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**REVIEW OF COST RECOVERY EXPERIENCE
IN THE CENTRAL AFRICAN REPUBLIC**

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ABSTRACT

This paper covers the findings from a field review of the cost recovery experience at all levels of the health system in the Central African Republic (CAR). It supplements and updates an earlier study undertaken in 1991 to assist the CAR develop a national cost recovery program. This paper documents the different types of cost recovery being practiced in the CAR, including those at village pharmacies, and notes the lessons learned from a variety of managerial and operational experiences.

Conclusions based on this and the previous study suggest that a nationwide cost recovery program is feasible because the population of the CAR is both willing and able to pay for some essential services, the government has made the fundamental policy commitment, and necessary management systems exist that could be adapted for national use.

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LIST OF ACRONYMS

ACADOP	Agence Centre Africaine de Développement de l'Ouaham Pende
ALO	A.I.D. Liaison Officer
BAD	French acronym for African Development Bank
CAR	Central African Republic
CEE	French acronym for European Community (EEC)
CES	Health Economics Unit of the Ministry of Health
CFA	Currency of the Central African Republic; 280 CFA = U.S. \$1.00
CIDA	Canadian International Development Assistance Agency
CNHUB	Centre National Hospitalier, Universitaire de Bangui
DTDC	A UNDP division concerned with community development
ECHO	Pharmaceutical supply company
FAD	French development assistance agency
FENU	French acronym for UNEF (see below)
GOCAR	Government of the Central African Republic
GTZ	German development assistance agency
HFS	Health Financing and Sustainability Project
IDA	Pharmaceutical supply company
IEC	Information, Education, and Communication Campaign
MEDEOR	Pharmaceutical supply company
MOH	Ministry of Health
MST	French acronym for Sexually Transmitted Diseases (STDs)
NGO	Non-Governmental Organization (French acronym is ONG)
OMS	French acronym for World Health Organization (WHO)
PNUD	French acronym for UNDP (see below)
RUMER	Registre d'Utilisation des Médicaments et Recettes (Registry of Essential Drug Use and Receipts)
SIDA	French acronym for HIV/AIDS (HIV/Acquired Immune Deficiency Syndrome)
SODIPHAC	Pharmaceutical supply company
SSP	French acronym for primary health care (PHC)
STD	Sexually Transmitted Diseases
UNIPAC	Pharmaceutical supply agency for UNICEF
UNDP	United Nations Development Program
UNEF	United Nations Equipment Fund
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development

EXECUTIVE SUMMARY

PURPOSE AND BACKGROUND

The Ministry of Health (MOH), Central African Republic (CAR), and USAID asked the Health Financing and Sustainability (HFS) Project to send a team to the CAR to carry out activities that the MOH and HFS had agreed to in June 1993 as part of an overall plan of technical assistance in relation to the MOH's policy of cost recovery. In response to this request, the HFS team conducted 1) a field review of cost recovery experience at all levels of the health system, in both the public and private sectors; 2) discussions, data gathering, and preliminary facility reviews related to hospital fee issues; and 3) planning discussions with the Director General to update the HFS plan of assistance to the MOH for the final period of HFS project work in the CAR, January - June 1994.

This technical note covers the findings, lessons learned, and general conclusions and recommendations from the field review of the cost recovery experience. The team's trip report covers related activities and decisions made during the mission. Additional analyses and detailed recommendations related to fee structures and prices are planned for subsequent documents that will follow immediately.

The main purpose of the field review of cost recovery experience was to identify general systems, models, and lessons learned that could be used in the further design and implementation of a national cost recovery program. This review was designed as a rapid study to update and build on a previous, longer-term effort that the Health Economics Unit (CES) of the Ministry of Health conducted in 1991 (see "Current Health Care Cost Recovery Systems in CAR" HFS Technical Note No. 15, February, 1992). The purpose of that study was to document the different types of cost recovery being practiced, to assess their revenue-generating potential, and to recommend to the government which system is best suited to the population and conditions of the CAR.

This 1993 field review updates the previous study by covering sites that initiated cost recovery after the 1991 study was conducted. The current study broadens the previous one by including village pharmacies in the sample. In addition, the current study builds on the earlier one by identifying specific lessons learned in policy areas of most current interest to the MOH.

STATUS OF COST RECOVERY POLICY

The Government of the CAR and the Ministry of Health have made many of the fundamental policy decisions about cost recovery for health services, beginning with the enactment of a law in 1989 and the subsequent issuance of general regulations. Although much cost recovery activity is already occurring under these general authorities, the current phase of policy development is to design final implementing regulations to coordinate the disparate activities and apply national standards to all levels of the public health system throughout the country.

The MOH's top priorities for cost recovery for January to June 1994 are to resolve issues about fee structures and price levels, especially for hospitals; issue regulations (*arrêtés*) to put fees into effect at all levels of the government health system; and begin national implementation in phases beginning in June 1994.

CONDUCT OF THE FIELD REVIEW

The MOH designated two staff persons, Marcel Maniguere and Antoine Bernard Guere, to participate with the team in conducting the field review of cost recovery experience. The MOH and HFS team divided into two groups to conduct the field review in six locations in the three most populous regions outside of Bangui from December 2-9, 1993.

The site review included all levels of the health system (village pharmacy, health posts, centers, and hospitals) in both government MOH facilities as well as in private sector NGO activities. The teams collected information on the type of fee systems used, indigent policy, use of revenues from fees, financial management systems and tools, drug supply, community participation, and training.

FINDINGS AND LESSONS LEARNED FROM THE FIELD REVIEW

The field review demonstrated that a wide range of cost recovery activities are underway throughout the CAR. These cost recovery activities are occurring in government hospitals and health centers, as well as in non-government health facilities and village-level pharmacies. They use a variety of financing methods, provide a variety of health services and medicines, and have existed for as long as 15 years or as short as 6 months.

The main body of this report identifies a range of lessons that have been learned from experience with cost recovery in the CAR. Some of the most important of these follow.

Cost Recovery and Fee Systems in General

- ▲ People are both willing and able to pay for medicines and health services at centers and hospitals. There should no longer be any doubt on these points.
- ▲ A variety of fee systems for non-hospital services are feasible. There does not appear to be a single model that must be followed from the point of view of administrative feasibility or people's preference.
- ▲ Regular payment of government health worker salaries will be key to the success of implementing a national cost recovery policy in government health facilities.

Community Participation

- ▲ Community financial participation may be easier to generate than other forms of community participation.

- ▲ Once a successful cost recovery experience is established at one health facility or village pharmacy, neighboring communities quickly want to adopt a similar activity.
- ▲ Motivation and consciousness-raising is needed for health personnel, as well as for the population in general.

Medicine Supply and Distribution

- ▲ Establishing a medicine purchase, supply, and distribution system is the major logistical problem the projects have had to resolve.
- ▲ A regular medicine supply is key to maintaining the population's willingness to pay.

Financial Management

- ▲ Simple financial control and record-keeping systems that fit local conditions in the CAR are feasible and adequate to manage fee collection at most levels of the health system.
- ▲ Regular supervision and monitoring are essential to maintaining smooth functioning and integrity of the fee collection and management systems.

Prices

- ▲ All cost recovery efforts for medicines have established a principle that prices should cover the full cost of replacing the drugs, as well as provide a profit margin that can be used for payment of health worker salaries, purchase of supplies, or other health or community-oriented purposes.
- ▲ Medicine prices that cover the full cost, including transport as well as a markup to generate a surplus to be used for various purposes, are affordable for the vast majority of the population.
- ▲ Village pharmacies save the population time and money; otherwise, people must travel long distances to find private commercial pharmacies when drugs are not available at public health facilities.

Indigent Policy

- ▲ For non-hospital services, once a fee system is established, a policy of no exceptions and "no free care" works best. A system that provides formal exemptions will be abused. The community, a neighbor, or relatives should pay for services and medicines for indigents.

CONCLUSIONS

This review shows that nationwide implementation of a cost recovery policy in government health facilities is entirely possible. Previous studies of cost recovery experience and of willingness and ability to pay for health services in the CAR support this conclusion. The population has shown that it is willing and able to pay for essential medicines and for at least part of the costs of health care at government facilities. The government and the MOH have already made the fundamental policy decisions, and most of the necessary laws and regulations are in place. The necessary management systems exist in individual projects; local operational experience exists in a variety of project settings; and information needed to set fees that are affordable, equitable, and related to costs and revenues needed is available.

The ministry wants to make decisions soon on the fee structure to be applied nationally. Decision makers in the MOH have identified several key issues and problems they need to resolve before issuing final regulations for nationwide cost recovery. This technical note identifies a series of these principles and issues and concludes that all the information needed to make these decisions is available.

It is important that the ministry proceed as planned to resolve remaining issues about a national fee structure and issue the necessary final regulations. These structural issues are at least as important to the success of the cost recovery system as identifying a precise level for each fee (within the ranges that currently exist). It is also important that the MOH undertake action simultaneously on two other issues that are critical to the success of national cost recovery: drug supply and health worker salaries.

FOLLOW-UP

HFS will use findings from this mission to respond to the MOH's request for recommendations for a fee structure for all levels of the health system, including alternative fee structures they can consider for hospitals. HFS will provide these fee proposals to the MOH in January 1994 in a document designed to be used for discussion and decision-making purposes. The fee proposals, along with other findings and results of this mission, will also be used in the workshop on cost recovery with which HFS will assist the ministry in February 1994. The purpose of the workshop will be to reach decisions on final regulations for nationwide cost recovery and an implementation plan. HFS will provide technical assistance to the MOH for the workshop, including a proposed agenda along with background and discussion documents based on this field review as well as on previous HFS work in the CAR

1.0 INTRODUCTION AND PURPOSE

The Ministry of Health (MOH), Central African Republic (CAR), and USAID asked the Health Financing and Sustainability (HFS) project to send a team to the CAR to carry out activities that the MOH and HFS had agreed to in June 1993 as part of an overall plan of technical assistance in relation to the ministry's policy of cost recovery. The purpose of this mission was to 1) conduct a field review of experience with cost recovery to identify lessons learned that could be used in further implementation of the cost recovery policy; and 2) update the plan of technical assistance to take account of the MOH's present priorities after the installation of a new government, the end of the HFS project in September 1994, and the end of HFS activities in the field in June 1994.

After arrival in country, a third objective was added to the team's scope of work: to conduct a preliminary analysis to help resolve questions the ministry had about its proposed hospital fee structure and fee levels. Addressing hospital fees is a part of the overall HFS-MOH technical assistance plan agreed to in June 1993 and is a MOH priority. The MOH had indicated prior to this team's arrival, however, that hospitals had not been fully functional for at least a year, and it might not be the appropriate time to conduct the hospital analysis, especially the cost analysis. Thus, the initial scope of work for this mission anticipated only that the team would conduct further planning and policy discussions on this issue with senior MOH officials, as well as some preliminary data gathering as time and opportunity permitted during this mission.

Three members of the team, Yann Derriennic and Evelyne Laurin, public health specialists, and Team Leader Charlotte Leighton, health economist, worked in the CAR from November 24 to December 12, 1993. The fourth team member, hospital administration specialist, Gregory Becker, was present from December 2 to 12.

The MOH designated two staff persons, Marcel Maniguere and Antoine Bernard Guere, to participate with the team in conducting the field review of cost recovery experience. The MOH and HFS team divided into two groups to conduct the field review in six locations in the three most populous regions outside of Bangui from December 2 to 9. The site review included all levels of the health system (village pharmacy, health posts, centers, and hospitals) in both government MOH facilities, as well as in private sector NGO activities. The length of cost recovery experience in these sites varied from 15 years to 6 months. The teams collected information on the type of fee systems used, use of revenues from fees, financial management systems and tools, drug supply, community participation, and training.

In response to the ministry's priority interest in hospital fees, the team expanded the original plan and included hospitals in the field review outside of Bangui. The team also visited two public hospitals in Bangui, the Community Hospital and the Pediatric Complex, and conducted additional discussions with ministry officials to collect information about current hospital fee practice, understand the current MOH proposal which is based on the "key letter" (*lettre clef*) system, and identify concerns that exist with the present proposal. The team also reviewed the hospital cost study that the Health Economics Unit

(CES) conducted in 1992 with the assistance of the HFS long term advisor, Marcia Weaver, to see if it could be adapted or updated to provide the information the MOH now sought.

