to arrange a tax structure that does. But this is

only one part of the distributional picture and, it may be argued, not the most important part.

An important distributional benefit of social financing schemes (taxes, insurance, prepayment) is the insurance it provides against the risk of extraordinary large expenditures. In any given year, some households will need to utilize health services at much higher than average rates. In the U.S., about 10 percent of families in any given year have health care expenditures on the order of three times the average and many have expenditures which are very much higher than this.

Frequency distributions of household health care expenditure by amount of expenditure are not generally available for LDCs. Some findings for some LDCs suggest, however, that health care expenditures may constitute a significant proportion of total household expenditures. WHO FINANCING reported, for example, that for a recent year in Bangladesh, private spending for health care amounted from about 2.5 percent to 4.0 percent of total household expenditure depending upon income. A recent survey of rural Afghanistan found that, on average, about 6.8 percent of total household expenditure went for health services. Adopting the foregoing exemplary orders of magnitude, if ten percent of households had expenditures about three times the average, this would amount to something like 8.0 to 20.0 percent of total household expenditure, a very significant burden indeed at very low levels of income. The general point is that, whether it is based upon a progressive tax (or other payment) structure or not, a social financing scheme will confer substantial distributional benefits by spreading risk among individuals and over the lifetime of each individual.

Another important aspect of the distributional picture turns upon the way in which the demand for care is rationed. Where financing is by out-of-pocket payments, the demand for health care will be price rationed, resulting in inequitable income-related imbalances in the distribution of services. Under a tax-financed scheme such as MOH systems where, typically, there has been no significant consumer cost sharing, there will be no price rationing of demand. It is unlikely, however, that it will be the intention of the public authorities to supply all of the services consumers want at zero prices. Consequently, there will be some form of non-price rationing, typically, informally as by queues, etc. If this non-price rationing is such that health status is the decisive determinant of utilization, then we should expect to see higher utilization rates by those at the lower end of the income distribution (who will tend to have more health problems than those at the upper end). Such a utilization pattern will also tend to result from the fact that, typically, informal non-price rationing of services results in very onerous terms for access such that those in the upper end of the income distribution will tend to abandon the tax-financed system in favor of seeking services in the private sector. As Table 1 shows, in practice, the utilization pattern for government health services may only more or less reflect these expectations.

Table 1: Distribution (use valued at cost) of Central Government health care programmes by quintile of income group\*

	Hong Kong	Sri Lanka	Philippines	Chile	Iran
Poorest 20	19.1	25.4	14.3	26.4	30.4
20 - 40	24.5	21.1	12.6	23.4	20.5
40 - 60	22.6	20.0	15.0	21.6	18.7
60 - 80	21.6	19.0	17.9	15.9	17.7
80 - 90	9.1	7.8	13.7	6.8	8.9
90 - 95	1.6	3.9	11.0	3.0	3.2
95 - 100	1.5	2.7	15.4	3.0	0.6
Share in GDP	1.5	1.5	0.4	3.0	0.6

From the point of view of distributional equity, the advantages of social financing schemes are, of course, familiar. Nevertheless, it is worthwhile to rehearse them. Despairing that adequate financing ever will be available from conventional tax revenues, health planners in LDCs appear increasingly to contemplate out-of-pocket financing. However, to go this route may be to give up a good deal on equity account. It follows that the search for organizational vehicles (outside the conventional tax structure) to accomplish social financing of health care is a serious one.

Social security health schemes have been the subject of some controversy. It has been contended that such schemes may in various ways have adverse distributional implications. For example, the beneficiaries of social security schemes typically are afforded a higher quality and larger quantity of health services than are those who must depend upon the public

\* From: P.J. Richards, "Some Distributional Issues in Planning for Basic Needs Health Care," World Employment Programme, Income Distribution and Employment Programme, Working Paper, International Labour Office, Geneva, June 1979.

basic health services system--a circumstance which may be regarded as inequitable. Moreover, the beneficiaries of social security schemes typically are individuals in the modern economy who are already in various ways better off than the majority of individuals who work in the agriculture economy. Also, there has been concern that social security schemes will displace what would otherwise have been more health sector funding out of general tax revenues.

