

INCREASING RELIANCE ON USER FEES
AS A RESPONSE TO PUBLIC HEALTH FINANCING CRISES:
A CASE STUDY OF EL SALVADOR

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TABLE OF CONTENTS

	Page
I. The Growing Importance of Public Health Sector User Fees	1
A. Health Care Financing and the Resource Mobilization Imperative	1
B. User Fees as a Mechanism to Alleviate the Health Care Financing Crisis	2
II. The Case of El Salvador	3
A. The Setting: Continuing War and Economic Stagnation	3
B. Development and Evolution of the Ministry of Health's Financial Crisis	4
C. MOH Financial Systems: An Overview	6
1. GOES General Budget Funds	6
2. Donor Funding/Extraordinary Budget Funds	6
3. User Fee Revenues from Patronato-Sponsored Services	7
4. User Fee Revenues from Special Activities (<u>Actividades Especiales</u>)	7
D. A Closer Look at the Recent Evolution of the Two User Fee Systems	8
1. The Patronato-Sponsored System	8
(a) Structure	8
(b) Level and Trends in Revenue Generation	11
(c) Expenditures of Patronato User Fee Revenues	12
2. Special Activities-Based User Fee Systems	13
III. Prospects for Change: The Probable and the Possible	15
IV. A Research and Reform Agenda	17
References	21

ACRONYMS

AID	U.S. Agency for International Development
APSISA	Health Systems Support Project
FMLN	Farabundo Marti Liberacion Nacional
GDP	Gross Domestic Product
GOES	Government of El Salvador
MIPLAN	Ministry of Planning
MOH	Ministry of Health
SETEFE	Technical Secretariat of External Financing

I. THE GROWING IMPORTANCE OF PUBLIC HEALTH SECTOR USER FEES

A. Health Care Financing and the Resource Mobilization Imperative

Since the early 1980s, the Ministries of Health of most developing countries have been plagued by persistent resource deficiencies. The root cause of most of these deficiencies has been faltering economies. The beginning of the decade was marked by a worldwide recession from which many countries--particularly those in Latin America and Sub-Saharan Africa--have yet to fully extricate themselves, though most have been on the road to recovery since the latter years of the decade. Still, even with accelerating recovery in the last few years, average annual economic growth rates in the 1980s throughout the developing world remained significantly lower than in the previous 15 year period (1965-1980).

Ministries of Health (MOHs) throughout the developing world have felt the brunt of their countries' sluggish macroeconomic performances. MOHs have traditionally not had an effective political presence, and have generally been inadequately represented in national budget development and resource allocation decision-making processes. As a result, the health sector has suffered disproportionately; with faltering economies have come declining Central Government revenues and falling absolute levels, and in most cases declining relative shares of funding for the health sector.

Exhibit 1 shows the mean level of the health sector's share of total Central Government expenditures for 65 countries of Africa, Asia and Latin America from 1980 through 1988. While it must be borne in mind that the composition of the sample and the number of observations varies each year (due to the limited availability of more recent data), a clear pattern is readily discernable: there has been a tendency for the health sector's share to decline throughout the 1980s.

Ironically, at the same time that there have been fewer resources to achieve public health objectives, there has been a crescendo of rising awareness and rising expectations concerning the need for more and improved health care. Unable to maintain their historical per capita levels of service provision, either quantitatively or qualitatively, while confronting increasing demands to provide more and better health care, many developing countries are now beginning to implement alternative approaches to health financing. These alternatives include new or resurrected approaches to:

- mobilize additional resources,
- recover (at least some) costs,
- improve efficiency, and
- alter the traditional organization of the health sector by encouraging the growth of the private sector.

Many of the basic parameters constraining efforts to improve public health efforts throughout the developing world lie within the MOHs themselves: they include structural, managerial and operational shortcomings of the institutions. There are, however, other important factors--contextual factors--which, while exogenous to the public health institutions, condition their performance and constitute parameters circumscribing what policies and directions they may regard as "possible." Among the most significant of these parameters are:

- (1) the level and structure of public health financing, and
- (2) the nature of the Government's budgetary and financial processes.

By virtue of the role these parameters play in conditioning the performance of developing nations' public health agencies, the degree of their changeability is an important determinant of the potential for improving the financial and managerial performance of MOHs. That is not to say that changes in these exogenous factors are either necessary or sufficient conditions for improving the operations of the developing world's MOHs: they are neither. Nevertheless, they are important areas about which there is a dearth of systematic knowledge and which would benefit from further analysis and research.

The exogenous variables affecting the financial plight of the public health sector are the most difficult for actors within the public health sector to manipulate. By definition, these factors lie outside the public health sector domain and generally require legal and political actions at the national level in order to be altered. In contrast, the endogenous factors are more likely to be tractable by public health officials.

Among the alternative endogenous mechanisms available for improving the financial plight of public health care systems, user fee systems require the least far-reaching changes in the system's *modus operandi*. The introduction of user fees--especially through collection systems implemented and controlled at the facility level--require relatively few national level legal, administrative or managerial reforms. This is their immediate and compelling attraction. In contrast, trying to improve the efficiency of the MOH may require altering personnel types, numbers and functions, or altering the distribution of facilities or of other health care resources. These alterations can spawn divisive and counter-productive "turf wars" within the MOH, as well as between geographic regions of the country, while the final outcome in terms of the impact on effective resource enhancement and the improved quantity or quality of output, remains uncertain. In contrast, increasing user fees can quickly and more tangibly increase the MOH's resource availability.

B. User Fees as a Mechanism to Alleviate the Health Care Financing Crisis

In countries where the MOH is economically squeezed and where the macroeconomic picture offers little hope for significantly altering the situation in the next few years, efforts to mobilize additional resources must, perforce, turn to the local level. In doing so, many have found--at

least in the short run--that the most effective vehicle for alleviating the financial crisis is the imposition of, or an increase in, existing user fees.

This has been one typical response of many Third World countries to the health financing crisis of the 1980s. In a few countries this has consisted of starting from square one with an abstract concept. More commonly, it has meant resurrecting systems which once existed, but for various reasons had been allowed to wither and, in some instances, completely disappear. For most countries, therefore, the turn to user fees has meant breathing new life and giving greater meaning and purpose to existing, but moribund, systems. In some cases--Jamaica, Honduras, Peru, the Central African Republic, Liberia, Senegal, Malawi, Mali, Ghana, Zaire, and Cote d'Ivoire, for example--interest in user fees has been sparked or renewed as a result of national, political decisions made in response to macroeconomic crises. In other cases--El Salvador, Bolivia, and the Dominican Republic, for instance--user fees have been a local, facility-specific response, as opposed to a uniform national policy, to a prolonged public health financing crisis which has resulted in a persistent recurrent cost crisis within the health sector.

The remainder of this article presents a case study of the evolution of a public health user fee system in El Salvador in the decade of the 1980s. The growth of user fees in El Salvador has been a community response to a protracted, national economic crisis which has been exacerbated and greatly compounded by a civil war which has ravaged the country since 1979.

II. THE CASE OF EL SALVADOR

A. The Setting: Continuing War and Economic Stagnation

Since 1979, El Salvador has been embroiled in a costly civil war which has left:

- 70,000 Salvadorans dead,
- one-quarter of a million people (involuntarily) displaced within the country¹, and
- an estimated one-fifth of the entire population permanently residing in other countries.

Although the intensity of the war has abated since its peak in the 1982-1985 era, the anti-Government forces united in the Farabundo Marti National Liberation Front (Farabundo

¹This is the number of desplazados estimated to be still involuntarily displaced in 1990. This number is down considerably from its height during the 1983-1986 era.

Marti Liberacion Nacional, FMLN) continue to constitute a formidable power, and resolution of the war is not by any means imminent.

In addition to the human suffering, the war has extracted a high toll in terms of economic costs. Prior to the onset of the war, El Salvador enjoyed high and relatively stable rates of economic growth throughout the post-World War II era; annual real growth rates of Gross Domestic Product (GDP) averaged 4.8 percent during the 1950s, 6.1 in the 1960s, and 4.7 percent in the 1970s. In the 1980s, this long term pattern of growth was decisively broken, as is shown in Exhibit 2. El Salvador suffered a 21 percent reduction in its real GDP between 1979 and 1982.

As of 1990, the war has continued to consume 5 percent of GDP, is the object of roughly 25 percent of the Central Government's annual expenditures, and has undermined private investment and economic growth throughout the past decade by an unquantified, but, by all accounts, significant magnitude. With the exception of the Ministry of Defense, all Central Government sectors have suffered substantial reductions in funding. The discussion now turns to an analysis of the Ministry of Health's financial status over the past 15 years.