Appendix A-1 provides a list of people contacted to carry out this activity as well as a list of the sites visited. Appendix B provides a copy of the protocol used.

The main purpose of the field review of the cost recovery experience was to identify general components, models, and lessons learned that could be used in the further design and implementation of a national cost recovery program.

As follow-up to the field review of cost recovery activities and related planning discussions, HFS will provide, at the ministry's request a detailed proposal for an overall fee structure covering all levels of the public health system and two to three proposed alternative structures for hospital fees. The ministry plans to hold a workshop to make decisions about these fee structure proposals and remaining cost recovery issues in February 1994.

HFS will provide the more detailed analysis of hospital fee issues and recommendations for fee structures in a separate document that can be used for discussion and decision-making purposes at the planned workshop. HFS will also provide technical assistance to the MOH for the workshop, including a proposed agenda along with background and discussion documents based on this field review, as well as on previous HFS work in the CAR

This technical note covers the findings, lessons learned, and general conclusions and recommendations based on the field review of cost recovery experience. The main body of the report provides an overview of the findings from the site visits, while appendices contain details from each site. The team's trip report covers related activities and decisions made during the mission.

2.0. BACKGROUND

2.1 COST RECOVERY POLICY IN THE CAR

The Government of the CAR and the Ministry of Health have made many of the fundamental policy decisions about cost recovery for health services. With the enactment of a law in 1989 and subsequent general regulations (*décrets*), they have established a principle of cost sharing between the government and the population. Under this principle, the government is responsible for paying salaries of health workers and a portion of operating costs and the population is responsible for paying the remaining operating costs, especially for medicines, through a fee system. In addition, the government has authorized partial financial autonomy for hospitals in Bangui, under which revenues from fees are retained at the service delivery site and used for the operating costs of that health facility. Final regulatory action to provide this partial financial autonomy for other health facilities is pending.

In addition, there is consensus that some degree of community participation and involvement will exist in managing fee collection and deciding how to use revenues from fees. There is also consensus that some system of providing performance incentives for health workers, paid for with revenues from fees, would be useful.

Two large reference hospitals in Bangui are already implementing cost recovery under the general authorities of the 1989 law and subsequent decrees. Outside of Bangui, some MOH facilities are also already charging fees for some services or medicines according to various systems and amounts, either within the framework of a "project" or under the general authorities.

The ministry has been considering the final regulations ("*arrêtés*") that would provide the specific national guidance for implementation of cost recovery at all levels of the public health system throughout the country. These final regulations will establish guidance on what fees to charge for what services and how the fee revenues should be managed and used.

At the time of this review, hospital fee issues were the ministry's main preoccupation. The ministry wants to develop a hospital fee structure and fee levels that can be justified on the basis of hospital costs and ability of the population to pay. They also want the hospital fee structure to provide performance incentives for personnel and, if appropriate, to take into account differences between the reference hospitals in Bangui and the hospitals at the regional and prefectural levels. The main concerns they have had with the proposal that they have been considering over the past year are that it is not based on costs of services, it proposes prices that they doubt are affordable by the population, and it may not provide adequately for different income levels of patients.

The MOH's top priorities for cost recovery for January to June 1994 are to resolve issues about fee systems and amounts, especially at the hospital level; issue regulations to put fees into effect at all levels of the health system; and begin national implementation in phases beginning in June 1994.

2.2 FINDINGS OF THE 1991 STUDY OF COST RECOVERY IN THE CAR

This field review of cost recovery experience was designed as a rapid review to update and build on a previous study ("Current Health Care Cost Recovery Systems in CAR," HFS Technical Note No. 15, February, 1992) that the Health Economics Unit (CES) of the MOH conducted in 1991. The purpose of the study was to document the different types of cost recovery being practiced, to assess their revenue generating potential, and to recommend to the government which system is best suited to the population and conditions of CAR. This 1993 field review updates the previous study by covering sites that have initiated cost recovery after the 1991 study was conducted. The current study broadens the previous one by including village pharmacies in the sample. In addition, the current study builds on the earlier one by identifying specific lessons learned in policy areas of most current interest to the MOH.

Because this 1993 study confirmed many of the 1991 findings about cost recovery systems in use and because the earlier study provides information in some areas not covered by this one, it is worthwhile to summarize the earlier study's findings and conclusions.

2.2.1 Cost Recovery Systems

The investigators examined 35 facilities (28 public and 7 private). The study identified four types of cost recovery and recommended two for nationwide implementation: 1) Fee for service, and 2) payment per illness episode.

The frequency of the principal cost recovery systems, among the 35 facilities, is shown below, followed by an explanation of each system.

Fee for service (payment for each service received):	62%
Payment per illness episode:	22%
Payment per visit:	13%
Pre-payment for a year of service:	3%

- ▲ **Fee-for-service.** The patient pays out of pocket at time of service. All services are added up (exams, consultation, drugs, etc.) and the patient pays the total. This system promotes better resource allocation in health facilities, but requires more developed accounting and management systems than payment per visit, described below.
- ▲ **Payment per illness episode (fee-per-episode).** The patient pays for the first visit. Follow-up visits for the same illness are free of charge. Fees can be set based on the average cost of treating all illnesses or can be based on the average cost of treating categories of illnesses (e.g., respiratory infections, sexually transmitted diseases).

- ▲ **Payment per visit.** The patient pays a lump sum at each visit. This type of system leads to efficient resource allocation and reduces the likelihood of over-utilization of services. On the other hand, unlike the fee per episode method, some patients may not make needed follow-up visits because of the extra fees they will face.
- ▲ **Pre-payment for a year of service.** The Bougila medical center employs such a system for nearby high-school and theology students. They report that this payment method is partially responsible for an overuse of services, resulting in an operating deficit. Prices must be carefully calculated, and if possible a co-payment should be required at time of care to reduce frivolous use.

In addition to the different methods of payment, the study found that fees are applied to services in basically three different ways: fees are charged for all health services and medicines, fees are charged for only certain categories of services, and annual fees are charged for medical certificates only.

Average cost recovery rates are shown in the following exhibit. These rates are computed as total cost recovery revenues divided by total recurrent costs.

**Exhibit
AVERAGE COST RECOVERY RATE FOR SURVEYED FACILITIES**

FACILITY	AVERAGE	RANGE	
		LOW	HIGH
Private Hospitals (n = 4)	33	15	67
Public Central Facilities (n = 2)	18	15	20
Public Urban Maternities (n = 3)	94	81	104
Public Regional Hospitals (n = 4)	25	10	53
Public Prefectoral Hospitals (n = 4)	5	3	6
Public Provincial Health Centers (n = 9)	27	2	93

Tables in section 4 of the CES's technical report provided the data to construct this table. Here, cost recovery performance was calculated using as the denominator the sum of reported expenditures and subsidies. The numerator was the reported user fee revenues. This method results in lower cost recovery rates than in the CES technical report, which did not include government subsidies as part of the denominator.

2.2.2 Fee Structures and Use of Revenues

One private health facility, the Ippy Mid-Mission medical center, has a 63 percent markup on drugs to cover costs of transport, handling, insurance, taxes, and commissions. Although the other private facilities use similar markups for

medicines, the prices of drugs vary by more than twofold from one hospital to the next. Private hospitals also have fee scales that vary according to income level of the patient and, in some cases, by age of patient.

Fee structure and prices also varied in public health facilities. For example, three out of four regional hospitals provided free surgical procedures. Two required payment for laboratory examinations, whereas the other two performed them for free. Two of the public health centers carried out systematic cost recovery for all services and medicines, while the others charged only for medical certificates.

Most public health facilities used informal methods for identifying indigents, or people without enough resources to pay fees. Civil servants, who pay 20 percent of the fee while the government pays the balance, reportedly rarely paid their share, and frequently had extended family members, as well as nuclear family members, treated free of charge.

Most public health facilities paid a portion of fee revenues to health personnel as bonuses or incentive payments.

2.2.3 Management and Accounting

The study concluded that time and financial administrative costs of the cost recovery systems they examined were insignificant. They identified several management tools, including a notebook for recording revenues and expenditures, a receipt booklet for payments made to the treasury (for public hospitals only), and in some facilities stock and management note cards. In public hospitals in general, except for the regional hospitals and some hospitals which have their own administrators, accounting was handled by the directors of the facilities, who are either doctors, senior health technicians, or hospital attendants certified by the state.

The investigators found that record-keeping systems to control the flow of drugs were rarely used in public hospitals, where drugs are distributed free of charge and pharmacies are not well stocked. On the other hand, they cited regular use of management systems, such as RUMER (Registry of Essential Drug Use and Receipts) by private health facilities.

2.2.4 Conclusions and Recommendations

The study identified several main problems needing resolution: indigence and identification of the poor; misuse of civil servant privilege of subsidized care; ministries not paying for the care of their employees; and inadequate management practices in public health facilities. In addition, the study reached the following conclusions and recommendations.

1. Economic status of the population and size of population covered by the health facility play a major role in determining whether cost recovery will be viable.
2. Cost recovery at public facilities is applied differently from facility to facility.

3. Two payment options should be adopted: fee-for-service and payment per illness episode.
4. In preparing to implement these two options the following steps should be taken:
 - ▲ Information, Education, and Communication (IEC) Campaign to explain the new financing systems to the population and to health workers.
 - ▲ The country's leaders need to focus on general economic development; a higher standard of living will contribute to the success of cost recovery schemes.
 - ▲ Plans should be made for identifying the indigent who will be eligible for free or partially subsidized services under the new cost recovery program.
 - ▲ Health facilities should be provided with sufficient supplies to raise the quality of health care and increase coverage.
 - ▲ Management training should also be a part of the cost recovery system to improve operational efficiency of health facilities.
 - ▲ Additional financial resources should be sought so that prices remain reasonable. High prices will exclude a large part of the population.
 - ▲ Accounting and management systems should be reorganized to increase transparency and eliminate abuse.

3.0 FINDINGS FROM THE FIELD REVIEW

This section presents the main findings from the 1993 field review of cost recovery experience. It presents these findings for the major topics in the protocol that the team used: fee systems and use of revenues, community participation, financial management, drug supply, and service delivery and quality improvements. It also summarizes and compares findings for all the sites visited, while Section 4.0 identifies general lessons learned from all the sites visited. Appendix C describes the details of each site visited.

3.1 FEE SYSTEMS AND USE OF REVENUES

3.1.1 Village Pharmacies

Village pharmacies are private-sector organizations, sponsored and managed by and for communities, with profits used for purposes the community decides. Most village pharmacies in the CAR have been started with technical assistance from private religious groups or international donors. Government rural extension agents often work with the technical assistants from donor or religious organizations to help with initial discussions (*sensibilisation*) with village populations and committees. These technical assistants also provide training in organizing, financing, and managing village pharmacies, as well as in supervising and monitoring the start-up period. They also usually provide logistical assistance in purchasing the initial drug stock and setting up the resupply system.

The team visited two examples of village pharmacy systems: one assisted by the Canadian development assistance agency and operating in 15 villages in the area around Mbaiki, and one assisted by the Lutheran mission in 10 villages in the area around Bouar.

In sites the team visited, a majority of the village had to participate in the creation of the pharmacy with financial contributions (*cotisation*) for the purchase of drugs before the external organization would provide assistance (whether logistical and/or financial). In the smallest village pharmacy system, which stocks only five essential drugs, the community has to contribute 100 percent of the cost of the first stock of drugs. In the other system—which aims to provide 25 to 40 essential drugs—the donor organization matches the village contribution to the initial drug stock. The community purchases as large a stock as its initial contribution, plus matching funds, allows and gradually increases this initial drug stock with revenues from the sale of the first and subsequent stocks. Community contributions of labor and material are also required for the construction or renovation of a structure to house the pharmacy.

A village management committee is usually established to oversee and monitor the village pharmacy's operations. The village health committee or the pharmacy management committee chooses or hires a salesperson who, along with the members of the committee, receives training in drug management and inventory, bookkeeping and record keeping.

