

**Technical Report No. 16**

**EVALUATION OF THE IMPACT  
OF PILOT TESTS FOR COST RECOVERY  
ON PRIMARY HEALTH CARE IN NIGER**

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**and to the**

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**and the**

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## **ABSTRACT**

This document presents an economic evaluation of pilot tests undertaken by the Government of Niger and the United States to test the performance of alternative health care financing systems in rural areas of Niger. These results were part of an effort to formulate a national policy on primary health care reports, analytical, and research reports produced in the course of the pilot tests. The policy implications of the pilot tests are drawn and preliminary recommendations made on the basis of the tests for use in the policy workshop on cost recovery held in July 1994, which marked the final stage of evaluation of the tests.

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## ACRONYMS

BC	Base Community
BI	Bamako Initiative
BSP	Bureau of Studies and Programming (MPH)
CMB	Central Pilot Test Monitoring Bureau
DDS	Direction Départementale de la Santé (Departmental Health Bureau)
DPS	Bureau of Health Promotion
DTP	Diagnostic and Treatment Protocol
EDSN	Niger 1992 Demographic and Health Survey
GHSD	Grant for Health Sector Development
HDP	Health Development Plan, Draft No. 3
HFS	Health Financing and Sustainability Project
LA	Local Authority
M&E	Monitoring and Evaluation System
MCHC	Mother and Child Health Center
MD	Medical District
MPH	Ministry of Public Health
NHIS	National Health Information System
ONPPC	National Bureau of Pharmaceutical and Chemical Products
PHF	Public Health Facility
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
VHT	Village Health Team
WHO	World Health Organization

## RATE OF EXCHANGE

The pilot tests straddled a time period marked by a change in the par value of the CFA franc. The tests proper began in May 1993, when payment for health care was launched in health facilities in the districts of Boboye and Say. Up to January 12, 1994, the par value of the CFA franc to the French franc was CFAF 1=0.02 FF; following the change in par value which occurred with the devaluation of the CFA franc, CFAF 1=0.01 FF. The exchange rate of the US dollar in terms of the CFA franc therefore doubled in January 1994 and continues to fluctuate with the exchange rate of the French franc. At the time of start-up of the pilot tests:

US\$1 = CFAF 256; as of January 12, 1994, US\$1 = CFAF 550.

## PREFACE

This document, prepared by the technical assistance team of the Health Financing and Sustainability Project (HFS), presents an economic evaluation of the pilot tests: the document summarizes the preparatory studies and the technical, analytical, and research reports produced in the course of the tests. The policy implications of the pilot tests are drawn, and preliminary recommendations made, on the basis of the tests for use in a policy workshop on cost recovery that marked the final stage of evaluation of the pilot tests. This workshop was held on July 25-27, 1994.

Participants included representatives from the government, led by the Ministers of Health, Finance and Planning, Interior, and Commerce (Trade); representatives from the President, the National Assembly, and various ministerial departments; representatives of regional and local administrations, traditional leaders, labor unions, and the donor community. The workshop aimed to evaluate the performance of the pilot tests and to make recommendations on strategies to generalize cost recovery nationwide.

The Ministry of Public Health has confirmed the commitment of the Government of Niger to apply a cost recovery throughout the country. The participants in the workshop declared their preference for the indirect method of payment; they recommended, however, that the government leave the definitive choice regarding the mode of payment up to local communities.

Pursuant to the recommendations of the workshop, the MPH became involved in preparation of legal texts and an institutional framework for a national policy for health financing in the non-hospital sector. The ministry also finalized the supporting document for national primary health care, which was developed during the pilot tests to provide a framework for implementation of the national policy.

A preliminary draft of this document was presented in July 1994 to the MPH and to USAID/ Niamey to assist in the decision-making process regarding the financing policy for primary health care.

# EXECUTIVE SUMMARY

## HISTORICAL OVERVIEW OF THE PILOT TESTS

During the second half of the 1980s, the need to boost health sector resources in Niger, in order to improve the quality of care, arose at a time of rather severe fiscal constraint. One of the sector policies considered to address this situation was to recover costs in the non-hospital sector. In this context, several approaches to financial reform were considered, including (i) a system of private funding through direct user payments; (ii) a system of social funding to finance drugs through a surcharge on the district tax; and (iii) a system of prepayment through the sale of annual health cards, the proceeds from which would be used to fund the procurement of drugs. Discussions during the 1980s centered around the advantages and disadvantages of these different approaches from the standpoint of equity, efficiency and viability— issues for which published experience offered little guidance. The Agreement on a Grant for Health Sector Development (GHSD) concluded between the Republic of Niger and the United States of America in August 1986 offered a dynamic institutional framework, financial resources, and technical assistance to test the performance of alternative financing systems in rural areas of Niger, so as to provide input for the formulation of a national policy on primary health care financing.

The seminar on cost recovery in the non-hospital sector, held at Kollo in November 1989, formed part of the technical briefing for the tests that were to be carried out. The Bureau of Studies and Programming (BSP) then took over responsibility for the technical preparation of the pilot tests. In addition, in March 1991 a decree issued by the Ministry of Public Health (MPH) created a steering committee made up of senior managers in the MPH, representatives of the Ministry of Finance and Planning and the Ministry of the Interior, and several donors, which was entrusted with policy oversight of the tests. In April 1992, the MPH set up the Central Monitoring Bureau, a unit administratively attached to the BSP, to manage the actual conduct of the pilot tests. The MPH launched the tests in May 1993 in the districts of Boboye, in the department of Bosso, and Say, in the department of Tillabéri. Moreover, the decree establishing the pilot tests for health care cost recovery authorized implementation of the Bamako Initiative in the department of Maradi; the Initiative was officially launched in the department in January 1994.

In preparing the pilot tests, the MPH received support under the technical assistance component of the GHSD from the University of Tulane and Abt Associates Inc. In the actual conduct of the pilot tests, technical assistance was provided by the Health Financing and Sustainability Project (HFS), which is funded centrally by the AID.

### *Policy Relevance of the Pilot Tests*

The overall performance of the public health system against the objectives spelled out in the 1994-2000 Health Development Plan will depend on the performance of the health districts. The success of the administrative and policy reforms already under way in the hospital sector will depend in part on how effectively the lower echelons of the public health system are able to take over primary and secondary health care. In a context where it is essential to extend the country's health coverage, improvements in the quality of basic health care can be made sustainable only by reforms aimed at containing the costs of health care and at mobilizing and rationalizing the use of internal resources.

Niger is essentially a poor, rural country; rural households face liquidity constraints that vary from season to season, which means that the administration of alternative financial reforms would have a variable impact on the efficiency, equity and viability of the local system of financing. The primary goal of the pilot tests is precisely to find empirical answers to the issues raised by alternative financing systems.

In this respect, the relevance of the pilot-test results extends beyond Niger itself; a number of African countries are looking at alternative mechanisms to direct payment, in the context of strengthening rural health districts. The pilot tests offer a good fit with the future priority areas of the Bamako Initiative as far as financing mechanisms are concerned: according to UNICEF, under the Bamako Initiative direct payment for health care will in the long run be replaced by the contribution system and subsequently by the health insurance system.

### *Design of the Pilot Tests*

The purpose of the pilot tests is to provide the MPH with information on the advantages and disadvantages of alternative payment methods, to be used as input in selecting a method of payment, within the context of formulating a policy on the financing of health care in the non-hospital sector. Interventions under the pilot tests constitute a comprehensive package of technical, administrative and financial reforms aimed at strengthening the capacity of the health district's care delivery system.

Since the pilot tests were part of a process for developing a government policy, the decisive criterion for final selection of the districts to be used as test sites was proximity to Niamey, so that MPH officials could more closely monitor the conduct and performance of the tests over time. The two districts selected to serve as test locations were the district of Say, in the department of Tillabéri, and the district of Boboye, in the department of Dosso; a third district, Illéla, in the department of Tahoua, was not a test site but was observed for control purposes.

The technical reforms consisted, first, in training the technical staff of the test health facilities in the administration of standardized diagnostic and treatment protocols (DTPs), in order to rationalize the use of drugs. Second, the availability of drugs in the individual health facilities was boosted by delivery of an initial supply of enough essential drugs to meet their needs for an entire year: generic brands were purchased so as to keep the cost of drugs down.

The administrative capacity of the two test medical districts was strengthened by installing a financial and drug-inventory management system, in combination with outside supervision by a local health committee for each health facility. The technical staff of the health facilities and the managers - the managers are *ex officio* members of their respective local health committee - were trained in how to administer the management system.

The technical and administrative reforms were introduced in a similar fashion in the two test districts of Boboye and Say. However, the health personnel in the Boboye district had been administering the DTPs for several years; the DTPs were introduced into the Say district only as part of the pilot tests.

The financial reforms introduced in the two test districts were different. The direct payment method involves the payment of a lump sum per episode by users of public health facilities: users aged 5 years and over pay CFAF 200 per episode, and children less than 5 years of age pay CFAF 100 per episode. The direct

method of payment was tested in the Say district. The indirect payment method consists in a surcharge on the district tax and a copayment by users of public health facilities. District taxpayers pay a surcharge of CFAF 200 on the district tax, the proceeds from which are used to replenish the revolving fund for drugs. Moreover, to curb excessive use of the services, users aged 5 years and over pay CFAF 50 per episode, while children aged less than 5 years pay CFAF 25 per episode. The indirect method of payment was tested in the Boboye district.

The performance of the two payment mechanisms is measured using two instruments. The first comprises data on health care demand gathered from households during a baseline survey carried out before introduction of payments and a survey conducted one year after the baseline survey. The second instrument comprises activity and financial data gathered from the health facilities each month throughout the project year.

## **RESULTS OF THE PILOT TESTS**

The objectives of the cost-recovery systems adopted by the Kollo seminar to serve as a framework for evaluating the performance of the payment methods to be covered by the pilot tests reflect a concern to install, at the local level, a financing system that is equitable, efficient and viable. The first objective adopted was that the system must meet the needs of the people and stimulate demand for and use of health care; it must also make it possible to take improvements in the quality of care that are consistent with how the people - the beneficiaries - view quality care and make those improvements sustainable. Secondly, the system must guarantee that care is accessible for the target groups and for those who live at a distance from health facilities. Thirdly, the recurrent costs of the technical and administrative reforms adopted must be kept low. Finally, the method of recovery must make it possible to mobilize sufficient funds to cover the recurrent charges generated by the technical and administrative reforms, in order to ensure that the system remains viable.

### ***Demand for and Use of Health Care***

The improvements in the quality of care that were made as the pilot tests were conducted, in particular the improved availability of drugs, stimulated the demand for health care at the public health facilities in the test districts, by comparison with the low levels of use recorded prior to the start of the tests at Boboye and Say and with the declining trend which continued in the control district of Illéla. Although in the test district of Say direct payment proved a barrier for some population groups, especially those living in the villages where the health facilities were located, copayments did not discourage use in the villages where the health facilities were located in the test district of Boboye.

In the control district of Illéla, use of the public health facilities deteriorated sharply among women and residents of villages remote from health facilities; moreover, signs of deterioration, from very low starting levels, were observed among the poorest in the district. In the test district of Say, the level of use by the target groups did not change significantly, except for the poorest, whose use deteriorated. At the other extreme, use of the health facilities improved markedly among the target groups in the Boboye district, particularly in the case of the poorest 25 percent. The improved availability of drugs in the public health facilities led to a shift in demand for care away from the roving dealers in the informal sector to the public health facilities: this shift was greater in the Boboye district, where the amount of the copayment was competitive compared with the prices of the drugs administered in the informal sector. Finally, resort to public health facilities is more sensitive to the opportunity costs associated with long distances from such facilities than to the methods of payment and the rates applied in the three districts.

The scale of rates charged under the tests is quite simple, which is an advantage. However, two issues remain open: (i) whether students should be covered either by the State or by the local authority, at the risk of jeopardizing the viability of the financing systems, especially the direct payment system; and (ii) whether the rate system should be adjusted to improve revenue levels, while ensuring that the most destitute are exempt. A solution should be sought in a differential rate structure depending on the status of the patient, with the rate structure requiring payment from all users in order to improve the efficiency and equity of the financing system.

The introduction of cost recovery did not result in an increase in private household expenditures for the treatment of illness. Private expenditures are measured in terms of all expenses incurred to treat illness during the two weeks prior to the interview with the patient: they include expenses incurred in connection with home care before any visit to a health facility, including the cost of any drugs bought and expenditures on transportation, board and lodging, and treatment if care was sought from a health facility. On average, illness-related expenditures among all patients fell from approximately CFAF 300 in all three districts before the start-up of the tests to CFAF 250 in the control district of Illéla during the tests, to CFAF 210 in the test district of Say, and to CFAF 230 in the test district of Boboye.

Moreover, in the control district of Illéla, patients of public health facilities continued to spend an average of between CFAF 1,700 and CFAF 1,800 over a two-week period. In the test districts, expenditures by patients of public health facilities decreased significantly. In the test district of Say, expenditures by patients of health facilities went down on average from CFAF 1,000 before the tests to CFAF 600 during the tests; moreover, in the test district of Boboye, expenditures went down on average from CFAF 1,000 before the tests to CFAF 500 during the tests.