B. Development and Evolution of the Ministry of Health's Financial Crisis

El Salvador's Ministry of Health has been suffering a financial crisis throughout the past decade. Since 1981 the level of real MOH expenditures has fallen from what had been its traditional magnitude and range. From 1975 to 1980, the annual level of MOH expenditures averaged 62,063,000 colones. Since then, it has fallen 14 percent, to average 53,577,000 colones in the 1981-1990 period. A cursory inspection of Exhibit 3 suggests three distinct eras. The earliest period alone was characterized by positive growth (a robust 4.1 percent per year on average). The 1981 to 1985 era was markedly different; characterized by severe financial dislocation during which the average annual growth rate fell (-7.2), as MOH real expenditures contracted sharply for half a decade. In the final period, i.e., since 1985, growth has been more erratic, ranging from 11.5 to -7.4 per cent per year, but averaging a more hopeful 4.5 percent per annum.

If we compare average levels of real MOH expenditures in each of these three periods, however, this somewhat more optimistic picture becomes somewhat blurred. The level of MOH real expenditures from 1975 through 1980 averaged 62,063 per year. That average fell by 13 percent in the middle period, 1981-1985. Although the average level of real MOH expenditures continued to fall still further in the post-1985 era, it has largely stabilized when compared to its precipitous slide in the previous period.

Notwithstanding, the average annual level of real expenditures of the MOH in 1986-1990 was 14 percent less than that of 1975-1980. In short, while the severe decline in the MOH's financial resource base reached its nadir in 1985-1986, the situation did not subsequently readily improve. Rather, the absolute financial status of the Ministry largely stagnated at this historically lower level.

We turn to a second indicator of the Ministry of Health's financial well-being, its share of total Central Government expenditures. During the 1976-1980 era, this measure averaged 10.4 percent; between 1981 and 1985, it fell by more than one-fifth to an annual average of 8.2 percent; and in the last four years, from 1986 to 1989, it slipped an additional 10 percent to average 7.4 percent of total Central Government expenditures. The 1986-1989 annual average was about 29 percent less than that of the 1976-1980 era. (See Exhibit 4 for a year-by-year accounting.)

Moreover, when this reference point is more closely examined, we find that there is more reason to be disturbed by the trends of the past decade and a half, and particularly those of the past 5 years in El Salvador. The size of the public sector in El Salvador has steadily declined since it peaked in 1984, as is shown in Exhibit 5. It reached its lowest level in the post-1975 era in 1987, and continued to fall in the two following years before partially recovering last year (1990) when it reached 12.9 percent of the Gross Domestic Product (GDP). In other words, over the past decade, the MOH has suffered a reduction in its share of a shrinking pie.

If a country is growing fast enough, it is possible that a falling share of a shrinking public sector can still be consistent with a public sector entity improving its financial position (in an absolute sense). In such a case, a falling proportion of total Central Government expenditures is less of a problem (since its absolute level of funding is increasing) and is reflective of changing Government priorities. Such is not, however, the case with El Salvador's MOH, as has already been discussed. Since it reached its nadir in 1982, El Salvador's real GDP growth rate has been slowly edging upward. When population growth is considered, however, the situation is one of economic stagnation.

As may be seen in Exhibit 6, in El Salvador this measure--MOH expenditures as a percent of GDP--followed a haphazardly increasing trend until peaking in 1981, and in the 8 years since then, with one exception (1983), has followed a downward trajectory. The Ministry's 1990 expenditures as a percent of GDP was a mere 42 percent of the share in its "best" year, 1981. The average of annual changes in the 1985-1990 era was a hefty fall of 10.8 percent, contrasting sharply with the average annual increase of 2.5 percent in the immediately preceding, 1980-1984, period.

The focus of this paper to this point has been the MOH's Central Government General Funds' budget allocations. The General Funds allocations, however, are not the only source of MOH resources, although they are by far the most important, constituting approximately 60 percent of the total. There are 3 other sources of MOH financing; (1) international assistance (in the form of grants, loans and technical assistance), (2) user fee revenues from MOH activities sponsored by community health boards (*patronatos*), and (3) user fee revenues generated from the so-called "Special Activities" (*Actividades Especiales*) of the health centers and hospitals. The discussion turns to an overview of these different sources of funding.

C. MOH Financial Systems: An Overview

Each of the MOH's four different sources of financing has a separate and distinct financial system, each with its own system of control and oversight. That the MOH has four different financing systems would not be cause for concern were it not also true that no single MOH unit has the responsibility of overseeing and managing the Ministry's entire financial system. The financing realm of the Ministry is characterized by severe organizational fragmentation which constitutes a structural and procedural impediment to improving its performance by precluding effective planning.²

Exhibit 7 provides a schematic representation of the four MOH financial systems; sources of funds, oversight and accountability. As is evident in the Exhibit, there is almost no overlap between the systems.

1. GOES General Budget Funds. General budget funds constitute the principal source of MOH funding. The budgetary preparation and disbursement process of these monies is described elsewhere (see Fiedler, 1986). This money is annually appropriated by the Legislative Assembly, disbursed and monitored by the Ministry of Hacienda (Treasury), and monitored and audited by Corte de Cuentas (the General Accounting Office of the Central Government). The Ministry of Health's Financial Accounting Department bears the responsibility for preparing all General Funds budget requests, for tracking and auditing all expenditures and earmarks of these monies, and for reporting this information to the single Ministry of Hacienda official who is responsible for overseeing and monitoring the public health sector budget (Hacienda's public health sectorialista). The Financial Accounting Department's domain is limited to the so-called "Centralized Agencies," which include the MOH's Central Office and all health care facilities other than the hospitals.

2. Donor Funding/Extraordinary Budget Funds. The El Salvador Ministry of Health's considerable international assistance (grants, loans and in-kind technical assistance) is managed by the Ministry of Planning's (MIPLAN's) Technical Secretariat of External Financing, SETEFE. Generally these funds are administered by the donor through a local project office located within the MOH, and are commonly used to finance vertical programs. SETEFE communicates on a monthly basis directly with the project office or with the MOH program

²The MOH is plagued by two other sources of organizational fragmentation, both of which exacerbate the financial plight of the MOH. First, the operations and investment budgets are the responsibility of two different units within the Ministry and are not integrated or coordinated. As a result, the recurrent costs of new investments are rarely anticipated or planned for, and have therefore contributed significantly to the Ministry's recurrent cost crisis. Second, each of the 14 hospitals-- the so-called "Autonomous Agencies"--is responsible for developing its own budget requests and monitoring, auditing and executing its own budget, independent of the MOH's Central Office. For more details, see Fiedler, 1986 and 1988.

directly receiving any such monies. The Financial Accounting Department does not track these monies and its knowledge about them is very limited.

3. User Fee Revenues from Patronato-Sponsored Services. All four types of MOH facilities (health posts, units, centers and hospitals) have local community health boards (patronatos) which collect user fees for outpatient consultations, injections, and the provision of some medicines. Although the user fee system is voluntary and measures are taken to protect the indigent, the presumption is that all patients will pay something for the care they receive. For the most part, the disposition of the monies collected by a patronato are determined by that patronato with the approval of the facility director.

The MOH's five Regional Offices have implemented a system (on their own authority) whereby they monitor and supervise the health centers, units and posts' patronato funds. The Regional Offices require that these MOH health establishments obtain *ex ante* approval for expenditures exceeding a stipulated and generally relatively small amount which varies by Region (e.g., 200 colones, approximately \$30 U.S., in the Paracentral Region).

In contrast, the hospitals' patronatos function independently of the MOH, although in four of the five health regions they do report their monthly revenues to the MOH Regional Offices. Outside of the hospitals and Regional Offices, however, information on the hospitals' patronato revenues and expenditures is generally unavailable. Even the health centers', units' and posts' patronato incomes and expenditures, at best, are reported haphazardly in the two annual publications of the MOH, the *Memoria and Salud Publica en Cifras*. Not even the Financial Accounting Department maintains records of any of these funds (neither those of the hospitals nor those of the Regional Health Services--which includes all non-hospital MOH facilities), nor does the Planning Department of the Ministry.

4. User Fee Revenues from Special Activities (Actividades Especiales). The MOH hospitals and centers (but not the units and posts) also have user fees for several other types of services termed Special Activities (*Actividades Especiales*). The Special Activities user fee system is distinct from the patronato-sponsored system in terms of the services covered and administrative structure. The Special Activities' monies are collected by MOH permanent employees (not patronato paid employees). In contrast to the patronato system's service coverage, which is restricted to ambulatory care, Special Activities charges cover primarily inpatient care-related services. Financially the most important Special Activities charges are for relatively higher quality room and board services (*pensiones*), the sale of some medical and surgical supplies, the sale of medicines, and charges for laboratory examinations.

