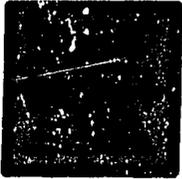


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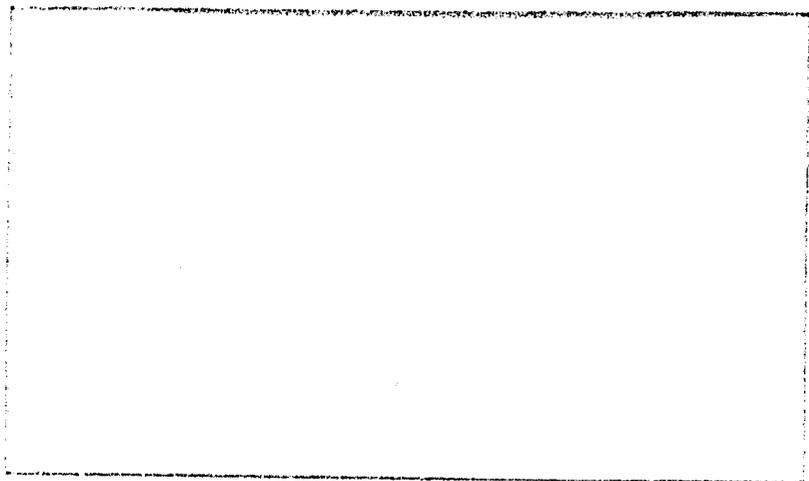
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**THE COSTA RICAN SOCIAL SECURITY FUND'S
ALTERNATIVE MODELS:
A CASE STUDY OF THE COOPERATIVE-BASED,
COOPESALUD PAVAS CLINIC**

September 1991

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EXECUTIVE SUMMARY

COOPESALUD is a cooperative of 156 individuals who have operated the Costa Rican Social Security Fund (Caja Costarricense de Seguro Social, or, Caja) Pavas Clinic since mid-1988. This report documents the Social Security Fund's motivation for developing this and several other alternative models of health care. It describes the organizational structure, administrative structure, personnel, as well as the evolution of the Cooperative. Finally, it performs a provisional performance assessment of the Pavas Clinic, comparing it to other Social Security clinics of the same size and staff, i.e., other Type 4 Clinics.

COOPESALUD is an alternative model of care which has a plethora of diverse goals and objectives. By many criteria, the Cooperative Model of care provided by COOPESALUD at the Pavas Clinic has been highly successful. These criteria include: patient satisfaction, greater access to care, the level of service provision, the level of coverage of the service area population, the concentration of services, the mix of services provided (preventive versus curative), the apparent continuity of care, and the responsiveness of the Clinic to the health needs and stated desires of the community.

In terms of the economic or financial success of the cooperative model, the picture is also very positive. COOPESALUD provides health care services at a significantly lower cost relative to a traditional Caja clinic. COOPESALUD provides care at about 70 percent the cost of a Caja-run facility.

Given its relatively higher levels of service provision and patient satisfaction, as well as its cost-effectiveness, the COOPESALUD experiment cannot but be regarded as a successful alternative model to the traditional Caja Type 4 Clinic. Extending or replicating the cooperative-based alternative model of care is an effective way by which the Caja could increase its own cost-effectiveness.

ACRONYMS

CAJA	Caja Costaricense de Seguro Social
EBAI	Establecimientos Básicos de Atención Integrada
MOH	Ministry of Health
PRRC	Produccion, Rendimiento, Recursos y Costs
SILOS	Sistemas Locales de Salud

CHAPTER I

THE COSTA RICAN SOCIAL SECURITY SYSTEM AND THE DEVELOPMENT OF ALTERNATIVE MODELS OF CARE: MOTIVATIONS AND POTENTIALS

A. INTRODUCTION

Costa Rica's epidemiological profile is that of a developed country. Its infant mortality rate is less than 15, significantly less than the rate of 18 to 20 per 1,000 live births which has characterized the United States in recent years. With relatively few exceptions, major immuno-preventible diseases have all but been eradicated. There exists a general national, as well as international, consensus that the Costa Rican health system -- and specifically its Social Security System (Caja Costarricense de Seguro Social, or Caja) -- has played a fundamental role in bringing about these conditions and in achieving the high health status of the people of Costa Rica.

B. GROWTH IN CAJA COVERAGE AND CONSUMER DISSATISFACTION

Progressive extension in the participation and coverage of the Social Security System, which culminated in the Caja's embracing the principal of universal coverage, coupled with the successful implementation of national strategies of primary health care, have been critical elements in the success of the system. At the same time, however, starting in earnest in the latter half of the decade of the 1980s, there has been a growing crescendo of complaints about various aspects of the Social Security System, even while there has been very little questioning of the acceptability of the general model. Increasingly plagued by diseconomies of scale and the demands of 22 different unions, the hierarchical, bureaucratic Caja structure with its 25,599 employees has come to be an increasingly expensive, highly centralized, and depersonalized provider of services to the growing dissatisfaction of users and providers alike. While the Caja's provision of inpatient care (for which it has little competition) is still regarded as being of high quality, there has been growing dissatisfaction with ambulatory care, especially in the San Jose Metropolitan Area, the critical point of contact with the system for the vast majority of Costa Ricans.

C. RECENT TRENDS IN CAJA FINANCING

Throughout most of its 50 year history, the Caja has enjoyed increasing revenues which have enabled it to increase its expenditures and gradually expand services and coverage. Growing

revenues have been primarily due to the steady growth in the absolute number and, for the most part, the proportion of the population participating in the Social Security Program, which, in turn, has been facilitated by the long term growth of the economy. The introduction of several laws also extended the domain and coverage of the Caja. The most important of these were Law Number 5349 of 1973, which extended coverage of the Caja to indigents, and Law Number 5905 of 1976, which made it obligatory for all persons participating in any of the Caja's retirement programs to also participate in its Sickness and Maternity Program.

As may be seen in Exhibit 1, since 1970 there have only been two years (1980 and 1985) in which the steady upward march in the absolute number of active, direct insurees of the Caja slipped. In part, the extension of services and coverage have also been enabled, at least up until the early 1980s, by the ease with which the Caja could increase its contribution rates. The Social Security contribution reached its present level--the highest in the world--in 1982.

	Sickness & Maternity	Old Age, Disability and Death
Employer	9.25	4.75
Employee	5.50	2.50
State	1.25	0.25
TOTAL:	16.00%	7.50%

The long term trend of growth in the coverage of the population, however, stumbled in 1979 and then wavered for half a decade before stabilizing in the 81-85 percent range.

The long history of growth in the absolute number of active (i.e., contributing) Social Security beneficiaries, with additional revenues generated by newly enrolled beneficiaries, has not prevented the Caja from periodically suffering deficits. By the end of the 1970s, the System was experiencing substantial financial difficulties. In 1977 it operated at a deficit of 72 million colones, the equivalent of 7.6 percent of its income, or 7 percent of total expenditures. The absolute and relative size of the deficit snowballed throughout the next 4 years until 1981, when it totaled 616 million colones, or more than 28 percent of its income. (See Exhibit 2). As is evident in Exhibit 3, the shortfall in the State's contribution was and remains an important and persistent source of financial disequilibrium.

The package of cost control measures and other reforms introduced in 1982-83, in combination with the recovery of the economy, proved to be effective. The Caja was able to restore its financial position, and by the end of 1982 had already resumed accumulating surpluses (see Exhibit 2). For the most part, the cost control measures introduced were changes legislated by the General Assembly. The reforms included a series of specific actions in the areas of human resources, materials resources and financing measures. In the area of human resources the

major cost control mechanisms were:

- suspension of the practice of paying for extraordinary work hours, but with the important exception of some key positions related to physician services;
- a freeze on the hiring of new employees to fill vacant positions;
- the elimination of temporary positions;
- reduction in the cost of food provided to hospital personnel;
- suspension of paying partial compensation for employees' vacations; and
- making the Caja employee contribution to the Sickness and Maternity Program obligatory (although they had enjoyed its full benefits, Caja employees had not been required to contribute to this program).

In the area of material resources, the most important reforms were:

- a reduction in the National Formulary of Medicines;
- restrictions in the purchasing of furniture;
- the elimination of approximately 1,000 items not considered indispensable from the Caja's General Store; and
- a freeze on the purchase of new motor vehicles.

Finally, the major changes introduced in the area of financing were:

- an increase in the level of income earmarked as a contribution to the Caja from 11 to 16 percent, effective as of 1983;
- efforts to reduce evasion in the payment of the Caja contribution; and
- an agreement with the Ministry of the Treasury guaranteeing that the State would fulfill its obligation of paying its Caja contribution.

EXHIBIT 1

**INDICATORS OF THE COVERAGE OF THE COSTA RICAN
SOCIAL SECURITY FUND**

YEAR	ACTIVE, DIRECT BENEFICIARIES	COVERAGE OF THE NATIONAL POPULATION	COVERAGE OF THE ECONOMICALLY ACTIVE POPULATION
1970	202,291	47.2	38.3
1971	231,934	51.5	42.2
1972	254,696	53.8	44.7
1973	289,561	58.4	48.9
1974	308,124	60.3	50.1
1975	320,432	59.6	50.1
1976	340,295	61.2	51.2
1977	437,628	74.0	63.3
1978	515,918	82.2	71.7
1979	560,716	84.3	74.9
1980	528,033	75.7	67.8
1981	529,120	71.7	65.6
1982	530,615	68.0	63.5
1983	559,537	69.3	64.7
1984	607,970	83.9	67.9
1985	605,743	81.4	55.3
1986	626,464	81.1	65.4
1987	652,347	82.2	66.1
1988	675,885	83.0	66.6
1989	705,223	85.4	67.5
1990	725,758	83.7	67.6

Note: The figures on coverage refer to that segment of the population for which some specific contribution to the Caja is made. Actually the coverage of the Caja's medical care services is 100 percent.

Source: Duran, Fabio, "Caja Costarricense de Seguro Social: Evolucion Financiera del Seguro de Enfermedad y Maternidad en la Decada de los Ochenta," August 1991, (unpublished).

EXHIBIT 2

**MACROECONOMIC INDICATORS AND MEASURES OF THE FINANCIAL STATUS
OF THE COSTA RICAN SOCIAL SECURITY FUND'S
SICKNESS AND MATERNITY INSURANCE PROGRAM**

YEAR	REAL GROWTH IN GDP (%)	RATE OF EXCHANGE (Colones/ US/\$1)	EXPENDITURES AS A PERCENT OF GDP	SURPLUS (DEFICIT)	
				ABSOLUTE LEVEL	AS A PERCENT OF INCOME
1975	2.1	8.6	3.1	(3.0)	(0.6)
1976	5.5	8.6	3.4	7.1	1.0
1977	8.9	8.6	3.9	(72.1)	(7.6)
1978	6.3	8.6	4.6	(117.9)	(9.3)
1979	4.9	8.6	5.2	(314.2)	(21.1)
1980	0.8	9.2	5.5	(485.1)	(27.1)
1981	(2.3)	21.2	4.9	(615.8)	(28.4)
1982	(7.3)	39.8	4.0	99.6	2.5
1983	2.9	41.6	4.2	1,422.5	20.6
1984	8.0	44.4	4.4	1,603.3	18.2
1985	0.7	50.5	4.6	2,044.7	18.4
1986	5.5	56.1	4.4	1,885.1	14.7
1987	4.8	62.8	4.4	3,264.9	20.6
1988	3.4	75.9	4.9	2,276.9	11.8
1989	5.7	81.6	5.5	759.9	3.2
1990	3.8	91.5	5.8	796.5	2.6

Source: Duran, Fabio, "Caja Costarricense de Seguro Social: Evolucion Financiera del Seguro de Enfermedad y Maternidad en la Decada de lo Ochenta," August 1991, (unpublished).