### ***Recurrent Costs of the Reform Package***

In the test district of Say, the eight public health facilities dispensed drugs worth CFAF 12.7 million during the 10-month period from May 1993 to February 1994, equivalent to an annual consumption of CFAF 15.2 million. This represents 2.5 times the annual allocation for drugs in the State budget, which is on the order of CFAF 6.0 million. In the test district of Boboye, drugs worth CFAF 11.0 million were consumed in the ten public health facilities between May 1993 and February 1994, equivalent to an annual consumption of CFAF 13.2 million. This represents 3 times the annual allocation for drugs in the State budget, which is on the order of CFAF 4.5 million.

Average expenditures on drugs per patient varied sharply from one district to another and between health facilities, reflecting in part the varying degrees of mastery of the DTPs. In the district of Boboye, where the protocols had been in use for several years, average expenditures on drugs per new visit ranged between CFAF 90 and CFAF 140, according to the month, in the period from May 1993 to February 1994; the average for the period stood at CFAF 108 per new visit. In the test district of Say, on the other hand, where use of the protocols was introduced during the year of the pilot tests, average expenditures on drugs per new visit amounted to between CFAF 200 and CFAF 330, according to the month, between May 1993 and February 1994; the average for the period stood at CFAF 272 per new visit. The comparative performance of the two districts supports the premise that adherence to and mastery of the DTPs in providing care is an effective tool for reducing the drug-related component of service costs.

The recurrent charges of the reform package amounted to CFAF 18.6 million during the first ten months in each of the two medical districts. Between 60 and 70 percent of the recurrent costs of the reform

package were generated by the improved availability of drugs in the two medical districts; the other 30 to 40 percent are related to administration of the new management system. About 65 percent of the incremental management expenses were accounted for by the wage bill for the new management system.

The viability of the local financing system to be installed will depend basically on the extent to which administration of the technical reforms - namely, training in DTPs, use of generic-brand essential drugs, and drug management - can keep incremental expenditures on drugs to a minimum and manage the improvements in the quality of care.

The local financing system will prove sustainable only if there are lasting improvements in the quality of care and if the people abide by the system that is installed. In the control district of Illéla, the number of return visits advanced slightly by 14 percent between the baseline year and the test year. In the two test districts of Boboye and Say, the availability of drugs resulted in an improvement in the continuity of care and in patient follow-up. In the district of Boboye, the number of return visits more than doubled between the baseline year and the test year. In the district of Say, the number of return visits rose by 44 percent.

Based on statements by individuals age 15 and over in the two test districts of Boboye and Say, the willingness to pay, at the level of the public health facilities, to guarantee the availability of drugs at those facilities was very high. In the same districts, the proportion of individuals age 15 and over who stated they would always be prepared to pay to assure the availability of drugs at the health facilities was about 90 percent. Moreover, the people are prepared to accept an upward adjustment of the rates if the current rates are not high enough to cover the drugs. In other words, there is popular support for consolidating the reforms that have been set in motion.

### ***Mobilization of Resources and Cost Recovery***

During the first ten months of tests, implementation of the direct method of payment in the test district of Say generated CFAF 6.5 million. On an annual basis, direct payment generated CFAF 8 million during the test year in the test district of Say. In the test district of Boboye, indirect payment can produce additional resources of CFAF 19.5 million, 15 million of which comes from the surcharge on the district tax and the balance from copayments by users of the public health facilities. In terms of capacity to generate revenues, data from the first ten months of pilot testing show that indirect payment is twice as effective as direct payment.

The addition of funds from the tax surcharge to receipts from copayments, combined with more expert use of the DTPs, enabled the medical district of Boboye to achieve a 149-percent rate of recovery of the cost of drugs. In contrast, receipts from payment of the lump sum led to a 52-percent rate of recovery of the cost of drugs in the district of Say. Secondly, receipts from the tax and from copayments covered about 89 percent of the expenditures on drugs and of the incremental management costs attributable to the introduction of cost recovery and improvements in the management of the health facilities in the district of Boboye. In contrast, receipts made it possible to cover 30 to 40 percent of the expenditures on drugs and of administrative costs in the district of Say. The devaluation of the CFA franc had a sizable external impact on these performance levels: in this new context, receipts from the direct method of payment would allow replenishment of 29 percent of the drug inventories based on the volumes consumed in the MD of Say during the year of the tests; in contrast, receipts from the indirect payment method in the district of Boboye would allow replenishment of 82 percent of the volumes consumed during the period of the tests.

The indirect payment method generates more revenue and thus permits recovery of most of the drug and management expenses involved in implementing reforms such as those introduced under the test program. Irrespective of payment method, however, the ability to recoup drug costs depends essentially on mastery of the DTPs, which make it possible to contain the cost of drugs, and on the use of a restricted list of essential generic drugs in the care delivery system. Finally, the people indicate a preference for the indirect method of payment since, in their widely shared view, it is easier to finance.

### ***Policy Implications***

The 1994-2000 Health Development Plan (HDP), currently under development, opens up new approaches to strengthening the capacity of Niger's public health system. As part of its effort to pursue the general goal of striking a balance between population growth and health sector resources, the HDP aims to institutionalize cost recovery in all the country's health facilities. The administrative and policy reforms initiated by the MPH in the area of cost reduction and recovery in the hospital and non-hospital sectors represent significant steps toward this goal.

The conclusions of the review of the present situation of the district health system, supported by the results of the pilot tests in the control district of Illéla, confirm the relevance of the approaches to reform under consideration for financing the non-hospital sector. It is unlikely that the overall objectives of health promotion and protection for Nigériens in general, and for the vulnerable groups in particular, can be achieved at medium or long term with the present state of the district health system. The virtual absence of any formal private sector, coupled with the expanding role of the informal sector in the supply of medical and health services in rural areas of Niger, restrict the government's policy options for strengthening the basic public health sector.

If a lasting foundation is to be laid for a local health care financing system that includes participation by the people, delivery of health care at the district level needs to be more efficient. The viability of a local health care financing system will depend on what drug and human-resources policies are implemented in the health sector. Moreover, the people and the base communities can be involved in the management of public health facilities, and resources managed in a more rational manner, only if the managerial capacities of the health personnel are strengthened within the framework of a simple and transparent local management system.

The financial reforms undertaken as part of the pilot tests have had mixed results. One result they have in common is that they lead to more equitable and more efficient use of the public resources of the health district and more efficient use of private household resources than under the status quo where health care is free.

However, the performance of the two payment methods is different. From the equity standpoint, the performance of the indirect payment method, despite an overall increase in the demand for care, is constrained by the quantitative rationing that occurs with increasing distance from public health facilities. Nevertheless, compared with the direct method of payment, the indirect method is more equitable in promoting access to care at health facilities for children, women, and the poorest segments of the population.

From the point of view of financial viability, the indirect payment method is more efficient; moreover, the people find it easier to finance. However, the indirect payment method faces institutional constraints as far as its administration is concerned: since the tax surcharge to finance drugs is collected at the same time as the district tax, there is a risk that the proceeds of the tax will not be spent on drugs.

Finally, in terms of the district system's ability to strengthen preventive and promotional activities in the context of integrated care centers, the prospects opened up by the stimulation of demand for care under the indirect payment method are decidedly better: this potential of the indirect method of payment can be realized only within the framework of enhanced integration of services. The process of selecting one payment method over another therefore needs to take place as part of an overall package of administrative and rate-setting reforms, and with prospects of expanding a given health district's infrastructure.

In summary, the results and improvements observed in the districts of Say and Boboye during the cost-recovery pilot tests provide the MPH with a sound basis for undertaking administrative and policy reforms aimed at strengthening the capacities of the country's health districts, in order to broaden access to quality health products and services for most of the population, including women, children, and the poor.

The first prerequisite for the success of a policy to strengthen the capacities of the health districts is the existence of a reliable system of procuring low-cost drugs. The results of the evaluation bear out the fact that people in the countryside have only a limited ability to pay for drugs. If there is no guarantee of generic-brand drugs being available, procured at reduced cost through an efficient and competitive market, it is the viability and the equity of the health system that will suffer: in such a setting, the poorest segments of the population will be the hardest hit.

Pilot-test experience with drugs supplied through the ONPPC reveals that having the health system dependent on a sole source of supply involves enormous risks: such a drug supply monopoly runs counter to the basic principles of risk diversification; as with any system, the supply of products that are vital to the operation of the health system should be fragmented rather than concentrated in a sole source. In such a setting, the State should be a last resort and not the sole provider of services.

## **RECOMMENDATIONS**

### ***To the Government of Niger***

It is recommended that the Government of Niger formulate a primary health care financing policy based on the principle of all Nigériens sharing responsibly in defraying the costs of health care, so that access to quality health care can be extended in a lasting manner to the majority of the population at large and to the poorest segments in particular.

It is recommended that, in formulating the national policy on primary health care financing, the Government of Niger promote the indirect method of payment as an instrument for mobilizing internal resources through community participation. In the context of strengthening administrative decentralization, it is recommended that the government leave the final selection of the method of payment to the local authorities, which should be guided in their choice by their respective needs and constraints. Within this framework, the government should provide the local authorities with technical assistance in the process of selecting and implementing the method of payment. It is recommended that the government support the use of a rate-setting system based on the estimated cost of providing care, so as to enhance the prospects that local financing will prove viable, while at the same time safeguarding equity.

The actual allocations in the central budget for drugs for medical districts were already very small before the CFA franc was devalued. It is recommended that the Government of Niger revise upward the annual

allocations in the central budget for drugs for health districts, using criteria that reflect the needs of the different health districts, and that it index them to the rate of inflation of pharmaceutical products.

It is recommended that the Government of Niger promote and regulate the supply of essential generic drugs so as to provide, at reduced cost, effective medical coverage of the growing needs of the population. In this context, it is recommended that an interministerial committee be formed to enable the reforms undertaken during the pilot tests to be extended uniformly throughout the country.

It is recommended that the Government of Niger, with cooperation from the donors, establish a nonprofit, independent supply center for essential generic drugs based in Niamey. The center would be responsible for organizing international competitive bids for the procurement of essential generic drugs, in order to stock the regional depots to be established within each region. This alternative system could exist side by side not only with the ONPPC but also with a private, regulated market for the import and distribution of drugs: the decentralized supply system that would result from such reforms would ensure the availability of drugs in the country even if one or more import entities were to run into financial or administrative difficulties. In this connection, it is recommended that the importation of essential generic drugs be exempted from tax to improve the equity of the health system.

It is recommended to the Government of Niger that it strengthen the human and physical resources of the public health districts by providing for greater integration of health services. It is recommended that it extend the use of the diagnostic and treatment protocols to all the country's health districts. It is recommended that the management capacities of the health facilities be strengthened.

Finally, it is recommended that the Government of Niger define and establish a new partnership among the base communities, the local authorities, the State, and the donors, centered around support for the domestic efforts to be undertaken to strengthen primary health care and to meet the perceived health needs of the base communities.

#### ***To Niger's Local Authorities and Base Communities***

It is recommended that Niger's local authorities expand their support to the health districts. In the context of local authority participation in the financing of primary health care, it is recommended that they define and fund a budget line item to support community participation in the financing of primary health care.

It is recommended that the base communities strengthen community organizations with a view, on the one hand, to increasing the awareness of their respective populations, and, on the other, to mobilizing and managing their local financial and physical resources in order to bring about lasting improvements in the quality of health care, of which their populations are the primary beneficiaries.

#### ***To Donors in General***

Donors to Niger's health sector have provided significant support to primary health care in the country. However, the gains achieved through this support and the outcomes of future assistance can be sustained only if there is a viable system of health districts whose services are *first and foremost* responsive to the perceived needs of the people served. In this connection, it is recommended that the donors expand and direct their support toward an integrated approach to the basic health system. It is recommended that the Government of

Niger and the donors direct their cooperation within the institutional frameworks at the national, regional and subregional levels so as to serve as a catalyst in enhancing the synergistic effects of health-related activities on the system for delivering health care to the people. Finally, it is recommended that the donors provide support to the government and the local authorities in implementing technical, administrative and financial reforms in the non-hospital sector.

#### ***To USAID/Niamey***

Under the grant for health sector development, the assistance provided by USAID/Niamey has proved decisive in involving the health sector in the administrative and policy reforms in the areas of health planning, management and financing. Extension, strengthening and consolidation of these reforms will make for a more viable, more efficient and more equitable health system. The potential of the resulting new environment can be realized only if there are strengthened capacities at the decentralized levels of the health system. In this respect it is recommended that USAID/Niamey strengthen its support of administrative and policy reforms at the decentralized levels of the public health system.

It is recommended that USAID/Niamey assist the government in evaluating and resolving the problems that beset the pharmaceutical sector. It is recommended that a project extending over five (5) years be developed to assist the government in extending the administrative and financial reforms in the non-hospital sector. The pilot tests have been a major success both from a technical standpoint and in terms of the process of developing a government policy. USAID/Niamey could allocate funds, in the form of a buy-in, to a project centrally funded by AID to assure that information on the pilot tests is disseminated.