Village pharmacy drug stocks can range from as small as 5 drugs to as large as 25 types of drugs. Markups range from two to three times the purchase price to cover all purchase, transport, customs, and other costs, as well as to provide a profit margin. In the sites visited, the pharmacies followed a policy of "no free care"; all people had to pay for the drugs they needed. Relatives, neighbors, or a village notable paid the fees for people who did not have resources.

The village retains and controls the use of revenues from drug sales in village pharmacies. The revenues are used to: 1) replenish the drug stock; 2) provide some financial incentive to the drug salesperson in the form of a salary or an incentive or bonus payment; and 3) satisfy the needs of the community (e.g., finance a well, hire a teacher, purchase a mill, build a maternity unit, purchase livestock).

The population in all the sites visited expressed overwhelming satisfaction that drugs were now available and especially indicated that people saved money with a village pharmacy, rather than spending time and transportation costs to travel long distances to find drugs at a private commercial pharmacy, especially when drugs were not available at public health facilities. They also noted that health in general is better with easier access to commonly needed drugs. None of the management committees indicated any difficulty with people's willingness to pay for drugs at the village pharmacies once they were established.

3.1.2 Health Centers

Findings for health centers are divided into two parts: MOH health centers in categories A and B (large health centers with beds, offering a full range of inpatient services such as surgery and a maternity as well as an outpatient clinic); and MOH health centers in categories C and D (formerly "sub-centers" which usually offer only outpatient services and the services of a midwife).

Health Centers A and B

The team visited two large government health centers during this study, one in Dekoa and one in Ngaoundaye.

The Ngaoundaye health center charges fees for consultations, lab tests, hospitalization, and surgical interventions. The main attribute of the fee system is that it is based on a per illness charge. The outpatient consultation fee (100 CFA for adults, 50 for children) covers all visits for the same illness episode. Inpatient hospital fees also vary by illness category; patients pay a flat fee that has been set to cover all costs related to the specific illness they have.

There is no formal system for providing services to indigents. Only the doctor can waive fees on a case-by-case basis based upon patient information available to her. It was not possible to quantify the number of indigence cases, but the doctor contended that most patients can and do pay the fees and that cases of true indigence were very rare. Familial and communal solidarity is called upon to take charge of those who cannot pay.

Funds were provided for facility construction and maintenance by the Italian Catholic mission and other donors. In the past the MOH provided an operational budget for the center, but the center has not recently received any funds from the government. The MOH pays the salaries of its health personnel.

Revenues from the fees for service and the sale of drugs to outpatients are used to pay the salaries of additional medical personnel and support staff and to provide a bonus to MOH personnel. MOH and non-MOH health personnel receive payment for overtime work, weekend work, and an on-call (availability) bonus. MOH personnel also receive 30 percent of fees charged for surgical interventions. In addition, the drug depot uses some of its revenues to support supervision.

The Dekoa health center charges fees for all services: consultations, lab tests, hospitalizations, and surgery. Fees were set in collaboration with the staff, the local management committee, and the MOH, Bangui. The pharmacy bills the various services that use drugs and medical supplies. The health center management committee pays these bills out of a general fund.

Revenues from drug sales are used to pay the salaries of the manager and support staff and to buy drugs and supplies. Fees collected from other health center services are pooled and distributed to the health personnel (30 percent) and are used to pay the pharmacy for the drugs and medical supplies used by the services. The internal distribution of the 30 percent among the health personnel was determined by the personnel without input from the project staff.

There is no formal system to pay for services to indigents; familial and communal solidarity is expected.

Health Centers C and D

The range of fees collected at C and D health centers is much smaller. In some cases, centers do not collect fees for services at all; they sell only drugs. In others, in addition to selling drugs, consultation and lab fees are charged. For the centers that collect fees, the medical personnel receive 30 percent of the revenues from consultations; the remainder and all other funds collected are pooled. In all cases, these pooled funds are used to pay for the salary of the manager (*gérant*) and sometimes a guard, and to buy drugs and supplies.

Where fees are charged, the amount has been set by the projects and the MOH in collaboration with the local management committees.

There is no formal system to cover indigents; familial and communal solidarity is expected.

3.1.3 Hospitals

Private Sector

The team visited one private sector hospital. The hospital at Boguila was started by the American Missionaries of the Evangelical Brethren sect. The hospital has long been recognized as an important provider of high quality hospital services with patients coming from all areas of the CAR as well as from bordering countries.

Boguila Hospital has been operating on a fee for service basis for over 15 years. The medical staff of the hospital has traditionally consisted of at least one American missionary physician and Central African nurses trained at the facility. The nurses, although well trained and technically competent, are not eligible for state licensure due to differences in training programs. As the nurses are also required to be active preachers conforming to a strict lifestyle, a number have been separated from the hospital and have been unable to find employment in the state health care system.

At present, the hospital director reports that the hospital has been running at a severe deficit for the last several years. In response, salaries have been cut and drug orders reduced.

Public Sector

Ministry of Health hospitals in the CAR include the four Bangui hospitals (Amité, Hôpital Communautaire, Centre National Hôpital Universitaire de Bangui (CNHUB), and the Complexe Pédiatrique) and several regional and prefectural hospitals. There is a great difference between the hospitals in Bangui and those at other levels. The hospitals in Bangui provide a more sophisticated level of care and a broader range of services, while the regional hospitals provide a more limited range of services. Currently regional hospitals suffer from a severe lack of drugs and medical supplies, terminated credit arrangements with suppliers, and unpaid staff salaries.

Administrative capacity differs significantly between the Bangui hospitals and the two regional hospitals visited. For example, the Bangui hospitals that are already operating under partially autonomous status have a full-time, professional hospital administrator. The regional hospitals are headed by a physician assisted by less experienced staff who handle accounting and record keeping.

The Bangui hospitals that are partially autonomous have a formal, organized fee collection system. The community hospital and pediatric complex in Bangui charge fees for outpatient services (*actes professionnels pratiques à titre externe*), including outpatient consultations and surgery, laboratory tests, and radiology. Fees for outpatient consultations vary by type of provider (e.g., specialist physician, health technician). Fees for other outpatient services vary by type of service (e.g., surgery, lab test, radiology) as well as by level of complexity. The hospital gives prescriptions for outpatient drugs.

For inpatient services, these two hospitals charge a single daily fee for all services and drugs. When drugs are unavailable at the hospital, the hospitalized patient buys them outside with a prescription. The inpatient charge varies by type of room (e.g., a ward or a semi-private room with two beds).

Bangui hospitals that are not yet functioning as partially autonomous and hospitals outside of Bangui follow a variety of fee-charging practices that are not the same as the partially autonomous hospitals. For example, in one hospital the team visited, no fees were charged for any service or inpatient stay. In another, fees were charged for some but not all outpatient services. In another, fees for an inpatient hospital stay applied only to semi-private rooms; wards were free. The hospital charged for outpatient consultations and surgery and for some outpatient lab tests, but not for others. Some hospitals outside Bangui have management committees; others do not.

The partially autonomous hospitals use fee revenues to purchase operating supplies and drugs, and in some cases to pay the salary of a guard or the person who collects the fees. All hospitals that collect fees appear to distribute 30 percent of the revenues from outpatient consultations and services to health personnel as a "bonus" payment. Interns also receive a salary supplement from fee revenues. One hospital the team visited outside of Bangui returns the remaining 70 percent of consultation fee revenue to the treasury, but keeps the revenues from fees for inpatient stays to use for small operating costs, such as maintenance of the generator and gasoline for the ambulance.

In Bangui, the hospitals use the commune's formal system of indigence certification and provide free services to people who have such a certificate. In addition, the hospitals provide credit to people who say they can pay later. One hospital in Bangui reported that fee revenues in 1993 are about 25 percent of the 1990 level, due to the economic crisis the CAR is facing. In 1990, more than 75 percent of inpatients and outpatients paid their fees; in 1993, less than half have done so. One regional hospital reported that people without resources to pay fees at the hospital do not even come; they go instead to traditional healers whom they can pay in kind.

The referral hospitals in Bangui provide a range of complex medical procedures that might appropriately be supported through a relatively complex fee structure. The regional hospitals on the other hand provide a much smaller range of services, and have apparently more critical financial, drug, material resources, and staff salary shortages than do the facilities in the capital. Because of these constraints, along with a population having a different socio-economic and occupational profile outside the capital, a much simpler fee structure may be appropriate for the regional and prefectural hospitals.

3.2 COMMUNITY PARTICIPATION

The Ministry of Health helped to establish village health committees throughout the country in the context of the implementation of primary health care activities. Where village pharmacies exist, village-level management committees have also been elected by the population or chosen by the village health committee.

The ministry and government have also emphasized the importance of community financial participation in health service delivery. Indeed, a key tenet of the government's cost recovery policy in the health sector is the partnership between government and the population in paying for health services. Communities participate financially through collective contributions (*cotisation*) for an initial stock of drugs, as well as in providing the labor and material for construction or maintenance of health facilities. In addition, a patient's payment of fees for services and for drugs is often included under the rubric of community participation.

Experience with generating and maintaining general community participation for health in the sites that the team visited varied, depending in part on the community's previous experience with community organization and its pre-existing degree of social cohesion. Many communities in the CAR have had no prior experience with collaborating for collective purposes. Collaboration of health and rural development extension agents in the initial community discussions often produced positive results. Establishing representative health or management committees (e.g., women, youth, different occupations as well as male notables) appears to require deliberate effort and does not usually happen automatically.

The logic of financial participation, on the other hand, appears to be relatively easy to communicate, although it is often difficult to break the population's habit of thinking of government health services as "free." It can also be difficult to counteract cynicism about and a lack of confidence in government services. One of the most persuasive methods to do this appears to be the demonstration effect of a successful activity in which fees are being collected and used to improve the health services and/or drug supply.

3.3 FINANCIAL MANAGEMENT

The financial management systems surveyed reflected the wide spectrum of health facilities visited—from a simple stock inventory system for a village pharmacy to a complex double entry bookkeeping system for a major health center. Generally the systems provide the basic financial information and control to enable the facilities to function. Notable forms and management tools in use include an adapted *Registre d'Utilisation des Médicaments et Recettes* (RUMER) system in Ngaoundaye and the use of single form cash and inventory register in Dekoa.

The frequency of supervision and control of the funds and drug stock by members of the management committees ranges from daily to once a week. Outside supervision and monitoring is less frequent; up to two months can occur between visits. The large health centers do not have a formal periodic audit schedule.

Funds collected by the pharmacy salesperson or the health worker are handed over to the treasurer on a daily, bi-weekly, or weekly basis. The cash collected stays on site, either with the treasurer or in a strong box until it is sent to project offices (or in some cases to bank accounts in Bangui). A number of sites keep all their funds in the village.

While the financial management systems surveyed met the basic needs of the health facilities, all the facilities could use some improvement in either design or use. Several pharmacy-based systems were overcomplicated and necessitated too much of the management committee's time and effort. The systems should be as simple as possible and be tailored to the level of education of the users. The better designed systems combined cash flow information with drug stock information—a logical approach in systems where the drug sales are the only source of funds.

Daily cash take out and control procedures are probably too frequent in most category C and D health centers. A weekly schedule appears to be more appropriate. The Dekoa daily cash and stock inventory form is a possible model for category C and D health centers. RUMER, used in Ngaoundaye, is a possible model for A and B health centers.

Periodic outside supervision and control is a must to maintain the integrity of the system. The frequency should be no less than once every two months for a well-established health center. During the initial phase, supervision and monitoring should occur weekly if possible. For the larger category A and B health centers, yearly outside audits should be instituted. Since the financial management systems of these centers have evolved into complex structures dealing with large amounts of funds, a periodic audit is a must.

In order to minimize opportunities for misuse, cash should be taken offsite when it reaches a certain level. This amount should be determined by the health facility or pharmacy management committee with guidance from the MOH. Village-based pharmacies should be able to continue to manage their funds independently of the government.