The hospitals and centers are required to report the income they generate through Special Activities directly to the Ministry of Hacienda. In calculating the annual budget appropriation which is to be made to each of the hospitals, Hacienda simply subtracts projected Special

Activities user fee revenues from the particular hospital's request.³ Information about the hospitals' Special Activities user fee revenues are available in the Ministry of Health's Financial Accounting Department only serendipitously. Two year old hospital patronato data are contained in the "Anteproyectos Presupuestarios de los Hospitales," an annual budget document prepared by each individual hospital and submitted to the MOH Financial Accounting Department so that the Department may aggregate the hospitals' budget requests with the MOH Central Office and Regional Health Services budget requests to develop the MOH's total request. The Special Activities information contained therein is part of the data that the Ministry of Hacienda requires be included in the annual budgetary request of all Autonomous Agencies, and is not independently tracked or analyzed by the Financial Accounting Department.⁴

D. A Closer Look at the Recent Evolution of the Two User Fee Systems

1. The Patronato-Sponsored System

(a) Structure. Although there exists no official MOH fee schedule, an informal schedule of "voluntary" contributions for MOH-provided services does exist, and, as we have seen, Salvadorans are paying substantial user fees for the services they receive from the MOH. The community health boards (patronatos), established by national law (in 1945), oversee and control these funds. While each individual health facility--each hospital, center, unit and post--is mandated by law to have a patronato, many do not. Many units and posts, in particular, do not have community health boards, or, at least do not have a functioning board. Moreover, from interviews with the directors of health facilities which have patronatos, it is evident that in many cases, the director of the local health facility enjoys considerable discretion in determining how to spend these monies. In these instances, the patronato provides more of a supervisory function, as opposed to controlling and spending these monies. In many other instances, however, and especially in the health centers' and hospitals' patronatos--which are far more socially prestigious and financially powerful positions than those of the units and posts--the patronato requires the facility's director to submit itemized budget requests and to justify them.

It is important to note that the system is voluntary, though without question there is pressure to contribute. In the case of health units and posts, it is usually the individual patient who makes the determination of whether or not he/she can pay, though frequently patronato-paid employees/representatives collect the fee and push for payment. If the recommended voluntary

³The projected revenues are simply the level which was actually collected two fiscal years ago. These figures are one and one-half calendar years old, the most recent available at the time of this budget request.

⁴In fact, during an earlier consultancy to El Salvador, the author pointed out to Financial Accounting officials that this data was available in documents in their own office and that one did not need to visit each individual hospital in order to obtain it.

employees/representatives collect the fee and push for payment. If the recommended voluntary contribution cannot be made in full, individuals are encouraged to contribute what they can. The proportion of clientele that pays varies substantially by facility and region. It was learned from interviews with health care providers and patronato clerks in a number of facilities of each type that the proportion of free care provided to medical indigents ranges from 20 to 70 percent of all persons receiving care. (MOH Central Office staff believe that undue pressure is put on all recipients of MOH services by patronato representatives, and as a result 90+ percent of patients pay.)

In health centers and hospitals, the voluntary fee collection system is more formal. Usually in these facilities a social worker (who is an MOH and not a patronato employee) determines who can and will pay and who need not pay. In some facilities, a paid representative of the patronato makes a brief oral presentation (charla) in the waiting room at the time the facility opens up. This is a convenient time to do so because it coincides with the development of the "sign-up" list; each day the number of persons who can be seen by the doctor(s) is developed. The estimated number of patients who will be seen is the MOH norm (each physician is required to provide at least 6 consultations per hour) multiplied by the number of physician-hours for the day. Since MOH patients know they must get on this list or return for care another day (or forego care or seek it elsewhere) this is a convenient time for presenting the rationale for the voluntary contribution. Charges are also levied for injections and medicines. Fees are not charged for several specific types of services, including maternal-child preventive care, and more generally preventive services and the treatment of communicable diseases. From a societal perspective, these are desirable exclusions because of the positive externalities generated by these services.

Over the past decade, as the level of resources managed by the patronatos has increased, the Regional Offices have asserted greater control over these monies. The Regional Offices now provide pre-coded receipt forms to the health establishments; 2 colones for a consultation, 15 centavos for injections, etc., although most of the prices printed on the forms are below the prices actually charged. In addition, coding forms with a single line for recording each individual patient, and his/her paying status are used to check the information provided by the pre-coded forms. The Regional Offices' Accounting Offices audit these records on a monthly basis. With the exception of the Metropolitan Region, each of the Regional Offices gets a 5 to 10 percent cut of total patronato revenues, though this proportionate share is taken exclusively from the outpatient fees collected only by the health units and posts. The centers (and of course the autonomous hospitals) are allowed to retain all of the patronato-sponsored user fee revenues they generate.

As noted earlier, the Regional Offices require facilities/patronatos to obtain their approval before making what the Regional Offices regard as "major purchases," defined as spending in excess of specified amounts which vary by Region but are generally in the \$25-\$35 U.S. range. The process of obtaining Regional Office approval is regarded by MOH facility-level employees as bureaucratic, an infringement on their independence, an affront to their professionalism, and

An important factor conditioning the facilities' acceptance (however reluctant) of the Regional Offices' assertion of this role of monitoring and oversight of patronato funds, is the Regional Offices' control of a sizeable amount of supplies. Approximately 15 million colones of Central Government General Funds are annually allocated to the MOH's budget line item "Ministry-wide Supplies." Although roughly half of these funds are allocated to the hospitals, responsibility for most of the remainder is, in effect, allocated to the Regional Offices. It is spent on supplies, which are sent to the Regional Offices. These drugs and materials have been in very short supply throughout the 1980s. The Regional Offices distribute these inputs--as they determine appropriate--to the facilities in their individual domains. Most of the supplies purchased with the extraordinary budget, as well as supplies donated in-kind (as part of bilateral assistance efforts)--which together make up 85 percent of the total value of MOH supplies--are distributed through the same mechanism, further reinforcing the discretionary power of the Regional Offices. Clearly, an MOH health care facility has an incentive for staying in the good graces of its Regional Office.

MOH health care providers, however, are often openly resentful of Regional Office oversight and suspiciously guard information about patronato income. According to the personnel of one MOH facility, the Regional Office's role within the patronato user fee system leaves much to be desired, and, in fact, creates disincentives for collecting fees. These MOH providers recounted a recent visit they had made to their Regional Office to request monies to purchase repair parts for their ambulance, after not having received a response to several written inquiries. They were reportedly told that their patronato had generated more than any other Regional Health Service patronato in the Region, and that their patronato surely had "enough" money that they could pay for the repair themselves. Not surprisingly, the MOH employees at this facility felt they were being told how they should spend the money they had raised through their own efforts, and felt that they were not receiving their "fair share" of Regional Office discretionary resources. They characterized their treatment by the Regional Office as penalizing them for having done a conscientious job of collecting user fees.

In various facilities visited on a field trip, there were other indications that Regional Office oversight and control of patronato user revenues had prompted other undesirable behaviors. It appeared, for instance, that there was significant and systematic under-reporting of service provision. This is probably a response designed to avoid having to report user fee revenues to the Regional Office so as to be able to maintain more of the fees and/or to do so without Regional Office oversight in the use of the funds. To the extent that this is an accurate depiction, and to the extent that this practice is widespread, it undermines the quality of all of the service delivery statistics which are reported by facilities to the Regional and Central MOH Offices. The implications of this response in light of the Ministry's plans to introduce needs based planning and to undertake reforms to improve resource allocation processes--both of which will be based on service provision statistics--are self-evident and alarming. This is an area which should be further examined.

(b) Level and Trends in Revenue Generation. The monies raised from user fees are augmented by the proceeds of various fund-raising activities sponsored by, and philanthropic contributions made to, the community health boards. From 1982 through 1985, the Regional Health Services' (i.e., the health centers, units and posts) user fee revenues on average constituted about 80 percent of the total of the patronato-directed funds; the other two sources made up the remaining 20 percent. The trend over the last ten years has been for the proportion of patronato income generated from the "voluntary" user fee contribution to increase. In part, this has been due to increases in the level of the "voluntary" fee itself. In the early 1980s the contribution was generally 1 or 2 colones for an ambulatory consultation. Now, it is more commonly reported to be 2 or 3 colones, and there some patronatos which charge as much as 4 colones.

Exhibit 8 presents the Regional Health Services' average patronato revenues per consultation from 1977 through 1989. Note that these figures are total revenues divided by total consultations and therefore provide an average contribution per consultation inclusive of all goods and services for which separate fees may be charged (including the consultation, medicines, and injections).

Patronato income growth is a local response to the severe and protracted financial crisis the MOH has suffered throughout the past decade. As may be seen in Exhibit 8, there has been dramatic growth in the level of Regional Health Services' patronato incomes in the past decade and a half. (Note these figures are the sum of the revenues reported by the patronatos of the Regional Health Services, which is the sum of the health centers', units' and posts' patronato revenues, but do not include those of the hospitals.)