#### ***To the Belgian Medical Cooperation Agency***

It is recommended that the AMISAP project and the Belgian Medical Cooperation Agency at Dosso continue to provide technical assistance in the training and supervision of medical personnel in diagnostic and treatment protocols, within the framework of the government's future efforts to strengthen the health districts.

#### ***To UNICEF***

It is recommended that UNICEF play a leadership role in evaluating and resolving the constraints facing the pharmaceuticals sector. It is recommended that it make funds available to finance study visits by MPH officials to countries in the region that have established semi-autonomous systems for the supply of essential and generic drugs. UNICEF could not only provide the technical assistance needed to design a similar system in Niger but also assist joint efforts by the government and donors to implement such a system.

#### ***To the World Bank***

It is recommended that, in its health and population sector projects, the World Bank include a component for support in extending the administrative and financial reforms in the health districts. Through these projects, the World Bank could provide backing for the reforms, including the funding of initial inventories of essential generic drugs, training, supervision, monitoring and evaluation, and the purchase of vehicles, medical equipment, and computers.

## **ACTION PLAN FOR EXTENDING REFORMS: POLICY ISSUES**

Experience with the pilot tests in the districts of Boboye and Say, and with the Bamako Initiative in the department of Maradi, suggests that several policy issues in other fields need to be resolved and a number of programs launched in order to create an environment that is conducive not only to consolidating the gains made in the health districts of Boboye and Say, and under the Bamako Initiative, but also to extending the reform measures to other districts in the country. Answers need to be found to the following issues:

### **(1) Legal framework for extending the reforms**

Legislative reform to health care financing in the non-hospital sector will be needed to establish a legal framework that will enable the reform package to be extended to all health districts in the country. This reform should be built around two policies. The first is the policy of responsible participation by those involved in the sector in general, and by the beneficiaries in particular, combined with the principle of guaranteed quality of the public service: this should replace the policy of free care. The second policy is to decentralize management of the funds generated by cost recovery: management of the funds should be left in the hands of the people.

### **(2) Selection of the cost recovery system**

The legal framework should spell out the role of the State, the local authorities (LA), and the base communities (BC) with respect to the method of payment to be implemented. In the event that the choice of the method of payment is to be left to the LAs and BCs, the process of selection should be governed by the legal texts that define the legal framework for extending the reforms.

### **(3) Supply of drugs**

How successfully cost recovery is spread will depend more than anything on what drug supply policy the country pursues in the years to come. To make local financing of health care by the people viable and ensure that the capacity of the health districts is strengthened in a sustainable manner, the key criteria for any drug supply and distribution policy should be efficiency and viability.

### **(4) Integration of services**

To enhance the efficiency of the administrative, technical and financial reforms in the health districts, curative, preventive and promotional activities should be integrated. A minimum package of integrated activities should be defined, using the three-pronged approach —structure-process-result and impact— to direct the upgrading of the physical equipment of the health facilities and the training of health personnel in how to carry out the minimum package of activities.

#### **(5) Strengthening human capacities in the health districts**

The utilization of resources within the health districts should be rationalized through the use of diagnostic and treatment strategies and through sound management of drugs and financial resources. In this connection, implementation of the DTPs and installation of management systems should be extended throughout the country. The requisite training activities should be planned to make the best possible use of the institutions and resource persons that would provide technical support to the training function.

#### **(6) Community participation**

Community participation should be clearly defined in terms of a partnership made up of the base communities, the local authorities, and the State. Although it will be necessary to produce a framework document spelling out the roles of the different parties involved in this partnership, the framework should be flexible enough to be tailored to the country's different economic, social and administrative contexts.

#### **(7) Institutional framework for extending the reforms**

A flexible institutional framework should be established to ensure that extension of the reforms proceeds smoothly. The institutional framework cannot be unrelated to implementation in time and space: however, whatever strategies are considered, extension of the reforms must be pursued with an eye to greater decentralization of the health system and strengthening the capacities of the departmental health authorities.

#### **(8) Parameters for extending the reforms in terms of time and space**

Extending the reforms to the country as a whole should be designed in several phases. The scale of the initial phase of the extension should be kept to manageable proportions since the country does not yet have a reliable system for the supply of essential generic drugs and training activities will require collaboration among a number of resource institutions.

#### **(9) Financing needs and identification of sources**

Detailed projections should be prepared of the physical, human and financial resources needed for the initial phase of extending the reforms, along with tentative projections of requirements for the subsequent phases. These projections should be used by the Ministry of Public Health to initiate the process of locating and confirming sources of financing for extending the reforms.

## **(10) Monitoring and evaluation**

A monitoring and evaluation (M&E) system should be installed to cover establishment of the legal framework, the institutional framework, and the parameters for extending the reforms in terms of time and space. Structurally, the system should clearly define what institutions are to be entrusted with monitoring implementation of the process of extending the reforms. As far as its components are concerned, the M&E system should focus on internal monitoring of the implementation strategy, audits, and an outside evaluation to measure process performance and implementation outcomes. The external evaluation should be phased to coincide with the different phases of the extension process.

## 1.0 INTRODUCTION

The purpose of this report is to present the economic evaluation of the pilot cost-recovery tests in the non-hospital sector. Accordingly, the report is intended to summarize the main results of the tests, discuss their policy implications, make recommendations to the Government of Niger, and highlight the principal issues to which answers will need to be found in order to implement cost recovery on a more widespread basis.

The debate over cost recovery has a long history in Niger. During the second half of the 1980s, the need to boost health sector resources in Niger, in order to improve the quality of care, arose at a time of economic and social constraint. One of the sector policies considered was to recover costs in the non-hospital sector. In this context, the agreement on a grant for health sector development concluded between the Republic of Niger and the United States of America in August 1986 offered a dynamic institutional framework in which to develop reforms in the area of financing for the non-hospital sector.

On the continent, the cost-recovery debate was not confined to Niger. During the 1980s, most African countries faced fiscal crises of different kinds and on differing scales. Against the backdrop of this fiscal crisis, the critical situation of health sector financing in general, and of primary health care in particular, was the subject of continent-wide discussions that were to lead in 1987 to formulation of the Bamako Initiative by the ministers of public health of the continent, UNICEF and WHO. The Initiative recommended to African governments that health financing be restructured through community participation in the local financing and management of primary health care: from the strategy standpoint, the Initiative offered a framework for introducing workable primary health care on the continent on the strength of the policies adopted at Alma Ata.

In Niger, discussions on possible reforms centered around the equity and efficiency of the financing system to be installed. Several approaches were considered, including: a system of prepayment through the sale of annual health cards, the proceeds from which would be used to fund the procurement of drugs; a system of social funding to finance drugs through a surcharge on the district tax; and a system of private funding through direct user payments. These different instruments present advantages and disadvantages from the standpoint of equity, efficiency and viability—issues for which published experience offered little guidance.

The Kollo seminar on cost recovery in the non-hospital sector, held in November 1989, was structured in part to help identify suitable instruments, with a view to formulating a cost-recovery policy that would be meaningful in terms of actual conditions in Niger. Following the recommendations by the Kollo seminar, the Ministry of Public Health/Bureau of Studies and Programming (MPH/BSP) embarked on the technical preparation of the pilot cost-recovery tests in the non-hospital sector, with technical assistance from the Tulane-Abt team. Considerable effort went into preparation of the pilot tests to ensure they would be carried out under the best possible technical conditions. These efforts involved primarily the MPH. After formation of the pilot-test Steering Committee by an MPH decree, several departments of the MPH and other ministries, such as the Ministry of Finance and Planning and the Ministry of the Interior, on the one hand, and a number of lending agencies (USAID/Niamey, World Bank, UNICEF, Belgian Cooperation Agency, etc.), on the other, made a sizable contribution in terms of preparing and guiding the pilot tests.

The purpose of the pilot tests is to provide the MPH with information on the advantages and disadvantages of alternative payment methods, to be used as input in selecting a method of payment, in the context of formulating a policy on the financing of health care in the non-hospital sector. Interventions under the pilot tests constitute a comprehensive package of technical, administrative and financial reforms aimed at

strengthening the capacity of the health district's care delivery system. Essentially, their aim is to improve the quality of health care delivery, to rationalize the use of resources, and to mobilize internal resources to ensure that improvements in the quality of care are sustainable. They also have a built-in information gathering system designed to evaluate the viability, efficiency and equity of the reforms undertaken.

The MPH set up the Central Monitoring Bureau, a unit administratively attached to the BSP, to manage the actual conduct of the pilot tests. The MPH launched the tests in May 1993; a few months later, an MPH decree instituting the pilot tests was adopted and approved by the Ministry of Finance and Planning and the Ministry of the Interior. The same decree authorized implementation of the Bamako Initiative in the department of Maradi: implementation of the Initiative was officially launched in January 1994. In the actual conduct of the pilot tests, technical assistance was provided by the Health Financing and Sustainability Project (HFS), which is funded centrally by the AID.

The financial reforms undertaken as part of the pilot tests comprise a system of social financing through a surcharge levied on the district tax to finance drugs, and a private financing system based on direct user payments. The mechanism of direct user payments is patterned on the same model as used in implementing the Bamako Initiative in Maradi, as well as in other African countries. The two financing systems present advantages and disadvantages from the point of view of equity, efficiency and viability in strengthening the capacities of the health districts. The basic goal of the pilot tests is precisely to find answers to the issues raised by alternative financing systems. Niger is essentially a poor, rural country; rural households face liquidity constraints that vary from season to season, which means that the administration of alternative financial reforms would have a variable impact on the well-being of those who live in the countryside.

In this respect, the relevance of the pilot-test results extends beyond Niger itself; a number of African countries are looking at alternative mechanisms to direct payment, in the context of strengthening rural health districts. The pilot tests offer a good fit with the future priority areas of the Bamako Initiative as far as financing mechanisms are concerned: according to UNICEF, under the Bamako Initiative "direct payment for health care will in the long run be replaced by the contribution system and subsequently by the health insurance system" (UNICEF, 1992).

The constraints encountered in conducting the pilot tests in the districts of Boboye and Say, and the Bamako Initiative in the department of Maradi, offer lessons when it comes to extending, on a nation-wide basis, local health care financing through community participation. If the package of technical, administrative and financial reforms is to be extended to the country as a whole, several actions need to be undertaken. These involve the legal framework for mobilizing internal resources, the measures to be taken to lower the cost of providing care, community participation, the institutional framework, the operational and financial aspects of extending the reforms, and finally monitoring and evaluation. These actions will be discussed at the conclusion of this report.

An earlier version of the report was presented as a basic document to the national seminar on primary health care financing in Niger, held at Niamey on July 25 to 27, 1994. The seminar was heavily attended by members of the government, led by the Minister of Public Health, representatives from the Office of the President and the National Assembly, senior officials from the Ministries of Public Health, Finance and Planning and the Interior, local administrative and health officials, traditional leaders, representatives from the health unions, and donors. During the opening ceremony, the Minister of Public Health confirmed the government's commitment to extend cost recovery for health care throughout the country. Following the seminar, the Ministry of Public Health began preparatory work on the legal texts and institutional framework

for the national health care financing policy in the non-hospital sector and started to finalize the national program paper on support to primary health care.

The balance of the report is organized into five sections. The second section highlights the overall framework of the pilot tests, discusses the reasons why reforms are needed in the health system, and summarizes the discussions, the policy dialogue and the sequence of decisions that led to the start of the pilot tests. The third section summarizes the methodology and conduct of the pilot tests. The principal results of the pilot tests are presented in Section 4 in accordance with the objectives and evaluation criteria adopted by the Kollo seminar. The policy implications of the pilot tests are discussed, and recommendations presented, in Section 5. The final section discusses the main issues to which answers need to be found in order to extend the reform measures tested through applied research during the pilot tests.

The present report is a compilation of several preparatory documents and a number of analytical reports which were produced in connection with the pilot tests. These different documents are listed in the Annex.

## **2.0 GENERAL FRAMEWORK**

### **2.1 WHY ARE REFORMS NEEDED?**

Since independence, Niger has made considerable efforts to improve the health of its population. Although health coverage is still poor, the health infrastructure has undergone sustained development in the three decades following independence. Moreover, the health sector's human resources have increased severalfold during the period, starting from a very limited base. As part of the introduction of primary health care, efforts to decentralize the health system have resulted in the establishment of a network of village health teams throughout the country.

These efforts have been thwarted by a macroeconomic environment characterized by several years of drought, the economic and fiscal crisis of the 1980s, and population growth. This harsh macroeconomic environment limited the health sector to relatively low levels of performance. Recent data on the health status of the population bear out what was foreseen during the discussions that took place in the 1980s on the need for reform in the health system.

#### **2.1.1 A Health Status that Ought to Have Been Better**

The results of the EDSN (1993) confirm that the health of the population is poor. In the 5-year period 1987-92, 1 of every 3 children born live died before its 5th birthday: this mortality rate is relatively high even by African standards. These mortality rates do not appear to have changed in the last fifteen years. In rural areas, where most people come into contact with the formal health system through visits to rural dispensaries, health posts and medical centers, the risk of a child dying before the age of 5 is more than twice as high as in Niamey.