The force of objections to social security schemes depends importantly upon the extent to which, if at all, they tend to displace general tax revenue funding for public health services. Roemer,\* looking at the experiences of twelve Latin American countries, found no statistical evidence of such displacement. In any event, however, it is unlikely that there will be a useful, general answer to the displacement question. Circumstances will differ from country to country and from time to time such that health-sector financing policy for any given country will require an analysis of the displacement question peculiar to that country.

In addition to considering the possibly untoward consequences of social security schemes, account should be taken of possibly favorable consequences of such schemes for individuals in addition to the parties to them. Thus, as Roemer\*\* has pointed out, the well being of those in the rural

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\* M. I. Roemer and Nobuo Maeda, "Does Social Security Support for Medical Care Weaken Public Health Programs?", International Journal of Health Services, Vol. 6, No. 1, 1976.

\*\* M. I. Roemer has afforded a "defense" of social security schemes. See "Social Security for Medical Care: Is It Justified in Developing Countries?", International Journal of Health Services, Vol. 6, No. 1, 1976.

economy depends importantly upon the overall rate of economic development to which the modern, industrial sector makes a crucial contribution. To the extent that social security schemes also make a contribution to improved health status in the industrial sector, and to the extent that improved health status increases the productivity and efficiency of the industrial sector, these schemes also make a contribution to the well being of those in the rural sector.

There are reasons to suppose that improved health status may make such a contribution. This is so because, in most LDCs, building the stock of skills in the industrial work force is a major problem for development, and because there are potentially important connections between worker health status and the accumulation of the stock of skills in the work force. The connection is in part direct: illness may result in a loss of skilled workers to the labor force (permanently or episodically). There are also less direct connections which may be more important. The prospect that trained workers will be lost to the work force owing to illness diminishes the prospective return to the employer from an investment in training and hence may tend to reduce the amount of such training. Thus, extension of social security health schemes in the industrial sector is clearly warranted.

The agriculture sector in most LDCs does not, for most labor input, feature employment relationships which generate payrolls which may be subject to payroll taxes. This circumstance has been regarded as a bar to the extension of social security-type schemes to the agriculture sector. However, the agriculture sector typically will feature other kinds of organization, e.g., cooperatives for marketing, or credit, or procurement of other inputs, etc. Wherever there is hierarchical organization of

regular, ongoing economic transactions, there is the possibility of financing health services benefits for the parties to those transactions by contributions based on those transactions and earmarked for health services.

- Proliferation of Social-Financing Schemes - This approach to financing an expansion of the basic health services system contemplates the evolution of a pluralistic system under which various subsets of the population may depend upon different social financing schemes each adapted to circumstances peculiar to each. There have been, in various quarters, objections to reliance on this kind of financing strategy, mainly on the ground that it is apt to yield inequitable differences among people in access to services. This view holds that one, uniform system providing services for all and financed out of general tax revenues would be better. Perhaps so, but realistically speaking, in many LDCs the prospect for timely implementation of such a uniform system which has the capacity to afford effective coverage to the population as a whole is not at all bright. Consequently, it is probable that in various countries the development of a pluralistic system, including significant elements of social security-type financing, will service the welfare of consumers as a whole much better than can the next best system which is actually available.

Suppose, to facilitate discussion, that it is true that social security-type schemes feature more efficient delivery systems than those typical in the MOH system. And suppose further that more reliance on these schemes results in a more rapid and wider scope of coverage with basic health services than could be achieved under the MOH system. Granted all of this, we still must recognize that, generally speaking, we cannot expect that all of the population can be served by such financing schemes and delivery

systems. Some portion of the population will have to depend upon services financed by general tax revenues (although, not necessarily generated by the center) and delivered, probably, within the organization framework of the MOH. Thus, we should expect that social security-type schemes and the basic health services system under the MOH will co-exist--and the matter of potential complementary relationships and potential competitive relationships between the two systems becomes important.