From Exhibit 8, it appears that there have been four distinct periods of growth in these incomes. Between 1977 and 1979, patronato revenues annually averaged 1,509,717 colones. Between 1980 and 1982, they increased by 50 percent, annually averaging 2,265,015 colones. Then, from 1983 through 1986, their rate of growth increased slightly, and the annual average was 3,473,298 colones, a 53.3 percent increase from the previous period's annual average. Finally, in the most recent period, 1987-1989, their growth accelerated significantly, as they reached an average 6,031,899 colones over the period; a 73.7 percent increase over their 1983-1986 annual average. The 1987-1989 annual average was 300 percent greater than that of 1977.

In real terms, however, growth has been significantly less, though still substantial. Real patronato revenues between 1977 and 1979 annually averaged 689,589 in 1962 colones. They increased by 18 percent between 1980 and 1982, annually averaging 811,020. From 1983 through 1986, their rate of growth slipped to 13 percent, as they annually averaged 914,406 colones. In the most recent period, 1987-1989, revenues reached an average 1,127,697 colones over the period; a 23 percent increase over their 1983-1986 annual average. The 1987-1989 annual average was 61 percent greater than that of 1977-1979.

The rate of growth of the patronato revenues of the Regional Health Services has exceeded the rate of growth of (nominal) per capita income over the study period. During the 1977-1979 era, nominal per capita income annually averaged 1,799 colones. Between 1987 and 1989, it averaged 5,434 colones per year. The increase in the annual average nominal per capita income from the 1977-1979 to the 1987-1989 period was 202 percent, two thirds the rate of growth of patronato revenues. In other words, on average, since the pre-war era, Salvadorans have been paying a growing proportion of their income to the Ministry of Health for Regional Health Services' provided consultations.

Exhibit 9 shows patronato revenues as a percentage of the MOH Centralized Agencies' operations expenditures. (The Centralized Agencies are the Regional Health Services and the Central Office; i.e., all of the MOH, exclusive of the hospitals.) Although the trend has not been monotonic, the proportion has followed an easily discernable, upward pattern. Its path has occasionally changed direction due to the often erratic behavior of Central Government appropriations to the MOH. One must conclude that the amount of financial resources provided by the Regional Health Services' patronato-sponsored user fee system is of growing importance to the provision of MOH care in the Ministry's health centers, units and posts.

The patronato income for 12 of the 14 MOH hospitals in 1990 was 7.3 million colones, 5.4 percent of total MOH transfers to them that year. This is less than the 9.6 percent share of total costs covered by patronato-sponsored user fees in the centers, units and posts that same year. By implication, MOH clientele who use health centers, units and posts, (the so-called Regional Health Services) pay a larger proportion of the total costs of the services they receive than those using MOH hospitals.⁵ The Government of El Salvador subsidizes hospital-based health care--which is overwhelmingly curative in nature--relatively more (as a proportion of total costs) than it does the more preventive care oriented Regional Health Services. This expenditure pattern is difficult to justify in light of the cost-effectiveness and greater positive externalities characterizing preventive care vis-a-vis curative care.

(c) Expenditures of Patronato User Fee Revenues. Historically, patronato user fee revenues have been primarily used to pay for additional workers and drugs. From 1983 until at least

⁵In making this comparison, a few caveats are in order. First, it should be noted that the service mix of these two categories of facility types is substantially different. At the most fundamental level, a hospital provides significantly more inpatient vis-a-vis outpatient care than do the centers, units and posts (the units and posts provide virtually no inpatient care). Thus, the proportion of total hospital costs incurred producing inpatient costs is significantly more than in the other types of facilities. This undermines the legitimacy of directly comparing the proportion of the total costs recouped by these the patronatos of these two classes of different facility types. On a per consultation basis the hospitals' patronatos generated 8.38 colones compared with the Regional Health Services' 5.15 colones, but these figures are not directly comparable either. The hospitals' patronatos garner a much larger proportion of their total revenues from non-user fee related income.

1986, however, a rapidly increasing proportion of the expenditures went exclusively to medicines. As the share of medicines expanded, both the absolute and relative number of additional workers hired with the patronato-directed funds fell; indicating both the importance of medicines and the scarcity of MOH-provided medicines at the Regional Health Services levels.

From interviews with health center directors in 1986, it was learned that about 80 percent of the patronato-directed funds were then being used to purchase medicines. From interviews conducted in 1990 and 1991, it was learned that, as drug and medical supplies have improved substantially in the past two years, (thanks particularly to A.I.D.'s Health Systems Support Project (APSISA) and to foreign assistance in general, which all totaled has financed 85 percent of the purchases) there has been a return to the earlier expenditure patterns. It was also learned that a universal practice is to collect fees only for medicines which have been purchased with patronato funds. This suggests that foreign assistance, and specifically the provision of medicines, has reduced the need and incentives to pay and collect user fees, and has reduced potential user fee revenue levels. Charges for drugs constitute an estimated 40 percent of patronato user fee revenues. What the impact of this development has been or may be on the institutionalization of the newly expanded role and importance of the patronato-sponsored user fee system is a cause of concern. A.I.D. is starting to phase out assistance to the MOH and plans to completely terminate aid by the end of 1994. There will be a rapidly growing need to increase domestic financing of the Ministry in order to fill the very significant financial gap that will be left with A.I.D.'s departure. A.I.D. currently provides 35 percent of the Ministry's operating expenditures, most of which is devoted to drugs, medical supplies and technical assistance.

2. Special Activities-Based User Fee Systems

As noted earlier, Special Activities-based user fee systems exist only in the health centers and hospitals. Information about Special Activities-generated revenues and expenditures is sent by these institutions directly to the Ministry of Hacienda. Unfortunately, because no data is available on the health centers' Special Activities incomes in any MOH Central Office documents (internal or otherwise), this discussion is limited to the hospital systems, and focuses almost exclusively on the level and trends of revenues generated.

Exhibit 10 presents data on the evolution of the MOH hospitals' Special Activities revenues from 1983 through 1990. Each year from 1983 until 1988 Special Activities revenues in nominal terms grew by at least 14 percent per year. Over that 6 year period they averaged a hearty 24 percent annual increase, virtually tripling from 1.19 million colones in 1983 to 3.47 million when they peaked in 1988. Only once in the eight years for which we have data did the nominal amount of revenues generated from Special Activities user fees fall. That was in 1989, when it fell by nearly 8 percent.

Deflating these figures, however, we find that the situation looks considerably different. The real growth rate peaked in 1986, fell to about 9 percent the following year, and has been negative in each of the past three years.

The right hand column of Exhibit 10 contains the nominal, annual per capita GDP growth rate. Comparing these rates to those in the column immediately to the left--showing the annual rates of real growth in Special Activities revenues--we can see that in four of the seven years for which we have data the user fee revenues' growth rate exceeded that of per capita GDP. In each of the most recent past three years, on average Salvadorans have paid a shrinking proportion of their average income to MOH hospitals as user fees for inpatient care.

Exhibit 11 shows the annual average revenues per hospital admission for 1983 through 1990. The steady upward march in the average per admission was not even derailed by falling numbers of admissions in 1984, 1985 or 1987. In fact, in the first two of those years the rate of increase in Special Activities revenues was increasing at rates which were the second and third fastest in the period, suggesting that the increasing levels of revenues were a response to the increasingly financially constrained hospitals. As the intensity of the financing crisis has abated since 1987, particularly as manifested by the increasing availability of donor purchased drug and medical supplies, the rate of increase in the average Special Activities revenues per admission has slipped. When one figures in the substantially higher level of inflation since 1987 this slippage becomes significantly more pronounced, as may be seen in the right hand column of Exhibit 11. In real terms, hospital patronato revenues per admission fell 15 percent in 1989 and another 10 percent in 1990, leaving the average level at its mid-1985 level.

In 1990, the total income generated from the Special Activities totaled 3.2 million (current) colones, 2.2 percent of the total transfers made to the 14 hospitals that year. The sum of the hospitals' revenues from Special Activities and their estimated patronato incomes from 1990 was roughly 10.5 million colones or about 7.6 percent of total MOH transfers to the hospitals. This may be compared with the Regional Health Services patronato revenues which amounted to 9.6 percent of their total MOH general budget-based expenditures that same year, 1990. When it is recalled that we have no data on the Special Activities income of the health centers, it becomes all the more clear that the hospitals' user fee systems generate a considerably smaller proportion of their total resources relative to the health centers, units and posts combined. The disproportionate subsidy that the hospitals, relative to the Regional Health Services, receive from the MOH constitutes an inefficient use of MOH resources.