The EDSN also revealed that mortality associated with exogenous causes—that is, environmental pollution, nutrition, and actions to protect against and cure disease—is higher than that associated with endogenous causes: mortality between 1 and 12 months is higher than between 0 and 1 month; moreover, mortality between 1 and 5 years is higher than between birth and 1 year. This pattern of mortality is relatively rare and is found only in populations where the nutritional status of children is poor and the health system ineffective.

Also based on data from the EDSN, a report on the nutritional status of children of preschool age emphasized that levels of malnutrition are high from birth (USAID, 1993). Moreover, malnutrition worsens with age and shows up in delayed growth and emaciation that peak at between 1 and 2 years of age. This relatively poor nutritional status is related not only to feeding practices but also to a high incidence of morbidity among children below age 5. The synergistic effects of the high prevalence of diarrhea, malaria, and respiratory ailments are other factors that combine to keep the nutritional status relatively low.

There are a number of affordable technologies today that can significantly improve the health of children and young people. In this connection, while mortality levels among children and young people are a relatively reliable indicator of a population's health status, the levels and pattern of mortality in these groups show the health system's comparative ability to meet the people's needs and deliver effective health technologies to the majority of the population.

### **2.1.2 Underutilized Physical and Human Capacities**

Over the last three decades, Niger has committed substantial resources to improving the country's health coverage. Starting from a very limited base, it has greatly expanded human resources in the health sector during the period. At present, Niger has almost 200 doctors, about 2,000 nurses, close to 350 midwives, and a very wide range of other paramedicals and health auxiliaries. Moreover, a number of efforts and initiatives have been undertaken to promote village health in the country.

Starting from a very limited base following independence, Niger has greatly expanded its health infrastructure in recent decades despite the country's considerable land area. In 1992, its public health system boasted approximately 500 health facilities comprising a fairly extensive network of medical centers, health posts, rural dispensaries, mother-and-child health centers, and maternity clinics (Ministry of Public Health, 1993b).

Notwithstanding praiseworthy efforts to strengthen the public care delivery system, these resources remain underutilized; moreover, access to the services of the public health system is inequitable. In the country as a whole, about 30 percent of pregnancies are monitored by a health professional: in rural areas, the rate drops to 20 percent. In addition, 84 percent of deliveries take place in the home, including 94 percent in rural areas. Most pregnant women are not given anti-tetanus injections, except for those living in urban areas.

Vaccination coverage in Niger is still very weak. Among children aged 12 to 23 months, 17 percent have been fully vaccinated, the breakdown being 54 percent of children living in urban areas and 10 percent of those living in rural areas. Furthermore, among children below age 5 suffering from acute respiratory infections, 14 percent visit a health facility, the breakdown being 50 percent among those living in urban areas and 9 percent among those in rural areas. Similar low rates and urban-rural disparities in the utilization of the health facilities are observed among children suffering from diarrhea and malaria.

### **2.1.3 Insufficient and Unevenly Distributed Financial Resources**

During the first ten years after independence, 7 to 9 percent of the State budget was allocated to health. After falling to levels as low as 4 percent during the 1970s and early 1980s, the share of health in the State budget has fluctuated between 5 and 6 percent since 1984, a level far below the 10-percent figure advocated by WHO. During the period 1988-92, the State spent between CFAF 6 and 7 billion annually in the health sector. In 1988, the year of the General Population Census, State spending in the health sector was equivalent to about CFAF 800 per capita.

In the period 1988-92, between 55 and 60 of the State's health budget went on personnel costs. During the same period, about 30 percent of the health budget was earmarked for pharmaceutical products and vaccines. Between 1987 and 1989, an average of 45 percent of ordinary health expenditures—from the State's budget and assistance from donors combined—was allocated to the hospital subsector and 42 percent to the non-hospital sector. In a typical year, 47 percent of the fiscal 1987 allocations for drugs was allocated to hospitals, compared with 53 percent for the other health facilities (Review of Expenditures in Niger, 1992).

These disparities in funding between personnel and other items, on the one hand, and between the hospital and non-hospital sector, on the other, mask distortions in the allocation of internal resources to the non-hospital sector. State allocations of drugs and small supplies to the medical districts have remained

unchanged for several years. In typical medical districts like those of Mirriah, Boboye and Say, annual allocations from the central budget for drugs barely exceed CFAF 30 per capita of the respective population.

Moreover, these meager resources of the non-hospital sector are poorly managed. Despite the growing needs of health facilities, the supply policies of the ONPPC, which holds the monopoly on the import of drugs and on supplies to the public health facilities, have caused the actual amounts of drugs supplied to fall far below what could have been made available if the supply policy had been based on essential generic drugs and if a system of competitive bidding had been in place to procure drugs at reduced cost. As far as the delivery of care is concerned, the poor management capacities of the health personnel lessen the impact which the available resources might otherwise have on the quality of care. Although they have been available since the second half of the 1980s, standardized diagnostic and treatment methods, the so-called Diagnostic and Treatment Protocols (DTPs), which ought to be a tool for making more rational use of the drugs available to health personnel, are used only in Dosso, the department in which they were developed.

Under a system of free care, the limited supply of drugs for the health facilities, coupled with poor drug management, means that the burden of paying for illness, particularly the purchase of drugs, is shifted to the households, thereby making it more difficult for the poorest to gain access to State subsidies. In fact, under the status quo, the limitations of the State's commitments are compounded by the high share of health costs paid by private individuals. As far back as 1986, it was estimated that CFAF 3.9 billion of ONPPC's CFAF 4.0 billion turnover came from payments by the people (Republic of Niger, 1987). These high levels of private cost-sharing were confirmed by a study carried out in 1987 by the MPH/Tulane Project, which estimated that drug expenditures per episode of an illness averaged CFAF 1,700 in urban areas and CFAF 1,400 in rural areas (Ministry of Public Health and Social Affairs, 1987). Quite apart from the equity issues involved in this social structure for financing the cost of treating illness, the efficiency of the care delivery system is greatly reduced by the constraints it imposes on the integration of care within health facilities and hence on the strengthening of preventive and promotional activities.

Producing the human resources and expanding the health infrastructure during the first three decades cost Nigérien society dearly. The figures quoted above point to an anachronism whereby the public health system, which is supposed to act as a vehicle for transferring resources in kind from the richest to the poorest, in practice serves only 15 percent of the population living in urban areas. This situation is due to the fact that the capacities of the medical districts, which are intended to be the first point of contact with the health system for the bulk of the rural population, are chronically inadequate and are still underutilized. One of the main reasons why the capacity of the medical districts is underutilized is the deterioration in the quality of care due to the inadequacy of actual allocations of drugs and to poor management of the resources that are available. In order to improve the efficiency and equity of the public health system, win back the confidence of the rural population, stimulate demand for basic health services, and permanently strengthen the capacities of the medical districts to promote improved health for the majority of the people, it is necessary to overhaul the financing and administration of the basic public health system.

## **2.2 WHAT REFORMS?**

### **2.2.1 Origins of the Debate on Cost Recovery in Niger**

During the second half of the 1980s, the need to boost health sector resources in Niger, in order to improve the quality of care, arose at a time of tight economic and social constraints. In economic terms, a diagnosis of the situation of Niger's public finances revealed a rather severe fiscal crisis. The government's reaction was to adopt a macroeconomic policy aimed at curtailing public demand. On the social front, the increase in needs was gathering momentum as the population grew. In the face of these expanding needs, the way in which adjustments, assisted or otherwise, were reflected in the delivery of care was through reductions in actual allocations and a deterioration in the quality of care. One of the sector policies considered for coping with this situation was cost recovery in the non-hospital sector, a financing mechanism whereby part of the private financial resources committed to health promotion activities would be recycled through the formal health system in order to strengthen, in a sustainable manner, the capacities of the outlying health facilities (Republic of Niger, 1987; Ministry of Public Health and Social Affairs, 1990).

### **2.2.2 Context of the GHSD**

The agreement on a grant for health sector development concluded between the Republic of Niger and the United States of America in August 1986 offered a dynamic framework in which to develop reforms to the financing of the non-hospital sector.<sup>1</sup> Under this agreement, the Ministry of Public Health committed itself to a series of administrative and policy reforms in the area of cost reduction and cost recovery, in both the hospital and the non-hospital sector, with a view to mobilizing domestic resources and improving the efficiency and equity of the public health system.

The reforms in the hospital sector are aimed at converting hospitals into government-owned establishments that are administrative in nature and have financial autonomy: over the long term, increases in the hospital's own resources would enable the government to restructure the allocation of health sector resources in favor of primary health care. At the same time, reforms would be undertaken in the non-hospital sector to mobilize internal resources, by having the people share in the cost of health care, and to rationalize the use of resources. Strengthening the capacities of the non-hospital sector and introduction of a rate-setting system that reflect the costs of providing care in the two sectors would pave the way for improvements in the efficiency of the health system through better delivery of primary health care in the non-hospital sector and meaningful specialization of hospitals in tertiary care.

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<sup>1</sup> *Agreement on a Grant for Health Sector Development in the Republic of Niger* between the Republic of Niger and the United States of America.

### **2.2.3 Bamako Initiative**

During the 1980s, fiscal crisis and the critical situation of health sector financing, especially in the case of primary health care, were not peculiar to Niger: to varying degrees, health sector financing was beset by macroeconomic constraints in a number of African countries. One solution contemplated by African public health ministers, with the support of UNICEF and WHO, was adoption of the Bamako Initiative (BI). The BI contains proposals to restructure health financing, and alternative strategies for the financing and management of primary health care in line with the principles identified by the conference at Alma Ata. The BI encourages African governments to institute primary health care financing based on community participation and management of resources by the people themselves under a decentralized health system. In other words, the aim was to improve the efficiency of resource allocation in the health system by making the basic health system less vulnerable to external and internal economic crises, by broadening the base of its financing, which had up to then been limited to the general resources of the State and contributions from foreign donors. In the late 1980s, the alternative of implementing the BI in Niger thus became an additional issue in the country's policy debate on cost recovery.

### **2.2.4 Policy Dialogue and Decisionmaking**

In the non-hospital sector, the debate on the reforms to be considered centered around the equity and efficiency of the financing system to be instituted. Several approaches were looked at, including (i) a system of prepayment through the sale of annual health cards, the proceeds from which would be used to finance the procurement of drugs; (ii) a system of social funding to finance drugs through a surcharge on the district tax; and (iii) a system of private funding through direct user payments. These different instruments present advantages and disadvantages from the standpoint of equity, efficiency and viability— issues for which published experience offered little guidance (Ministry of Public Health, 1989).

The seminar on cost recovery in the non-hospital sector, held at Kollo in November 1989, was organized as part of the effort to find suitable instruments to form the basis for a cost-recovery policy that took due account of actual conditions in the country. Following the recommendations by the Kollo seminar, the Ministry of Public Health/Bureau of Studies and Programming (MPH/BSP) began technical preparations for the Pilot Cost-Recovery Tests in the non-hospital sector, with technical assistance from the Tulane/Abt Team.

Considerable effort went into preparation of the pilot tests to ensure they would be carried out under the best possible technical conditions. These efforts involved primarily the MPH. After formation of the Pilot-test Steering Committee by an MPH decree in March 1991, several departments of the MPH and other ministries, such as the Ministry of Finance and Planning and the Ministry of the Interior, on the one hand, and a number of lending agencies (USAID/Niamey, World Bank, UNICEF, Belgian Cooperation Agency, etc.), on the other, made a sizable contribution in terms of preparing and guiding the pilot tests. After being debated at the national level by a committee of the National Conference, implementation of the pilot tests was placed on the agenda of the transitional government (National Conference, 1991).

The MPH set up the Central Monitoring Bureau, a unit administratively attached to the BSP, to manage the actual conduct of the pilot tests. It launched the tests in May 1993 in the districts of Boboye, in the department of Bosso, and Say, in the department of Tillabéri; a few months later, an MPH decree instituting the pilot tests was adopted and approved by the Ministry of Finance and Planning and the Ministry

of the Interior (Ministry of Public Health, 1993a). In the actual conduct of the pilot tests, technical assistance was provided by the Health Financing and Sustainability Project (HFS), which is funded centrally by the AID.

The decree establishing the pilot tests for health-care cost recovery authorized implementation of the Bamako Initiative in the department of Maradi; the Initiative was officially launched in the department in January 1994. The method of financing used for the BI in the department of Maradi is the same as the direct method of user payments being tested in the district of Say.

## 3.0 DESIGN OF THE PILOT TESTS

### 3.1 TECHNICAL PREPARATION

The first stage of technical preparations for the pilot tests was the seminar at Kollo in November 1989.<sup>2</sup> After discussing technical aspects and the pros and cons of several alternative ways of paying for health care, participants were to focus on the alternatives to be implemented in the pilot tests. The seminar also identified the criteria on which evaluation of the tests would be based. Overall, the criteria adopted by the seminar reflect a concern to install, at the local level, a financing system that is viable, efficient and equitable.