It sometimes is pointed out that social security-type schemes will compete with the MOH health services system for health manpower and other resources. This observation does not by itself, however, lead to any conclusion about whether public policy ought or ought not to encourage social security-type schemes. This policy choice will turn in part upon the relative efficiency with which these two systems use society's scarce resources (including in the measure of efficiency extent of service to priority populations). Indeed, more generally speaking, competition between these systems might have some favorable consequences. For example, social security-type schemes might serve an exemplary role, might serve as models to inform and create pressure for upgrading of the MOH system. Because health sector events and circumstances differ from country to country, the design of detailed financing alternatives can only be conducted on a country-specific basis.

- Problems and Responsibilities of MOH Systems in LDCs - Regardless of differences, many LDC health sectors share certain performance problems. One ubiquitous complaint is that Ministry of Health systems are generally underfunded. What is meant by this is that the MOH systems require more funding than they can obtain in order to achieve their planned objectives.

Consequently, these systems fail to expand "coverage" of the population (especially, the rural poor) as called for by a succession of plans. Facilities are dilapidated and services are of poor quality.

As has been pointed out foregoing, tax-financed MOH systems typically feature no significant consumer cost sharing such that there must be resort to non-price rationing of the scarce supply of services. This typically entails onerous terms for access to care (crowds, day-long waits, return visits, delayed appointments) and these are a principal source of consumer dissatisfaction with the performance of these systems.

MOH systems are unable to pay salaries sufficient to recruit and commit the services of important categories of health manpower, especially physicians and nurses. The MOH typically operates in the nexus of the civil service system as a whole and with its system-wide established pay grades with which MOH salary policy must conform. Operating under this organizational constraint, the MOH is unable to pay the supply prices of these factors of production. This has the familiar untoward consequences, e.g., attempted reliance upon indenture systems, widespread vacancies in planned staffing, high rates of turnover. For physicians, it results in all of this plus authorized and unauthorized combinations of private with public practice which tends to compromise the public-practice role.

It is usually difficult to provide incentives for efficient performance within MOH systems as they now operate. An organization's efficiency depends principally on the management skills of its personnel and the effectiveness of its incentive systems. MOH systems operate under a major disadvantage. Absent the discipline of the marketplace as an incentive for administrators and managers to strive to keep product quality up and costs

down, substitute incentives must be devised. As is commonly recognized, this is difficult to do. Even if managers and administrators are motivated, efficient performance will not result unless they in turn control incentives to motivate the performance of those they are attempting to direct. In MOH systems generally, the nature of typical LDC civil service personnel policy militates against the capacity of even motivated managers to manage effectively.

Because of the way most LDC health-services sectors have historically been organized and financed, PHC (Primary Health Care) programs are chronically underfunded. Such programs receive too small a share of the MOH budget, particularly relative to the funding of MOH secondary and tertiary services which together assume the lion's share of the MOH budget. The potential demand for curative services free of charge to the population as a whole (especially the secondary and tertiary curative services component of the program) tends to be a bottomless pit. Whatever the total tax funding, within realistic limits, secondary and tertiary services tend to displace PHC including the crucial preventive/promotive services leaving these underfunded.

- Organizational and Financing Alternatives - Pursuant to rationalizing health sector financing, such alternatives should seek to engage all of the problems enumerated foregoing (and perhaps additional problems). Of these problems, for many readers, underfunding of PHC services will be the one warranting priority attention. We may consider a solution for this problem which, as it turns out, will also contribute to solution of some of the other problems as well.