EXHIBIT 3

**THE COSTA RICAN SOCIAL SECURITY FUND'S SICKNESS AND MATERNITY PROGRAM
SHORTFALLS IN THE STATE CONTRIBUTION**

YEAR	ABSOLUTE SIZE OF SHORTFALL	SHORTFALL AS A PERCENT OF:	
		INCOME	EXPENDITURES
1975	50.6	9.0	9.9
1976	86.0	10.7	12.1
1977	105.4	10.0	10.3
1978	97.9	7.2	7.1
1979	156.1	9.5	8.6
1980	368.4	17.1	16.2
1981	665.7	23.5	23.9
1982	627.9	13.5	16.0
1983	656.4	8.7	12.0
1984	1,038.9	10.6	14.5
1985	840.0	7.0	9.3
1986	1,427.8	10.0	13.0
1987	1,920.5	10.8	15.2
1988	2,041.3	9.6	12.0
1989	2,933.3	10.9	12.6
1990	3,799.7	11.0	12.6

Source: Duran, Fabio, "Caja Costarricense de Seguro Social: Evolucion Financiera del Seguro de Enfermedad y Maternidad en la Decada de los Ochenta," August 1991, (unpublished).

D. THE CAJA'S SHORT- AND MEDIUM-TERM FINANCIAL PROSPECTS

Although the Caja has not posted a deficit since 1981, the size of its annual operating surpluses peaked in 1983 and has generally followed a downward trajectory since then. In 1989, significant salary hikes for Caja employees went into effect, substantially eroding the size of the surplus. In 1990 the System's surplus shrunk further, to the equivalent of 2.6 percent of its income. The steady, long term erosion in the size of the surplus suggests the difficulty which the Caja will have in the short and medium term in trying to maintain the financial solvency of the Sickness and Maternity Program.

The expansion in coverage of the Caja without question has contributed to the increased demand for medical care provided by the Fund, as well as to the overall costs of providing care. The changing age structure of the Costa Rican population has also contributed to the increased demand for medical attention, further heightening the need for additional supplies and manpower, and further driving up the costs of the system. Although the expansion of coverage as a source of increasing costs has likely played out most of its dynamism, the impact of the changing age structure on medical care demand and costs remains an on-going process. The demand for Caja medical care services--and the costs of providing them--therefore, can be expected to continue to increase in the short- and medium-term.

The steady devaluation of the colon vis-a-vis the dollar throughout the course of the 1980s resulted in the colon having one-tenth its exchange value in 1990 compared with 1980. Moreover, the rate at which the colon is depreciating has been accelerating. By 1991, the dollar value of the colon has fallen another 40 percent from its average 1990 level. This pronounced trend, coupled with the high import-intensity of the supplies, especially that of pharmaceuticals and equipment embodying so-called high-technology, have further contributed to the rapidly rising costs of the Caja's Sickness and Maternity Program.

While the Caja enjoyed a financial surplus in 1990, the short term prognosis does not look good. The ability of the Institution to further increase its quotas appear to be severely limited (they have long been the highest in the world), and with many of the causes of its increasing costs of medical care due to exogenous factors, it appears likely that the Caja will need to resurrect and reify the moribund elements of its cost containment program of the early 1980s, and augment these with additional, structural changes. The alternative models with which the Caja has been experimenting for several years now, may offer another important and distinct strategic approach to obviating and/or combatting the seemingly incipient financial troubles of the Caja. We turn now to a brief overview of those models, a review of the motivations behind their development, and their historical evolution.

E. THE CAJA'S ALTERNATIVE MODELS OF CARE

The Caja's motivations for developing alternative models of care were, and remain, diverse. The general objective was to alter various aspects and characteristics of the traditional Caja model which were increasingly viewed as being problematic for a variety of reasons. It is conceptually useful to divide these different aspects and characteristics of the traditional model into three distinct areas: (1) macroeconomic and political considerations; (2) organizational and efficiency considerations; and (3) improving the technical, medical model of service provision. The specific motivations within each of these general areas were as follows:

1. Macroeconomic and Political Considerations

- a. To continue the policy of extending the coverage of, and access to, public health services, without excessive commitment of public funds.
- b. To provide additional public health services, while avoiding restrictions on the hiring of new, permanent, public employees.
- c. To develop a new, less confrontational relationship between health care workers (particularly physicians) and both the Caja and the Ministry.
- d. To take creative steps to reduce the size of the Central Government, through experimentation with new forms of transferring public responsibilities to the private sector.

2. Organizational and Efficiency Considerations

- a. To improve humanistic aspects of the treatment of patients, including patient satisfaction by providing some form of incentive to the provider care.
- b. To overcome provider apathy and to encourage the provider's creative and positive support in providing services.
- c. To resolve unsatisfied demands due to the long waiting times which are common to ambulatory care settings and which have encouraged the inappropriate utilization of emergency care.
- d. To rationalize some particularly deficient aspects of care, especially appointments with specialists and dispensing medications.
- e. To improve the efficiency of use and level of utilization of the physical plants and equipment by increasing the amount of time during the day in which they are utilized (viz., by providing more care in the afternoon).
- f. To improve the efficiency of human resources by avoiding the loss of work hours due to personal reasons or union-related activities.

3. Improving the Technical, Medical Aspects of Care

- a. To create a personalized physician-patient relationship with an emphasis on family and community health.
- b. To integrate preventive and curative services and to address the epidemiological profile of the population without requiring additional diagnostic resources or sophisticated treatment.

- c. To stop the continued development of a segmented and specialized view of health problems, and to promote, instead, the practice of medicine by multidisciplinary teams.

As is demonstrated by this list, the proposals for improving the performance of the Caja's traditional approach to care through the development of the alternative models are varied and at times at least partially contradictory. It is important to note, however, that this wide spectrum of motivations permits a diverse group of views to congeal into a consensus among technicians and politicians regarding the desirability of implementing or of extending a particular model, with the only likely opposition being that of some union groups. Furthermore, it appears that this approach of promising something for nearly every interested party may have been part of a deliberate policy, reflecting perhaps an integral strategy if any of the models were to be successfully implemented.

As Dr. Guido Miranda, Executive Director of the Caja between 1982 and 1990, has pointed out, the process of developing alternative models had to overcome opposition by the health sector unions. The unions were concerned with the opening and operation of health facilities in which they did not exercise any influence. All of these models were independent, self-managing private organizations in which each individual worker was also a member of the company (Miranda, 1991).

At the same time, however, this diversity of motivations for the alternative models results in a variety of different possible perspectives from which to evaluate them. Since several of these different perspectives are not entirely compatible (e.g., enhancing the quality of care and improving efficiency), a particular model might be regarded as a huge success by some parties, at the same time that another evaluator using different criterion, or simply weighting the same criterion differently, might conclude that it is a failure.

F. A BRIEF OVERVIEW OF THE VARIOUS MODELS

1. The Company Medicine Program

The Company Medicine Program (Medicina de Empresa), the first effort at innovation in the area of ambulatory care, was initiated in the beginning of the decade of the 1970s. The program was based on agreements between the Caja and private companies that were authorized to provide ambulatory care to their workers in the workplace. Under this arrangement, the company pays the salary of the physician, while the Caja provides all necessary diagnostic and therapeutic resources. This arrangement is attractive to the company because it permits the company to reduce its costs of absenteeism by making medical consultations much more readily accessible to its workforce.

Since the overwhelming majority of such arrangements consist of a company having a single physician on staff (often on a part-time basis), the user receives his care from the same physician. The system, therefore, is generally characterized by more personalized care and greater continuity of care. The Caja benefits from the Program because it results in reduced demand for Caja physician-provided care by those workers who are now serviced by the private physician whose salary is paid by their company. The existence of this system also reduces congestion in Caja ambulatory clinics. In 1990, excess demand for services--excess as measured relative to the Caja physician union determined-quota--resulted in Type 4 Clinics which turned away 7 percent

of all persons who came to see them. The Company Medicine Program helped reduce this excess demand, and, thereby, probably increased the general level of outpatient satisfaction with Caja care.

Today the Company Medicine Program provides about 7 percent of all of the consultations financed (in this instance, only in part) by the Caja. Six hundred companies participate in the program, which has largely stagnated for the past 6 years has maintained the same number of participating companies and of consultations provided. The lack of growth is probably a reflection that to a large extent the Program is a viable option only for companies with a relatively large number of employees per worksite.

The Company Medicine Program has been overwhelmingly geared towards curative care. The Program has not developed its potential for working in the areas of prevention, or worksite safety and protection which, by virtue of its on-site location, remains an accessible, unmet opportunity.

2. The Mixed Medicine Program

This program was started in 1981 with the aim of improving the distribution and availability of medicines and (again) easing the demand for outpatient consultations in Caja facilities. Caja beneficiaries who visit a private physician on a private fee-for-service basis may fill prescriptions for any diagnostic or therapeutic goods at any facility of the Caja. Physicians who wish to participate in this program must be accredited by the Caja. Similarly, patients who want to participate must obtain verification of their rights to do so. These administrative costs appear to be the principle reasons why this program has never accounted for more than about 1 percent of the total number of consultations provided with some Caja financing.

3. The Capitated Medical Care Program

This program began in January of 1987 in the Canton of Barva de Heredia. As initially conceptualized, it was to consist of a multidisciplinary team of Caja employees providing capitated care to a group of Caja beneficiaries. The program was supposed to assign full and continuous responsibility to the multidisciplinary team for the medical care of a voluntary group of the area population. An important aspect of the original program design consisted of the members of the population being able to select their own personal physician. This, it was thought, would ensure greater continuity of care and, because physician reimbursement would be proportional to the individual physician's caseload, it was hypothesized that this program would provide the physicians with greater incentive to be more conscientious in their treatment of their patients. This model, designed with technical assistance from a group of English physicians, capped the maximum number of enrollees per physician at 3,500. In practice, this program was subject to several factors which limited its ability to either test or accomplish some of its stated goals, while limiting its more widespread application. Included among these factors were the following:

- the experience was limited to the participation of the physician, and the rest of the team was never incorporated into the program;
- due to the abandonment of the multidisciplinary team approach and the reliance, instead, on the

traditional approach of the physician working alone, the program's orientation became primarily curative care; the extent to which prevention or community health were integrated into the program became a reflection of the personal inclinations of the individual physicians participating in the program;

- the intent to allow patients to freely select their regular personal physician was never implemented; the dispersion of the population in the site of the program encouraged the administrators of the program to adopt the practice of assigning a specific physician to each geographic area;
- the contractual method by which physicians were to be reimbursed (based on their caseload/productivity) is not within the legal framework defining labor relations between the Caja and its physicians, leaving this scheme extremely vulnerable to demands by physicians or physician unions (SIPROCIMECA) to declare the program illegal and to demand its dismantling.

In substance, this program signifies a marked increase in the degree to which physicians are put at-risk. In addition, the program incorporates several mechanisms for assigning responsibility for the holistic health status of a population. A particularly difficult aspect of implementing this program was that the mechanisms of registering the assigned population (which constituted the base of remuneration of the physicians) proved to be difficult to manage while the physicians were concurrently assigned the responsibility of carrying out activities to educate the population in the use of the new system.