Following the recommendations of the seminar, the BSP, with technical assistance from the Tulane-Abt Team, continued technical preparations for the pilot tests (Weaver and McInnes, 1989; Bitran, 1989). In this context, an evaluation was made of Niger's experiments in cost recovery in the non-hospital sector: this covered the experiment with direct payment at the medical post at Tibiri, in the department of Dosso, and the experiment with indirect payment in the medical district of Mirriah in the department of Zinder (Sékou et al., 1991). These experiments confirmed that Niger's rural population was willing to pay its share of the cost of health care; they also confirmed that, for the cost of drugs, recovery rates ranging from 50 to 60 percent were feasible in the non-hospital sector. The experiments did not, however, provide any answers to the basic issues of efficiency and equity.

Answers to the questions on which the technical preparation team had focused a great deal of attention could be obtained only from varied and detailed empirical data (Willis and Diop, 1990). To reach conclusions on the efficiency and equity of the financing methods to be tested, answers were needed to the following questions:

- ▲ What effect does each cost-recovery system have on the demand for curative and preventive services? What effect does each cost-recovery system have on the quantity of care received?
- ▲ What effect does each cost-recovery system have on travel costs and frequency of travel? What effect does each cost-recovery system have on treatment expenses?
- ▲ What is the difference between the extent of these effects under a given cost-recovery system and under the status quo of "free care"? What difference in scale is there between these effects under a given cost-recovery system and the alternative system?
- ▲ How are demand for health care and expenses affected by such factors as the seriousness of the illness, the distance from the health facility, household income, age, sex, and the perceived availability of drugs?
- ▲ What effect does each cost-recovery system have on the satisfaction level of the patients?

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<sup>2</sup>Design of the pilot tests began in 1989, and payments in the test health facilities started in May 1993. In January 1994, during the ninth month of actual testing, the 50-percent devaluation of the CFA franc was decreed in Niger. This reduction in the par value of the CFA franc was to have repercussions on the extent to which the financing methods and rates applied were able to replenish stocks of drugs, most of which are priced in US dollars. These repercussions are summarized in subsection 4.6.

EXHIBIT 3-1: POPULATION AND INDICATORS OF THE LOCAL PUBLIC HEALTH SYSTEM IN THE PROJECT AREA

EXHIBIT 3-1 POPULATION AND INDICATORS OF THE LOCAL PUBLIC HEALTH SYSTEM IN THE PROJECT AREA			
ITEM	BOBOYE	SAY	ILLÉLA
Population, 1993	250,000	210,000	200,000
Number of fixed health facilities (HF), 1993	10	8	5
Number of medical health centers, 1993	1	1	1
Population living less than 5 km from a HF, 1993 (%)	27	16	16
Physicians in post, 1993	1	1	1
Nurses in post, 1993	20	18	11
Midwives in post, 1993	6	3	3
Annual allocation in the central budget: Drugs and medical equipment, 1993 (CFAF)	4,500,000	6,000,000	5,000,000
<i>Sources:</i> National Health Information System, 1993; Parcel Reports of the ONPPC, 1992: Say, Boboye, Illéla.			

The one-year period planned for conducting the pilot tests did not technically allow scope for broadening the issues to determine what impact the different methods to be tested had on the health of the population. It is assumed, however, that expanding access to better quality health care is bound to improve the people's health. The design of the pilot tests was guided by the recommendations of the Kollo seminar and by the research issues identified.

## **3.2 DESIGN**

Interventions under the pilot tests constitute a comprehensive package of technical, administrative and financial reforms aimed at strengthening the capacity of the health district's care delivery system (Ministry of Public Health, 1992c). Essentially, their aim is to improve the quality of health care delivery, to rationalize the use of resources, and to mobilize internal resources to ensure that improvements in the quality of care are sustainable. They also have a built-in information gathering system designed to evaluate the viability, efficiency and equity of the reforms undertaken. The pilot tests were designed around four components: (i) the scale and geographical framework of the pilot tests; (ii) actions to improve the quality of care; (iii) financing mechanisms; and (iv) the evaluation system. These different components are described in turn below.

### **3.2.1 Project Area**

Six districts were selected beforehand to serve as framework for the pilot tests. The onerous task of conducting the planned operations and the enormous volume of data to be collected prompted the MPH officials to reduce the project area to three districts. Since the tests were part of a process for developing a government policy, the decisive criterion for final selection of the districts to be used as test sites was proximity to Niamey, so that MPH officials could more closely monitor the conduct and performance of the tests over time.

The three districts selected to make up the test area were the district of Say, in the department of Tillabéri, the district of Boboye, in the department of Dosso, and the district of Illéla, in the department of Tahoua. *Exhibit 3-1* presents the general characteristics of the public health system in each of the three districts.

### **3.2.2 Actions to Improve the Quality of Care**

The technical and administrative reforms associated with the pilot tests are aimed at improving the efficiency of district health facilities by upgrading the quality of the curative care provided and rationalizing the use of drugs, in order to keep service costs at sustainable levels that the people will be able to afford over the long haul. Four actions were undertaken to achieve this goal.

Firstly, the technical staff of the test health facilities were given training in the use of diagnostic and treatment protocols (DTPs). DTPs are therapeutic decisionmaking tools designed in the course of the collaboration between the nursing and medical staff at Dosso, the Belgian medical/health assistance project at Dosso, and the Ressfop project (Ministry of Public Health/Belgian Medical Cooperation Agency, 1991). Their purpose is to rationalize the use of resources in the delivery of care in general and the use of drugs in particular.

Secondly, the availability of drugs in the health facilities was increased. Thanks to support from the World Bank, the two test medical districts were supplied with an initial stock of essential drugs large enough to meet their needs for an entire year (Ministry of Public Health, 1992a). Generic brands were purchased so as to keep the cost of drugs down. The ONPPC was supposed to keep the health districts supplied with drugs, but it was unable to procure essential generic drugs through competitive bidding. The alternative course was to purchase the drugs on an emergency basis through UNICEF's UNIPAC system.

Thirdly, the administrative capacity of the two test medical districts was strengthened by installing a financial and drug-inventory management system (Ministry of Public Health, 1992b). The management system is based on a dual control principle: an internal control based on the management records kept by the technical head of the health facility, on the one hand, and the manager, on the other, and outside supervision by a local health committee set up for each health facility. The technical staff of the health facilities and the managers—the managers are *ex officio* members of their respective local health committee—were trained in how to apply the management system.

Finally, oversight of the medical districts was strengthened in two ways: the first component was in the hands of the chief medical officer of the HD, to improve use of the DTPs; a second component was exercised by the CMB's office of supervision and training, to strengthen the management of drugs and financial management.

The actions taken to improve the quality of care were introduced in a similar fashion in the two test districts of Boboye and Say. However, the health personnel in the Boboye district had been administering the DTPs for several years; the DTPs were introduced into the Say district only as part of the pilot tests.

### **3.2.3 Cost Recovery Efforts**

Two methods of payment were tested in an effort to mobilize resources by having the people pay part of the cost of health care: a direct method of payment, which is a variant of a private financing system, and an indirect method of payment, which is a variant of a social financing system.

The direct payment method involves the payment of a lump sum per episode by users of public health facilities: users aged 5 years and over pay CFAF 200 per episode, and children less than 5 years of age pay CFAF 100 per episode. The direct method of payment was tested in the Say district.

The indirect payment method consists in a surcharge on the district tax and a copayment by users of public health facilities. District taxpayers pay a surcharge of CFAF 200 on the district tax, the proceeds from which are used to replenish the revolving fund for drugs. Moreover, to curb excessive use of the services, users age 5 and over pay CFAF 50 per episode, while children aged less than 5 years pay CFAF 25 per episode. District taxpayers are residents age 14 and over: any adult residents over the age limit, or suffering from physical or mental disabilities that restrict their earning capacity, are traditionally exempt from payment of the district tax. The indirect method of payment was tested in the Boboye district.

Under the two system of payment applied in the tests, students, disabled persons, the indigent, military personnel, and prisoners were exempted from payment at the health facilities.

The rates charged during the pilot tests were set by the 1989 Kollo seminar and ratified by the Steering Committee. Application of the payments at the health facilities was ordered in a decree issued by the Ministry of Public Health, and approved by the Ministry of Finance and Planning and the Ministry of the Interior,

instituting the pilot cost-recovery tests. Revenues recovered are managed by the managers of the health facilities. Each month, the receipts are transferred to a revolving fund for drugs set up in each district. By statute, use of the receipts can be decided only by representatives of the people organized in the form of a subregional health committee, in which the voting members are those who represent the local health committees established for each health facility.

### **3.2.4 Performance Evaluation**

The performance of the two payment mechanisms is evaluated by reference to the objectives and criteria selected during the Kollo seminar of 1989. Overall, the criteria adopted reflect a desire to develop a local financing system that is viable, efficient and equitable. The objectives and criteria, and the indicators used to measure them, are discussed in the section that follows.

The performance of the two payment mechanisms is measured using two instruments. The first comprises data on health care demand gathered from households during a baseline survey carried out before introduction of payments and a survey conducted one year after the baseline survey. The second instrument comprises activity and financial data gathered from the health facilities each month throughout the project year.

From the technical standpoint, the data from the household surveys and those from the public health facilities in the three districts make it possible to use a combination of three evaluation methods. The first is the experimental control method based on observations in the district of Illéla, where no pilot-test activities took place other than data gathering: this method allows the test districts and the control district to be compared by reference to the data from the surveys and the health facilities. The second method is the historical before-and-after control method whereby each district serves as its own control using the data from the surveys. Finally, there is the historical method, using monthly series covering the year preceding the start-up of the tests and the year of actual testing, where each district and health facility serves as its own control. The combined use of these three evaluation methods and in-depth econometric analyses carried out by HFS researchers will serve to corroborate the conclusions regarding the performance of the pilot tests (Diop, 1993; Diop, Kailou, and Oumarou, 1994; Diop, 1994; Wouters and Kouzis, 1994; Yazbeck and Wenner, 1994; and Randall and Chawla, 1994).

The methodology used in the pilot tests and the conduct of test and evaluation activities over time are presented in *Exhibit 3-2* and *Graph 3-1*, respectively.

EXHIBIT 3-2: METHODOLOGY USED IN THE PILOT COST-RECOVERY TESTS

EXHIBIT 3-2 METHODOLOGY USED IN THE PILOT COST-RECOVERY TESTS				
COMPONENTS	LEVEL OF INTER-VENTION	DISTRICT		
		BOBOYE - INDIRECT	SAY - DIRECT	ILLÉLA - CONTROL
<b>INTERVENTIONS</b>				
Sensitization and installation of the local health committees	Population	Yes	Yes	No
Training in diagnostic and treatment protocols	Health Facility	Yes	Yes	No
Training in financial management and drug management	Health Facility	Yes	Yes	No
Initial supply of drugs	Health Facility	Yes	Yes	No
Payment for care	Population	Contribution: 200 CFAF/yr.	No	No
	Health Facility	Adult: 50 CFAF/episode Child: 25 CFAF/episode	Adult: 200 CFAF/episode Child: 100 CFAF/episode	
<b>EVALUATION</b>				
Baseline survey	Population	Yes	Yes	Yes
Final survey	Population	Yes	Yes	Yes
Data from the health facilities	Health Facility	Yes	Yes	Yes

GRAPH 3-1: TIMETABLE OF INTERVENTIONS AND EVALUATION ACTIVITIES UNDER THE PILOT COST-RECOVERY TESTS

GRAPH 3-1 TIMETABLE OF INTERVENTIONS AND EVALUATION ACTIVITIES UNDER THE COST RECOVERY PILOT TESTS: 1992-94																
	1992			1993							1994					
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	...	OCT	NOV	DEC	JAN	FEB	MAR	
<b>INTERVENTIONS</b>																
Sensitization	█			█		█			█							
DTP training				█												
Management training						█										
Initial supply of drugs								█								
Payment for care	*	█														
<b>EVALUATION ACTIVITIES</b>																
Baseline survey	█															
Data from health facilities	█															
Final survey											█					
<p>* As a result of a breakdown in coordination between the central and local levels, the surcharge on the tax was collected in 1991 after the people had already been sensitized: preparations at the central level were not completed in time to permit start-up in 1991.</p>																

## 4.0 RESULTS

The objectives of the cost-recovery systems adopted by the Kollo seminar to serve as a framework for evaluating the performance of the payment methods to be covered by the pilot tests reflect a concern to install, at the local level, a financing system that is equitable, efficient and viable. The first objective adopted was that the system must meet the needs of the people and stimulate demand for and use of health care; it must also make it possible to take improvements in the quality of care that are consistent with how the people—the beneficiaries—view quality care and make those improvements sustainable. Secondly, the system must guarantee that care is accessible for the target groups and for those who live at a distance from health facilities. Thirdly, the recurrent costs of the technical and administrative reforms adopted must be kept low. Finally, the method of recovery must make it possible to mobilize sufficient funds to cover the recurrent charges generated by the technical and administrative reforms, in order to ensure that the system remains viable.