Exhibit 12 shows revenue totals for part of each of the two user fee systems. Column 1 contains the patronato-sponsored user fee system revenues for the Regional Health Services, but not the hospitals. Column 2 contains the Special Activities user fee system revenues for the hospitals, but not the health centers. Column 3 contains the sum of Columns 1 and 2. We can see that the breakdown of Column 3 into the percentage contribution made by each of the two systems for which we have only partial information has oscillated over time, though the majority (at minimum 62 percent) has always been generated by the Regional Health Services facilities. From 1983 to 1986, a growing proportion of the total of these revenues were generated by the

hospitals Special Activities. Since 1986, however, the Regional Health Services have accounted for a larger share of each year. Last year, 1990, they reached their highest level in the past 9 years, accounting for 73.9 percent of the total.

The total revenues of the segments of these two user fee systems for which we do have data increased by about one quarter as a proportion of total MOH operating expenditures between 1983-1985 vis-a-vis 1987-1989; the averages during these periods were 4.06 and 4.96 percent, respectively. Last year's 17 percent slide to 4.02 was due to the lagging performance of the hospitals (though it should also be noted that the MOH budget was pumped up by 22 percent).

The same basic disincentives exist for the hospitals and centers with respect to their reporting revenues earned from Special Activities. Furthermore, as in the case of the Regional Health Services facilities, so too for the hospitals, there is some evidence that the APSISA provision of medicines may be eroding incentives to charge for medicines and other Special Activities. Although the drop in the hospitals' Special Activities user fee real revenues starting in 1988 requires further analysis and research in order to be fully understood, it appears that international donor assistance has so effectively aided the MOH in restoring drug and medical supplies that it has unwittingly and unintentionally reduced the user fee revenue-raising imperative that Ministry health care providers, together with community organizations, have done such an impressive job of responding to throughout the past decade. To reiterate, this might not be a concern were it not for the fact that the bulk of this assistance will begin being phased out in late 1991 and will cease altogether in 1994.

III. PROSPECTS FOR CHANGE: THE PROBABLE AND THE POSSIBLE

As our review of financial indicators at the beginning of this paper revealed, starting in the early 1980s, the MOH suffered a severe decline in its financial resource base which for the most part reached its nadir in 1985-1986. But while the deterioration of the Ministry's financial well-being was substantially halted by that time, the situation did not subsequently readily improve. Rather, the absolute financial status of the MOH largely stagnated at this historically lower level.

Very recently, however, there have been some indications that things are starting to change. The MOH's 1990 budget allocation and its actual expenditures both shot up by 25 percent (in nominal terms) from their 1989 levels. In part, this was due to the loosening of the stranglehold of military and public debt servicing expenditures on total public expenditures. As shown in Exhibit 13, military spending (the sum of the Ministry of Defense and Public Security) grew by only 3 percent in nominal terms, while public debt servicing expenditures fell by 23 percent (largely due to the country's renegotiating the terms of that debt). The sum of these two classes of expenditures as a percent of total public sector spending fell from 46.5 percent to 33.9 percent in 1990 (see Exhibit 13). As a result, the degree to which these classes of expenditures crowded out health expenditures dropped markedly in 1990, enabling the substantial increase in the MOH General Funds appropriation which it received. It is likely that the burden of both military expenditures and debt servicing will be maintained at their present, much lower levels.

This is a very positive sign, portending the Government's ability to increase its financing of the MOH in the near future.

The rate at which its budget will increase in the next few years will be substantial owing to the commitments the Government has made with the World Bank and the Consultative Group. These agreements call for the Government of El Salvador to increase overall allocations to the health sector to 1.9 percent of GDP by 1994. (Recall in 1990 the MOH alone accounted for less than half this percent, 0.92.) Although the definition of "health sector" in these documents includes the Salvadoran Social Security Institute, the Ministry of Education's health program, and several other traditionally less financially important agencies, the MOH is still certain to reap significant increases in its level of funding in the next three years.

It is imperative that the Ministry use these additional funds to wean itself from its high level of dependency on A.I.D. financing, since, over the course of this same 3-year period, A.I.D. financing of the MOH will be steadily and significantly declining. If A.I.D.'s financial assistance to the MOH ends with the completion of the APSISA Project in 1994, as is currently planned, the MOH will have a huge financing gap to fill simply to maintain its current level of activities. If, by 1994, the MOH has not already begun to fill in where A.I.D. financing has been reduced, the Ministry will inevitably suffer some severe programmatic and financial dislocations. The temptation to use the significantly increasing influx of domestic monies during the next 3 years to expand infrastructure or programs should be resisted. The Government of El Salvador's commitments with the World Bank and the Consultative Group provide a one-time opportunity for reducing the Ministry of Health's dependence on A.I.D. financing without suffering major disruptions and cutbacks in programs. This unique opportunity should not be squandered.

In the interest of improving its long term independence, its efficiency and its effectiveness, the MOH must view the next three years as a critical transitional period during which it must consolidate its programs and activities. New initiatives which generate additional recurrent costs will only serve to exacerbate the Ministry's financial plight, reduce the availability of medicines and supplies, and return it to the epoch of the mid-1980s when (prior to the influx of A.I.D.-financed purchases of drugs and medical supplies) more than 90 percent of MOH expenditures were made on personnel and the Ministry's very credibility was in question. New infrastructure projects, in particular, with their derivative demand for increased MOH staff and supplies, should be avoided. To the extent that decentralization is pursued, it should be recast, at least initially (i.e., throughout the next 5 years) as a strategy for improving the effectiveness and the efficiency of MOH service delivery through improvements in the organization of resources, and in the generation and use of high quality information in resource allocation and managerial decision-making.

From a longer term, financial viability and sustainability perspective, El Salvador's Ministry of Health's strategy throughout the next five years must be to focus on improving the efficiency with which the Ministry uses its resources and on continuing to develop, institutionalize and increase the significance of alternative sources of financing, such as user fees and other cost

recovery mechanisms, while at the same time continuing to financially protect the substantial proportion of Salvadorans who are medically indigent.

The long term inadequacy of MOH's Central Government General Budget allocation, underscores the growing importance of the traditional system of community financing and the now almost universal application of user fees in Ministry facilities. The very rapid growth in this system is attributable to local initiative. Primarily because of the ad hoc manner in which the systems developed, there are notable gains which can now be made by standardizing the procedural and administrative aspects (in contrast to their price structures) of the user fee systems, and institutionalizing them. In particular, it would be useful to formalize the oversight and control functions in ways which ensure the maintenance and promotion of both community incentives to pay and local MOH facility personnel incentives to collect the fees so as to foster continued reliance upon these important systems. The need for user fees to augment Central Government General Budgetary funding of the Ministry of Health will continue throughout the foreseeable future. The time to shore up and strengthen that system is at hand.

IV. A RESEARCH AND REFORM AGENDA

Organizational fragmentation in budgeting and financing precludes the MOH from being able to significantly improve its managerial effectiveness. With at best only partial knowledge of the Ministry's financial status, it is little wonder that the MOH has had a hard time trying to cope with the financial crunch of the past decade. Financial crises can only be effectively dealt with if there is sufficient knowledge about the financial status of the organization. Even if managers are able separately to optimize the use of each of the existing financial systems (and in the case of MOH, four sub-systems), this does not necessarily, and in fact is not likely to, ensure that the Ministry's use of its total finances have been optimized.

An immediate MOH priority should be to develop a single unified financial system with more complete information so that the Ministry can better understand how it is using all of its resources, as well as the choices and options it has in using its resources. This is basic to the Ministry's becoming better able to effectively plan the use of its limited resources.

In the interests of consistent policy and sustainability, the MOH and/or patronatos should be allowed--in fact, encouraged or even required--to levy drug charges. The A.I.D.-sponsored, household interview-based, demand study (Gomez 1990; Bitran 1990) found that Salvadorans were more willing to pay for drugs as opposed to simply consultative services. The experience of the patronatos and Special Activities user fee systems further underscore this finding. Thus it makes sense to continue the present policy of having specific charges for drugs, and to make them universal, regardless of the source of financing of the drugs. Measures to continue protecting medical indigents should of course be continued. Determining the fee schedules could be left to the local facilities, or alternatively could be formalized and standardized.

The new drug distribution system includes a "request" and "delivery" form which is provided to the specific facility receiving the shipment. This form contains unit price information on each item. Using this price information some type of standard percentage of the full price could be charged by MOH providers (at least up to some maximum level, beyond which the price to MOH patients would not be increased). Tying the prices charged for MOH goods and services to the cost of the resources required to produce them could become an important method by which to begin rationalizing MOH prices. The MOH's increasing drug supplies could become an important source of revenues, and could provide an important vehicle for facility personnel (and/or their patronatos) to begin tracking their drug use and drug revenues which would improve their management and planning skills (which would be an accomplishment in and of itself, but would also make an important contribution to advancing the recent decentralization initiatives). It is recommended that such a scheme be further studied. A series of alternative possible scenarios should be developed itemizing the pros and cons of each and should be subject to discussions at various levels within the Central Office and Regional Offices, at the various facility levels and with (at least some of) the patronatos.