This scheme was later extended to two other, smaller communities. Even though it has continued to function in these three sites, the Capitated Program's expansion was thereafter halted after an evaluation pointed out that "the Program did not realize its hoped for objectives, the clinic still continued to experience excess demand for ambulatory care, it has not produced the anticipated savings in materials and medicines, nor in referrals to hospitals and specialty physicians and has significantly increased costs" (Sanguinety, 1988: pp.149-150).

4. Family and Community Medicine Program

The most recently initiated alternative model has been a program which is far more traditional and which requires only incremental changes in the operations of an already open and functioning clinic. This program has consisted of changing the focus of medicine as traditionally practiced at the Coronado Clinic by introducing a new emphasis on family and community medicine, and doing so without any changes in the method of remunerating its physicians or other medical care personnel. To date, the Coronado Program has not been evaluated.

5. The Cooperative Clinics with Family and Community Medicine Programs

There are presently two cooperatives to which the Caja, acting in the capacity of a third party payer, has rented equipped facilities and paid an annual stipend with which to implement another alternative model of care. These agreements are with the COOPESALUD and COOPESAIN Cooperatives. The following chapter

presents a detailed case study of the development and implementation, as well as an evaluation of the COOPESALUD Pavas Clinic. That model was initiated in August 1988. More recently, in February 1990, a second application (i.e., replication) of the same model, was begun by COOPESAIN at the Tibas Clinic. In light of the similarity in the design of the two models, the paucity of data available for assessing the COOPESAIN experience (due to its nascent character), and the short duration of this study, the description of this model in the following chapter will focus on Pavas Clinic. To the extent that we learned about differences in the nature, processes, or experiences of the two Cooperatives, we point these out and discuss the possible causes and significance.

G. THE POTENTIAL ROLE OF THE ALTERNATIVE MODELS OF CARE

In light of the Caja's current financial situation and trends, more serious consideration should be paid to reevaluating the potential role of the alternative models of care with which the Caja has been experimenting for several years. Given the increasingly imposing financial constraints confronting the Caja, it would seem judicious to look more closely at the economic performance of the alternative models, as opposed to just the technical aspects of their quality of care, which has often been the focus of evaluations of the models. If one or more of the models appears to be a more cost-effective method by which to provide Caja-financed care, greater consideration should be given to expanding the role of these innovations, by replication or extension, as a means to ease the Caja's growing financial constraint. This study may be construed as a first step in this process. The remainder of this report assesses the desirability and the potential for replicating the cooperative model based on the evolution and performance of the COOPESALUD Pavas Clinic.

CHAPTER II

A CASE STUDY OF THE COOPESALUD PAVAS CLINIC: ORGANIZATIONAL STRUCTURE AND EVOLUTION

A. THE SETTING: THE PAVAS CLINIC SERVICE AREA

The Pavas Clinic building was built in 1987 by the Costa Rican Social Security Fund (Caja Costarricense de Seguro Social, or Caja). The clinic is located in the ninth district of canton number 1 in the province of San Jose. The clinic's health service area is a transitional zone on the periphery of the capital city of San Jose. Even though the area is not particularly large--it has a territorial expanse of 9.3 square kilometers--it is a constellation of contrasting elements. It consists, for example, of an important industrial center, but there is also a coffee plantation within its confines. It is primarily made up of a marginal urban population of the lower middle and lower classes, but also includes two wealthy barrios, one of which includes the residence of the former President of Costa Rica, Oscar Arias.

The population of the area numbers approximately 55,000 and is still growing due to the influx of migrants from smaller towns and rural areas of Costa Rica, as well as immigrants from Nicaragua. The Government continues to construct rows of small, cement block houses to accommodate the new arrivals, further adding to the already high population density of area. While much of the district has fairly easy access to most public services, there are several segments of the most recently settled areas in which electricity, in-house potable water systems, garbage collection and public transportation have yet to penetrate.

B. THE COOPERATIVE STRUCTURE

The negotiations to implement a pilot project which subsequently became COOPESALUD's Pavas Clinic Project began in 1985. The original Cooperative had 25 members. Costa Rican law delineates detailed requirements for the structure and operating procedures of a cooperative.

Of the 173 persons working at the Pavas Clinic, 156 are members of the COOPESALUD Cooperative. COOPESALUD, like all cooperatives in Costa Rica, has a General Assembly which is comprised of all members of the cooperative. By law, the General Assembly must meet at least once a year. COOPESALUD's General Assembly is reported to meet more frequently, at somewhat irregular intervals of roughly once every 3 to 5 months. The General Assembly convenes to be apprised of the status of the cooperative as well as to vote on matters of broad policy. Most recently, for instance, the General Assembly voted to reallocate monies which had been set aside to celebrate the third anniversary of the opening of the Pavas Clinic to provide additional monies for staff training.

The day-to-day operations of the Cooperative and the Clinic are primarily managed by the Administrative Council. The Council is comprised of 5 representatives and 2 alternates, all of whom are members of the Cooperative working at the Clinic. The general perception of many of the members of the Cooperative is that

most of the major decisions involved in running the Cooperative are made by the Council and that its membership is restricted to the founding members of the Coop.

The Administrative Council generally meets once a month. While the Council initiates most major decisions, it generally must obtain the consent of the General Assembly. This is the case, for instance, in firing personnel, Cooperative members or otherwise. Although the Council can advise that a particular employee be fired, it is the General Assembly's vote that determines whether or not the act will actually be carried out. In this, as in other broad policy matters, the General Assembly determines the fundamental framework within which the Coop functions. By establishing the Cooperative's general internal rules and regulations, the General Assembly sets the broad parameters within which the Coop much function, and, thereby, plays an important role in determining the potential efficiency and effectiveness of the Clinic.

Despite the various legal stipulations which require that all cooperatives, including COOPESALUD, be governed in a generally participatory manner, the general perception one develops from conversations with staff is that some members of the Cooperative (namely the founding members and, in particular, the Administrator) are "more equal" than others, and that they wield greater authority in shaping the rules and policies of the Coop. In short, there exists a hierarchy within the Cooperative, and the Administrator is able to exercise considerable discretion, particularly in day-to-day managerial matters, as well as in initiating changes in more general policies.

As noted earlier, one of the motivations for pursuing the development of the Caja's alternative models within the cooperative structure, according to the former Executive Director of the Caja, Dr. Guido Miranda, was to insulate the new organizations against unions. In a cooperative, all workers are members and thus participate in management decisions. Individuals who are members of a cooperative and work for the cooperative (i.e., themselves), so the argument goes, will neither want nor need to develop unions. However, the size of COOPESALUD, the manner in which it has historically evolved, and its hierarchical structure have apparently led to a rift between theory and practice. It is reported that there is talk among some of the Pavas Clinic staff about unionizing, and the Administrator expresses growing concern about the possibility of having to deal with unions within the Clinic.

As already discussed, cooperatives are highly regulated in Costa Rica and have specific restrictions as to how they may use any annual financial surplus in carrying out their activities. COOPESALUD is a member of the Institute for Cooperative Development (INFOCO) and is required to devote at least 30 percent of such surplus to improving the quality, or widening the range, of the services provided and to retain at least 10 percent as working capital, leaving at most 60 percent which may be distributed among the Coop's members. While pointing out that COOPESALUD's financial records are in the public domain, the Clinic Administrator notes that the Coop's accumulation of a surplus has sparked off considerable controversy about, and ill-will toward, the Coop by persons who regard the surplus as unseemly. As a result, minimizing apparent surpluses has become part of COOPESALUD's financial strategy.

C. THE FOUNDING AND EVOLUTION OF THE CLINIC

The original Caja agreement with COOPESALUD to run the Pavas Clinic set out a time-limited, two-year

experiment. But while the term "project" and "model" continue to be used to describe the arrangement, the attitude within the Caja is that this operation, like all of the existing alternative models is of a permanent nature.

1. The Financial Agreements and Realities

a. The Caja

The initial two-year agreement between the Caja and COOPESALUD called for the Caja to pay the Cooperative 2,600 colones (about US\$33) annually for each Caja-insured resident in the service area of the Clinic. This figure is the Caja's estimated annual average expenditure per insured beneficiary of its Sickness and Maternity Health Program. In 1988, the Social Security Institute estimated that 90 percent of the population within the Pavas' service area were Caja-insured. With the population of the Clinic's service area estimated at 48,858 in 1988, COOPESALUD's annual payment from the Caja for 1988 and 1989 came to about US\$1.4 million. The Coop has been paid in monthly installments, although since the expiration of the first two-year contract, this sum has been subject to annual negotiations.

In the first year of operations, 1988, the Clinic began providing care on September 1, and the Caja prorated its annual contribution. It also established the COOPESALUD fiscal year as running from October 1 to September 30. It is important to note that the COOPESALUD fiscal year is distinct from that of either the Caja or the Ministry of Health, both of which have a fiscal year which coincides with the calendar year. COOPESALUD's different fiscal year has caused considerable confusion to analysts who have not always identified whether their reported annual financial and service production statistics have been based on the calendar year or COOPESALUD's fiscal year. Perhaps unaware of the different time periods involved, or simply forgetting them, it appears that some analyses have been based on fiscal year financial data combined with calendar year service production statistics.

In fiscal year 1990, COOPESALUD received an increase in its annual appropriation. After a long, arduous negotiation process, the Caja agreed to recognize that the Clinic's service area population was 55,635 and that 96 percent of the population was Caja-insured. At the same time, it increased the per capita reimbursement rate to 2,760 colones. These changes resulted in COOPESALUD's 1990 subvention increasing 29 percent in nominal terms and, in real terms, 14.4 percent. A new approach to determining the level of financial assistance from the Caja to COOPESALUD was established in June of 1991, and will become effective in fiscal year 1992. Documentation of that scheme is presented in Annex A.

b. The Ministry of Health

For its part, the Ministry of Health (MOH) agreed to pay COOPESALUD a fixed monthly sum of 1,375,000 colones. The Ministry, however, did not pay the Cooperative any portion of this agreed-upon quota, until September of 1990, more than two years after the Clinic began operations. At that time it paid COOPESALUD the equivalent of a single year's quota over a five month period and has not paid the Coop anything since then.

EXHIBIT 4

THE FINANCING OF THE COOPESALUD CLINIC AT PAVAS

(Monthly Installments)

1988-1989:	Caja:	2,600 COLONES/INSURED INHABITANT (90% OF POPULATION)
	MOH:	1,375,000 COLONES
1990:	Caja:	2,790 COLONES/INSURED INHABITANT (90% OF POPULATION)
	MOH:	1,375,000 COLONES
1991:	Caja:	2,790 COLONES/INSURED INHABITANT (96% OF POPULATION)
	MOH:	1,375,000 COLONES

c. COOPESALUD's Decision Not to Impose User Fees

Although the Caja does have a fee structure for uninsured persons and the MOH has a system of voluntary contributions for a relatively small number of specific services, COOPESALUD has decided that in the interest of maintaining equity in access to all services that it would not continue these practices. Therefore, the Pavas Clinic does not have any user fees.

2. The Caja Building and Equipment

As already noted, the Pavas Clinic building was constructed in 1987. It consists of 20 examining rooms, administrative offices, a kitchen, a laboratory, a pharmacy and an auditorium, together covering 4,750 square meters and occupying a plot of land covering 14,000 square meters. It is an attractive and modern facility, consisting primarily of poured concrete.

COOPESALUD actually began working in the Pavas Clinic two months before its agreement with the Caja was signed. Initially a substantial portion of the furniture and equipment which the Caja and the Ministry of Health had agreed would be loaned to the Cooperative was not physically located in the facility. The construction of the building had just been completed the previous year, and a substantial portion of the furniture and equipment assigned to the Pavas Clinic (Dr. Marin estimates about 50 percent) remained in warehouses, in other clinics, or had yet to be purchased. In the two months prior to signing the agreement with the Caja and for two months after the signing, members of the Cooperative worked organizing the facility, locating and setting up equipment, identifying medical supply and drug needs and ordering them, and inventorying equipment and supplies.