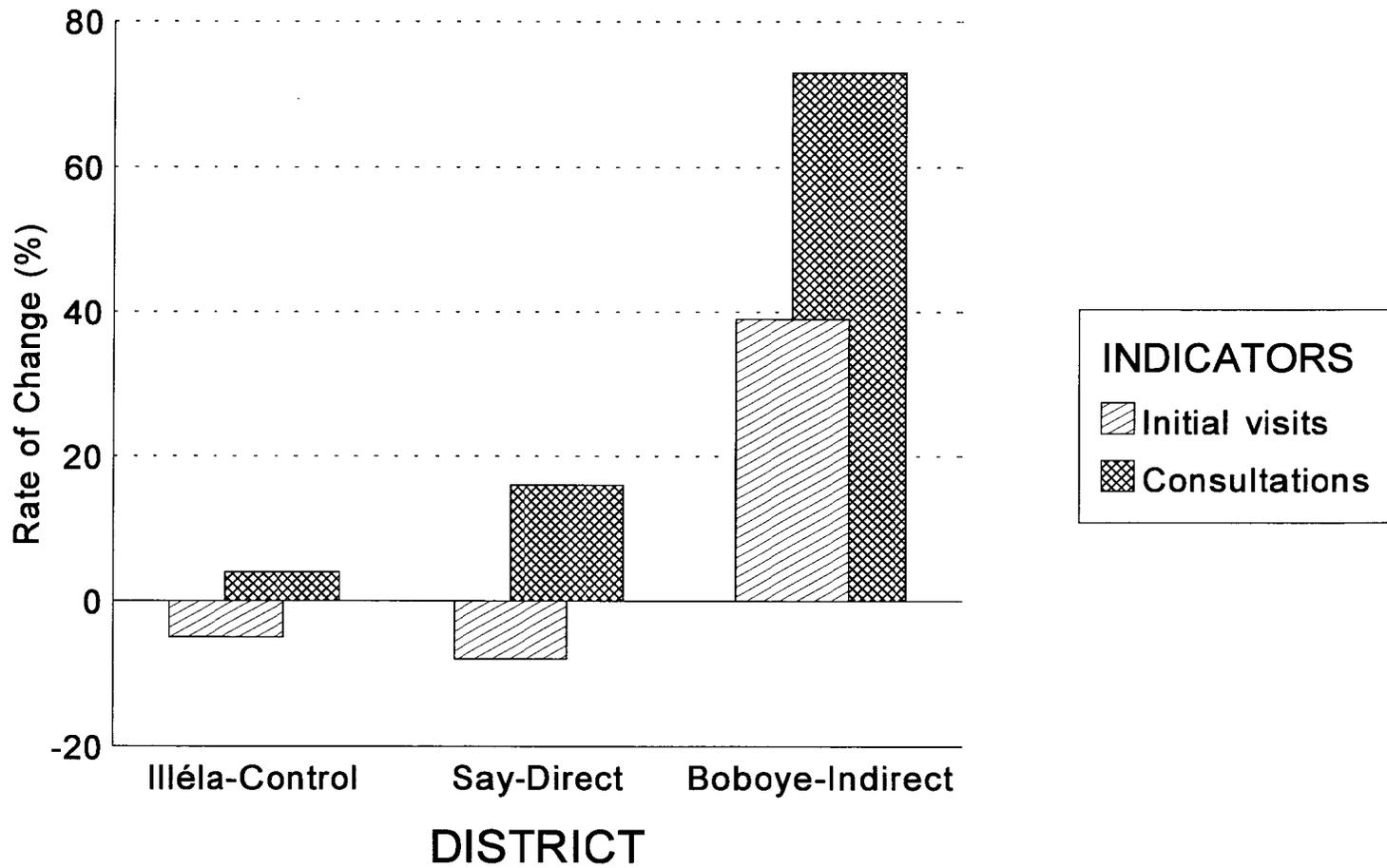
### 4.1 DEMAND FOR AND USE OF HEALTH CARE

The foremost criterion for evaluating a system designed to respond to the needs of the people is the demand for and use of health care. In the context of the pilot tests, the indicator adopted to measure this criterion was the rate of change in the number of visits to health facilities between the year preceding the start of the tests and the actual year of testing. To determine the performance of the system from the standpoint of accessibility and equity, the change in resort to care was measured among the target groups, namely children, women, and the poor, and among the groups living in villages remote from health facilities.

*Graph 4-1* summarizes the changes which took place in the use of public health facilities between the baseline year and the test year, based on data from the health facilities. It is noteworthy that the changes which occurred in the district of Boboye, where indirect payments were in effect, differ markedly from those in the other two districts. In the test district of Boboye, user copayments did not discourage patients, who were strongly attracted by the availability of drugs: the number of new visits rose by 40 percent; moreover, the quantity of care received, measured by the number of visits, went up by 70 percent. In the Say district, direct payment of the lump sum tended to keep some groups of traditional users away, especially those living in the villages where the health facilities were located; however, the quantity of care received improved markedly in comparison with the levels observed in the district prior to the tests, and with the weak showings in the control district of Illéla.

These changes varied according to the type of health facilities involved. In the control district of Illéla, only the medical center at Illéla maintained a performance level comparable with that of the baseline year; in addition, the performance of the medical station at Bagaroua and the rural dispensaries showed a relative deterioration. In the test district of Say, the quantity of care received improved sharply across all types of health facility in general, and at the Torodi medical station in particular. In the test district of Boboye, the greatest improvement in use was at the Falmey medical station; the medical center at Birni Ngaouré and the rural dispensaries in the district recorded comparable levels of improvement.

GRAPH 4-1  
RATE OF CHANGE IN THE USE OF PUBLIC HEALTH FACILITIES BETWEEN THE BASELINE  
YEAR (MAY 1992-FEBRUARY 1993) AND THE TEST YEAR (MAY 1993-FEBRUARY 1994)



*Exhibit 4-1* summarizes the changes which took place in the use of public health facilities among the target groups, based on data from the baseline survey and the final survey. In the control district of Illéla, with the exception of children below age 15, the use of health facilities among the target groups deteriorated from low starting levels. In the test district of Say, use was maintained at the same levels among the target groups, with the exception of the poorest 25 percent whose use declined. In the test district of Boboye, use improved markedly among the target groups in general, especially among the poorest 25 percent.

The data from the baseline survey had revealed that a large proportion of patients only used drugs bought from informal providers, including roving drug merchants. Econometric analysis of demand for health care in the three districts, based on data from the baseline and final surveys, confirms that the improved availability of drugs in the public health facilities shifted demand for health care from the informal to the formal sector. This shift was most pronounced in the Boboye district, where the indirect payment method was used, given the small copayment involved.

In summary, the improvements in the quality of care that were made as the pilot tests were conducted, in particular the improved availability of drugs, stimulated the demand for health care at the public health facilities in the test districts, by comparison with the low levels of use recorded prior to the start of the tests at Boboye and Say and with the declining trend which continued in the control district of Illéla. Although in the test district of Say direct payment proved a barrier for some population groups, especially those living in the villages where the health facilities were located, copayments did not discourage use in the villages where the health facilities were located in the test district of Boboye. In the control district of Illéla, use of the public health facilities deteriorated sharply among women and residents of villages remote from health facilities; moreover, signs of deterioration, from very low starting levels, were observed among the poorest in the district. In the test district of Say, the level of use by the target groups did not change significantly, except for the poorest, whose use deteriorated. At the other extreme, use of the health facilities improved markedly among the target groups in the test district of Boboye, particularly in the case of the poorest 25 percent. Finally, resort to public health facilities is more sensitive to the opportunity costs associated with long distances from such facilities than to the methods of payment and the rates applied in the three districts.

## **4.2 RATE SETTING**

The breakdown of new visits by type of payment provides an indicator of how exemptions are used to make care more affordable for certain population groups, especially the poorest. In the course of preparations for the pilot tests, rate setting and the exemptions to be applied were sources of lively discussion in the pilot-test Steering Committee. Some categories of non-payers were clearly defined, including students, the disabled, military personnel, and prisoners; however, the category of indigent, although adopted, was not clearly defined, and no means test was instituted to identify the destitute: it was felt that the identification of indigents was best left to the local health committees.

**EXHIBIT 4-1: COMPARISON OF THE LEVELS OF USE OF PUBLIC HEALTH FACILITIES  
BETWEEN THE BASELINE SURVEY AND THE FINAL SURVEY AMONG SELECTED  
TARGET GROUPS**

TARGET GROUP	PROPORTION OF PATIENTS WHO USED A PUBLIC HEALTH FACILITY DURING THE TWO WEEKS PRECEDING THE INTERVIEW (%)					
	ILLÉLA	CONTROL	SAY	DIRECT	BOBOYE	INDIRECT
	Before the tests	During the tests	Before the tests	During the tests	Before the tests	During the tests
Children under age 15	8.2	8.5	13.0	12.6	15.0	20.4
Women	10.5	6.2	14.4	13.4	15.4	20.3
Villages without health facilities	5.2	3.1	6.6	7.8	11.8	14.4
Poorest 25%	4.4	3.7	7.4	5.0	8.4	17.2
District as a whole	10.2	7.9	12.7	11.9	15.5	18.9

Besides the issue of indigents, discussions focused on the exemption for students and military personnel. Student status discriminates on the basis of income and proximity to health facilities: compared with those not enrolled, students not only come from the wealthier families in the district but are also drawn mostly from the villages where the health facilities are located, since health and educational facilities tend to be located in the same general vicinity. In other words, if students are exempted, the poorest families would be subsidizing health care for the children of the wealthiest families, who already benefit from public subsidies through the schools. The counterargument, however, is that exempting students ought to make it possible to improve the efficiency of public subsidies that are channeled through the schools, by improving access to quality health care and the health status of the student population.

The scale of rates charged in the two test districts is summarized in *Exhibit 4-2*. Approximately 80 percent of new visits in the test district of Say paid before receiving care; the corresponding figure for the test district of Boboye was 91 percent. Except in the case of students, military personnel and prisoners, exemptions were virtually nonexistent: the concept of indigent did not come into play during the tests.

Other things being equal, the financial impact of exemptions is relatively minor under the indirect payment system in view of the small copayment involved. Under the direct system of payment, however, the ratio of receipts which might have been recovered to receipts that were recovered was 18 percent.

The scale of rates charged under the tests is quite simple, which is an advantage. However, two issues remain open: (i) whether students should be covered either by the State or by the local authority, at the risk of jeopardizing the viability of the financing systems, especially the direct payment system; and (ii) overutilization of services by students, which not only reduces the efficiency of the care delivery system but also raises the opportunity costs of using the services for the other categories of payment by increasing users' waiting time. A compromise solution should be sought in the form of a differential scale of charges depending on the status of the patient, and one that requires payment from all users in order to improve the efficiency and equity of the financing system used.

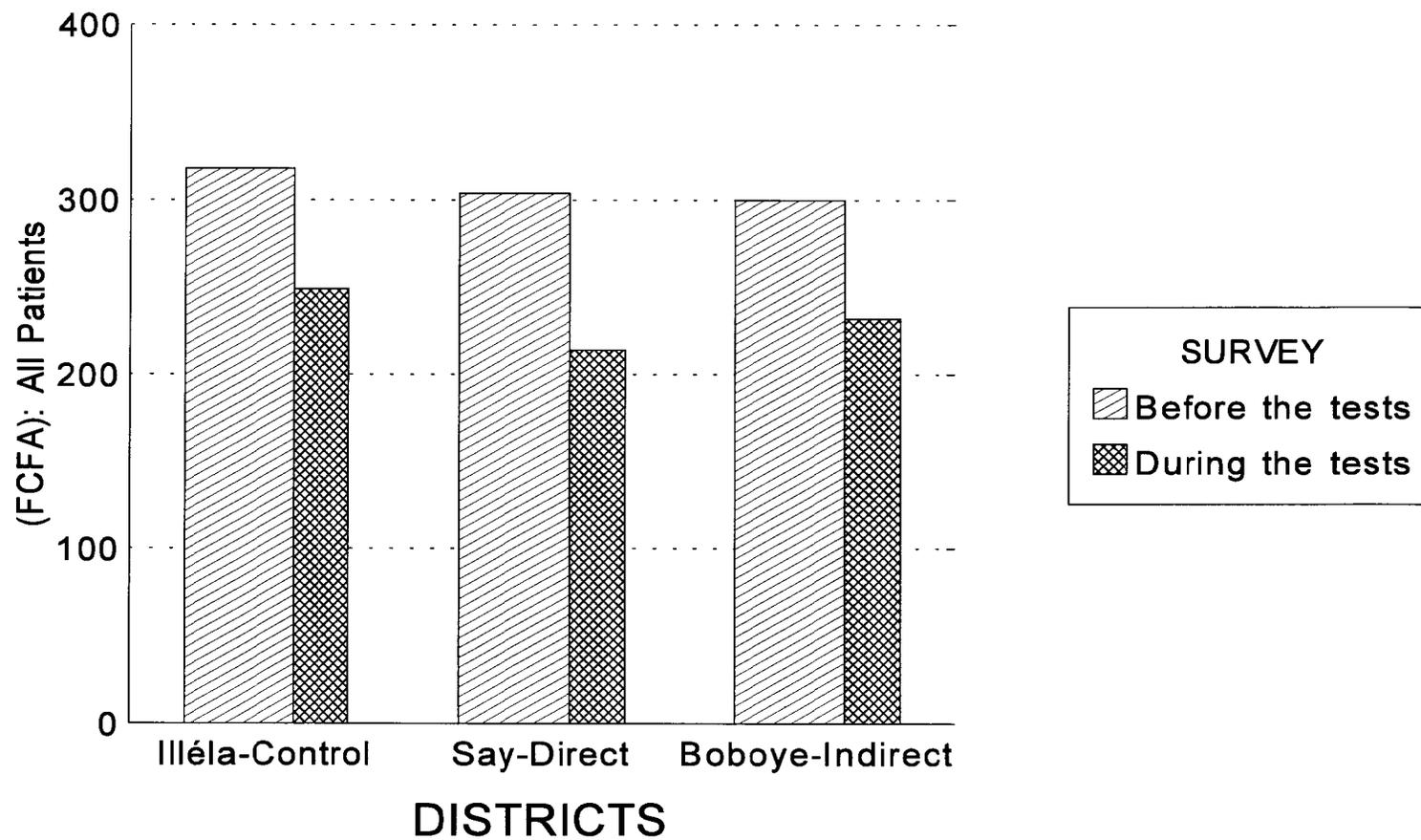
### **4.3 PRIVATE HOUSEHOLD EXPENDITURES**

One of the arguments for introducing cost recovery is that free care under the status quo is illusory. Given the present poor availability of drugs, households incur heavy expenses when seeking treatment for illness in general, and more particularly in the form of travel expenses and the cost of buying drugs when they visit public health facilities. It is argued that the introduction of cost recovery does not impose any greater financial charges on users of health facilities than they already bear under the status quo: in other words, introduction of cost recovery does not increase the private component of the social costs of treating illness.