Clearly, before any major changes in public health policy dealing with user fee systems are undertaken in El Salvador, some additional basic information about user fee revenues is needed. More data should be collected, specifically on the health centers' Special Activities user fee systems and the hospitals' patronato-sponsored user fee systems.

In addition, a systematic study of the patronatos is in order. Juxtaposing the characteristics and performances of the best of these organizations with those of their less successful counterparts would be useful to identify determinants of success. Case studies should be conducted for different patronatos affiliated with each of the different types of MOH facilities (hospitals, centers, units and posts).

An important aspect of the patronatos case studies should be the identification, documentation and assessment of the administrative, monitoring and control mechanisms and processes characterizing the Regional Offices' relationship with the patronatos. The focus here would be to ensure that facilities retain maximum incentives to collect user fees, while still protecting the poor.

A parallel, less complex, study could be conducted of the Ministry of Hacienda's disposition of the hospitals' and health centers' Special Activities user fee revenues. The Ministry of Hacienda's current policy of subtracting, colon for colon, a hospital's or a health center's Special Activities user fee revenues from its General Funds budget request is (from the facility's perspective) tantamount to a 100 percent tax on the revenues. Clearly this must undermine any incentive to collect the fees. The focus of this study would be to explore alternative mechanisms by which to account for these revenues in more constructive ways that would not simultaneously sap incentives for collecting the fees.

In the course of the past decade, despite continued infrastructure growth and the hiring of several thousand additional employees (most since 1985), El Salvador's public health care system has

suffered from a generally stagnant level of utilization/service provision. This implies, of course, that the average productivity of MOH providers has fallen throughout the past decade. One reason for this reduction in MOH productivity has no doubt been the fact that MOH physicians' real remuneration levels have been devastated in recent years. Since 1980, the real purchasing power of a doctor's Ministry of Health salary has fallen by 73.5 percent (Fiedler 1990).⁶ By all accounts, this marked erosion in real salaries has seriously undermined the morale of all MOH staff and has quantitatively and qualitatively reduced their work effort.

One possibility for reform, especially of the patronato user fee systems, that should be examined is the development of direct monetary incentives for individual MOH providers to increase service provision. At present, MOH physicians have a quota of six consultations per hour. The quota was originally established as a minimum number of consultations which MOH physicians were required to provide, and which reflected the Ministry's frustration with, on the one hand, the low productivity of its physicians, and, on the other hand, its inability to devise and encourage or enforce a more effective productivity-enhancing measure. The intended minimum number of consultations per hour was quickly transformed into the maximum number of consultations.

Throughout the country it is now the generally established practice of MOH physicians to provide their quota, and then to leave their public sector post for the day (usually to go to their private practice). As real salary levels have fallen, more physicians are reported to hurry through their quota-required consultations, resulting in a deteriorating quality of care. In addition, more are reportedly not even fulfilling their quotas before leaving early for their private practices (further eroding the MOH's productivity). A carefully crafted system of monetary incentives has great potential for improving the productivity of El Salvador's public health care system.

Such a system could start with the user fee systems' oversight function already played by the Regional Offices and build on it. Some minimum required level of service provision should probably be retained (perhaps the current one) with no additional remuneration of physicians for providing up to that number of consultations and some associated minimum level of user fee revenues. Beyond that service provision level, however, a given percentage of the revenues generated--exclusive of drug sales--could be used to reward the providers for their extra efforts, with the remainder--perhaps somewhere in the neighborhood of half or three-quarters of the revenues--continuing to be used as they are at present. It would be preferable to exclude revenues generated by the sale of drugs from the revenue pool on which additional remuneration would be based so as not to provide an incentive to overprescribe drugs. The overprescribing of drugs by all health care providers (not just MOH caregivers) is a widely recognized problem in El Salvador.

⁶By way of context, it should be noted that average real wages in both the public and the private sector in El Salvador have fallen by roughly 40 percent since 1980.

Fees based only on consultations, and not on drugs and other inputs in addition to consultations, might at first appear to be an attractive alternative approach to pricing whereby physician reimbursement levels could be insulated from the quantity of medicines they prescribe, thereby not encouraging drug prescribing and dispensing. It would be preferable to charge separately for medicines, however, not only because MOH patients are more willing to pay for medicines, but also in order to heighten physicians' awareness of the cost and price of the medicines they prescribe. Such an approach would help to incorporate cost-benefit considerations, as well as patient ability to pay, into physicians' treatment regimens and prescribing practices.

Motivated by three considerations, (1) recognition of the fact that additional physician consultations also means more work for other members of the facility's staff, (2) to encourage the development of a health facility-team mentality and team effort, and (3) to discourage the development of counter-productive, intra-facility resentment and animosities between physicians and other personnel, all personnel at the facility should receive some portion of the incentive monies. One possibility would be to distribute these incentive monies to staff in direct proportion to their established MOH salary levels. The distribution could be a quarterly bonus which would be paid out at the same time that the facility personnel had a general performance review with participation of Regional Office personnel. The Regional Office representative would bring the bonus checks on a regular quarterly (or semi-annual) basis, and the performance review would simultaneously serve to institutionalize a minimal supervisory visit schedule to all facilities within the Region.

Obviously these are very general and tentative suggestions. The details, which might differ substantially by facility-type or region, would need to be developed by MOH personnel, with the participation of representatives of other Ministries to ensure acceptability and legality. In addition to providing some positive incentives for improving productivity, a system such as this would also establish an incentive structure which would encourage more accurate reporting of both service provision statistics and revenues. As noted earlier, the present system by which the Regional Office oversees facilities' user fee revenues and, in the case of units and posts, appropriates 5-8 percent for itself, encourages facilities to under-report their service provision. A system with the basic characteristics of those outlined above would encourage more accurate reporting of service provision/utilization data by tying incentive bonuses to service provision.

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EXHIBIT 1

MEAN LEVELS OF THE HEALTH SECTOR'S SHARE OF TOTAL CENTRAL GOVERNMENT
EXPENDITURES IN THE DEVELOPING WORLD, 1980-1988

(All Available Data/Observations from the IMF's Government
Finance Statistics Yearbook, for 65 Countries
of Africa, Asia and Latin America, 1982 - 1990)

YEAR	HEALTH SECTOR'S SHARE (In Percentages)	NUMBER OF OBSERVATIONS
1980	6.432	57
1981	6.341	54
1982	6.219	55
1983	6.322	52
1984	6.263	56
1985	6.293	48
1986	5.887	43
1987	5.768	36
1988	5.439	13

Source: IMF, Government Finance Statistics Yearbook, various years.

EXHIBIT 2
GROSS DOMESTIC PRODUCT (GDP)

YEAR	NOMINAL GDP (MILLIONS OF CURRENT COLONES)	REAL GDP (MILLIONS OF 1962 COLONES)	REAL GDP PER SALVADORAN (1962 COLONES)
1975	4,477.7	3,122.8	796
1976	5,705.9	3,247.0	798
1977	7,167.1	3,443.7	817
1978	7,692.2	3,664.8	838
1979	8,607.1	3,601.7	810
1980	8,916.6	3,289.3	729
1981	8,646.4	3,016.8	660
1982	8,966.2	2,847.7	616
1983	10,151.8	2,870.4	614
1984	11,657.2	2,935.6	621
1985	14,330.8	2,993.6	626
1986	19,762.9	3,012.5	618
1987	23,140.6	3,093.5	622
1988	27,365.8	3,143.8	620
1989	32,267.0	3,173.6	614
1990	38,885.8	3,239.0	615

AVERAGE OF ANNUAL GROWTH RATES OF REAL GDP

1959-1959:	4.8%
1960-1969:	6.1%
1970-1979:	4.7%
1980-1989:	-1.2%

Source: Unpublished documents of the Banco Central de Reserva, El Salvador, and Perez Brignoli and Baires Martinez, 1983: p. 366.