A feasibility assessment document dated March 1987 identifies the following valuations for various aspects of

the in-kind support provided to the COOPESALUD Pavas Clinic:

	Current Colones
Value of the (unimproved) land the clinic is situated on:	35,000,000
Value of the patios and parking lots:	9,750,000
Value of gardens, trees, bushes and improved lawn:	1,200,000
Value of buildings:	90,349,000
Value of furniture and equipment:	15,857,000
TOTAL:	152,156,000

The total value, converted at the 1988 average exchange rate of 75.6 colones to US\$1.00, was the equivalent of approximately US\$2 million. The document further disaggregates the value of furniture and equipment as:

Value of office furniture and equipment:	2,575,920
Value of medical and laboratory equipment:	13,144,826
Value of transportation equipment:	71,637
Value of educational and recreational equipment:	41,292
Value of repair shop machinery and equipment:	23,358

	15,857,033

After the signing of the agreement between COOPESALUD and the Caja in 1988, the Cooperative paid a symbolic, one-time rental fee of 2,000 colones (approximately US\$25) to the Caja for the use of these resources. The furniture, equipment, materials and buildings remain the property of the Social Security Institute. According to the Administrator of the Clinic, the Caja was supposed to assume responsibility for the maintenance of the equipment, but has not done so. COOPESALUD has found it necessary to contract with a private firm to maintain all equipment.

COOPESALUD also found it necessary to invest approximately 6.5 million colones of its own money on additional equipment (approximately US\$55,000, or 30 percent of the total value of furniture and equipment) which, according to the Administrator, it felt was essential to adequately equip the facility.

3. Staffing

Most of the members of COOPESALUD are either former or current employees of the Ministry of Health or, more commonly, of the Caja. A few people, particularly physicians, work part-time at Pavas and part-time at a Caja-administered facility. Another group works full-time at the Pavas Clinic, although they are technically still employees of the Caja. These persons are on an unpaid leave of absence while they "try out" working in this new organization. However, since the tenure of most of the people working at Pavas dates from 1988 or 1989, and the Caja will grant an unpaid leave of absence for at most two years, most individuals who have taken advantage of this "no-risk" arrangement for "trying out" Pavas have now had to formally split with the Social Security Institute or return to it full-time. Most have elected to stay with Pavas. Moreover, the turnover of personnel at Pavas is reported to have been very low since its inception.

The staff identify several reasons why they have found working at Pavas appealing and rewarding. Principal among these are higher pay, the more personal administrative structure, and the satisfaction of having some say in how the Clinic is administered. Even the casual visitor to Pavas will notice that members of the staff are very young, personable and pleasant. Although the Administrator explained that with a low staff turnover there has been no need to formally develop and delineate explicit personnel selection criterion, he also noted that technical competence has to date only been part of the COOPESALUD hiring process. In addition to administering an examination which tests the applicant's technical knowledge, at least as important a part of the personnel selection process is a personal interview, and, during the first few weeks of tenure of a new employee, observation of him/her on the job.

An applicant's philosophy of medicine, particularly his/her interest in practicing holistic health care and in promoting preventive care is another important factor, and one that enters the personnel hiring process in two different ways. First, this is clearly the preference of the Administrator and the COOPESALUD model of health care; they look for individuals with similar interests and commitments. Second, it is likely that individuals who share these preferences and commitments self-select and apply to work with COOPESALUD. The low personnel turnover is probably a good indicator that staff expectations coincide closely with their actual experiences, and, as a result, staff satisfaction is high.

Another important factor differentiating COOPESALUD staff from Caja staff is that they are generally paid more. Despite the fact that the Coop has generally maintained the relative salary structure of the Caja, a comparison of the salary levels of COOPESALUD and Caja staff is not a straightforward undertaking. This is because a significant proportion of the remuneration in both organizations, especially that of physicians, is dependent upon the individual's years of service with the organization, (the *annualidad*) and, to a lesser extent, the specific conditions in which he/she works. This probably accounts for why one commonly hears that the relative wages of the average Caja and average COOPESALUD worker vary from 0 to 15 percent, with COOPESALUD members always being regarded as receiving the higher salary. In part, the outcome of any comparison often depends on the number of years of service assumed. Younger individuals are likely to earn more working with COOPESALUD, but as the number of years of service increases, the *annualidad* increases and is likely to push the total salary level of a Caja employee above that of a member of the Cooperative. Annex 2 contains a comparison of COOPESALUD and Caja salaries for equivalent positions with one year of

service and after 10 years of service.¹ After one year of service COOPESALUD salaries average about 10 percent greater than those of the Caja, although there are 6 of the 27 positions which have lower salaries. After 10 years of service to their respective organizations, however, as the Caja's relatively larger anualidad takes on proportionately greater weight in determining the total reimbursement level, the Cooperative maintains a higher level for only 11 of the 27 positions. (As already noted, COOPESALUD members are also eligible to receive a portion of any excess revenues which the Coop might accumulate over the course of the fiscal year. These disbursements are not included in these figures.)

As may be seen in Exhibit 5, the number and mix of COOPESALUD personnel are, with a few important exceptions, very similar to other Type 4 Clinics. The exceptions are the number of auxiliary technicians, general service workers and, most strikingly, administrative staff. The Coop's use of auxiliary technicians is greater primarily due to its use of community health technicians who are one of the 4 members of the EBAI staffing the health posts. There is no such position in traditional Caja clinics.

The largest absolute and relative difference between the staffing patterns of the Pavas Clinic and the typical Type 4 Clinic is in the number of people dedicated to administration. The average Type 4 Clinic has an administrative staff that is 40 percent larger than that of COOPESALUD. This is probably a reflection of the excessive division of labor imposed on the Caja by the 22 labor unions into which its workers are organized. The fact that the Pavas Clinic requires fewer administrators and has substituted other types of personnel who contribute more directly to the provision of additional health care services, as well as to maintaining a better organized and more efficiently functioning clinic, has contributed to the higher level of productivity of Pavas, which, in turn, has contributed to its lower unit cost of providing a medical consultation.

D. THE COOPESALUD MODEL OF HEALTH CARE

In contrast to the passive, curative care model characterizing Caja service delivery, the COOPESALUD health care model is based on an outgoing, proactive approach of monitoring the health status of the community and bringing family and community health services to the people. COOPESALUD also performs the functions of the Caja service delivery system as a passive, curative care provider, but its philosophy propels it to get much more involved in prevention and health promotion.

1. Philosophy

The philosophy of the Cooperative concerning its role and its place in the community is one characterized by a long-term perspective of a type of partnership in maintaining the health status of the community, but a partnership in which it is specifically charged with being the chief custodian of health. The Cooperative, it is explained, is paid for taking care of the health of its assigned population, rather than for any specific medical act. The view is that the Cooperative must attain an equilibrium between the economic interests of the organization and the social goal of the public service that it provides. If, it is maintained, the Cooperative does not provide efficient and effective services, and does not develop an integrated model of care that has a

¹ These comparisons are derived using an algorithm developed by Luis Mario Carvajal of the CCSS for another study. We thank Sr. Carvajal for sharing his Lotus files with us so that we could undertake this analysis.

EXHIBIT 5

NUMBER OF PERSONNEL BY TYPE IN 1990

Clinic	Total	Doctors	Nurses	Other Profess.	Total Profess.	Auxiliary Techn.	General Services	Admin.
C. Duran	175	24	2	12	38	57	22	58
Jimenez N.	165	26	2	10	38	56	22	49
Moreno C.	197	29	3	12	44	66	22	65
C. Picado	203	35	2	12	49	56	28	70
M. Bolaños	117	22	3	7	32	23	20	42
M. Fallas	197	34	5	11	50	52	30	65
S. Nuñez	189	33	4	9	46	61	23	59
M. Rodriguez	275	29	4	9	42	86	40	107
Coronado	157	25	4	11	40	48	13	56
Pavas	174	28	3	12	43	58	32	41

PERCENT DISTRIBUTION OF PERSONNEL BY TYPE IN 1990

Clinic	Total	Doctors	Nurses	Other Profess.	Total Profess.	Auxiliary Techn.	General Services	Admin.
C. Duran	100	16	1	6	23	34	13	30
Jimenez N.	100	15	2	6	22	34	11	33
Moreno C.	100	17	1	6	24	28	14	34
C. Picado	100	19	3	6	27	20	17	36
M. Bolaños	100	17	3	6	25	26	15	33
M. Fallas	100	17	2	5	24	32	12	31
S. Nuñez	100	11	1	3	15	31	15	39
M. Rodriguez	100	16	2	7	25	33	18	24
Coronado	100	16	3	7	25	31	8	36
Pavas	100	16	2	7	25	33	18	24
Average for Other Type 4 Clinics	100	16	2	6	24	30	13	34

Source: Caja Costarricense del Seguro Social: Anuario Estadístico 1990.

perceptible impact on health status, then it will lose the favor and support of its users, and will compromise its future resources because it will confront increased demand for care from a less healthy population.

This philosophical view of the role of the Cooperative is well inculcated in members working in diverse capacities throughout the Cooperative. It was frequently cited by Cooperative members when they were queried as to what the motivation of the Clinic is for various aspects of its mode of organization, mix of services, or service delivery approach. Medical records personnel, for instance, cited this philosophy as the motivation and justification for the manner in which they maintained medical records organized by geographic area within the Clinic's overall health service area. Administrative personnel working in patient in-take, appointments and scheduling, also noted it as they explained (a) why patients were assigned to the primary physician in charge of the specific geographic area of the clinic in which the patient resided, as well as (b) why they accepted pre-scheduled visits for pregnant women, persons with chronic conditions and the elderly. This philosophy appears to be the foundation of a spirit of community partnership and community service that is characteristic of many of the members of the Cooperative.

2. The Silos Model and Community Participation

EBAIs (Establecimientos Básicos de Atención Integrada) are built on the Pan American Health Organization model of Sistemas Locales de Salud (SILOS). Four of the 6 health posts housing the EBAIs are rented, one of the facilities is provided by the community and one was built by the community. Although the concept of EBAIs was included in the original project design and the formal agreements with both the Caja and the MOH, no minimal required number of such facilities was mentioned. COOPESALUD physicians permanently assigned to EBAIs receive a 5 percent wage differential.

The first EBAI was established in October 1988. Since then five new EBAIs have been developed and their facilities have opened at irregular intervals in response to a combination of considerations. In part, the EBAI concept has come to be a more cost-effective way of providing care, especially primary health care and preventive services. When the Pavas Clinic first opened it was greeted with great enthusiasm from the surrounding community. Long lines very quickly became the norm. In part, this was due to the fact that prior to its opening an estimated one quarter of the Clinic's service population was without access to care. The pent up demand of this component of the population, together with the elimination of all user fees and the increased physical proximity of a source of care all contributed to the long lines.

Confronted with long lines, not wanting to begin the practice of refusing to see patients seeking care -- a practice common to the rest of Caja facilities -- and petitioned by representatives of other neighborhoods to establish a health post in their barrio, the Administrative Council of COOPESALUD soon decided to open additional facilities. Three months after opening the first EBAI, the second one opened, in January of 1989. Thereafter every five or six months an additional EBAI-staffed health post has been opened by COOPESALUD in the Pavas Clinic service area. The most recent one -- number 6 -- was scheduled to open in September or October of 1991.