As a way to recruit more adequate resources for PHC systems, it is becoming increasingly popular to suggest that these systems implement user

charges (fees). In most settings, however, this is not a promising strategy. In most LDCs, the PHC system is expected to carry the bulk of the preventive/promotive, public health load. These services tend to be in the technical sense "public" goods for which public funding is peculiarly appropriate. Private financing of these activities probably is not feasible in most situations, e.g., the free-rider problem. Nor will it yield allocative efficiency. Attempting to rely upon private financing for public goods (in the health services domain or any other) will likely result in inappropriately low rates of resource allocation to these activities.

In principle, a possible alternative to central (national) tax financing of these activities would be local tax funding. However, typically, there is significant fiscal capacity only at the national level. Local fiscal capacity is so severely constrained that any attempt to rely upon it for primary health care would simply result in too low a rate of resource commitment.

Thus, to recruit adequate resources for PHC systems, we are thrown back on central fiscal capacity, the source of MOH funding. The problem is that, as matters stand, MOH responsibility for financing secondary and tertiary care is overly compromising the capacity of these systems to finance primary care. What is required is a strategy to facilitate the diversion of a significant part of the scarce general tax funding available to MOH systems away from secondary and tertiary care to primary care.

One such financing strategy is to have fees for MOH hospital services. The schemes would be income related. To the extent possible, services would be marketed to groups of consumers on a prepaid, capitation basis.

Some MOH hospital systems already feature fee schedules of one kind or another (although none, to my knowledge, have tried prepaid marketing). In the Philippines, the MOH hospitals attempt to administer a rather comprehensive, income-related fee schedule. In Jamaica, a decades-old hospital fee schedule will probably soon be upwardly revised. In St. Lucia, active consideration is being given to reinstituting a fee schedule which has been abandoned. In Egypt, MOH hospitals provide several classes of service for paying public patients, which presumably provide better care than that provided free of charge. In several MOH hospital systems, special accommodation is made for and special rates are charged to so-called "private" patients.

Generally in LDCs the possibility of implementing fees for MOH services is regarded as a way to recover costs rather than as a way to make more resources available for health services. Thus, as matters stand in most LDCs, revenue from such fees would revert to the general government treasury. Experience in various LDCs clearly shows that, under these circumstances, such fee schemes cannot be administered successfully, e.g., collection rates typically are so low that revenue from this source makes no more than a miniscule contribution to government finance. Moreover, evaluated as an instrument of government fiscal policy, these fees should be regarded as an inefficient tax to raise the small amounts of revenue they do yield--since the ratio of administrative costs to revenue yield is high. Thus it would appear that LDC governments would have little or nothing to lose on general fiscal policy account from permitting the MOH facilities marketing the services to retain the revenue from fees.

On the other hand, there would be potentially a great deal to be gained from an arrangement such that the facilities marketing the services retained the revenue from fees. Experience shows that under these circumstances the prospect for successfully administering the fee scheme is much brighter. And, under this arrangement, the MOH would have two sources of funding, one private and one public. Since a significant part of the costs of delivering secondary and tertiary care would be recovered from private financing, the MOH should be in a better position to divert more of the public funding available to it from hospital services to primary care activities. Thus, implementing fees for government hospital services can make an important contribution to securing more adequate resources for primary care.

This financing strategy can also contribute to the solution of another problem identified foregoing--namely, difficulties in providing incentives for efficient performance within MOH systems as they now operate. Under one attractive format, MOH hospitals retaining revenue from fees could operate with statutory boards, as semi-autonomous entities. MOH hospital budgets could be set by prospective budgeting. At the outset of each budget period, say every three years, the MOH and each participating hospital would negotiate a budget for the forthcoming period. Subtracting anticipated revenue from the prospective budget would yield the MOH contribution to the hospital budget (financed out of the regular tax funding available to the MOH). Under this arrangement, hospital management would be at risk for success and failure. Assiduous attention to cost containment, marketing, and consumer relations should leave the hospital with some surplus which could be used in various ways determined by the hospital.