EXHIBIT 3

**MOH GENERAL BUDGET-FUNDED REAL EXPENDITURES
AND ANNUAL GROWTH RATES**

(In Thousands of 1962 Colones)

YEAR	NOMINAL EXPENDITURES		REAL EXPENDITURES		PER CAPITA REAL EXPENDS.	
	Absolute Amount	Annual Growth Rate	Absolute Amount	Annual Growth Rate	Absolute Amount	Annual Growth Rate
1975	86,465.4	----	54,933.5	---	16.47	---
1976	110,829.2	28.2	62,580.0	13.9	18.10	9.9
1977	127,060.8	14.6	64,172.1	2.5	17.90	-1.1
1978	143,278.8	12.8	63,878.2	-0.5	17.19	-4.0
1979	142,090.5	-0.8	60,233.4	-5.7	15.95	-7.2
1980	178,435.7	25.6	66,580.5	10.5	17.35	8.8
1981	167,025.9	-6.4	61,249.0	-8.0	15.77	-9.1
1982	165,677.1	-0.8	56,916.9	-7.1	14.48	-8.2
1983	170,395.9	2.8	52,108.8	-8.4	13.10	-9.5
1984	191,551.2	12.4	53,912.5	3.5	13.41	2.4
1985	176,522.7	-7.8	45,332.0	-15.9	11.15	-16.9
1986	232,354.5	31.6	50,566.8	11.5	12.20	9.4
1987	252,692.9	8.8	51,225.0	1.3	12.13	-0.6
1988	289,477.2	14.6	56,318.5	9.9	13.07	7.7
1989	308,377.6	6.5	52,108.4	-7.5	11.86	-9.3
1990	377,173.9	22.3	56,027.0	7.5	12.51	5.5

Average Annual Rates of Growth:		Annual Average Levels of Real Expenditures:		Rates of Growth in 5 Year Period Levels:	
1975-1980:	4.1	1975-1980:	62,063	-----	
1981-1985:	-7.2	1981-1985:	53,904	-13.1	
1986-1990:	4.5	1986-1990:	53,249	-1.2	

NOTE: Deflated using the Public Administration Index Deflator presented in Annex 1. Per capita levels are calculated on the bases of 85 percent of the national population, which is the MOH's official charge.

EXHIBIT 4

EVOLUTION OF THE MOH SHARE OF THE
TOTAL CENTRAL GOVERNMENT BUDGET ALLOCATION
AND EXPENDITURES

YEAR	SHARE OF EXPENDITURES
1976	10.7%
1977	10.2%
1978	10.7%
1979	9.8%
1980	10.8%
1981	8.7%
1982	8.5%
1983	9.2%
1984	7.0%
1985	7.5%
1986	6.2%
1987	7.3%
1988	8.1%
1989	7.9%
1990	7.4%

SOURCE: Informe Complementario Constitucional sobre la Hacienda Publica/Informe Sobre la Liquidacion del Presupuesto General y Situacion del Tesoro Publico y Patrimonio Fiscal, Ministerio de Hacienda, various years.

EXHIBIT 5

EVOLUTION OF THE SIZE OF THE PUBLIC SECTOR

YEAR	GOVERNMENT EXPENDITURES AS A PERCENT OF GDP	MILLIONS OF CURRENT COLONES
1976	18.0	1,035.8
1977	17.3	1,245.7
1978	17.2	1,187.5
1979	16.5	1,449.9
1980	17.5	1,652.2
1981	22.2	1,919.8
1982	21.7	1,949.1
1983	18.2	1,852.1
1984	23.4	2,731.7
1985	16.5	2,360.3
1986	18.9	3,742.2
1987	15.0	3,473.1
1988	13.1	3,553.0
1989	12.1	3,896.8
1990	12.9	5,101.1

Annual Average Percents:

1976 - 1980:	17.3
1980 - 1985:	20.4
1985 - 1990:	14.4

NOTE: Includes earmarked expenditures ("compromisos").
 SOURCE: Informe Complementario Constitucional/Informe Sobre la Liquidacion del Presupuesto General y Situacion del Tesoro Publico y Patrimonio Fiscal, Ministerio de Hacienda, various years.

EXHIBIT 6

EVOLUTION OF MOH EXPENDITURES
AS A PERCENT OF GROSS DOMESTIC PRODUCT (GDP)

YEAR	NOMINAL GDP (CURRENT COLONES)	REAL GDP (1962 COLONES)	MOH SHARE OF GDP (PERCENT)	MOH SHARE CHANGE FROM PREVIOUS YR. (PERCENT)
1975	4,477.7	3,122.8	1.80	-----
1976	5,705.9	3,247.0	1.75	-2.8
1977	7,167.1	3,443.7	1.79	2.3
1978	7,692.2	3,664.8	1.93	7.8
1979	8,607.1	3,601.7	1.71	-11.4
1980	8,916.6	3,289.3	2.09	22.2
1981	8,646.4	3,016.8	2.17	3.8
1982	8,966.2	2,847.7	2.01	-7.4
1983	10,151.8	2,870.4	1.76	-12.4
1984	11,657.2	2,935.6	1.87	6.3
1985	14,330.8	2,993.6	1.41	-24.6
1986	19,762.9	3,012.5	1.17	-17.0
1987	23,140.6	3,093.5	1.09	-6.8
1988	27,365.8	3,143.8	1.06	-2.8
1989	32,230.0	3,177.0	0.96	-9.4
1990	41,057.0	3,285.0	0.92	-4.2

	ANNUAL AVERAGE PERCENTS:	AVERAGE OF ANNUAL CHANGES:
1975-1980:	1.80	0.65
1980-1985:	1.98	2.50
1985-1990:	1.10	-10.80

SOURCE: Informe Sobre la Liquidacion del Presupuesto General y la Situacion del Tesoro Publico y Patrimonio Fiscal, Ministerio de Hacienda, various years.

EXHIBIT 7

MOH FINANCIAL RESOURCES, OVERSITE AND ACCOUNTABILITY BY SOURCE OF FUNDING

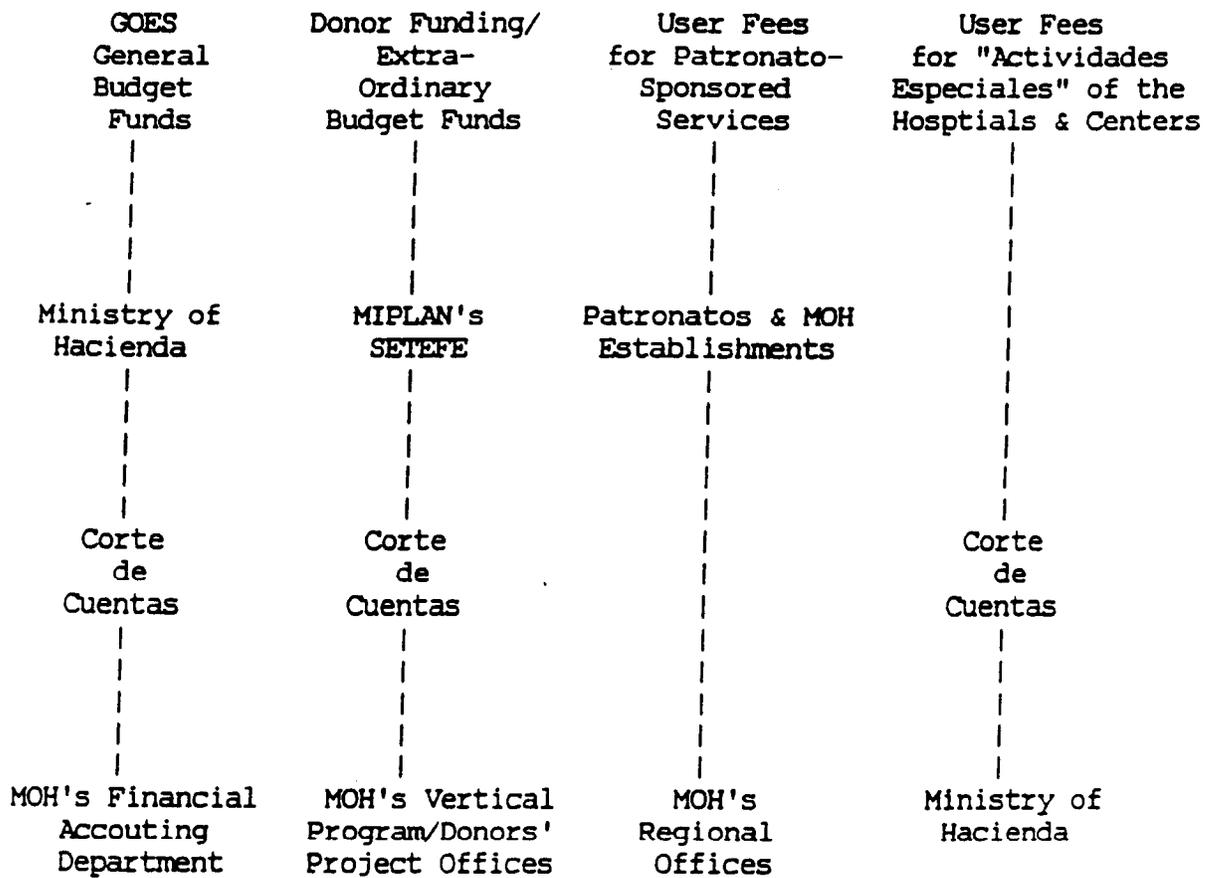


EXHIBIT 8

**EVOLUTION OF REGIONAL HEALTH SERVICES PATRONATO REVENUES
PER PHYSICIAN-PROVIDED CONSULTATION**

YEAR	R E V E N U E S I N:		REGIONAL HEALTH SERVICES PROVIDED VISITS	R E V E N U E S P E R V I S I T I N:	
	CURRENT COLONES	1962 COLONES		CURRENT COLONES	1962 COLONES
1977	1,453,840	734,263	1,304,900	1.11	0.5627
1978	1,407,406	627,466	1,374,810	1.02	0.4564
1979	1,667,906	707,039	1,537,134	1.09	0.4600
1980	1,936,439*	722,552	1,379,409	1.40	0.5238
1981	2,248,206*	824,425	1,599,944	1.41	0.5153
1982	2,610,400	886,083	1,418,628	1.84	0.6246
1983	3,351,688	1,024,981	1,282,519	2.61	0.7992
1984	3,249,424	914,558	1,496,204	2.17	0.6113
1985	3,244,865	833,299	1,298,179	2.50	0.6419
1986	4,047,215	880,787	1,539,842	2.63	0.5720
1987	4,986,160**	1,010,776	1,727,652	2.89	0.5851
1988	6,143,076	1,195,151	1,728,556	3.55	0.6914
1989	7,177,346*	1,212,799	1,653,565	4.34	0.7325
1990	9,153,824	1,359,748	1,777,188	5.15	0.7651