An EBAI consists of, at minimum, four persons, a physician (who is a general practitioner), a part-time nurse auxiliary, a community health technician and a receptionist. The EBAI is responsible for developing and carrying out the program of activities for its community, but also draws on other resources of COOPESALUD

in carrying out its activities. The integration and coordination of an EBAI and the main Clinic is most readily evident in the division of labor. While the five EBAs provide between 35 and 40 percent of all of the consultations provided by COOPESALUD, they refer cases in need of more specialized attention, as well as those requiring lab work or x-rays to the Pavas Clinic. In effect, the EBAs serve as front-line actors for the Pavas Clinic.

Following the SILOS model, to date, each EBAI has begun its operations by providing curative care and performing a diagnosis of the community. They map out the area under their charge, which generally includes between 3,500 and 4,000 persons, and continually update these general frames of reference. The EBAs visited during this consultancy had maps on their walls which contained different color pins identifying particular types of chronic illnesses and other noteworthy health conditions (e.g., pregnancy) of the inhabitants of each house. A random selection of records from the files of the community health technician found detailed profiles of the current health status, including vaccinations and the reasons for curative care visits, all reported on a form developed and used by the MOH in its Community Health Program. One EBAI physician who was interviewed during this consultancy reported making a minimum of 10-12 house calls per day. The EBAI, and most notably the community health technician, actively monitors the health status of the denizens of his/her barrio and ensures that people in need of curative or preventive care are obtaining it. This model stands in sharp contrast to the Caja model which is structured around the clinic where patients must be present if they are to receive attention.

Within the Pavas Clinic service area, there are 10 development associations, 8 health committees, and 12 committees and groups of volunteers with which the Clinic, and particularly the EBAs, work and coordinate activities. The EBAs work with these community groups in developing their annual plans of activities, in identifying and addressing new health problems and health needs as they arise, and in coordinating with various non-governmental organizations working in the sector. Members of the Cooperative also make regular presentations at the schools in its service area.

It was through these more formal mechanisms of community participation that the Pavas Clinic was petitioned to improve access to dental care. COOPESALUD responded by developing a mobile dental service which is based in a trailer which the Coop designed and had built expressly for this purpose.

E. COOPESALUD'S ADMINISTRATION

For the most part, the Cooperative has simply adopted the administrative systems of the Social Security system, which most of its personnel are familiar with, since most are former Social Security employees. COOPESALUD's small computer network is focused almost exclusively on administrative aspects of the system, specifically financial accounting and personnel. There have, however, been some innovations in administrative procedures such as the development of an electronic inventory valuation and control system, the pharmacy's daily log of the stock and flow of 30 items which comprise 70 percent of the total value of drugs dispensed at the Pavas Clinic, and an electronic patient registry file which eases what was formerly a lengthy registration procedure with long waiting lines.

The Cooperative has not introduced fundamental changes in either the composition of personnel nor in the structure of its personnel system. In fact, it utilizes the Caja's own personnel manuals and has even maintained the Caja's job descriptions. It has also basically maintained the same titles and the same proportionate scale of remuneration of its workers (with the difference that Coop members have the opportunity to earn a share of any revenue excesses that might be left at the end of the year).

COOPESALUD's agreements with the Caja and the MOH entitle it to purchase supplies directly from either the Ministry or the Caja at cost plus a 15 percent markup to cover administrative expenses. Since its founding, the Coop has purchased 90-95 percent of the value of its supplies from the Caja although frequently it is cheaper to buy some items in the private sector.

Until January of 1991, the Coop's financial system consisted simply of income and expenditures accounts, without any cost centers. Under pressure from the Caja, COOPESALUD has introduced a system using the same cost centers the Caja has used for more than a decade. In June, the Caja issued a decree which requires the Coop to adopt the Caja's methodology in assigning costs to the different cost centers by 1991.

Starting in 1990, COOPESALUD began programming its service goals on an experimental basis. The system consisted of making estimates of the expected level of service provision for each of a number of different types of activities broken down by type of clientele (maternity, infants, adolescents, adults less than 60, and adults older than 60). The programming is performed by each of the individual EBAs as well as central clinic personnel. The program plans of these distinct entities is then aggregated to generate the Coop's annual plan.

The portion of the draft programming guide for developing and recording the estimates of service production also contains a page in which human resource requirements for each type of activity are to be recorded. To date, this portion of the guide has not been used. The Administrator of the Clinic maintains that the Cooperative has not undertaken this activity to date because it needed to develop some baseline service provision data before it could plan input requirements with any acceptable degree of certainty: it simply was not worth the effort to plan resource needs before this time.

It warrants pointing out that the members of COOPESALUD have had to invest or otherwise risk almost none of their own money in this venture, and that the level of support provided by the Caja -- which is invariant with respect to the level of performance of the Cooperative -- has apparently been more than adequate. After all, the MOH has actually provided less than one-third of the money it pledged. Had these conditions been otherwise, the value of this resource planning activity -- and that of other cost-monitoring administrative procedures, as well -- might have been more appreciated and more urgently felt before this time, and, as a result, more developed today.

CHAPTER III

A PROVISIONAL PERFORMANCE ASSESSMENT OF THE COOPESALUD PAVAS CLINIC: TOTAL SERVICE PROVISION, SERVICE DELIVERY MIX, AND COSTS²

In this chapter we present an assessment of the COOPESALUD Pavas Clinic, comparing it with other CCSS clinics of the same size and staffing patterns, i.e., other Type 4 Clinics. In light of the short duration of this study, the evaluation presented here should be regarded as a provisional, rather than a definitive, assessment.

A. TOTAL SERVICE PROVISION

Pavas accounts for a growing share of total Type 4 Clinic consultations. Pavas began operations in mid-year 1988 and provided consultations for only the last 4 months of the year. It is hardly surprising then to note that its level of total service provision increased dramatically the following year, when they posted a jump of more than 80 percent. Even if we annualize the partial first year's total consultations, however, the increase between 1988 and 1989 remains a very high 42 percent. Furthermore, in 1990, when total Type 4 Clinics' consultations grew by less than 2 percent, Pavas reported an increase of 11.4 percent.

It is interesting to note that it was in 1990 that a new Type 4 Clinic, Tibas, was introduced. The fact that there was almost no growth in total service provision that year suggests that the pattern of coverage rather than total Caja system coverage changed. (This needs to be examined more closely comparing the service provision record of the clinics that previously served the Tibas region.)

In terms of the absolute number of consultations provided, in 1990 Favas exceeded the Type 4 Clinic average by 32 percent, though it was not the largest producer of consultations. Solon Nunez had a near exact equivalent number of consultations and Marcial Rodriguez and Marcial Fallas both provided about 10 percent more.

B. SERVICE CONCENTRATION

Pavas provides more consultations per person to persons who have visited the clinic at least once; i.e., its concentration of services is higher. If the clinic's 1988 service provision data are annualized by simple extrapolation, that year Pavas had roughly the same level of concentration of services. In 1989, however, the number of consultations per person consultation was nearly double that of the Type 4 Clinic average, and in 1990 continued to increase both absolutely and relatively, although at a much reduced pace.

In part, Pavas' higher concentration ratio reflects the fact that the size of its service population is only about one-half that of the Type 4 Clinic average. Its higher concentration ratio is also a reflection of its relatively greater emphasis on, and provision of, preventive care. For instance, Pavas programs 9 prenatal care visits

² Unless otherwise stated, all data cited in this chapter are from the Anuario Estadístico, Caja Costarricense de Seguro Social, Presidencia Ejecutiva, Dirección Actuarial y de Planificación Económica, 1988, 1989, 1990.

EXTERNA CONSULTAS Y URGENCIAS

1990

	MEDICINA GENERAL	ESPECIALIDADES	MED. TOTAL	ODONTO- LOGICAS	OTRAS PROFS.
JIMENEZ NUNEZ	97264	46624	143888	13320	5555
CLORITO PICADO	68835	43759	112594	11960	4265
MARCIAL RODRIGUEZ	90089	94182	184271	11766	18609
FRANCISCO BOLANOS	70372	6989	77361	19028	553
CORONADO	72084	12539	84623	17359	1385
PAVAS	90196	46801	136997	27041	733
CARLOS DURAN	75063	49967	125030	13369	8344
MORENO CANAS	70205	57860	128065	23428	8081
MARCIAL FALLAS	86707	66809	153516	16413	10313
SOLON NUNEZ	112613	47225	159838	14030	7763
SAN RAFAEL-PUNT.	46402	10567	56969	6702	2849
TIBAS	50207	6839	57046	10313	24
TOTAL:	930037	490161	1420198	184729	67974

	TOTAL CONSULTA EXTERNA	URGENCIAS	TOTAL DE CONSULTAS
JIMENEZ NUNEZ	162763	1607	164370
CLORITO PICADO	128819	507	129326
MARCIAL RODRIGUEZ	214646	0	214646
FRANCISCO BOLANOS	96942	0	96942
CORONADO	103367	10016	113383
PAVAS	164271	32035	196306
CARLOS DURAN	146743	9598	156341
MORENO CANAS	159574	0	159574
MARCIAL FALLAS	180242	38326	218568
SOLON NUNEZ	181631	17994	199625
SAN RAFAEL-PUNT.	66520	5324	71844
TIBAS	67383	4425	71808
TOTAL:	1672901	119832	1792733

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EXTERNA CONSULTAS Y URGENCIAS

1989

	MEDICINA GENERAL	ESPECIALIDADES	MED. TOTAL	ODONTO- LOGICAS	OTRAS PROFS.
JIMENEZ NUNEZ	82658	49491	132149	12268	5866
CLORITO PICADO	80918	55181	136099	13551	8351
MARCIAL RODRIGUEZ	90987	96269	187256	10420	14958
FRANCISCO BOLANOS	87672	4719	92391	18511	46
CORONADO	69496	11500	80996	17912	502
PAVAS	82287	47028	124315	22065	2229
CARLOS DURAN	82431	47066	129497	13626	8298
MORENO CANAS	72249	60651	132900	22832	7226
MARCIAL FALLAS	88250	70295	158545	16229	13784
SOLON NUNEZ	104435	49508	153943	13082	6558
SAN RAFAEL-PUNT.	64764	11085	75849	6446	6570
TOTAL:	906147	497793	1403940	166942	74388

	TOTAL CONSULTA EXTERNA	URGENCIAS	TOTAL DE CONSULTAS
JIMENEZ NUNEZ	150283	8424	158707
CLORITO PICADO	158001	288	158289
MARCIAL RODRIGUEZ	212634	0	212634
FRANCISCO BOLANOS	110948	0	110948
CORONADO	99410	7645	107055
PAVAS	148609	27325	175934
CARLOS DURAN	151421	9581	161002
MORENO CANAS	162958	0	162958
MARCIAL FALLAS	188558	41844	230402
SOLON NUNEZ	173583	19948	193531
SAN RAFAEL-PUNT.	88865	5154	95019
TOTAL:	1645270	121209	1766479

FUENTE: Anuario Estadístico, CCSS.