3.4 DRUG SUPPLY

SODIPHAC, a pharmaceutical supply company, is the only domestic, in-country source for drugs and medical supplies used by the projects surveyed. SODIPHAC is a for-profit firm and does not sell generic drugs. The one project using SODIPHAC has negotiated a 26 percent discount.

Various European-based organizations are also used: UNIPAC based in Holland, IDA, ECHO, and MEDEOR, other pharmaceutical supply companies, based in Britain. These organizations cater to international organizations, non-profit organizations, and government buyers. They provide low-cost generic drugs. One health facility has ordered drugs directly from a German factory.

For the health facilities using European sources of drugs, the cost of transport to Bangui adds up to 100 percent to the European list price. Various intermediary depots in-country also contribute to the cost. The local health centers or pharmacies add between 20 and 100 percent to the local or regional depot prices to cover expenses and generate operating revenues. The maximum markup for drugs does not exceed three times the European list prices.

Due to long lead time (up to eight months) for surface shipments, most drugs were shipped to Bangui by air. From Bangui, drugs are transported to the health sites or to local depots free of charge by the projects, except for the

one project using SODIPHAC. If the projects are using local depots, individual health facilities are usually responsible for the expenses of picking up the drugs from the depots and taking them to the facility. In the early stages of a village pharmacy, the technical assistant supported by the donor organization often delivers the drug supplies to the pharmacy. For the project using SODIPHAC, each health facility is responsible for sending someone to Bangui to buy drugs, and the facility covers the transport and per diem expenses.

The only project using a permanent drug supply and distribution system is the one utilizing SODIPHAC. The other systems are dependent on the projects or on individual expatriates working in health centers or at the village pharmacy level. Some projects have been trying to establish a permanent drug distribution and supply system based on existing systems used by non-governmental organizations.

There is an urgent need for a national source of generic drugs (*Centrale d'Achat*). This source need not be a government agency or parastatal. There is no need for the *Centrale d'Achat* to be required to set up regional depots. The regional depots could come from local initiatives. Until the national structure is set up, the government should encourage regional and local initiatives such as the depots at Bossangoa, Ngaoundaye, and Dekoa.

The generic drug supply system can and should be self-financing with no need for state subsidies. The system can recover all operating costs, including transport, handling and warehousing, through appropriate markups. There will be a need, however, for some investment funds for training personnel, construction, and for initial stock.

3.5 SERVICE DELIVERY AND QUALITY IMPROVEMENTS

As the hospitals in the CAR are presently operating under severe financial and material handicaps, service delivery and quality improvement efforts will need to be at the most basic level. Service delivery, particularly at the regional hospital level, has deteriorated to the point that discussions about quality improvements are overshadowed by a need to focus on the hospital's ability to provide any care at all. All health facilities would benefit from a more systematic application of fees and the authority to retain fee revenues to improve the quality of service and fill the most critical gaps at that facility.

All hospitals and health centers suffer a critical and chronic shortage of drugs. One of the government's highest priorities for health care delivery should be the development of an adequate and dependable drug supply system that is sustainable through the collection of patient fees. In the case of the regional hospitals, it may be desirable that drugs be available through a pharmacy that is managed separately from the hospital. The main hospital administrative staff would then be able to concentrate on the collection of a simple schedule of fees for consultations and medical services.

Once the basic hospital and other fee structures are developed and matched against projected utilization for different types of services, it will be possible to estimate total fee revenue for the system as a whole as well as for each health facility. These fee revenue projections, along with projections of

government subsidies, will determine total operating budget levels. In examining these projected operating budgets, each facility may calculate the level of patient care quality that would be possible.

The resulting patient care quality level projections should then become a third factor along with costs and ability to pay in making final hospital or health center price adjustments.

4.0 LESSONS LEARNED

The field review demonstrated that a wide range of cost recovery activity is underway throughout the CAR. These cost recovery activities are occurring in government hospitals and health centers as well as in non-government health facilities and village-level pharmacies. They use a variety of financing methods, provide a variety of health services and medicines, and have existed for as long as 15 years or as short as 6 months. The team asked health workers, health committees, and people who had provided technical assistance what lessons they had learned from designing and implementing these activities. Following are the lessons they identified that have general applicability for national cost recovery policy.

4.1 COST RECOVERY AND FEE SYSTEMS IN GENERAL

- ▲ People are both willing and able to pay for medicines and health services at centers and hospitals. There should no longer be any doubt on these points. Both this field review as well as several previous HFS and MOH surveys and analyses have confirmed the willingness of the population in the CAR to pay for health services and medicines.
- ▲ A variety of fee systems for non-hospital services—e.g., fees for medicines, fees for consultations or visits, single fee to cover medicines and a consultation—are feasible. There does not appear to be a single model that must be followed from the point of view of administrative feasibility or people's preference.
- ▲ The fee system and price levels for hospital services present a more complex problem for national policy than the system for non-hospital services; current cost recovery experience, administrative capacity, service delivery capacity, utilization patterns, and the socio-economic profile of the population vary greatly between Bangui and provincial hospitals as well as among the provincial hospitals.
- ▲ Regular payment of government health worker salaries will be key to the success of implementing a national cost recovery policy in government health facilities.

4.2 COMMUNITY MOTIVATION AND PARTICIPATION

- ▲ Community financial participation may be easier to generate than other forms of community participation. The population understands the rationale for making a financial contribution and can be relatively easily persuaded that cotisation or paying fees for services is necessary. Other forms of community participation (e.g., establishing village committees, supervision by village committees, attending village meetings) tend to take longer to establish, confront more social obstacles, and require a great deal of monitoring and motivation to ensure it happens as planned.

- ▲ Three of the most important obstacles on the part of the population that projects have faced when they first try to introduce and establish fee systems are:

A habit of thinking of government health services as free, even though people are used to paying for private sector health services of traditional healers and private pharmacies;

Cynicism about and lack of trust in government services and workers; and

Reluctance about or lack of prior experience with community organization.

- ▲ Once a successful cost recovery experience is established at one health facility or village pharmacy, neighboring communities quickly want to adopt a similar activity.
- ▲ Motivation and consciousness-raising (*sensibilisation*) is needed for health personnel as well as for the population. Outreach efforts have been geared primarily toward the population, but the success and sustainability of a government cost recovery system is equally dependent on the commitment of health personnel. Health workers need to understand a new fee system, believe in charging for services, believe the population is both willing and able to pay, and be committed to the integrity and objectives of the system.

4.3 MEDICINE SUPPLY AND DISTRIBUTION

- ▲ Establishing a medicine purchase, supply, and distribution system is the major logistical problem the projects have had to resolve.
- ▲ A regular medicine supply is key to maintaining the population's willingness to pay.

4.4 FINANCIAL MANAGEMENT

- ▲ Simple financial control and record keeping systems that fit local conditions in the CAR are feasible and adequate to manage fee collection at most levels of the health system (with the possible exception of large reference hospitals in Bangui).
- ▲ Fee revenues should be taken off site when they reach a certain level; but the lack of banking facilities outside of Bangui creates a problem.
- ▲ Regular supervision and monitoring are essential to maintaining the smooth functioning and integrity of the fee collection and management systems.

4.5 PRICES

- ▲ All cost recovery efforts for medicines have established a principle that prices should cover the full cost of replacing the drugs (including transport, customs duties, and other logistics costs) as well as provide a profit margin for health worker salaries, purchase of supplies, or other health or community oriented purposes.
- ▲ Prices that cover the full cost of medicines, including transport, and a markup to generate a surplus to be used for various purposes, are affordable for the vast majority of the population.
- ▲ Village pharmacies save the population time and money, compared with travelling long distances to find private commercial pharmacies when drugs are not available at public health facilities.
- ▲ At the prices currently being charged for non-hospital services and essential drugs, the problem of someone too poor to pay is almost always resolved through family support and peer assistance.

4.6 INDIGENT POLICY

- ▲ For non-hospital services, once a fee system is established, a policy of no exception and "no free care" works best. A system that provides formal exemptions will be abused. The community, a neighbor, or relatives should make the payment for services and medicines for indigents (people truly unable to pay).
- ▲ For hospital services, the current system for identifying inability to pay—a combination of reliance on the formal system of certification of indigents by the local government and on informal mechanisms—has not been entirely satisfactory.

5.0 CONCLUSIONS AND RECOMMENDATIONS

This review shows that nationwide implementation of a cost recovery policy in government health facilities is entirely possible. Previous studies of cost recovery experience and of willingness and ability to pay for health services in the CAR support this conclusion. The population has shown that it is willing and able to pay for essential medicines and for at least part of the costs of health care at government facilities. The government and Ministry of Health have already made the fundamental policy decisions, and most of the necessary laws and regulations are in place. The necessary management systems exist in individual projects; local operational experience exists in a variety of project settings; and information needed to set fees that are affordable, equitable, and related to costs and revenues needed is available.

The ministry wants to make decisions soon on the fee structure to be applied nationally. The current situation where a fee can be charged or not charged for the same service in different localities sends mixed and confusing signals on cost recovery to the population and to health workers. Higher charges for outpatient hospital services than for inpatient hospital services are also inappropriate incentives for consumers and encourage doctors to multiply outpatient hospital services. Charging patients for medicines on an outpatient but not an inpatient basis sends conflicting signals and is an inappropriate use of resources. Allowing some health facilities but not others to retain and use their fee revenue, and allowing some health workers to receive a bonus from some fee revenues but not others, creates further confusion.

Decision makers in the MOH are aware of these problems and have identified several key issues they need to resolve before issuing final regulations (*arrêtés*) for nationwide cost recovery. They want to develop a fee structure and prices that balance several principles:

- ▲ The cost of providing services (and revenues needed to cover part or all of that cost) against the ability of the population to pay;
- ▲ Decentralization and regionalization against national norms and equity; and
- ▲ Total financing from fee revenues and the government budget against the total resources needed to improve quality of service delivery.

The HFS team's review on this mission also suggests that there is a need now to reach decisions on final implementation details and regulations to:

- ▲ Permit all health facilities, not just hospitals in Bangui, to retain the fee revenues they collect;
- ▲ Establish a fee structure for all levels of health facilities so that incentives for appropriate use of services are coordinated (and "harmonized") across the health system;

- ▲ Ensure that incentives in the fee system for health workers do not conflict with incentives for patients to use services appropriately;
- ▲ Decide which fees to establish on a uniform basis nationwide and which should be subject to local decision and variation;
- ▲ Decide whether the same fee system and price levels should apply to all hospitals or whether there should be differences between the large referral hospitals in Bangui and hospitals outside of Bangui;
- ▲ Decide the most appropriate health worker performance incentive system and whether the same system should apply to all levels of health workers;
- ▲ Establish a formal or informal indigents policy for people unable to pay part or all of the fees and decide whether there should be a different policy for hospital-based services and medicines than for services and medicines at other health facilities;
- ▲ Decide whether the government should subsidize health care for any employment or income group (e.g., civil servants, students, military, indigents), and if so, by how much and through what method;
- ▲ Ensure administrative feasibility and flexibility; ensure financial integrity; and ensure that revenues are used to improve health services.

Information from studies already completed and lessons learned from cost recovery experience to date can help make these decisions. At the Director General's request, HFS will provide technical assistance on the content of these decisions and with a workshop planned for February 1994. The purpose of the workshop will be to reach a consensus, make decisions on final regulations for nationwide cost recovery and develop an implementation plan. The implementation plan will provide for initiation of national cost recovery under the new overall fee structure in phases, beginning in June 1994.

It is important that the ministry proceed as planned to resolve remaining issues about a national fee structure and issue the necessary final regulations. These structural issues are at least as important to the success of the cost recovery system as identifying a precise level for each fee (within the ranges that currently exist). It is also important that the ministry undertake action simultaneously on two other issues that are critical to the success of national cost recovery: drug supply and health worker salaries.

Thus, the ministry also needs to take immediate action to ensure a reliable national source of generic drugs. This source need not be a government agency or parastatal; it need not include centrally managed regional depots, many of which already exist or are being set up by NGOs. Until a national structure is set up, the government should encourage regional and local initiatives, such as the depots at Bossangoa, Ngaoundaye, Mbaiki, Bouar, and Dekoa.