A strong case can be made that where there are fees for MOH hospital services, the demand for these services should be socially financed. MOH fee schedules which feature more than merely nominal fees are apt to be acceptable only if they can be income related. Where demand is financed out-of-pocket, this is accomplished, in principle, by establishing a schedule of income-related fees (for some number of income classes with nominal or zero fees for the lowest income class). This requires a "means test" at the hospital door, so to speak, and in practice has proved to entail formidable administrative problems. Under prepayment and capitation (or other insurance schemes) however, income relating can be accomplished by varying the capitation rate (or rate of contributions to the insurance fund) according to income, with all beneficiaries entitled to the same benefits. There is then no need for facility-administered means tests and sliding fees.

The union of MOH fees and prepaid, capitation marketing has another important dimension which should be remarked. Whether or not public bureaucracies are well suited to the production and delivery of health care, the fact of the matter is that in many LDCs a large part of sector capacity, particularly for hospital services, is and will continue to be provided by public enterprises. Ways must be found to improve the efficiency of these enterprises. In my view, financing initiatives are essential for this. On the demand side, to the extent that services can be marketed on a prepaid, capitation basis (or under other insurance schemes) we can substitute private social financing for public social financing. To this extent there is no need to "unsocialize" the demand side of the market just because the MOH is recruiting private financing. From the point of view of public policy, charges for MOH services should be more acceptable if they are

accompanied by MOH initiatives to make alternative social financing arrangements available to consumers.

It was earlier pointed out that distributional equity calls for substituting social financing for out-of-pocket financing of the demand for services delivered by the private sector. It should further be recognized that social financing of the demand for private hospital services could facilitate diversion of MOH resources from the financing of secondary and tertiary care to the financing of primary care. The extent to which LDC governments must allocate funds for publicly delivered secondary and tertiary services depends in important part upon what alternatives to MOH facilities are available to consumers. In various LDCs, there is a substantial private hospital sector which affords a major alternative. The availability to consumers of social financing schemes for these services (prepayment or other insurance schemes) should tend to encourage an expansion of the capacity of this sector, thereby reducing the load on MOH facilities. This was the case in the Philippines. Some ten years ago, when their Medicare program was launched, a social security-type scheme provided hospitalization benefits for public and private sector employees. The number and capacity of private hospitals thereafter increased dramatically.

It may be remarked that fees for MOH services might also make some contribution to solution of another of the problems adduced foregoing--namely, the untoward consequences of non-price rationing of these services. In order to completely eliminate non-price rationing problems, the fees would have to be set high enough to clear the market, i.e., supply equal to demand. Political or other considerations may preclude setting the prices this high. However, lower-than-market-clearing prices will choke off at

least some excess demand. Some consumers who would have queued for services at zero prices will no longer be in the queue. Something of value may have been gained in this way. If the demand choked off can properly be regarded as representing "less necessary" would-be utilization, then, although there would still be excess demand, at least the scarce supply of services would now be non-price rationed among just those consumers who presumably represent "more necessary" utilization. Whatever the level of fees, marketing on a prepaid basis will attenuate the rationing function of these prices, the extent of this effect depending upon the amount and kind of consumer cost sharing (if any). However demand is financed, actual experience with such fee schedules will be required to determine just what the price-rationing consequences will be.

- The Demand Side of the Market: Organization and Opportunities - At various places, this discussion has called for marketing services to groups of consumers. These should not, in the usual case, be groups of individuals organized expressly for the purpose of consuming health care. Rather, these should be already extant groups organized for some other purpose, usually economic. A prominent example would be groups of employees of private or public enterprises or agencies. In many LDCs, such employees are already apt to have fairly ready access to private social financing arrangements. Other groups, however, have not historically had access to private social financing of their demand for health services, e.g., self-employed farmers who may comprise 50% or so of the employed labor force.