EXTERNA CONSULTAS Y URGENCIAS

1988

	MEDICINA GENERAL	ESPECIALIDADES	MED. TOTAL	ODONTO- LOGICAS	OTRAS PROFS.
JIMENEZ NUNEZ	88076	44769	132845	14639	8940
CLORITO PICADO	89396	58375	147771	13488	10775
MARCIAL RODRIGUEZ	96165	95911	192076	11653	19541
FRANCISCO BOLANOS	95245	4979	100224	17437	0
CORONADO	30810	1735	32545	5435	66
PAVAS	20072	6717	26789	4029	0
CARLOS DURAN	89969	49066	139035	14403	8849
MORENO CANAS	80794	64548	145342	21514	8146
MARCIAL FALLAS	104777	59960	164737	16027	12741
SOLON NUNEZ	119465	43015	162480	13154	6683
SAN RAFAEL-PUNT.	67208	9547	76755	6491	8518
TOTAL:	881977	438622	1320599	138270	84259

	TOTAL CONSULTA EXTERNA	URGENCIAS	TOTAL DE CONSULTA
JIMENEZ NUNEZ	156424	17186	173610
CLORITO PICADO	172034	161	172195
MARCIAL RODRIGUEZ	223270	0	223270
FRANCISCO BOLANOS	117661	0	117661
CORONADO	38046	3150	41196
PAVAS	30818	3215	34033
CARLOS DURAN	193505	38474	231979
MORENO CANAS	182317	23446	205763
MARCIAL FALLAS	91764	5834	97598
SOLON NUNEZ	162287	9456	171743
SAN RAFAEL-PUNT.	175002	0	175002
TOTAL:	1543128	100922	1644050

FUENTE: Anuario Estadístico, CCSS.

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**EXTERNA CONSULTAS Y URGENCIAS
LA DISTRIBUCION POR CLINICA**

	MEDICINA GENERAL	ESPECIALIDADES	ODONTO- LOGICAS	OTRAS PROF'LES	TOTAL CONSULTA EXTERNA	URG- ENCIAS	TOTAL DE CNSLTAS
1990							
JIMENEZ NUNEZ	10	10	7	8	10	1	9
CLORITO PICADO	7	9	6	6	8	0	7
MARCIAL RODRIGUEZ	10	19	6	27	13	0	12
FRANCISCO BOLANOS	8	1	10	1	6	0	5
CCRONADO	8	3	9	2	6	8	6
PAVAS	10	10	15	0	10	27	11
CARLOS DURAN	8	10	7	12	9	8	9
MORENO CANAS	8	12	13	12	10	0	9
MARCIAL FALLAS	9	14	9	15	11	32	12
SOLON NUNEZ	12	10	8	11	11	15	11
SAN RAFAEL-PUNT.	5	2	4	4	4	1	4
TIBAS	5	1	6	0	4	4	4
TOTAL:	100	100	100	100	100	100	100
1989							
JIMENEZ NUNEZ	9	10	7	8	9	7	9
CLORITO PICADO	9	11	8	11	10	0	9
MARCIAL RODRIGUEZ	10	19	6	20	13	0	12
FRANCISCO BOLANOS	10	1	11	0	7	0	6
CORONADO	8	2	11	1	6	6	6
PAVAS	9	8	13	3	9	23	10
CARLOS DURAN	9	9	8	11	9	8	9
MORENO CANAS	8	12	14	10	10	0	9
MARCIAL FALLAS	10	14	10	19	11	35	13
SOLON NUNEZ	12	10	8	9	11	16	11
SAN RAFAEL-PUNT.	7	2	4	9	5	5	5
TOTAL:	100	100	100	100	100	100	100
1988							
JIMENEZ NUNEZ	10	10	11	11	10	17	11
CLORITO PICADO	10	13	10	13	11	0	10
MARCIAL RODRIGUEZ	11	22	8	23	14	0	14
FRANCISCO BOLANOS	11	1	13	0	8	0	7
CORONADO	3	0	4	0	2	3	3
PAVAS	2	2	3	0	2	3	2
CARLOS DURAN	10	11	10	11	11	9	10
MORENO CANAS	9	15	16	10	11	0	11
MARCIAL FALLAS	12	14	12	15	13	38	14
SOLON NUNEZ	14	10	10	8	12	23	13
SAN RAFAEL-PUNT.	8	2	5	10	6	6	6
TOTAL:	100	100	100	100	100	100	100

FUENTE:

FUENTE: Calculado en base de los otros cuadros.

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PRODUCTIVIDAD ACTUAL DE MEDICOS

	HORAS CONTRA- TADAS	CONSUL- TAS POR HORA	CONSULTAS POR DIA
1990			
JIMENEZ NUNEZ	38126	3.7	542.9
CLORITO PICADO	35372	3.1	417
MARCIAL RODRIGUEZ	49973	3.6	677.4
FRANCISCO BOLANOS	20602	3.7	288.6
CORONADO	25744	3.2	316.9
PAVAS	36891	3.7	556.9
CARLOS DURAN	33917	3.6	468.2
MORENO CANAS	36157	3.5	476
MARCIAL FALLAS	38357	3	568.5
SOLON NUNEZ	41110	3.8	594.1
SAN RAFAEL-PUNT.	13755	4.1	213.3
TIBAS	27377	2	303.4
PROMEDIO:		3.4	451.9
1989			
JIMENEZ NUNEZ	37279	3.54	491.26
CLORITO PICADO	37983	3.58	504.07
MARCIAL RODRIGUEZ	49716	3.77	690.98
FRANCISCO BOLANOS	22590	4.09	339.67
CORONADO	27591	2.94	299.99
PAVAS	32123	3.87	465.6
CARLOS DURAN	33904	3.82	479.62
MORENO CANAS	38261	3.46	492.22
MARCIAL FALLAS	38936	4.07	587.57
SOLON NUNEZ	40389	3.81	570.16
SAN RAFAEL-PUNT.	17707	4.28	278.86
PROMEDIO:		3.7	472.7
1988			
JIMENEZ NUNEZ	34675	3.83	490.2
CLORITO PICADO	39979	3.7	545.28
MARCIAL RODRIGUEZ	49851	3.85	703.58
FRANCISCO BOLANOS	24369	4.11	367.12
CORONADO	10911	2.98	242.87
PAVAS	7454	3.59	297.66
CARLOS DURAN	34341	4.05	513.04
MORENO CANAS	38867	3.74	536.32
MARCIAL FALLAS	41350	3.96	604.2
SOLON NUNEZ	39206	4.14	599.56
SAN RAFAEL-PUNT.	17584	4.37	280.13
PROMEDIO:		3.8	470.9

FUENTE: Anuario Estadístico, CCSS.

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for pregnant women, and has a significantly higher level of coverage of pregnant women relative to the Caja-operated facilities. In a study conducted in November 1990 by the Seccion de Invetigacion de Servicios de Salud in which roughly 700 patients were randomly interviewed in Pavas and two matched control clinics (Moreno Canas and Solón Nuñez), 28 percent of Pavas' consultations were identified as preventive care. This contrasted sharply with the 2 to 3 percent of total consultations provided at the control clinics which were preventive ("Estudio Acerca de la Administración y la Utilización de Servicios de Salud en la Clínica de Pavas," page 24, 1990).

Since its first year in operation, Pavas has greatly surpassed the Type 4 Clinic average number of consultations for persons with at least one consultation. In 1988 and 1989 Pavas average concentration ratio exceeded the Type 4 clinic by about 80 percent each year. In 1990 this proportion jumped to 247 percent; while the Type 4 Clinics, on average, provided 3.34 consultations per persons with at least one previous visit, Pavas provided 8.25.

Although there is no Pavas Clinic data on the cost of first visits relative to subsequent visits, studies performed in other countries have found that first visits are relatively more expensive to provide. A first-time patient requires additional "work-up" procedures for the physician to become adequately familiar with the patients. This is likely to involve more physician time and more ancillary services, both of which drive up costs.

There are two countervailing tendencies with respect to the impact of first visits on costs and the Pavas philosophy and process of care. On the one hand, the holistic approach to medicine practiced by Coopesalud means that when an unfamiliar person comes for service, it will probably require the Coopesalud physician longer relative to a CCSS provider to become familiar with the case because, in addition to the physical ailments, the Coopesalud physician is more likely to solicit information about the patient's environment. Thus the Coopesalud physician's approach to medicine is likely to mean higher costs for a given patient's first consultation.

On the other hand, because Pavas permanently assigns its physicians to particular geographic areas so that they can become more familiar with the environment in which their patients reside, it is likely that these first visits are not as expensive to produce as they might be in absence of such a policy.

It is also important to note that the assignment of physicians to particular neighborhoods is a desirable practice because it provides greater continuity of care for patients. Not only does the physician become more knowledgeable about his/her patient's environment, but he/she also becomes much more familiar with individual patients. This type of continuity of care is regarded as one of the most important process indicators of the quality of care. Furthermore, the high level of utilization of persons who have visited the clinic at least once is manifest of their satisfaction with and confidence in their Pavas provider. While Pavas patients can request another physician if they find the one they are assigned to unacceptable, this has only very rarely happened.

C. PHYSICIAN PRODUCTIVITY

Pavas has steadily increased its number of physicians as well as its contracted number of physician hours. In 1990 alone, contracted physician hours increased by 14 percent. At the same time, physician productivity increased. In 1988 the productivity of Pavas physicians (as measured by the number of consultations per

CONSULTAS EXTERNAS POR MEDICOS

	TOTALES	PRIMERA VEZ	PROMEDIO POR PERSONA
1990			
JIMENEZ NUNEZ	143888	24716	5.82
CLORITO PICADO	112594	33179	3.39
MARCIAL RODRIGUEZ	184271	79762	2.31
FRANCISCO BOLANOS	77361	28490	2.72
CORONADO	84623	21872	3.87
PAVAS	136997	16611	8.25
CARLOS DURAN	125030	34555	3.62
MORENO CANAS	128065	36166	3.54
MARCIAL FALLAS	153516	52314	2.93
SOLON NUNEZ	159838	56891	2.81
SAN RAFAEL-PUNT.	56969	22513	2.53
TIBAS	57046	17890	3.19
TOTAL:	1420198	424959	3.34
1989			
JIMENEZ NUNEZ	132149	29118	4.54
CLORITO PICADO	136099	39061	3.48
MARCIAL RODRIGUEZ	187256	74545	2.51
FRANCISCO BOLANOS	92391	43986	2.1
CORONADO	80996	23165	3.5
PAVAS	124315	21431	5.8
CARLOS DURAN	129497	35650	3.63
MORENO CANAS	132900	36306	3.66
MARCIAL FALLAS	158645	49876	3.18
SOLON NUNEZ	153943	43202	3.56
SAN RAFAEL-PUNT.	75849	26158	2.9
TOTAL:	1404040	422498	3.32
1988			
JIMENEZ NUNEZ	132845	45699	2.91
CLORITO PICADO	147771	42580	3.47
MARCIAL RODRIGUEZ	192076	73023	2.63
FRANCISCO BOLANOS	100224	52831	1.9
CORONADO	32545	15342	2.12
PAVAS	26789	4675	5.73
CARLOS DURAN	139035	41285	3.37
MORENO CANAS	145342	43478	3.34
MARCIAL FALLAS	163737	51736	3.16
SOLON NUNEZ	162480	35532	4.57
SAN RAFAEL-PUNT.	76755	25810	2.97
TOTAL:	1319599	431991	3.05

FUENTE: Anuario Estadístico, CCSS.

contracted hour) was approximately 7 percent below the Type 4 Clinic average. The following year the relative difference decreased to 5 percent, and in 1990 Pavas physician productivity jumped up considerably to surpass the Type 4 Clinic average by 9 percent. Increasing productivity means falling unit costs of production. With personnel costs constituting 70-75 percent of total consultation costs, increasing physician productivity has resulted in a fall in the average (real) cost of a consultation.