Finally, the MOH needs to take whatever action is possible within the government to ensure payment of salaries for health workers as a condition for successful implementation of cost recovery.

APPENDIX A

APPENDIX A

1. Persons Contacted and Sites Visited During the Study

Ministry of Public Health, CAR, Bangui

Mr. Defiobono, Jacques, Secrétaire general
Mr. Namkona, Philomen, Directeur general
Dr. Limbassa, Jean, Inspecteur central
Dr. Ndoyo, Directeur DMPGE
Dr. Souroungba, Grebida, Directeur DMC
Mme. Gaba, Directrice, Complexe Pédiatrique
Mr. Ngouyombo, Joseph, Directeur, Hôpital Communautaire
Mr. Maninguere, Marcel, Directeur, Cellule Soins de Santé Primaire.
Mr. Guere, Antoine Bernard, DEPS

American Embassy/Bangui

Mr. Robert Gribbin, Ambassador
Mr. Robert Whitehead, Deputy Chief of Mission
Mr. Chris Lamora, ALO.

BAD, CREDES

Mr. Bach, Benoit

Catholic Diocese of Bangui

Father Gaudier

GTZ

Dr. Huss, R.

PNUD/Direction du Développement Communautaire

Mr. Bokoum, Chargé du programme
Mr. Taodera, Philippe, Expert National, Bossangoa.

PNUD/FENU/Dekoa Project

Mr. Doudoussar, Chargé de programme
Mr. Bankole, Olawole Casimir, Gestionnaire
Mr. Rendekotto, Gabbie-Jolie, Gestionnaire National du Projet

OMS

Mme. Kouo-Epa, Soulange, Représentante Résident

UNICEF

Dr. Barriere, Luc, Chargé du Programme Santé

REGION I

Kaga Bandoro, Hôpital Prefectoral. (UNICEF), Médecin Prefectoral, Infirmier, Gérant, Comité de Gestion, Gestionnaire of the Hospital.

Ougandago, Centre de santé. (UNICEF), Comité de Gestion.

Dissoukou, Centre de santé. (PNUD/FENU), Comité de Gestion.
Ms. Sonia Walter, Peace Corps Volunteer, Dissoukou.

Dekoa, PNUD/FENU/UNICEF, Centre de santé. Médecin Chef, Gestionnaire National du Project, Comité de Gestion, Gérant.

Dr. Issa-Mapuka, Pierre-Alfred, Chef, Centre de santé, Dekoa.

Mr. Ward Bimus, Peace Corps Volunteer, Centre de santé, Dekoa.

Tilo, Centre de santé. (PNUD/FENU), Comité de Gestion, Infirmier.

LOBAYE PREFECTURE:

Mbaiki, Pharmacies Villageoises.

Dr. Deppner, Canadian CIDA, Project Director

Kokonendji, Guillame, Assistant de l'Administration, Projet Canadien

Bobanqui, Comite de SSP; Gérant, pharmacie villageoise; Infirmier, Centre de santé.

Buchia, Comite de santé; Matrone; Infirmier assistant; Maire.

REGION II

Bouar, Pharmacies Villageoises, Hôpital Prefectoral.

Carl and Paula Stecker, Lutheran Mission, Kwatisoazo

Ella Webster, Peace Corps Volunteer

Ouirebona, Jacques, Chef d'Equipe Mobile de Vaccination

Yangakola, Michel, TSS, Médecin Chef par interim, Hôpital Publique de Bouar

Ptiziquo, Pozzi, Médecin, Dispensaire de Niem, Mission Catholique de Bouar

Souer Pascale Vanwarreghem, IDE retraitée

Wagui Paul, Chef de Section Prefectorale d'Information, Education et Communication pour la Santé de la Nana-Nambene (SSP)

Dare, Comite de Santé, Comité de Gestion, gérant pharmacie villageoise

REGION III

Bossangoa, Prefectural Hospital.

Dr. Yandegora, J.C., Médecin Chef, Hôpital Regional, Bossangoa.

Gazouine, Pharmacie Villageoise, (PNUD/Developement Communautaire), Comitee de Gestion, Secouriste.

Boali, Pharmacie Villageoise, (PNUD/Developement Communautaire), Comité de Gestion, Secouriste.

Nana Bakassa, Centre de santé. (UNICEF), Comité de Gestion, Infirmier.

Boquila Hôpital Privé; Centre de santé.

Mr. Tabio, Gaston, Directeur, Hôpital Privé.

Mr. Zambo, Marcel, Chef, Centre de santé

Paoua, Centre de santé.

Dr. Ndanga, Cerafin, Chef, Centre de santé, Paoua.

Ngaoundaye, Centre de santé, Chef du Centre de santé.

Dr. Bertocchi, Ione, Chef, Centre de santé, Ngaoundaye.

Mr. Mizia, Amos, Comptable, Centre de santé

Mr. Foinbang, Alain, Superviseur des Postes et Cases de Santé

Kounang, Poste de Santé (Ngaoundaye), Infirmier.

APPENDIX A

2. Plan for Field Review of Cost Recovery Experience

REGION I	<u>Team</u>	<u>Dates</u>
1. Dekoa (PNUD)	Maninguere	12/2-4
2. Initiative Bamako, near Kaga Bandoro	Laurin Derriennic	
3. Mbaiki (Canada)	Guere Leighton Laurin	12/6
REGION II		
4. Bouar (Lutherans)	Guere Leighton Laurin	12/7-8
REGION III		
5. Ouham Distact(PNUD GTZ)	Maninguere Derriennic	12/6-9
6. Ngaoundaye (Catholic)	Becker	

Plus 1-2 district hospitals in each region

APPENDIX B

APPENDIX B

Protocol for Field Review of Cost Recovery Experience in the CAR

OBJECTIVES

1. Identify elements that could be used in the further design and implementation of a national cost recovery program for the Government of the Central African Republic (GOCAR).
2. Determine which project characteristics and systems function best.
3. Identify "lessons learned" during project start-up and implementation.

ELEMENTS FOR REVIEW

1. Project history and goals
 - ▲ origin of project
 - ▲ objectives/goals
 - ▲ population covered
 - ▲ services provided
 - ▲ types of health facilities and personnel
 - ▲ distance of facilities from population covered
2. Level of community organization and involvement in service delivery
 - ▲ community involvement in planning
 - ▲ community involvement in managing services
 - ▲ staff attitude
 - ▲ animation/sensibilization of villagers re: project organization and implementation of activities
 - ▲ village committee (e.g., composition, compensation, responsibilities, women's role)
3. Drug procurement, distribution and supply
 - a. Drug financing
 - ▲ prices of drugs
 - ▲ cost covered from drug revenues
 - ▲ percentage of drug markup
 - ▲ availability of funds for restocking drugs
 - ▲ system for providing drug to indigents
 - b. Drug supply & management
 - ▲ source of drug purchase
 - ▲ drug transportation from Bangui to periphery
 - ▲ types of forms used in drug management

- ▲ frequency of drug purchase
 - ▲ drug inventory management
 - ▲ drug storage and transportation
 - ▲ availability of drugs
4. Financing systems and financial management
- a. Fees
 - ▲ fee charged for service
 - ▲ system to provide service to indigent
 - ▲ rules from GOCAR and community to operate fee system
 - b. Source and use of funds
 - ▲ sources and amount of funds for recurrent costs
 - ▲ use of fee revenues
 - ▲ start▲up funds
 - ▲ community role in financing
 - ▲ bonus for health providers including equitable system of allocation for different providers circumstances
 - c. Financial management
 - ▲ system of accounting
 - ▲ types of forms used in accounting
 - ▲ path followed for monies collected
 - ▲ system to ensure against financial mismanagement
 - ▲ community role in financing
5. Training
- ▲ health personnel
 - ▲ subjects covered (e.g., financial management, drug management, health education, etc.)
 - ▲ committee members
6. Monitoring systems
- ▲ supervision
 - ▲ utilization of service
 - ▲ record keeping
 - ▲ types of data collected
7. Conclusions
- ▲ lessons learned
 - ▲ advantages of approaches used
 - ▲ disadvantages in system being implemented
 - ▲ financial viability
 - ▲ impact on population (e.g., utilization, patient satisfaction)
 - ▲ replicability

APPENDIX C

DESCRIPTION OF COST RECOVERY ACTIVITY FOR EACH SITE VISITED

**Project History and Goals
Community Organization and Involvement
Drug Procurement, Distribution and Supply
Financing Systems and Financial Management
Training
Monitoring
Conclusions**

REGION I

BAMAHO INITIATIVE: NANA-GREBIZI PREFECTURE

Project History and Goals

This project is an implementation of the national program of primary health care through the Bamako Initiative. It is an effort to provide health care to populations of rural and peri-urban areas through community financing. The main objectives are to ensure drug availability and to cover recurrent costs of health facilities. In the initial phase of implementation the program will operate at the health center level, with a focus on ambulatory and preventive care. Implementation at the hospital level will depend on the results of the activities at the health centers.

In the Nana-Grebizi prefecture, the Bamako Initiative is operating in four health centers, two of which are in a hospital setting. It will cover about 90,000 people. The team visited 2 sites: the health center in Ouandago which serves a population of 15,000 and the health center at the prefectural hospital in Nana-Grebizi, which includes about 28,000 people. Both centers are on the average 15 kilometers from the population.

The Bamako Initiative in Nana-Grebizi has been operational for eight months.

Community Organization and Involvement

Each health center has a committee whose members are elected by the community. The members are volunteers. The drug salesperson is the only committee member who will receive some compensation for his work. All the committees throughout the country have the same make-up. In Ouandago, one committee member, the treasurer, is a woman. The management committee reportedly meets with the population every two weeks to report on the activities of the committee and to discuss the community needs. Decisions are taken on the basis of consensus.

The villagers contributed to the repair of some of the facilities and the purchase of construction materials. They were not asked to contribute financially to the purchase of drugs. In Nana-Grebizi the community has built the fence, and comes regularly to clean in and around the hospital and health center courtyard.

This community benefits from having *animateurs* (facilitators) who are civil servants from Rural Development who do health prevention work. It was reported that the animateurs will receive motor scooters from UNICEF to facilitate their work. The animateurs are village volunteers chosen by the mayor. Of the 13 animateurs trained, one is a woman.

Management committee members reported that women do not have time to participate in meetings or become committee members and that they want to be compensated for their work. Of a total of 52 committee members, 7 are women.

Drug Procurement, Distribution, and Supply

Drug supply and management. The Bamako Initiative uses UNIPAC for its drug supply. The long delivery time, at least six months and often longer, is a weakness in the system. During the site visits, certain drugs were unavailable, and it was unclear when they would arrive in-country. UNICEF personnel order the drug and medical supplies and UNICEF transports the drugs free of charge to the sites. There are no plans at this time to set up intermediary depots.

Drug inventory forms are complete and used correctly. Minimum stock requirements are used and understood by the managers (*gérants*).

Drug financing. The price of drugs is set by the management committee within a range given by UNICEF. The mark-up on UNIPAC price delivered in Bangui is between 20 and 30 percent. Stocking, handling, and transport expenses are covered by UNICEF. At first UNICEF did not provide an upper limit on the prices of drugs, but had to impose one after a site raised its prices unreasonably.

UNICEF is providing the first year's supply of drugs to the Bamako Initiative projects.

There is no formal system for providing or subsidizing drugs to indigents; families and friends are to pay for those otherwise too poor to pay.

Financing Systems and Financial Management

Fees and Source and Use of Funds. UNICEF proposed a consultation fee to the MOH but could not get approval. Therefore the only source of funds is drug sales. UNICEF requires the community to contribute to the construction of a pharmacy building with local material and local labor. But all other costs are covered by UNICEF, including the initial drug stock free of charge.

Since UNICEF decided that the committees could not use their funds for the first year, the pharmacy manager is not getting paid, and the management committee cannot determine if their revenues are covering their expenses. UNICEF has restocked the pharmacies. The local committees did not know what they were going to be charged for the drugs.