Fortunately, in many LDCs, there are often extant organizations which are potentially on the demand side of the market for health services. For example, in Jamaica, the Jamaica Agricultural Society (oldest and largest

of the farmers' organizations) claims 80,000 members. In addition, there are a number of specialized commodity organizations including Coffee Cooperative Societies, the Cocoa Federation, All-Island Cane Farmers' Association, All-Island Banana Growers Association, Citrus Growers' Association, and the Christian Potato Growers' Association. In Jamaica, there are also over 250,000 credit union members (assuming on average that each member represented a four-person household, about half of the total population of Jamaica would appear to be associated with credit unions).

Agriculture is also highly organized in the Philippines. Mainly rice farmers belong to the samahang nayan cooperatives (SNs), some of which are aggregated into larger Agricultural Marketing Cooperatives (AMCs) and some of which jointly own Cooperative Rural Banks. Rice farmers also belong to Irrigation Services Organizations (ISOs), and other organizations. The organization of some one million coconut farmers is largely under the aegis of COCOFED, which has a national board of directors, 56 provincial chapters and more than 970 municipal chapters (an average chapter membership of more than 1,000 if all coconut farmers belonged to their municipal chapters). However, some 225,000 itinerant and migratory sugar plantation workers (among the poorest of the farm labor force) are not organized by labor unions. The Rural Workers Office at the Ministry of Labor and Employment has had a program in operation for some years to promote the establishment of Rural Workers Associations for these (and other) workers. These Associations represent a potential organization vehicle on the demand side of the market.

In Egypt, the agriculture cooperative picture is mixed. Under the system of cooperative marketing in Egypt, farmers deliver cotton, rice, sugar

cane and other major crops to state procurement agencies at administered prices generally less than the free market price. This program affords one basis for generating contributions to health insurance funds for farmer beneficiaries. The private agriculture cooperative movement, which began along traditional lines many decades ago, now appears to be in some disarray (although, the recently enacted Agricultural Cooperative Law is intended to rehabilitate it). In this country, a potentially promising organization mechanism is afforded by the Principal Bank for Agriculture Development. It appears that most farmers purchase inputs from the Bank's agencies (4,500) distributed throughout the country.

In addition to hospital services publicly or privately provided, there are potential opportunities for collective action by organized groups of consumers in the private primary-care market. In various countries (e.g., Egypt, Philippines, the Caribbean, Pakistan), a dual primary curative market has developed with many consumers obtaining services from the private sector and medically indigent consumers patronizing the MOH system, a trend which has advantages as well as disadvantages but which is, in any event, not going to be reversed. Organized groups can exploit the bargaining power inherent in their collective purchasing power to get a better deal in this private medical market place than each member could operating as an individual marketeer. The group might contract with providers on a pre-paid, capitation basis for provision of services to its members. Or, it might entail contracting with providers for, say, several sessions per week at a negotiated retainer per session. Or, it might negotiate fees for service, demand to be financed by the individual members out-of-pocket. This approach might help redress the typical rural/urban imbalance in the distribution of providers--since the large, guaranteed market which can be

provided by substantial groups willing to contract with providers might induce them to locate in rural areas which otherwise they would not consider.

Special attention should be directed to the drug sector of the primary curative market. It is a striking feature of various LDC health service sectors that expenditures on drugs generally comprise 50 percent or more of total health care expenditures. Moreover, drug purchases are typically financed privately rather than publicly. (Of total private and public expenditure for drugs, the private share is about 90 percent in the Philippines, 84 percent in Egypt, 80 percent in Jamaica, 70 percent in St. Lucia.) Thus, a large portion of total health care expenditure is represented by drug purchases in the private market (which typically is characterized by high and often arbitrary markups and almost total neglect of less expensive generic equivalents). All of these considerations mean that there should be especially promising opportunities for rewarding collective action in this segment of the market.