D. USE OF THE EMERGENCY ROOM AND ACCESS TO CARE

Pavas has provided a rapidly increasing number and share of all Type 4 Clinic emergency consultations. In 1988 its 3215 emergency consultations constituted 9 percent of the clinics total consultations and 3 percent of all Type 4 Clinic emergencies. In 1989, emergency visits increased by nearly 240 percent to 27,325. Emergencies accounted for 16 percent of all Pavas consultations and Pavas provided nearly one-quarter of all Type 4 Clinic emergency visits. In 1990, the rate of growth in the number of emergencies began to stabilize. Though they posted a 19 percent increase in number and accounted for 27 percent of all Type 4 Clinic emergencies, their share of total Pavas consultations remained constant.

According to the Administrator of Pavas, however, only about 30 percent of what it reports as "emergencies" are in fact emergencies. The bulk of services provided by the Pavas emergency room are non-emergency ambulatory consultations provided after the main clinic has closed its doors for the day. In response to its perceptions of the community's need to have greater access to care during non-traditional hours, COOPESALUD maintains an emergency room which is opened for the same hours as the main clinic, between the hours of 7:30 am and 4 pm, and an additional 3 hours, from 4 and 7 pm daily. The emergency room is staffed by 3 full-time physicians, a general practitioner, an internist and a pediatrician. Physicians who work these non-traditional hours are paid 1.5 times their usual wage.

Whereas one of the other Type 4 Clinics, Solon Nunez, has a similar type of emergency room arrangement with extended hours (in fact it is officially open an additional hour, until 8 pm), it is reported that the clinic generally receives patients only until the emergency room physicians' Caja-SIPROCEMICA-agreed-upon quotas are fulfilled. According to the Pavas Clinic Administrator, this generally means that patients must arrive at the Solon Nunez emergency room before about 5:30 in the afternoon if they are to be seen that day. Those arriving after that time are turned away without being seen. In contrast, Pavas Clinic emergency room physicians are directed not to turn away any patients, which often means they work well beyond the 7 pm closing time. (Time constraints did not allow the consultants to independently corroborate this description of the operations of the Solon Nunez emergency room system.)

E. DENTAL SERVICES CONSULTATIONS

Pavas' provision of dental services has grown dramatically in both absolute and relative terms. Dental services increased nearly six-fold from 1988 to 1989, and expanded by yet another 23 percent in 1990 when they numbered more than 27,000; about one-sixth of all Pavas consultations, and 15 percent of all Type 4 Clinic dental consultations. Since total consultations provided by Pavas physicians grew less rapidly in 1990 (by a still impressive 11 percent), the proportion of total Pavas consultations accounted for by dental visits expanded. According to the Pavas Clinic Administrator, COOPESALUD has expanded its provision of dental services significantly relative to what is the norm in other Type 4 Clinics in response to community requests.

According to the Caja's PPRC Information System, in Type 4 Clinics it costs approximately half the amount of money to produce a dental consultation as that required to provide a general consultation. The fact that over the past 3 years Pavas' service mix has become more dental care-intensive together with the fact that it is providing a growing share of all of these less expensive (but not less important) consultations, has contributed to Pavas' ability to maintain lower average consultation costs than other Type 4 Clinics.

F. PHYSICIAN SPECIALIST CONSULTATIONS

In keeping with its prevention orientation, in the 3 years of its existence the Pavas clinic has consistently provided fewer specialty consultations relative to general medical consultations than other Type 4 Clinics, though the magnitude of the differences have become small. Medical specialists' consultations constituted 25 percent of all consultations in 1988, increased to 34 percent in 1989 and remained at that level last year. The comparable proportions for all Type 4 Clinics has been 33, 35 and 36 percent.

According to the Caja, a general medical consultation in a Type 4 Clinic costs roughly 80 percent of what a specialist consultation costs. Pavas' relatively greater provision of general medical consultations, therefore, is another contributory factor in its lower average (overall) consultation cost, though a relatively minor one.

G. MINOR SURGICAL INTERVENTIONS

Relative to the other Type 4 clinics, since its inception Pavas has had relatively fewer minor surgical interventions and treatment procedures. (Note: Major surgical interventions are not performed at Type 4 clinics.) This difference in the Pavas service delivery mix has become more pronounced over time; the trend has been for both of these services to fall since 1989. Pavas' share of the total Type 4 clinic provision of minor surgical interventions went from 5 percent in 1989 when it provided 999 such services (56 percent the average Type 4 Clinic's share), to 2 percent in 1990. In 1990 Pavas reported providing 456 minor surgical interventions, less than half its number in the previous year. In 1990, Pavas provided only 2 percent of the total Type 4 Clinic produced minor surgical interventions, about one-quarter of the number provided by the average Type 4 Clinic. Pavas' lower rate of surgical procedures is another reason that its costs per consultation are lower than the Type 4 Clinic average.

It should be noted that the Pavas Clinic Administrator suggests that much of the difference between the Cooperative and the Type 4 Clinics' average number of minor surgical interventions is due to differences in reporting. Many of the procedures performed in Pavas which could be regarded as minor surgical procedures (e.g., lancing a boil) may not be reported as such. The extent to which the Cooperative's reporting practices varies from that of the other Type 4 Clinics was not ascertained.

H. PATIENT SATISFACTION

A 1986 national household survey, as well as a number of smaller surveys conducted by the Caja's Seccion de Investigacion de Servicios de Salud and students of the National University and the University of Costa Rica, found that between 25 and 40 percent of Costa Ricans are dissatisfied with various technical, personal and administrative aspects of the care they received at Social Security facilities.

Two surveys have looked specifically at patient satisfaction with the Pavas Clinic. The first of these surveys was conducted in 1989 by National University students. A sample of 938 women between the ages of 20 and 40 living in the Clinic's service area were interviewed. The second interview survey was restricted to persons 60 years of age or more. A universe of 359 such individuals living in the Pavas service area were identified, a sample of 10 percent was drawn, and interviews were conducted in the home. Both of these surveys found high rates of approval of the care and treatment they received in the Pavas Clinic. About 95 percent of the 20 to 40 year old women interviewed reported being satisfied with Pavas Clinic services. An even higher rate was reported among the elderly sample.

Another survey looked at Solon Nuñez, a Type 4 Clinic which is very similar in setting, service area population and staffing to Pavas. A patient satisfaction survey conducted in 1983 found less than half of the Clinic's clientele were satisfied with most aspects of the care they received. In a review of these and several other patient satisfaction surveys, a December 1990 document of the Seccion de Investigacion de Servicios de Salud of the Caja concluded:

Opinion surveys of the Pavas Clinic made by independent groups have shown:

- A high level of general satisfaction with the care they received (around 95 percent).
- Adequate physician-patient relations; as measured by explicit questions about various particular aspects of the consultation, for example, the physician's initial greeting of the patient, the explanations provided by the physician, the amount of time the physician listened to the patient's account of his/her problem.
- A very favorable opinion about support services, such as x-rays and laboratory services (96 percent) and pharmacy services (90 percent).
- A significant reduction in the waiting times and favorable opinions about the actual time waited.
- Compared with those results obtained in diverse studies of other CCSS clinics, it can be said that those about the new modality of providing ambulatory care are highly favorable (December 1990, p.11).

I. RESTRICTING CARE TO THE ASSIGNED SERVICE AREA POPULATION

As was explained in the preceding chapter, COOPESALUD is paid to provide care to its Caja-identified service area population. Caja patients, however, apparently commonly practice what is referred to as "border crossing;" i.e., they seek care in Caja clinics other than the one nearest their residence. Although this practice affects the quality of service statistics which use indicators of service provision incorporating service population-based numeraires, for the most part it is not problematic from a general Caja financing perspective, since the funding of individual traditional CCSS clinics is not strictly tied to the size of the clinic's service population. Such is not the case, however, with the COOPESALUD Clinic, as was detailed in Chapter II. To the extent that COOPESALUD uses its resources to provide care to other than residents of its service area,

1990

INTERVENCIONES QUIRURGICAS MENORES		CURACIONES	
NUMERO	%	NUMERO	%

JIMENEZ NUNEZ	1913	9	6537	7
CLORITO PICADO	1901	9	9050	9
MARCIAL RODRIGUEZ	4148	20	23744	24
FRANCISCO BOLANOS	34	0	5518	6
CORONADO	1445	7	4318	4
PAVAS	456	2	1411	1
CARLOS DURAN	1915	9	14089	14
MORENO CANAS	925	4	6361	6
MARCIAL FALLAS	2528	12	9343	9
SOLON NUNEZ	2908	14	9587	10
SAN RAFAEL-PUNT.	955	5	3481	4
TIBAS	1769	8	5109	5
TOTALES	20897	100	98548	100

1989

INTERVENCIONES QUIRURGICAS MENORES		CURACIONES	
NUMERO	%	NUMERO	%

JIMENEZ NUNEZ	2218	11	8424	8
CLORITO PICADO	1590	8	11476	11
MARCIAL RODRIGUEZ	3595	18	19878	20
FRANCISCO BOLANOS	7	0	5824	6
CORONADO	1572	8	4666	5
PAVAS	999	5	5181	5
CARLOS DURAN	2399	12	15139	15
MORENO CANAS	271	1	6291	6
MARCIAL FALLAS	2867	15	10085	10
SOLON NUNEZ	2784	14	10126	10
SAN RAFAEL-PUNT.	1176	6	4030	4
TOTALES	19478	100	101120	100

1988

INTERVENCIONES QUIRURGICAS MENORES		CURACIONES		
NUMERO	%	NUMERO	%	
JIMENEZ NUNEZ	3001	15	7401	9
CLORITO PICADO	1811	9	9190	11
MARCIAL RODRIGUEZ	3417	17	13746	17
FRANCISCO BOLANOS	7	0	5322	6
CORONADO	379	2	1011	1
PAVAS	0	0	948	1
CARLOS DURAN	2104	11	13335	16
MORENO CANAS	2017	10	6974	8
MARCIAL FALLAS	2477	13	9076	11
SOLON NUNEZ	3587	18	11688	14
SAN RAFAEL-PUNT.	925	5	4136	5
TOTALES	19725	100	82827	100

FUENTE: Anuario Estadístico, CCSS.

it dissipates the availability of resources with which to care for the specific population which is its charge.

To deal with this situation, Pavas has instituted a practice of discouraging people who live outside of its assigned area of influence (insured or otherwise) from obtaining care at the clinic. Such persons are not denied service, but it is explained to them that the Caja provides resources to another clinic in order to provide them with care and that they will not be treated at Pavas if they should seek care at the clinic in the future. The issuance of this warning to the patient is then indicated on the patient's clinic registration card. The extent to which such persons subsequently return to Pavas seeking care and how they are handled was not ascertained, although Pavas staff noted that a single warning usually proved effective in discouraging non-residents from returning.

This practice has resulted in reduced expenditures on medications, x-rays, and laboratory examinations. The value of medications provided to "outsiders" constituted 14 percent of all medications dispatched in 1988. This share was effectively eliminated by 1990. Similarly, though less dramatically, the proportion of the total value laboratory examinations provided to "outsiders" went from 62 percent in 1988 to 41 percent in 1989, and 8 percent in 1990. In 1989, the share of the total cost of X-rays provided to non-residents fell to one third of its 1988 level. In 1990, the share edged back upward to 10 percent of the total.

J. THE COST OF SERVICES PROVIDED BY COOPESALUD

The Pavas Clinic did not maintain cost data on a service-related cost-center basis until January of 1991. Prior to this time, the clinic simply maintained balance statements. This makes it impossible to attempt to assess Pavas' relative efficiency in producing different types of consultations, as well as in ancillary service provision. Therefore, we are only able to generate a gross measure of efficiency; the average cost of a medical consultation provided at a clinic, where a medical consultation is defined as consisting of any one of three types of visits: a general medical consultation, a medical specialist consultation, or an emergency.