Financial management. The system uses a well developed accounting and financial management system. This includes: a prescription book (*quitancier*), daily payment book (*cahier de versement journalier*), drug use notebook (*cahier de consommations journalière*), and cash box book (*livre de caisse*). Funds are controlled daily by the auditor (*commissaire au comptes*) who is a member of the management committee. Each day, the cash is turned over to the treasurer and deposited in a strong box on site. Cash is taken off site during UNICEF's periodic visits.

Training

Training in information, education, and communication (IEC) was conducted during 11 days for health personnel and villagers more than one and half years

before the beginning of the project. Technical training was done by the *médecin chef*. Subjects covered were: drug management, accounting, utilization of a treatment protocol (*ordinogramme*), provider-patient interaction. No retraining was done prior to the actual implementation of activities. The nurse mentioned that he could benefit from some retraining in the use of the treatment protocol. He has some problem in using it. UNICEF recognized the need for retraining, but the budget did not include funds for this activity.

Monitoring

In principle the *médecin-chef* provides monthly technical supervision. But in reality it is unlikely that the supervision will be done on a monthly basis because the *medecin-chef* has too many health centers to supervise. UNICEF handles the managerial and drug inventory supervision.

The Bamako Initiative uses government health personnel to whom they provide training and motor scooters. The personnel who work in preventive care do not benefit from the 30 percent bonus that the curative care personnel enjoy.

Conclusions

The financial management system is well developed, and training was well designed and carried out — the staff understands and uses all of the stock and financial instruments at their disposal. It would appear that the amount of the markup on the drugs is inadequate to cover storage, handling, and transport costs. Under most circumstances, daily controls and deposits may be more than needed — a weekly schedule would be adequate. The amount of time and effort required of the auditor and the treasurer could lead to demands for monetary compensation.

In both places visited patients expressed satisfaction with the service. In the Nana-Grebizi health center and hospital, provider-patient relations have reportedly improved because in the past, when there were no drugs, the patient blamed the providers whom they thought were keeping the drugs. Also, waiting time has been shortened. In the past patients waited two hours or more for the health center to be cleaned before consultations started. Now some community members come to clean the health room.

The committee reported that more patients come to the center now that drugs are available.

REGION I

DEKOA AND KEMO HEALTH SERVICES STRENGTHENING PROJECT

History and Goals

This project which is financed by UNDP, UNEF, and UNICEF is located in two sub-prefectures in the prefecture of Kemo and the sub-prefecture of Dekoa. The project is testing a methodology of functional rehabilitation of the government health system based on partnership associating the state, the communes and the populations in the financing and management of the health sector. The project includes two health centers, in Mala and Dekoa, and four health posts, in Daya, Tilo, Dissikou, and Damire. The total population covered is estimated at 25,000. The project covers 43 villages. Dekoa is a center of reference where the project has renovated and built facilities. The Dekoa health center provides a full range of reference services and has about 60 hospital beds.

It is a three-year pilot project which started in September 1992 with a possible option to extend at the end of the first phase. The main objective of the project is to develop a local strategy for primary health care and to collect useful information that could contribute to the development of a strategy of co-financing and management of the health system in the CAR. If the results of the pilot are satisfactory, there could be an extension which could take into account recommendations on replicability. In the project document activities are planned in three phases with specific objectives for each phase.

The first phase includes:

- a. Evaluation of the health system and propositions for its redress;
- b. Cost estimates of the normal operation of the different health centers/posts along with self-financing by the population and the community's choice of mode of self-financing;
- c. Socio-economic survey on family budget, behavior people resort to in case of illness, and existing social organizations;
- d. Community mobilization towards self-responsibility to provide materials for construction or renovation of health structures, the creation of management committees, and a written commitment between the community and the government defining the responsibilities of each partner in the implementation of the project.

The second phase includes:

- a. Provision of essential drugs, equipment, and other small materials;
- b. Identification of sources to purchase drugs at the lowest possible price;
- c. Elaboration of an efficient system of management;
- d. Elaboration of fees that will take into consideration the disadvantaged;
- e. Development of a financial system to monitor monetary transactions;
- f. Construction/repair of facilities;

g. Training of health personnel in the use of the treatment protocol (*ordinogramme*) and of the management committee in management.

The third phase includes: implementation, evaluation, and elaboration of a protocol of replicability of the experience in the primary health care system.

Community Organization and Involvement

The communities have contributed labor and local materials for the construction or renovation of structures and have formed management committees. The population living in Dekoa contributed an estimated 105,000 CFA in building materials towards the construction and renovation of the Dekoa health center. Donor agencies supplied imported material, equipment, specialized labor, drugs, and technical assistance.

The management committee in Dekoa meets once a month with the leadership of the project to discuss problems and the functioning of the center and to report on activities. In case of conflict in reaching a decision both parties negotiate.

It is reported that the project undertook motivation and planning discussions (*sensibilisation*) with the communities for a two-year period.

Drug Procurement, Distribution and Supply

Drug supply and management. UNICEF provided the original drug stock. Project staff have been responsible for reordering and have used UNIPAC. No delays or lack of stocks have been reported. There is a depot in Dekoa that serves both as a central pharmacy for the other health facilities and as the Dekoa health center pharmacy. Drugs and supplies are transported by project staff from Bangui. The local managers (*gérants*) come to Dekoa to resupply their pharmacies. Transport is either by taxi bus, paid by the centers, or by bicycles provided by the project. Purchases are made as needed.

Stock forms are used at both the Dekoa health center and at the local facilities visited. The Dekoa center stocks over 120 drugs and supplies. The local facilities stock around 60 drugs.

Drug financing. Local committees set their drug prices within the range given by the project: a mark-up of 20 to 30 percent on the cost of drugs delivered in Bangui. This mark-up appears to be adequate to cover reordering.

Financing Systems and Financial Management

Fees. Dekoa is using a fee for service system. At the other smaller health centers fees are charged for consultations, for hospitalization, and for drugs. The fees were set by the project staff and the local management committee. Health personnel receive 30 percent of the consultation fees. The manager is paid between CFA 4000 and CFA 5000 a month. Funds have also been used for other health related activities in the community such as repairing water well pumps or health building maintenance.

The Dekoa health center charges fees for all services: consultations, lab tests, hospitalizations, surgery. Fees were set by the staff, the local management committee and the MOH, Bangui. The pharmacy bills the various services that use drugs and medical supplies. The management committee pays these bills out of the general fund.

There is no formal system to provide or subsidize services for indigents. The family or the community is expected to pay for those who cannot otherwise pay.

Source and uses of funds. For construction, the population was required to provide local materials and labor; the project provided the imported materials and specialized labor. The population balked at providing free labor and eventually had to be paid. For major construction (three sites) a Bangui-based construction firm was contracted for the work. No monetary contribution was requested from the local populations, and the project provided the initial drug stock.

At the local level, revenues from drug sales are used to pay the salary of the manager and to buy drugs and supplies. The health worker gets 30 percent of the consultation fees.

At the Dekoa health center, drug sales are used to cover the salary of the manager, to pay for support staff, and to buy drugs and supplies. Revenues from fees collected from other services are pooled and distributed to the health personnel (30 percent) and are used to pay the pharmacy for the drugs and medical supplies used by the services. The internal distribution of the 30 percent among the health personnel was determined by the personnel without input from the project staff.

Financial management. The project uses a simple accounting and financial management system. At the local level funds are collected once a month and taken to Dekoa for safekeeping. At first all funds stayed in the villages but this led to abuses. The project proposes to gradually return the funds to the villagers for self-management but with an upper limit on the amount kept on site.

In Dekoa, the funds are centralized by the treasurer under the supervision of project staff.

A useful stock and financial management tool has been developed to track daily sales of drugs.

Training

Project staff conducted management and role training for the health committees and management committees. In two years they had one training session and two retraining seminars. The 19 health personnel, nurses, *matrones*, and nurses aides were trained in the use of a treatment protocol (*ordinogramme*). They had one retraining seminar.

Monitoring system

Technical and managerial supervision is ensured by the project leadership and their counterparts. Technical supervision is done by the technical assistant and his counterpart.

Conclusions

The Dekoa project is highly dependent on the external project staff and will require more work in order to be institutionalized and self-sustaining.

For example, the Dekoa project is an ambitious, large project with many activities: building construction, purchase of equipment (UNEF/FENU), Bamako Initiative (UNICEF), rehabilitation of the health system (UNDP/PNUD). The population could be overwhelmed by all these activities. A project of such magnitude needs a long period to raise awareness and inform the public. The components should be phased in gradually to give the population time to understand and to accept these changes.

In addition, in Dekoa, there appears to be resistance, not from the population in general, but from the medical personnel and the local elite to the principle of paying fees. There are significant "leakages" of drugs and supplies in the various services, and it was reported to us that care is given by medical personnel outside the facility, undercutting fees charged at the center. While the first could be controlled through better management of the drugs and supplies, this highlights one of the major lessons of the Dekoa project: health personnel must be persuaded of the merits of the cost recovery system, and local elites may resist the imposition of a fee for service system.

Under the old system, local elites, medical personnel and their families got free care. Medical personnel benefitted from drug "leakages" and from under-the-table payment for services. Thus, both groups are net losers under the new system. Communication and motivation efforts will be as necessary for these groups as for the general population.

It is not possible at this time to say which component may be replicable or sustainable. But health care and drugs are available, and a system is functioning thanks to technical and managerial assistance and large financial investments to which the population contributed very little. The stock and cash daily management form developed by the project are feasible and appropriate and could be used as a model for national implementation.

REGION I

LOBAYE PREFECTURE VILLAGE PHARMACY PROJECT

History and Goals

This project currently includes 15 village pharmacies that sell about 25 drugs. The pharmacies all just completed the start-up contribution or began operating in 1993. The Canadian International Development Assistance agency, CIDA, provided technical assistance to start up the pharmacies, in the larger context of a project to strengthen services for treatment and prevention of sexually transmitted diseases (STDs) and HIV/AIDS. The purpose of the village pharmacy project is to make available a reliable, self-financing source of essential drugs for primary health care, including treatment of STDs.

The project helps establish pharmacies only where there is a nurse at a public health facility nearby because of the need for prescriptions for most of the medicines stocked. Of 25 items, only aspirin and condoms can be purchased without a prescription. The village pharmacy itself provides for a salesperson and treasurer, as well as a management committee. Presently there are villages which are requesting pharmacies but do not have a nurse nearby. The average distance of a pharmacy to population not living in the village where it is located is 6 to 8 kms.

The team visited two sites: the village of Bobangui with 3000 inhabitants and the village of Bouchia with a population of 7000.

Community Organization and Involvement

At the outset the physician advisor (*médecin coopérant*) supported by CIDA contacted the notables, the neighborhood leaders and the village nurse, in areas with health centers, and organized meetings with the population to explain the concept of village pharmacies and community financing. In general, the advisor holds three meetings, each lasting about one-half day to complete the decisionmaking, planning, and training process. If a village shows no interest during the first visit, the advisor does not return.

The project established two prerequisites: financial contribution by 80 percent of the population in all the villages to be served by each pharmacy and election of a primary health care committee and a management committee. The management committee includes a president, a treasurer, a deputy treasurer, a drug salesperson, and a comptroller. The main objective of the committee is the management of the pharmacy and the revenues from drug sales.

The management committees decide the amount of contribution, generally 200 CFA per adult. People who do not contribute to the village collection have to pay a higher price for the drugs or pay the contribution before they are allowed to purchase any medications. The Canadian project matched each community's initial contribution with an equivalent sum. The community was responsible for building a room or renovating an existing structure to house the pharmacy and supplying the shelving to hold the drug containers.

Drug Procurement, Distribution and Supply

The project purchases drugs from ECHO in London at the same price charged by UNIPAC but delivery is faster. The physician advisor currently distributes the medicines to the village pharmacies on supervisory visits. The prefectoral drug depot in Mbaiki is managed by the project. At the end of December 1993 the management will be turned over to the Spiritaine sisters in Mbaiki. Meetings have also been held with CARFAM, a local Italian NGO that has sponsored similar village pharmacy systems in another sub-prefecture in Lobaye to discuss coordination of drug purchase, storage, and distribution. Since there are no banks in Mbaiki, funds will have to be taken to an account in Bangui.