- Recommendations for Appropriate Donor Assistance - Since the health care financing system is a system comprised of interdependent parts, health financing projects will need to take account of the context provided not only by public social financing via the MOH, but also of programs operated under the aegis of the Ministry of Social Security as well as private social financing provided by insurance carriers and prepay schemes. Financing initiatives may entail changes in financing and budgeting arrangements of interest not only to MOHs, but also Ministries of Finance, Economy and Planning. Traditional projects have in the main focused on the supply side of the market. Financing projects, however, are also likely to work with

organizations on the demand side of the market and with government officials in such Ministries as Agriculture, Labor and Social Affairs who may in various ways be concerned with these organizations. All of this means that health financing projects must engage a much wider domain of economic and political events than has the typical health services project which has been historically the main object of donor attention.

In my view, a primary objective of donor financing projects should be to promote private social financing of the demand for health services. The best project format for this purpose will result from implementing programs in LDCs in the spirit of the 1973 HMO Act in the U.S., but with a different institutional framework (tailored to each country). These programs would respond to initiatives by parties in the private or public health services sectors who wanted to promote private social financing. Such initiatives might come from either the supply side or the demand side of the market. For example, a public hospital operating with a fee schedule might want to try marketing on a prepaid basis. Or, a group of providers might want to launch an HMO. Or, a promoter might want to organize an Individual Practice Association (the IPA, an HMO-like form). Or, an agriculture cooperative or other such organization might want to explore the possibility of initiating contracts with providers for services to its members.

These programs would provide several kinds of assistance and support, for example: (1) Grants to assist with the initial data collection, planning and design of such schemes, including local and expatriate technical assistance when requested by the parties. (2) Some mechanism for underwriting certain financial risks to which promoters of these schemes will be exposed. (3) A "Clearing House" function to help bring prospec-

tive groups of consumers and prospective providers of services to these groups together. Other than insuring that the program was adequately publicized and that prospective parties were familiar with its administrative procedures, the programs themselves would not take the initiative in promoting financing schemes nor would they (by employing contractors) assume any direct administrative role.

- Conclusions - In many LDCs, curative secondary and tertiary care services consume the major portion of the MOH budget. This impairs the capacity of the MOH to discharge its preventive/promotive functions and responsibilities adequately. Unless the MOH or other public authority can finance these activities adequately, chances are they will fall far short of the level needed to improve health status. National health policy, on the other hand, cannot rely upon private financing alone to secure efficient rates of resource allocation to preventive/promotive activities. A pluralistic health sector which includes public and private sector services, on the other hand, tends to promote equity of access to and quality of care at all levels.

Typically, the capacity of MOH systems in LDCs to perform both curative and preventive functions is limited by inadequate financial resources. Simply increasing the level of funding for the system as a whole is unlikely, however, to solve the problem of resource availability for preventive/promotive functions. MOH systems need to be relieved of the major task of financing curative services. If a socially acceptable way of doing this can be found on a country by country basis, MOH systems can focus on improving their preventive/promotive functions. Without this reorientation, the prospect for adequate resource allocation to Primary Health Care activities

and services is remote. Social financing of secondary and tertiary care through collective prepayment based on some insurance principle is a mechanism which can bring about such a shift in orientation.

ANNEX A

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at

NCIH Workshop

April 28-29, 1983

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## ANNEX B

### Sponsoring Organizations' Capability Statements

## NATIONAL COUNCIL FOR INTERNATIONAL HEALTH

The National Council for International Health, a non-profit, non-governmental organization, works exclusively to strengthen United States participation in international health, especially in developing countries. Now in its second decade, NCIH has more than 140 public and private sector organizational members and over 2,000 individual members who are working in health, medical and international development professions.

- Partnership for Health - NCIH focuses on identifying ways the U.S. can help improve global health so that overall economic and social goals can be met. Council programs emphasize self help and voluntarism--targeting human, technical and financial resources to increase impact and avoid duplication.