The financial outlays incurred by patients to obtain treatment of illness during the two weeks preceding the interview for the baseline survey and the final survey provide an indication of the levels of private health care costs under the status quo and under the payment methods applied during the pilot tests. *Graph 4-2* summarizes illness-related expenditures among all patients, patients who did not use the health facilities, and all patients at public health facilities combined.

EXHIBIT 4-2:OVERVIEW OF RATE SCHEDULES APPLIED BY MANAGERS OF HEALTH FACILITIES IN THE TEST DISTRICTS: MAY 1993-FEBRUARY 1994		
	SAY—DIRECT	BOBOYE—INDIRECT
<b>BREAKDOWN OF NEW VISITS BY CATEGORY OF PAYMENT (%)</b>		
Number of New Visits	45,900	100,441
PAYING		
Paying Adult	55.7	57.1
Paying Child	32.0	33.6
<b>Total</b>	<b>87.7</b>	<b>90.7</b>
NON-PAYING		
Student	9.4	7.2
Disabled	0.2	0.4
Indigent	0.2	0.1
Military Personnel and Prisoners	2.1	1.6
<b>Total</b>	<b>12.3</b>	<b>9.3</b>
<b>Total (%)</b>	<b>100.0</b>	<b>100.0</b>
<b>IMPACT OF EXEMPTIONS</b>		
Additional receipts that might have been recovered had present non-payers not been exempted (CFAF)	1,155,000	485,000
Exemptions as a percentage of receipts	17.6	2.9

**GRAPH 4-2**  
**RATE OF CHANGE IN THE USE OF PUBLIC HEALTH FACILITIES BETWEEN THE BASELINE**  
**YEAR (MAY 1992-FEBRUARY 1993) AND THE TEST YEAR (MAY 1993-FEBRUARY 1994)**



Illness-related expenses comprise all expenses incurred to treat illness during the two weeks prior to the interview with the patient: they include expenses incurred in connection with home care before any visit to a health facility, including the cost of any drugs bought and expenditures on transportation, board and lodging, and treatment if care was sought from a health facility. On average, illness-related expenses among all patients fell from approximately CFAF 300 in all three districts before the start-up of the tests to CFAF 250 in the control district of Illéla during the tests, to CFAF 210 in the test district of Say, and to CFAF 230 in the test district of Boboye. In the control district of Illéla, the drop was partly due to the decline in the use of public health facilities: in other words, patients were not prepared to embark on a course of action whose perceived marginal costs outweighed the anticipated marginal benefits.

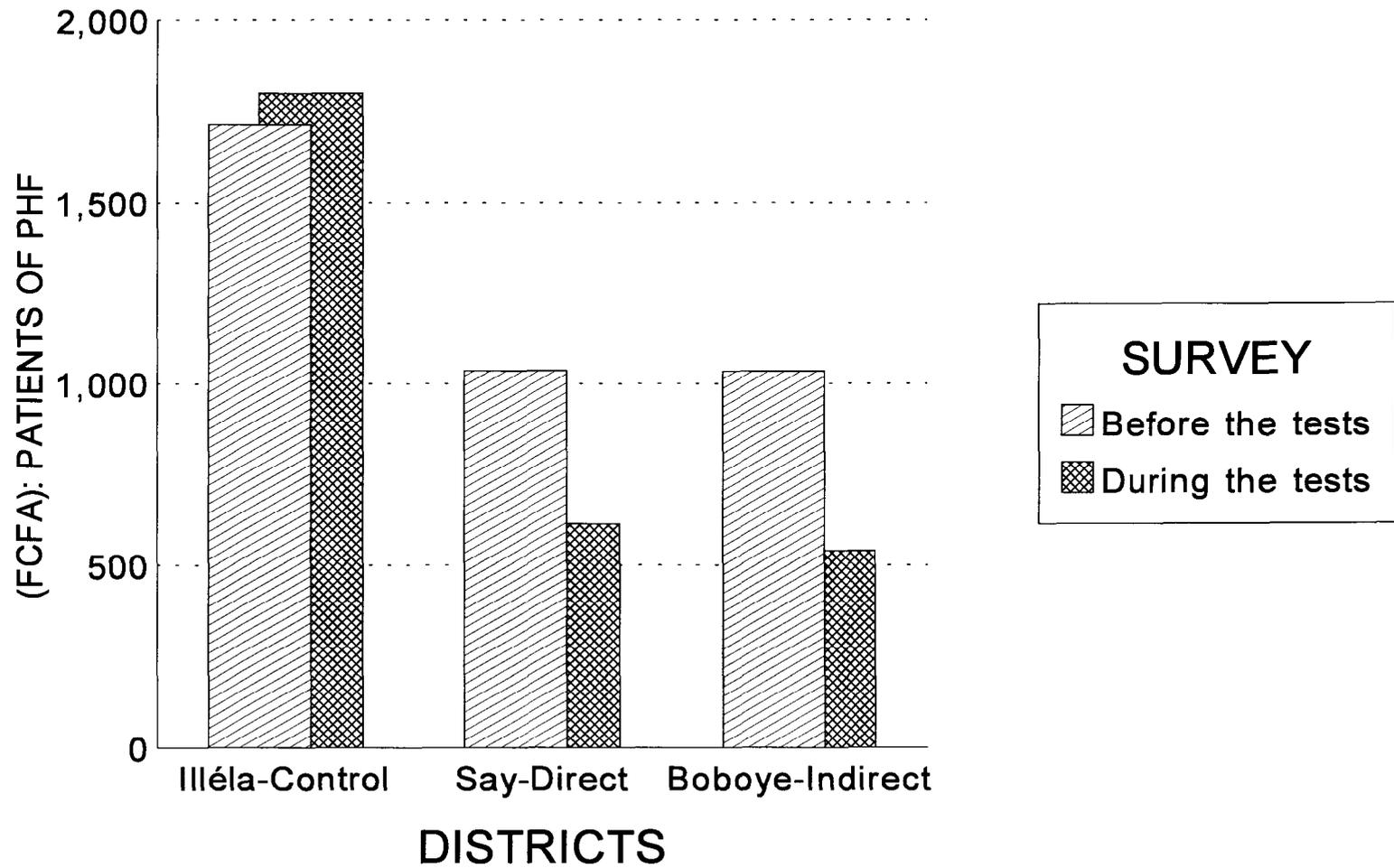
*Graph 4.3*, which summarizes the levels of illness-related expenses among patients at public health facilities only, illustrates that, in the control district of Illéla, the private costs of using public health facilities remained at their high levels between the period prior to the start of the tests and the testing period itself: patients at public health facilities continued to spend an average of between CFAF 1,700 and CFAF 1,800 over a two-week period. In the test districts, the private costs of using public health facilities fell significantly. In the test district of Say, expenditures by patients of health facilities went down on average from CFAF 1,000 before the tests to CFAF 600 during the tests; moreover, in the test district of Boboye, expenditures went down on average from CFAF 1,000 before the tests to CFAF 500 during the tests. Among some socioeconomic groups, whose use of health facilities was limited during the period preceding the tests, expenses rose but still remain low: the poor in the test district of Boboye are a case in point.

In summary, introduction of cost recovery does not entail any increase in the private cost of health care. Moreover, when the introduction of reforms is accompanied by an increase in the use of public health facilities among certain socioeconomic groups, it is not because total costs per illness episode are declining among these groups. Use can still increase when costs per episode are rising—as in the case of the poor in the test district of Boboye—as long as individuals perceive that the marginal benefits of health care under the reforms have improved relative to their incremental marginal cost.

#### **4.4 RECURRENT COSTS OF THE REFORM PACKAGE**

The improvements in the quality of care stemming from the administrative and technical reforms undertaken as part of the pilot tests involve additional expenses to operate the medical districts. These expenses include the consumption of drugs by the health facilities and the incremental costs of managing the new system. Aside from the revenue-generating capacity of the financial reforms that accompany the tests, the viability of the local financing system to be installed will depend essentially on how well those administering the technical reforms—namely training in DTPs, use of essential generic drugs, and drug management—are able to hold down such additional expenses. Average expenditures on drugs and the incremental expenses of managing the new system in the test medical districts will be used as indicators of the recurrent costs of the reforms undertaken as part of the pilot tests.

GRAPH 4-3  
ILLNESS-RELATED EXPENDITURES DURING THE TWO WEEKS PRIOR TO THE INTERVIEW FOR THE BASELINE SURVEY AND THE FINAL SURVEY: PATIENTS AT PUBLIC HEALTH FACILITIES (PHFs)



The poor quality of management in the medical district of Illéla precludes an evaluation of the consumption of drugs in this district. As a result, the evaluation of the recurrent costs of the reforms will be based only on data from the medical districts of Boboye and Say. The drugs used by the health facilities during the evaluation period from May 1993 to February 1994 were purchased at the prices in effect before the devaluation of the CFA franc: it is these price levels that were used in the evaluation; the impact of devaluation on cost-recovery performance is summarized in subsection 4.6.

During the first ten months of cost recovery, the two medical districts each consumed drugs worth more than CFAF 1 million a month. In the test district of Say, the eight public health facilities dispensed drugs worth CFAF 12.7 million during the 10-month period from May 1993 to February 1994, equivalent to an annual consumption of CFAF 15.2 million. This represents 2.5 times the annual allocation for drugs in the State budget, which is on the order of CFAF 6.0 million. In the test district of Boboye, drugs worth CFAF 11.0 million were consumed in the ten public health facilities between May 1993 and February 1994, equivalent to an annual consumption of CFAF 13.2 million. This represents 3 times the annual allocation for drugs in the State budget, which is on the order of CFAF 4.5 million. The bulk of the drugs consumed during the pilot tests were generic drugs provided by the project: in other words, the monthly drug consumption recorded in the two test districts shows that the State's current allocations of drugs to the medical districts fall far short of what is needed.

In terms of cost, antibiotics and antiparasitics were the principal drugs used in providing health care in the two medical districts during the ten-month period from May 1993 to February 1994. In fact, antibiotics and antiparasitics together accounted for close to 75 percent of their expenditures on drugs.

*Graph 4-4* summarizes the average consumption of drugs in the two test medical districts. Average expenditures on drugs varied widely from one district to another and between health facilities, reflecting in part the varying degrees of mastery of the diagnostic and treatment protocols (DTPs). In the district of Boboye, where the protocols had been in use for several years, average expenditures on drugs per new visit ranged between CFAF 90 and CFAF 140, according to the month, in the period from May 1993 to February 1994; the average for the period stood at CFAF 108 per new visit. In the district of Say, on the other hand, where use of the protocols was introduced during the year of the pilot tests, average expenditures on drugs per new visit amounted to between CFAF 200 and CFAF 330, according to the month, between May 1993 and February 1994; the average for the period stood at CFAF 272 per new visit. Unlike in the district of Boboye, where average expenditures in the medical center and the rural dispensary were comparable, in the district of Say the costs of drugs in the provision of care were higher in the rural dispensaries and the medical station at Torodi than in the Say medical center. During the last five months, tighter supervision of the rural dispensaries in the Say medical district helped to lower the average consumption of drugs to CFAF 220 from about CFAF 370 during the first five months. The data support the premise that adherence to the DTPs in providing care is an effective tool for reducing the drug-related component of service costs.

*Exhibit 4-3* summarizes the levels and breakdown of the recurrent charges associated with the improvements in the quality of care and implementation of the new management system during the first ten months of the pilot tests. Between 60 and 70 percent of the recurrent costs of the reform package were generated by the improved availability of drugs in the two medical districts; the other 30 to 40 percent was related to administration of the new management system.