Financing Systems and Financial Management

The project determined the prices for the drug sales and will be reviewing the price structure after more operating experience to determine if it meets its goals of covering all costs plus providing a margin for villages to invest in other community projects.

In general, a 40 percent mark-up is added to the purchase price of drugs to cover transportation to the CAR and customs costs. At the village pharmacy the drugs are sold at twice the purchase price; prices are the same at all the pharmacies in the project. This additional margin (*marge bénéficiaire*) is shared between the prefectoral depot and the village pharmacy. The revenues are used to restock the depot and pharmacy and cover local transportation and operating costs. The most expensive drugs do not have as high a mark up as the others, in order to keep them affordable.

The village pharmacy salesperson is paid the higher of 10 percent of the drug revenues or 5,000 CFA per month. His working hours vary from two to four hours a day, seven days a week. Once the pharmacies are fully functioning, the revenues will provide a profit that can be used for community projects such as construction of maternities, of latrines, of wells, etc.

The salesperson records in a book, on a daily basis, the drug sale and income and keeps the prescription slips. During each restockage the management committee and the project staff control the drug sold with the income by multiplying, for each drug, the quantity sold with the price. They also compare the sale with the prescription to make sure that sales are made only to those who have a prescription. This control is to avoid drugs being bought and sold for profit by "businessmen." The checking of revenues against prescriptions is done every two weeks. At one pharmacy that had just opened, daily sales averaged about 4,500 CFA. The money is kept by the treasurer. Once a month there is an inventory control.

There is no institutionalized system to take care of the indigent, and all people receiving drugs must pay for them. There exist community support systems that can respond to crisis situations. In Bouchia, for example, when an indigent needs help the members of the committee contribute to purchase the drugs for the needy. In general, each community handles the indigent in a different way.

At the village health pharmacies there is a list of people who have contributed. A list of drug prices is posted in conspicuous places such as the village pharmacy, the mayor's office, the health center, etc. Members pay the regular listed price. Those who have not contributed are charged more than the listed price any time they make a purchase. Committee members explained that by then everyone understands that it is more advantageous to contribute.

Training

All committee members participate along with the salesperson in a one-day training program in stock management and inventory, and utilization of forms. The nurses receive training in laboratory identification of HIV/AIDS, and utilization of a treatment protocol (*ordinogramme*).

Monitoring System

The physician advisor and an assistant hired by the project supervise the drug supply and the financial management. They usually make supervisory visits every two months, once a pharmacy is well established. The MOH regional medical officer supervises the health center nurse.

Continuing supervision and monitoring will be one of the main problems after Canadian assistance ends. There is only one MOH doctor in the prefecture and he is responsible for the prefectural hospital as well as all supervision.

Conclusions

Villagers at the sites visited are well motivated and satisfied with their achievement. Although this initiative comes from outside, the communities have made it theirs by their commitment to its success. The committees expressed satisfaction that drugs were now available at low cost and travel for long distances was no longer necessary.

The project started on a small scale with one pharmacy. The demonstration proved successful and the populations were convinced that a majority of villagers could contribute to a project, the contributions were indeed used to establish a pharmacy, and the pharmacy could function under village control.

REGION II

KWATISOAZO VILLAGE PHARMACY PROJECT

History and Goals

This first phase of this project in the prefecture of Nana-Mambere started in 1987 with assistance from the Evangelical Lutheran Church of CAR. The objectives were to help repair health centers (*sous-centres de santé*) in the communes of Bingue, Gallo, and Foh so that they could serve as reference centers for health posts and huts. The lack of drugs at public health facilities and the high prices charged by local merchants had created the need for the church to look for alternatives.

The project proposed to help create village committees and village pharmacies, and to train health agents in collaboration with the local public health (MOH) authorities. The church helped to organize meetings to motivate communities and create village committees. The main objective of these committees was to help villagers to be responsible for their health. Of the 13 village pharmacies created four years ago, ten are still functioning. The total population covered is about 13,000.

The objectives of the project are to:

- a. Help create 23 village committees in the communes of Bingue and Foh to cover all the population of these communes;
- b. Train 46 health agents and 46 traditional matrones in villages with committees;
- c. Help create 15 village pharmacies in Bingue and Foh where there are village committees and trained personnel;
- d. Help provide low cost, generic, essential drugs to the village pharmacies and help create a local drug depot;
- e. Retrain on a regular basis the health agents and the matrones;
- f. Teach basic health hygiene; and
- g. Continue to help the health centers (*sous-centres de santé*) in Bingue, Foh and Gallo by transporting vaccines for the immunization program (EPI) and help with retraining to insure good work in maternal and child health (MCH).

Community Organization and Involvement

The project operates in cooperation with the local MOH authorities and the villagers. A rural *animateur* (facilitator/community organizer) is hired to help create the committee. A minimum of 75 percent of the population must attend the three meetings necessary to create a committee and 85 percent of the villagers

must contribute, 25 to 150 CFA per adult, to the initial drug stock. The village committee has one representative from each important group in the village, a married man, a married woman, an elderly man, an elderly woman, a single man, a single woman, the village chief, civil servants (policeman, teacher, health agents, etc.) and religious chiefs. The management committee for the village pharmacy is a smaller subgroup of the village committee.

Drug procurement, Distribution and Supply

The project established a depot of essential generic drugs in Gallo-Boya that serves the communes of Bingue and Foh. The depot buys drugs through the Association des Eglises pour la santé centrafricaine (AESCA) or through the Lutheran Church in Cameroon or from local Central African pharmacies. There are about five drugs in the village pharmacy. The village pharmacy buys drugs at the depot.

Financial Systems and Financial Management

The community participates through the management committee in the financial and administrative management of the pharmacies. The community also contributes financially toward the expenses for training and retraining.

The project director is paid by the Evangelical Lutheran Church. Operating expenses for vehicles are provided by the Church. During the first 18 months of project activities the rural *animateur* was paid by the Church. Progressively the Church reduces its contribution to the salary of the rural *animateur*. This reduction will be picked up by the profit on drug sales up to the point that the total salary of the *animateur* will be paid from drug revenues.

A mark-up of 200 to 250 percent is added onto prices of drugs to cover transportation and other costs. Part of this mark-up also goes to the project to subsidize the *animateur's* salary. The remainder is used by the villagers to make small payments to the part-time pharmacy salesperson for his services, as well as to invest in community projects, such as purchasing a uniform for the *matrone*, buying a football, constructing a wall around a spring, buying cattle, etc. Making sure that the profits are used for a visible community endeavor helps to avoid or reduce theft.

There is a book for each of the five drugs where daily purchases are recorded. Remaining drugs and money are counted at the end of the day. Once a month the project conducts a control on money and drugs, then expenses are paid. In the site visited, the drug salesperson receives 3,000 CFA every six months depending on profit made.

The community allows indigents to have prescriptions filled and make payment later when they are recuperated.

Training

Two to three traditional *matrones* and health agents per village, chosen by their community, were trained for a week with the cooperation of health center

directors (*chefs de centres*). The management committees receive training in management of the stocks and record keeping, and financial control.

Monitoring Systems

The locally hired project administrator, who is also a trainer conducts the technical, management, and financial supervision. The project administrator also runs the depot. The project director assists and provides overall supervision of the project administrator.

Conclusions

The populations are well motivated and are being helped to take responsibility for themselves. The population not only understands the need for drugs and the need to pay for them if they want a reliable supply, they affirm that health status in the villages has improved since drugs for common ailments are readily available.

Awareness-raising and information activities are needed to help villagers understand that women as well as men should be paid equally for their services. At one site visited, the male salesperson was paid from drug revenues, but the female was not, even though (contrary to tradition in most other locations) she received nothing otherwise for her services.

Villagers also indicated that they may pay more for traditional healer's services than for services at the public health center or hospital, but the payments are in kind and not in cash. In addition, unlike civil servants, village populations are accustomed to paying for health services and drugs.

REGION III

NGAOUNDAYE HEALTH CENTER PROGRAM

Project History and Goals

The Ngaoundaye health program consist of care given at the health center, 14 health posts and 8 health huts. The health center is a fully functional MOH hospital with 63 beds.

The health activities of the Ngaoundaye health center and surrounding health posts and huts are partially funded by an Italian Catholic mission and an Italian Catholic NGO as part of a program of integrated development. The mission is currently funding the activity of a doctor, Dr. Ione Bertocchi. Dr. Bertocchi has been working in Ngaoundaye for the past fifteen years. She is also a MOH physician assigned as the health center chief, as well as supervisor for all health activities in the zone. Besides Dr. Bertocchi, the MOH has assigned health personnel to work at the center and additional health and support staff are paid by center-generated funding (see *below*).

The first health posts were set up in 1983. They are staffed by a *sécuriste* (health aide) who consults and dispenses out of a stock of around 60 drugs. The *sécuristes* were trained for one year at the Ngaoundaye health center. The health huts are staffed by a health worker (*agent de santé*) who see patients and dispenses out of a stock of 10 to 15 drugs. The health workers were also trained at Ngaoundaye for three months.

The client base is extensive and patients come from the whole region, including Chad and Cameroon. The health posts and huts are evenly distributed in the sub-Prefecture of Ngaoundaye and beyond. Travel to the farthest facility can take up to four hours. The total population covered is not known.

Community Organization and Involvement

To set up an health post the population is expected to contribute CFA 150,000 for the purchase of medicines, and to provide local materials (sand, gravel, mud bricks) and labor for the construction of the facility. A local development agency, the Agence Centre Africaine de development de l'Ouaham Pende (ACADOP), provides the imported materials and pays for a mason to supervise the construction. Part of the CFA 150,000 collected is used to pay a stipend to the health personnel during their training.

A health management committee (*Comité de Gestion*) is elected by the population. It is made up of a president, a treasurer, and a secretary. The *sécuriste* turns over the funds from drug sales to the treasurer once a week. The committee meets periodically to supervise the activity of the center. This involves a drug inventory as well as a cash and books control. The secretary and the *sécuriste* are responsible for drug purchases. The members of the committee are not compensated. There are periodic general assemblies for all villagers interested in the functioning of the health post. However, there is no set

assembly calendar, and the length of the mandate of the members of the committee is indeterminate. The health huts are set up and function in a similar manner.

At this time, the Ngaoundaye health center does not have a health management committee. The center's staff is exploring various strategies that would involve the population as well as local officials in the management of the health center.

Drug Procurement, Distribution, and Supply

Drug supply and management. Dr. Bertocchi orders and purchases drugs using various formal and informal contacts. Normally, all drugs are generic, bought in Europe through non-profit drug sources (IDA, MEDEOR, UNIPAC) or directly from a German factory. Substantial amounts of drugs are donated to the health center by the Italian mission and other groups. The drugs are air freighted to Bangui where the doctor or other members of the mission pick them up using mission vehicles. They are stored either in the Pharmacy Rurale for the health posts and huts or at the pharmacy for the center. Although both use the same sources, there are in fact two separate distribution and management systems.

The Pharmacy Rurale was set up to supply and resupply the health posts and huts. It only sells to the posts and huts supervised by Ngaoundaye health personnel. The drugs are sold at a mark-up adequate to cover the transport costs to Bangui, and the salary of the manager. The manager is also the accountant for the health center. His salary is split between both facilities. The posts and huts put a 100 percent mark-up from the Pharmacy Rurale price. This mark up covers all costs (*See below*).

The health center pharmacy sells drugs to outpatients based on a prescription written by the health personnel. Inpatients do not pay for individual drug use as the costs of drugs are covered by the fees charged.

Stock inventory forms are used at all levels of drug management. For outpatient prescriptions, a form called *RUMER, Registre d'Utilization de Médicaments et Recettes*, is used.

Drugs are always available. Dr. Bertocchi makes one or two large drug orders a year. A major concern is the delay in deliveries from Europe. If the drugs do not arrive in a timely manner, Dr. Bertocchi has to purchase drugs in-country from the commercial pharmacies at a much higher cost. Since drug sale prices are not adjusted to cover these costs, such purchases result in large losses to the system. Ngaoundaye plans to purchase drugs through the regional depot at Bossangua as soon as it is operational (*See UNDP/Development Communautaire for details*).