- Networking for Strength - As a resource organization providing services and technical assistance, NCIH seeks to foster linkages and cooperation among the numerous public and private U.S. agencies/organizations involved in international health activity. These include: ° government agencies ° health and medical associations ° foundations ° corporations and consultant groups ° private voluntary organizations and universities.

- Building by Sharing - NCIH offers a wide range of activities and services designed to share information, encourage dialogue on issues facing the profession and increase effectiveness of international health professionals. Included are ° conferences, workshops, seminars and other meetings ° periodicals, books and informational materials ° job placement services ° programs of technical cooperation and policy analysis. Through participation in the programs of NCIH, organizations and individuals learn how to make their programs more effective. New concepts of health care intervention are translated into actual assistance for those most in need--especially populations of Third World countries.

- For More Information - NCIH offices are located in the National Academy of Sciences building in Washington, D.C. Please call (202) 466-4740 or write to National Council for International Health, 2100 Pennsylvania Avenue, N.W., Suite 740, Washington, D.C. 20037.

## GROUP HEALTH ASSOCIATION OF AMERICA, INC.

The Group Health Association of America, Inc. (GHAA) is the national professional association for American Health Maintenance Organizations (HMOs). GHAA's 120 member plans enroll 85 percent of the more than 14 million Americans who have joined HMOs. The GHAA membership also includes representatives of over 50 organizations which deliver, arrange for, or finance health care to additional millions of consumers, as well as over 500 individual members, many of whom are significant leaders in the health care field.

GHAA provides member services in the areas of federal and state legislation and regulation, technical assistance, training and education, applied research and statistics, conference management, public information and communication, and program development. GHAA's Gertrude Sturges Memorial Library is the most comprehensive collection of published and unpublished works of HMOs available anywhere. The library includes close to 9,000 books, papers and articles on international, national and state health policy issues, clinical practice, finance, administration, and legal matters concerning HMOs.

## COOPERATIVE LEAGUE OF THE USA

### Representing America's Cooperative Business Community

Founded in 1916, the Cooperative League of the USA is a national membership and trade association representing America's cooperative business community.

The League serves as a chamber of commerce for cooperative businesses, representing the unique and mutual needs of the various industries. The League's membership includes farm supply, agricultural marketing, insurance, banking, housing, health care, consumer goods and services, student, credit union, worker, fishery, rural electric, telephone, state associations and other cooperatives.

The program of the Cooperative League includes:

- \* Supporting the development and expansion of cooperative businesses in the United States;
- \* Representing the cooperative business community in Washington, D.C. before Congress, the Administration, government agencies and other national and world organizations;
- \* Developing, building, and providing technical assistance to cooperatives in the lesser developed countries;
- \* Representing American cooperatives with the world's cooperative business community through membership in the International Cooperative Alliance (ICA), a world-wide organization for cooperatives, headquartered in Geneva, Switzerland;
- \* Promoting and developing international commerce, banking, insurance, trade, joint ventures and other business inter-connections by and among the world's cooperatives.

Closely related to the Cooperative League are: the Cooperative League PAC, a political action committee registered with the Federal Election Commission. The Cooperative Hall of Fame honors those whose contributions to cooperatives have been genuinely heroic. The Rochdale Institute, chartered by the Board of Regents of the State of New York in 1938, is an institution of higher education providing research, lectures, classes and field work for cooperative business executives and leaders. The Cooperative Historical Society is dedicated to the preservation of artifacts, books, documents, etc., relating to the history of cooperative business and development in America. The CMB Funding Corporation provides financial and other assistance for the development of housing cooperatives.

The Cooperative League is working to develop additional structures to serve cooperatives in the area of international commerce. The League is headquartered in Washington, D.C. A second office has been located in New Delhi, India since 1955. International development project offices are maintained in various countries around the world to support specific programs.