	AVERAGE CONTRIBUTION PER PHYSICIAN VISIT		ANNUAL GROWTH RATES (PERCENTAGES)	
	CURRENT COLONES	1962 COLONES	CURRENT COLONES	1962 COLONES
1977-1979:	1.07	0.4930	---	---
1980-1982:	1.55	0.5546	45	12
1983-1986:	2.48	0.6561	60	18
1987-1990:	3.98	0.6935	60	6

* Extrapolated cumulative growth rate based on 1979 and 1982 data.

* Extrapolated weighted average of cumulative growth rates based on observations of 3 of the 5 regions.

**Extrapolated cumulative growth rate based on 1986 and 1988 data.

NOTE: Excludes emergency visits

EXHIBIT 9

EVOLUTION OF THE PATRONATO FUNDS OF THE MOH'S CENTRALIZED AGENCIES

THE REGIONAL HEALTH SERVICES
PATRONATOS' TOTAL REVENUES AS A PERCENT OF:

YEAR	MOH CENTRALIZED AGENCIES' OPERATIONS EXPENDITURES	REGIONAL HEALTH SERVICES OPERATIONS EXPENDITURES
1977	3.23%	8.05%
1978	3.20%	6.27%
1979	3.52%	6.12%
1980	3.24%	5.07%
1981	3.58%	5.45%
1982	4.63%	6.98%
1983	5.87%	8.75%
1984	5.35%	7.33%
1985	4.86%	6.79%
1986	5.03%	7.13%
1987	5.53%	7.96%
1988	6.85%	8.53%
1989	6.54%	8.76%
1990	7.23%	9.62%

* Extrapolated cumulative growth rate based on 1979 and 1982 data.

* Extrapolated weighted average based on observations of 3 of the 5 regions.

NOTE: The Centralized Agencies are made up of the Regional Health Services (the health centers, units and posts) and the Central Office of the Ministry.

EXHIBIT 10
EVOLUTION OF THE HOSPITALS' SPECIAL ACTIVITIES' REVENUES

(In Millions of Colones)

YEAR	SPECIAL ACTIVITIES TOTAL REVENUES:		SP. ACT. REVENUES ANNUAL GROWTH RATES		ANNUAL PER CAPITA GROWTH RATES OF GDP	
	CURRENT COLONES	1962 COLONES	CURRENT COLONES	1962 COLONES	CURRENT COLONES	1962 COLONES
	1983	1.19	0.364	----	----	11.9
1984	1.36	0.383	14.3	5.2	13.6	1.1
1985	1.70	0.437	25.0	14.1	21.6	0.8
1986	2.48	0.540	45.9	23.6	35.3	-1.3
1987	2.90	0.588	16.9	8.9	14.8	0.6
1988	3.47	0.676	19.7	-15.0	16.0	-0.3
1989	3.20	0.541	-7.8	-20.0	15.6	-1.0
1990	3.24	0.481	1.3	-11.1	20.5	0.2

EXHIBIT 11

**EVOLUTION OF THE HOSPITALS' SPECIAL ACTIVITIES REVENUES
PER HOSPITAL ADMISSION**

YEAR	HOSPITAL ADMISSIONS	SPECIAL ACTIVITIES REVENUES PER HOSPITAL ADMISSION		ANNUAL GROWTH RATE OF REVENUES PER HOSPITAL ADMISSION	
		CURRENT COLONES	1962 COLONES	CURRENT COLONES	1962 COLONES
1983	176,433	6.73	2.06	----	----
1984	167,000	8.17	2.30	21.4	11.7
1985	164,707	10.32	2.65	26.3	15.3
1986	169,533	14.63	3.18	41.8	20.1
1987	169,237	17.14	3.47	17.2	9.1
1988	170,283	20.38	3.97	18.9	14.1
1989	160,201	19.97	3.37	-2.0	-14.9
1990	157,646	20.55	3.05	2.9	-9.5

	AVERAGE PAYMENT PER ADMISSION		GROWTH RATE FROM PREVIOUS TIME PERIOD	
	CURRENT COLONES	1962 COLONES	CURRENT COLONES	1962 COLONES
1983-1985:	8.41	2.34	----	----
1986-1988:	17.38	3.54	106.7%	51.3%
1989-1990:	20.26	3.21	16.6%	-9.3%

EXHIBIT 12

**EVOLUTION OF TOTAL USER FEES: THE SUM OF REVENUES
GENERATED BY PATRONATO-SPONSORED SERVICES AND "SPECIAL ACTIVITIES"**

(In Millions of Nominal Colones)

	(1) REGIONAL HEALTH SERVICES' PATRONATO REVENUES	(2) HOSPITALS' SPECIAL ACTIVITIES- GENERATED REVENUES:	(3) = (1)+(2)	(3) AS A PERCENT OF MOH OPERA- TIONS EXPEN- DITURES"
1982	2.610 (66.6%)	1.31 (33.4%)	3.92 (100%)	3.75
1983	3.352 (73.8%)	1.19 (26.2%)	4.542 (100%)	4.29
1984	3.249 (70.5%)	1.36 (29.5%)	4.609 (100%)	3.86
1985	3.245 (65.6%)	1.70 (34.4%)	4.945 (100%)	4.03
1986	4.047 (62.0%)	2.48 (37.2%)	6.527 (100%)	4.14
1987	4.986 ^{oo} (63.2%)	2.90 (36.8%)	7.886 (100%)	4.61
1988	6.143 (63.9%)	3.47 (36.1%)	9.613 (100%)	5.41
1989	7.177 [*] (69.2%)	3.20 (30.8%)	10.166 (100%)	4.87
1990	9.154 (73.9%)	3.24 (26.4%)	12.394 (100%)	4.02

* Extrapolated weighted average based on observations of 3 of the 5 regions.

^{*}Excludes transfers to non-MOH entities (i.e., to other than the hospitals).

^{oo}Extrapolated cumulative growth rate based on 1986 and 1988 data.

EXHIBIT 13
MILITARY AND PUBLIC DEBT EXPENDITURES

IN THOUSANDS OF CURRENT COLONES

YEAR	DEFENSE	PUBLIC SECURITY	PUBLIC DEBT SERVICING
1980	161,485	75,143	69,525
1981	188,598	110,905	158,485
1982	234,031	120,764	252,306
1983	275,780	121,092	269,429
1984	516,216	144,304	708,335
1985	555,887	169,640	313,030
1986	757,905	202,982	741,191
1987	774,303	207,688	580,772
1988	771,404	212,757	546,733
1989	946,422	253,691	613,326
1990	996,085	239,795	495,259

AS A PERCENT OF TOTAL PUBLIC SECTOR SPENDING

YEAR	DEFENSE	PUBLIC SECURITY	PUBLIC DEBT SERVICING	SUM OF THESE 3 CLASSES OF EXPENDS.
1980	9.8	4.6	4.2	18.6
1981	9.8	5.8	8.3	23.9
1982	12.0	6.2	13.0	31.2
1983	14.9	6.5	14.6	36.0
1984	18.9	5.3	25.9	50.1
1985	23.6	7.2	13.3	44.1
1986	20.3	4.4	19.8	45.5
1987	22.3	6.0	16.7	45.0
1988	21.7	6.0	15.4	43.1
1989	24.3	6.5	15.7	46.5
1990	19.5	4.7	9.7	33.9

SOURCE: Informe Complementario Constitucional, Direccion de Contabilidad Central, Ministerio de Hacienda, 1980-1986. In 1987 this annual report was renamed Informe Sobre la Liquidacion del Presupuesto General y Situacion del Tesoro Publico y Patrimonio Fiscal, 1987-1990.