Drug financing. Throughout the Ngaoundaye system drugs are sold at a price that covers the costs of restocking as well as most costs associated with the transport, handling and management of the drugs. The currency exchange expenses of placing drug orders in Europe are not covered in the drug sale price; the doctor covers these expenses and any losses associated with exchange rate changes. In-country transportation expenses are covered by the mission. The 100 percent mark-up used by the health posts and huts covers the cost of transport

and the salary of the health worker. The mark-up at the level of the Pharmacy Rurale covers the cost of management as well as the salary and expenses for the supervisor.

There is no formal system for providing or subsidizing drugs to indigents; families and friends are expected to pay for those otherwise too poor to pay. (See below)

Financing System and Financial Management

Fees. In discussing fees charged in Ngaoundaye a distinction must be made between fees charged at the health center and fees collected at the posts and huts.

At the health post and huts patients pay for medicines, but no fees are charged for services. The mark-up on drugs provides funds for payment of the *sécuristes* at the health posts (monthly salaries range from CFA 13,000 to 16,000), transport costs (the cost of taxis/bus fare for the *sécurist* and/or the secretary to pick up drugs), and finally for miscellaneous expenses, such as office supplies and building maintenance. The same mark-up covers costs at the health hut level with the one difference—the health workers do not get a monthly salary; they receive 10 percent of the drug revenues.

At the health center, fees are based on a per illness charge, designed to cover consultations, lab work, hospitalization, and/or surgical intervention. For example, after paying for the initial consultation fee (CFA 100 for adults), an outpatient's subsequent visit for the same illness are free. For children there are no additional fees once the consultation fee is paid (CFA 50). Drugs needed to treat the illness are charged on a flat fee basis. A patient hospitalized for an illness pays a one-time fee that covers all expenses related to that illness.

There is no formal system for providing or subsidizing services for indigents at the health post, huts, or the health center. Familial and/or communal solidarity is called upon to pay for those who cannot pay themselves. At the health center, only the doctor can waive fees on a case-by-case basis. It was not possible to quantify the number of indigents, but the doctor insisted that most patients pay the full fees and that cases of true indigence were rare.

Source and uses of funds. At the health posts and huts, funds to start the activities come from the community's contribution. These funds are matched by the mission and used to buy medicines. As mentioned above, ACADOP provides the imported materials for the construction of the posts and huts and pays for a mason to supervise the construction. Revenues from the sale of drugs provide the funds to compensate the health personnel, pay for the purchase of drugs and medical supplies, and to cover the cost of transport, and miscellaneous expenses.

At the health center, the mission and other outside donors provided funds for facility construction and maintenance. In the past the MOH provided an operational budget, but the center has not effectively received any funds from the GOCAR in several years. The MOH does provide salaries for some health personnel.

Operating funds are generated from consultation and hospitalization fees and the sale of drugs to out-patients. These funds are used to pay additional medical personnel, support staff, and to provide a bonus to MOH personnel. All personnel receive payment for overtime work, weekend work, and a on-call (availability) bonus. MOH personnel also receive 30 percent of fees charged for surgical interventions. The funds are also used to purchase drugs and medical supplies for the hospital, office supplies, and building maintenance, although as mentioned above, donations are also used for building maintenance.

The Pharmacy Rurale is an autonomous organization established to act as a regional drug and medical supply depot for the health posts and huts. The mission provided the funds for purchase of the initial drug and medical supply stock. Operating funds generated by the sales of drugs and supplies to the health posts and huts pay for the restocking of drugs and supplies, the salary of the manager, and covers supervision outlays (salary, transport, and expenses).

Financial management. At the health posts and huts, the accounting system is basic. The treasurer keeps a cash book (*cahier de caisse*) recording weekly deposits and expenses. The health worker may or may not keep a daily record book. A balance and control is done once a month or bi-monthly with the committee and the supervisor. At this time a drug stock inventory is also done. The committee decides on the use of the funds.

Cash is kept with the treasurer until it is needed. The health agent and the secretary go together to purchase drugs at the Pharmacy Rurale.

Until recently, most of the health post and huts were under direct control of the health center in Ngaoundaye. Funds were transferred to Ngaoundaye, and the doctor decided how and when to spend the funds — including the level of compensation for the health worker. During the past year, all health posts and huts have been made autonomous, both in fiscal and management terms.

At the health center, the accounting system is well developed and complex. Accounting is both on a cash basis and a cost basis (donations are valued and entered in the books). The system is managed by an accountant and provides basic income and expenditure information. There is a complex set of books which do not readily provide information on a cost center basis. For example, one can determine if revenues are covering costs but cannot determine if fees charged in a given service are covering that service's costs. There are no procedure manuals and no outside auditing of the system.

The accountant acts as a daily cashier receiving funds from various services. The funds are then transferred to the account of the mission for expenditure.

Training

Health personnel at the health posts and health huts received one year and three months of training at the Ngaoundaye center respectively. The training was mostly medical but also included drug stock and financial management. Every year all medical personnel take part in at least one training session covering medical

and non-medical subjects. The committee takes part in a training program on site. Periodic training is given on site during the supervision visits.

Monitoring systems

Funds generated by the Pharmacy Rurale pay for the salary and expenses of a supervisor. The supervisor makes at least a bi-monthly visit to each site. During this visit, a stock inventory is conducted, the books are closed, and the cash is controlled. Various issues and problems are raised and settled. If the supervisor cannot solve a problem (or the committee is not receptive to his advice), the doctor is called in. The visits are also used to do on-the-job training.

As a further control system, the Pharmacy Rurale will not sell drugs to a post or hut that is not in good standing with the system (that is, whose health worker did not attend training or whose committee refuses to meet with the supervisor). In the past, one health post was suspended from the system until it had resolved some personnel problems.

The health center is testing the health information system, *Système National d'Information Sanitaire* (SNIS), developed with the assistance of the African Development Bank. This system includes useful financial management tools such as a self-financing ratio and an outside dependency ratio.

Conclusions

The Ngaoundaye health center demonstrates that a fee-per-illness system can function well and is acceptable to the population. But it also shows that such a system requires a complex financial management system and requires a level of management and financial management skills unlikely to be found at most health centers in the CAR. The current Ngaoundaye system should be codified in procedure manuals and used as an example of a fully functioning health center.

The Pharmacy Rurale works well; using the proceeds to fund supervisory costs is a model that could be replicated. The supervisory and monitoring system could be used as a model by the MOH.

The system is highly dependent on Dr. Bertocchi and may not be sufficiently institutionalized to be self-sustaining. An in-depth cost analysis would be needed to determine if the health center is financially self-sustaining. Although some refinements in the financial management system would be useful, the Ngaoundaye system is by far the most sophisticated.

REGION III

COMMUNITY DEVELOPMENT HEALTH POSTS

History and goals

This project financed by UNDP/DTDC, UNEF, and FAD, started in 1987. In its second phase, 1992-96, the project also receives African Development Bank (BAD) financing. The project covers 35 percent of the population of the CAR. The objectives of the project are to:

- ▲ Improve living conditions of village populations;
- ▲ Increase agricultural production through the promotion of local development initiatives; and
- ▲ Attain the operational autonomy of these initiatives.

Village initiated, managed, and financed health posts are one component of the general community-based development project. The project coordinates its activities with the Ministries of Health, Social Affairs, and Rural Development, and the *Centre de Formation Agricole et Rurale* to help in the implementation of the primary health care strategy, building of pharmacies and health centers, and the training of health personnel. Collaboration with NGOs and other international donors such as UNICEF, GTZ, CEE, is sought for the purpose of coordinating resources and avoid duplication of efforts.

Community organization and involvement

The criteria for selection of villages were: size of village, distance from health centers or other business or commercial center and, interest in the project. Several meetings were held with the community to collect information on village needs, village resources (human, economic, history of organizations, cooperatives), problems (history of mismanagement, feuds, division and separation of groups), and solutions adopted.

After these meetings the village is given time to make a decision. If there is no agreement on action to take, the process ends. In case of agreement the project helps the village establish contact with the technical services for advice on how to plan and organize the activity the village has identified. The village chooses an activity that the project can support such as pharmacy, store, warehouse, mill, etc. The population contributes 44 to 53 percent of construction cost, and 25 to 50 percent of the initial drug purchase. The project finances activities with loans at 10 percent for a three-year period.

The project undertakes a standard feasibility study which lasts about six months. This study is discussed with the villagers for approval. Following this agreement, the process of gathering the cash contribution and the contribution in kind (for example, building supplies) that the village has agreed to provide begins. It takes approximately one to four years to collect this cash contribution. This length of time is essential for the villagers to understand and accept this commitment. It takes about three weeks to obtain the contribution in kind.

When everything is ready, a development contract is signed with the Village Development Committee (Comité Villageois de Développement) and the Project. The contract spells out the provisions for the financing, management and the responsibilities of each party.

Drug procurement, distribution and supply

Drug supply and management. The PNUD community development project buys drugs from a local source, SODIPHAC in Bangui. The team did not learn how the initial drug supply was transported to the sites, but when a site needs new drugs it draws up a list, gets approval from the MOH regional doctor (*Médecin Chef*), and sends a villager to purchase the drugs from SODIPHAC. All expenses, transport, and per diem for the buyer, are covered by the villagers. Determination of when, what, and how much to buy is made by the village health management committee.

The project with assistance of the GTZ and 15 village committees is setting up a regional drug depot in Bossangua. The building has been built with the labor and local materials of 15 village committees. The project and GTZ provided the imported materials. The GTZ will provide assistance for off-shore generic drug purchases and for the training of staff. The depot will sell to all non-profit and public health facilities in the region and beyond (For example, the Ngaoundaye health center is interested in participating.).

Drug financing. SODIPHAC sells the drugs to the UNDP project health posts at a 26 percent discount from its list prices. The health posts then sell the drugs to patients at the SODIPHAC list price, which gives the posts an automatic 26 percent mark-up. Revenues from drug sales cover the salary of the manager and the health agent, and all costs associated with drug purchases. The availability of drugs depends on SODIPHAC, and since SODIPHAC is a for-profit organization, stock outages are rare.

There is no formal system for providing or subsidizing drugs for indigents; familial and communal solidarity is expected.

Financial systems and financial management

Fees. No fees for consultation are charged; drugs are sold.

Source and use of funds. To begin the activity the project requires that the community contribute CFA 250,000. This usually takes at least a year to collect. The project then lends, at 10 percent interest, a matching sum. These funds pay for the initial drug stock and expenses (for example, the salary for the mason and transport cost of local materials not available on site) of the construction of a health facility. The community also contributes local material and labor. The project contributes imported materials. The funds are also used to support villagers chosen to be the health agent and the manager for the duration of their training, usually one year.

Revenues from the drug sales are used to resupply the stock, pay the salary of the personnel, pay back the loan, and pay for other community projects which are not limited to health activities.

Financial management. The health posts keep basic books. Cash is transferred to the treasurer once a week, and an audit is performed. The treasurer usually keeps the funds, although some committees have opened bank accounts in Bangui. If there are problems, Community Development agents are called in and a general village assembly is called to discuss and resolve the issues.

Training

Training is an important component of the project. On-the-job training is most favored. The villagers receive technical training during the construction of the buildings. The health post manager, the treasurer, and the controller are trained for one week on the use of management tools such as bookkeeping, inventory, sales, principles of organization and management for committees, sensitivity and other training techniques, basic components of a feasibility study, etc. The nurse aide (*sécouriste*) undergoes 8-12 months of training in the hospital or the nearest health center.

Conclusions

The UNDP community development health post activity is totally financially self-sustaining at the present time. It relies on the public health system only for training of personnel and for approval of the regional doctor in drug purchases.

One of the reasons these health posts are successful is that the outreach and monitoring has been intense. The importance of almost total community self-financing for this activity cannot be overlooked — the project provides only imported materials. The length of time between the original expression of community interest and the full functioning of the health facility can be up to three years. With success this period is getting shorter. Villagers now collect the funds before they approach the project.

The next step, setting up a regional drug depot and the creation of a structure or regional committee to manage it, will be important to the long-run survival of the system.