This approach greatly simplifies the analysis. If one were interested in obtaining more precise measures of the cost of different types of consultations, rather than that of a simple, gross average consultation, it would be necessary to do considerably more work. By keeping the analysis at the much more aggregate level, this approach implicitly assumes that either all three of the different medical consultation types incur identical costs, or, alternatively, that the different types of consultations constitute the same share of total medical consultations in Pavas as in the rest of the clinics combined. Clearly, these are implausible assumptions, implying that "general consultations" is a relatively crude measure.

Similarly this simple approach assumes that the cost of the service mix within any one of these three broad categories is identical or that the mix is identical across clinics. This too is highly unlikely. It is more likely that preventive services are relatively less costly to produce. Generally preventive services do not require as high a level of diagnostic procedures and tests and therefore require fewer ancillary services. In addition, they are likely to be accompanied by fewer and generally less expensive prescriptions (e.g., vitamins as opposed to antibiotics). This suggests that if sufficiently detailed information about the mix of services across the Type 4 clinics were available, and we could control for the preventive versus curative mix of services provided, then at least a portion of the Pavas Clinic's relatively lower price per medical consultation would be eroded, as its services are comprised of a larger proportion of preventive care. While no definitive assessment can be made

in this regard without more detailed data, it is probable that Pavas would still maintain its position as a relatively more efficient producer of health care. Bearing this caveat in mind we turn to the data.

A major factor complicating the cost comparison is that the Caja has two different cost accounting systems, each of which produces substantially different data. (A few random comparisons found reported service production data varying by up to 40 percent.) One of the systems is the Sickness and Maternity Program 2000--Medical Services System, which is based on Form Number 1066: Statistical Report to Calculate Hospital Costs. This system is a centralized, top-down approach to quantifying the costs of different types of activities. The other system is based on monthly financial reports which are prepared and submitted by the individual clinics to the Hospital Costs Section of the Accounting Department of the Caja. These monthly reports are the basis of the PPRC (Produccion, Rendimiento, Recursos y Costs) System.

COOPESALUD is not included in the Program 2000 System. This leaves the PPRC as the only basis on which comparable cost data of all Type 4 Clinics, included Pavas, can be made. At the time of this consultancy only the 1991 monthly financial reports were available. (The two previous years' had just been placed in long term storage.) The first quarter of 1991 therefore was the basis for undertaking a comparative cost analysis. In addition, not all of the Type 4 Clinics had as yet submitted all of their reports for the quarter. Those that were available, were analyzed and are reported in Exhibit 11.

Based on the financial reports which each of the Type 4 Clinics submits on a monthly basis to the Hospital Costs Section of the Accounting Department of the Caja, the average cost of a consultation provided by COOPESALUD is about 30 percent less than one provided at traditional Caja clinics of the same size and staffing pattern. (See Exhibit 12.) While this source of data provides for the most directly comparable costs between Pavas and other Type 4 Clinics, it should be noted that the methodological approaches adhered to by the clinics in reporting these data are not universally consistent. For instance, COOPESALUD reports depreciation costs only for the approximately 30 percent of the value of equipment in the Pavas Clinic that it has purchased itself. No account is made for the cost of the building or of the equipment purchased and provided by the Caja or the Ministry. This, of course, results in a systematic under-reporting of the real average cost of providing a consultation at Pavas Clinic vis-a-vis other Type 4 Clinics.

However, in reviewing a series of these individual Type 4 facilities' monthly reports, it was evident that the methodology used by the individual clinics to determine and assign depreciation costs to their different "products" or "end services" varied greatly. Notwithstanding, a simple type of sensitivity analysis revealed that the average consultation costs resulting from the use of apparently different methodologies was inconsequential since depreciation never amounted to more than 4 percent of the total average consultation cost of any of the Type 4 Clinics. It must be concluded, therefore, that the average cost of providing a consultation at those Type 4 clinics for which we have this data is lowest at Pavas. Since unit costs are the single best measure of efficiency, it is concluded that cooperative model approach to Type 4 Clinic administration and care provision provides the most efficient use of Caja financial resources.

CONSULTATION COSTS IN THE FIRST QUARTER OF 1991

	TOTAL COSTS	NUMBER OF CONSUL- TATIONS	AVE. COST PER CONSUL- TATION	AVE. COST RELATIVE TO THAT OF PAVAS
CORONADO	38857793	28554	1360.85	145
MARCIAL FALLAS	65128118	51091	1274.75	136
CARLOS DURAN	60300611	37830	1593.99	170
MORENO CANAS	63125464	36903	1710.58	183
LAS CUATRO CLI- NICAS COMBINADA	227411986	154378	1473.09	157
PAVAS	42862455	45749	16.90	100

FUENTE: Calculado en base de los informes gerenciales de las clinicas.

CHAPTER IV

CONCLUSION AND RECOMMENDATIONS

COOPESALUD is an alternative model of care which has a plethora of diverse goals and objectives. By many criteria, the Cooperative Model of care provided by COOPESALUD at the Pavas Clinic has been highly successful. These criteria include:

- patient satisfaction
- greater access to care
- the level of service provision
- the level of coverage of the service area population
- the concentration of services
- the mix of services provided (preventive versus curative)
- the apparent continuity of care
- the responsiveness of the Clinic to the health needs and stated desires of the community

Financial Success

Another subset of the goals of the alternative models of care are economic in nature. Although it appears that many key Caja technicians and policy-makers regard the social economic goals as paramount, in terms of the economic or financial success of the cooperative model, the picture is also very positive -- but perhaps somewhat less promising. As has been pointed out, there are some methodological inconsistencies which caution against strict adherence to point estimates (as opposed to estimating ranges) of the differences in costs. It appears that the differences are of such a large magnitude that there can be little doubt that COOPESALUD provides health care services at a significantly lower cost relative to a traditional Caja clinic. In fact, COOPESALUD provides care at about 70 percent the cost of a Caja-run facility.

Given its relatively higher levels of service production and patient satisfaction, the COOPESALUD experiment cannot but be regarded as a successful alternative model to traditional Caja Type 4 Clinic services, and one that is cost-effective. Extending or replicating the cooperative-based alternative model of care is an effective way by which the Caja could get more for its money.

It must also be pointed out that the cost savings attributable to COOPESALUD have yet to be fully identified. COOPESALUD has generated additional cost savings (from both Caja-system and societal perspectives) by reducing the number of patients who subsequently have to return for treatment (which requires time away from productive activities), or who then go without treatment and may become more ill, requiring more not only time away from productive activities but generated greater medical care resources.

Another source of reduced costs attributable to COOPESALUD is its much lower rate of referral to higher tiers of more expensive care. A study of referral rates to the National Children's Hospital found that the Pavas Clinic referred significantly lower numbers of children relative to other Type 4 Clinics. The economic and medical outcomes of these cases need to be assessed, for they too add to the cost savings attributable to COOPESALUD.

What makes the economic and financial savings of COOPESALUD perhaps somewhat less promising has to do with the method which has been adopted to determine the level of financially remunerating the Cooperative. To date, the Caja has not opted to try to reduce its total outlays, but rather has tried to get more health care services for a given outlay (i.e., to improve efficiency). At first glance, this may seem to be splitting hairs, but the differences are real, and, given the current situation of the Caja, significant. It appears that the various national and international actors external to the Caja are applying increasing pressure on the Central Government to reduce expenditures. These actors include the Ministry of Planning, the International Monetary Fund and the World Bank. If the Caja, which by virtue of its large share of total Central Government expenditures, cannot come up with methods to reduce expenditures, it is likely to have decisions about how to do so foisted on it by one or more of these agencies. If the Caja is to maintain more autonomy, it must come up with a new financing arrangement whereby it turns the Cooperative and other alternative models of providing care into vehicles for reducing expenditures, rather than maintaining their current status as mechanisms for improving efficiency.

Improving Resource Management

It is evident that there has been considerable growth and maturation in the managerial systems of COOPESALUD throughout the course of the organization's 3 year life. Still, COOPESALUD needs to undertake a number of difficult and relatively complex managerial steps in order to improve its financial controls and thereby the efficiency with which it operates. These include:

- Integrating its purchasing and cost information systems.
- Institutionalizing annual program planning by each department.
- Devising a system to provide at least quarterly, and preferably monthly feedback meetings of progress towards the goals set out in the annual program plan.
- Developing input/supply requirements (personnel time and materials) for each department and then tying these directly to the programmed/planned service delivery level of each department.

- Developing of individual department service production information systems which will be integrated to produce monthly activity reports.
- Developing individual department cost data on a service-specific basis, which will provide the link between annually and monthly programmed/planned activities/services and their financial requirements.

Public Policy Issues

An important public policy issue which the Caja needs to address is: Is a cost-effective method for providing Caja-financed health care good enough? Or, should the Caja try to restructure the mechanism by which it finances COOPESALUD in order to give financial goals and objectives greater weight? Should the Caja subject the Cooperative to greater financial risks and give it greater encouragement to provide more, high quality services by tempting it with more financial incentives, and threatening it with financial penalties? In short, should the Caja devise a financial arrangement with the cooperative-based alternative model which includes both carrots and sticks, i.e., which includes both positive, as well as negative incentives? If the Caja is to continue to operate essentially in its traditional mode, it will be difficult to press these types of changes on COOPESALUD and other cooperatives, while the rest of the Caja continues to operate at significantly lower levels of efficiency.

On the other hand, if the Caja is to begin making a commitment to what would undoubtedly be a long term process of improving the efficiency of the entire institution, then such a set of incentives could be much more easily introduced and should be much more universally applied. In the longer run, such an approach would be the best one for the Caja and the general population, though clearly it would not be an easy one. It is time for the Caja and the people it serves to determine the future role of alternative models of care and, more generally, the Caja.

The cooperative-based alternative model has great potential and there is growing interest on the part of providers to work in such systems. Despite the fact that the Caja has assumed a very low profile with respect to the development of this alternative model of care (and others), and has not publicly expressed interest in further such experiments, the Caja has just recently received four additional proposals for developing cooperative-based clinics.

Another public policy issue to be addressed is how to continue working with the health sector unions. One option is to continue the present course of piecemeal and half-hearted reform. Avoiding making explicit and significant changes in this domain of health policy may be the most sure way of being certain that such reforms are not derailed by the opposition of unions and others who view these changes as threats. By the same token, however, maintaining a program of reform as slow as the current process may prevent it from ever being able to significantly change the system. To accelerate the process of change will require changes in some of the laws which currently discourage implementation and replication of the cooperative model, and preclude it from being able to generate significant changes in the system.

Additional consideration should be given to developing a formalized program of technical assistance. Such a

system might include having the older models help pass on their "lessons learned" to new players. The objective of such a program would also be to strengthen and to accelerate the reform process.

At a minimum there is a need for policy makers to explicitly identify the goals of the alternative models so as to aid in the development of more specific evaluation criteria. More specifically, there is a need to develop a more structured approach to alternative models, including:

- Developing explicit, commonly recognized evaluation criteria and indicators by which to assess existing models. The Caja evaluation unit's recent development of a minimal set of alternative model proposal requirements is an important first step in this direction (see Annex 3).
- Policy-makers should provide more explicit goals and parameters for alternative models in order to eliminate the ambiguities and uncertainties which currently plague the programs and the Caja technicians in charge of overseeing them.

These are steps which are necessary at this juncture if the Caja's ambiguity regarding the alternative models is to be eliminated or at least reduced, and if the models are to be encouraged, or even allowed, to develop to their full potential.