**GRAPH 4-4**  
**AVERAGE EXPENDITURES ON DRUGS BY TYPE OF HEALTH FACILITY:**  
**MAY 1993-FEBRUARY 1994**

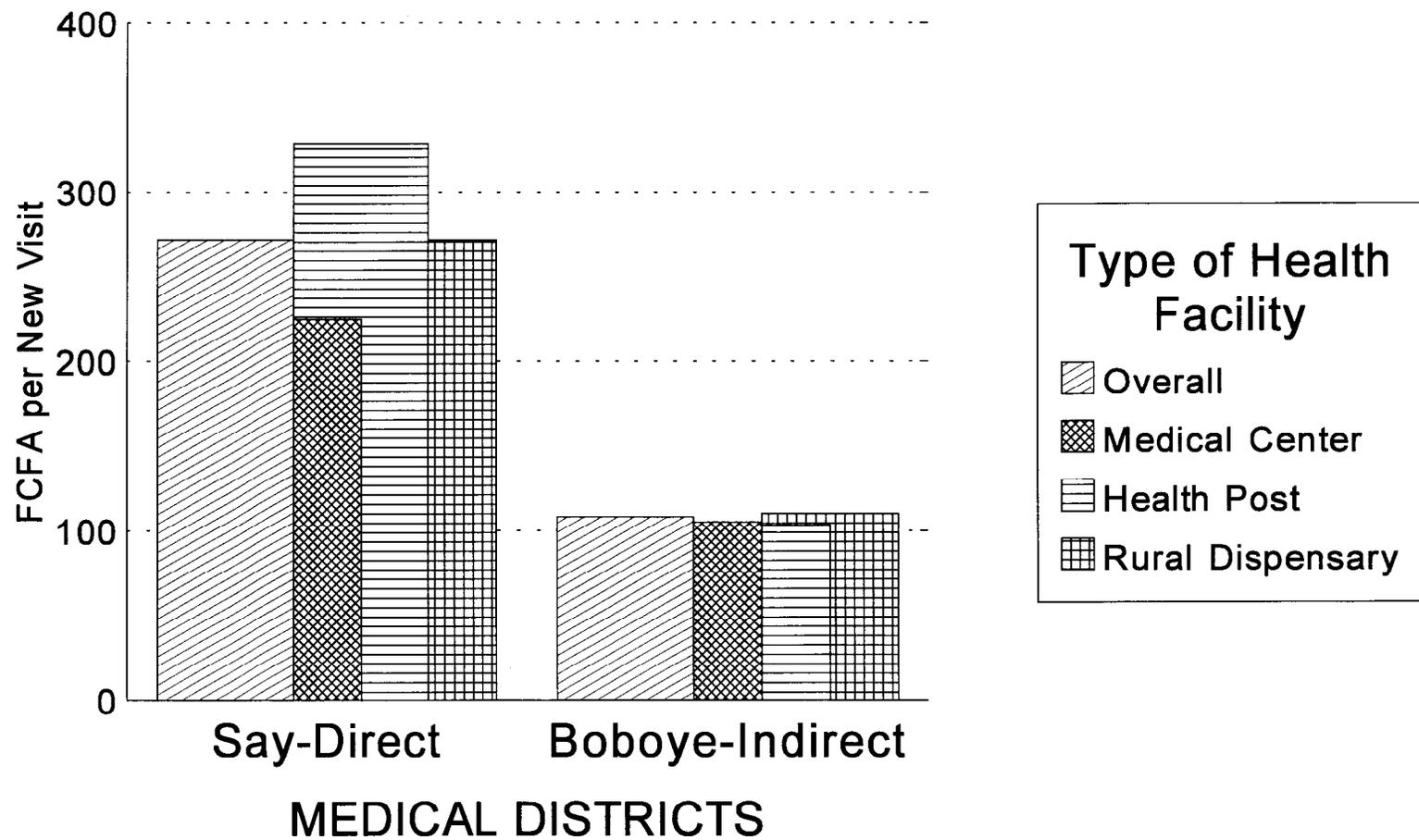


EXHIBIT 4-3:EXPENDITURES ON DRUGS AND INCREMENTAL MANAGEMENT EXPENSES: MAY 1993-FEBRUARY 1994				
TYPE OF EXPENDITURE	SAY—INDIRECT		BOBOYE—INDIRECT	
	CFAF	%	CFAF	%
Drugs	12,702,597	68.4	11,034,607	59.4
INCREMENTAL MANAGEMENT EXPENSES, OF WHICH:				
Salaries	3,907,046	21.1	4,931,930	26.5
Records	1,374,199	7.4	2,013,983	10.8
Supplies	574,314	3.1	598,523	3.2
Total	5,857,159	31.6	7,546,036	40.6
<b>Total</b>	<b>18,559,756</b>	<b>100.0</b>	<b>18,580,643</b>	<b>100.0</b>

About 65 percent of the incremental management expenses were accounted for by the wage bill for the new management system. Under the pilot tests, the managers of the health facilities, who are members of the local health committees, were funded by the project under the terms of the inter-professional agreement: a manager's wage and monthly allowance combined is four (4) times more than owners of village pharmaceutical stores receive. In other words, the compensation of the managers is much higher than would be needed to hire a reasonably education young man from the village.

In summary, future movements in drug costs as a component of care delivery, and the viability of the funding underlying the health system, will depend more than anything on movements in the prices of antibiotics and antiparasitics and on how well the attending health personnel master the diagnostic and treatment protocols. A consistent drug policy, based on procurement of essential generic drugs through international competitive bidding, combined with continuous training of health personnel in diagnostic and treatment protocols, would be one of the best ways to lay the foundation for a viable system of local financing. Moreover, with an eye to the eventual extension of cost recovery, the policy on remuneration for managers should be adjusted so that their cost can be taken over as far as possible by the revenue-generating capacity of the financing system adopted.

#### **4.5 QUALITY OF CARE**

The local financing system is likely to prove sustainable only if there are lasting improvements in the quality of care and if the people abide by the system that is installed. One criterion for evaluating the quality of care is the level of satisfaction of the people. The degree of satisfaction of the people can be gauged directly and indirectly. Firstly, other things being equal, if faced with a number of alternatives, patients of public health facilities will make several visits to a facility for treatment of their illness only if they perceive that the marginal benefits outweigh the marginal cost of additional visits: put another way, changes in the number of return visits between the baseline year and the test year are a faithful indicator of performance in the medical care given to patients. Secondly, conclusions as to the quality of care will be checked against a conditional evaluation of the people's willingness to pay for improvements in care similar to those they experienced during the first six months of the project. The changes which took place in the number of return visits in the three districts are summarized in *Graph 4-5*.

In the control district of Illéla, the number of return visits advanced slightly by 14 percent between the baseline year and the test year. In the two test districts of Boboye and Say, the availability of drugs resulted in an improvement in the continuity of care and in patient follow-up, as measured by the number of return visits. In the district of Boboye, the number of return visits more than doubled between the baseline year and the test year. In the district of Say, the number of return visits rose by 44 percent.

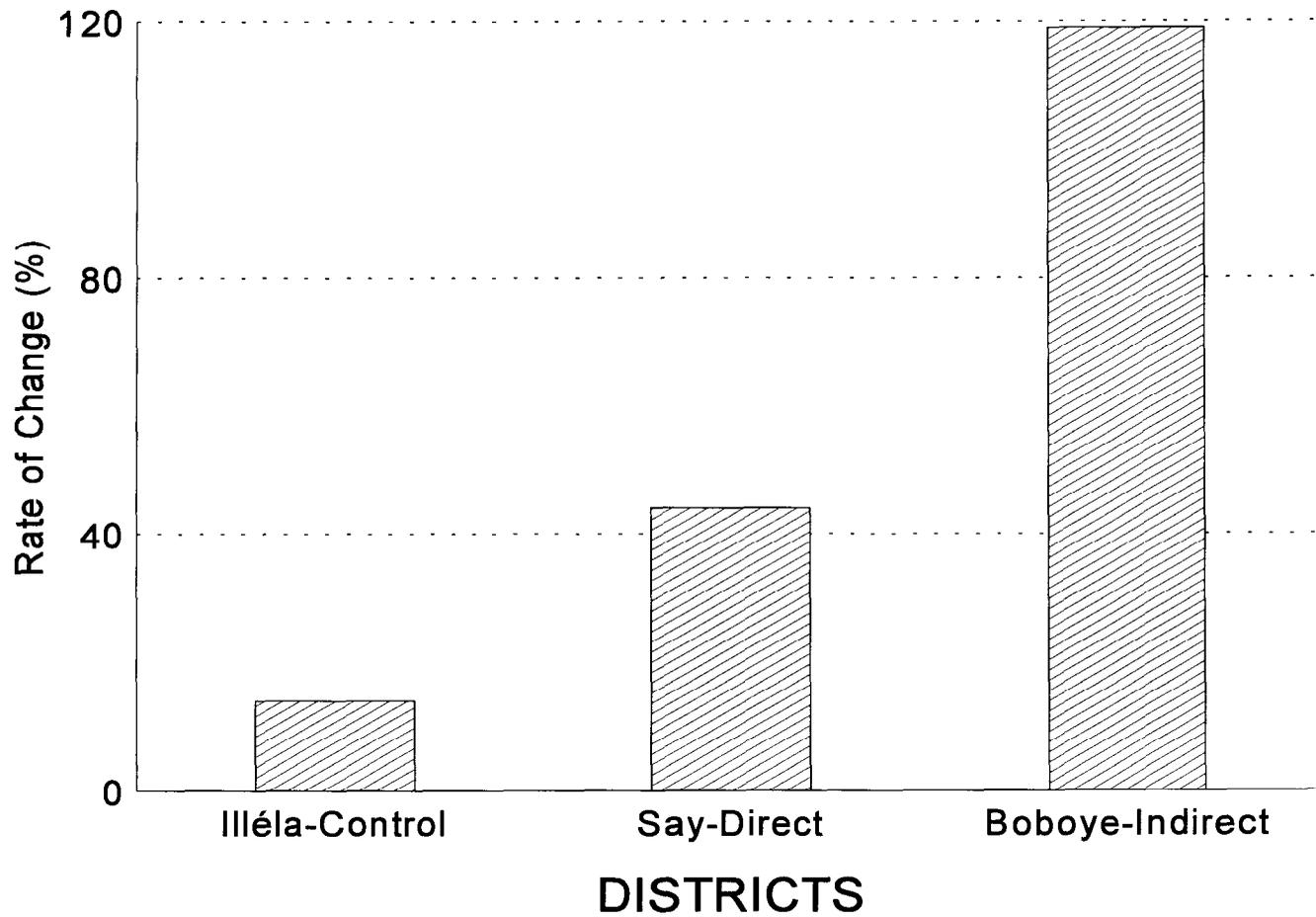
*Exhibit 4-4* summarizes the extent to which people in the test districts would always be willing to pay, at the public health facility, provided that drugs were available as in the first six months of the pilot tests—to pay, that is, for the improvements in the availability of drugs which they actually experienced. Based on statements by individuals age 15 and over in the two test districts of Boboye and Say, the willingness to pay, at the level of the public health facilities, to guarantee the availability of drugs at those facilities was very high. In the same districts, the proportion of individuals age 15 and over who stated they would always be prepared to pay to assure the availability of drugs at the health facilities was about 90 percent. Both the poorest and the most affluent stated a firm willingness to pay at all times.

**EXHIBIT 4-4:PEOPLE'S WILLINGNESS TO PAY FOR IMPROVEMENTS IN THE AVAIL-  
ABILITY OF DRUGS**

PROPORTION OF INDIVIDUALS AGED 15 AND ABOVE WHO ARE WILLING ALWAYS TO PAY AND AVERAGE AMOUNT (CFAF)  
THAT THEY ARE WILLING TO PAY, AT PUBLIC HEALTH FACILITIES, BY INCOME GROUP (%)

	DISTRICT					
	SAY—DIRECT			BOBOYE—INDIRECT		
	Always willing to pay (%)	Amount willing to pay (CFAF)	Number of individuals	Always willing to pay (%)	Amount willing to pay (CFAF)	Number of individuals
<b>INCOME GROUP</b>						
Low	88.4	236	484	93.7	84	559
Low-Middle	87.0	241	476	90.1	90	535
Middle-High	89.6	247	442	92.2	88	502
High	86.7	271	450	90.8	98	512
<b>OVERALL</b>	<b>87.9</b>	<b>249</b>	<b>1.852</b>	<b>91.7</b>	<b>90</b>	<b>2.108</b>

**GRAPH 4-5**  
**RATE OF CHANGE IN THE NUMBER OF RETURN VISITS TO PUBLIC HEALTH FACILITIES BETWEEN**  
**THE BASELINE YEAR (MAY 1992-FEBRUARY 1993) AND THE TEST YEAR (MAY 1993-FEBRUARY 1994)**



The respective amounts that individuals said they would be willing to pay in the two districts, however, suggest that rate adjustments would be accepted more flexibly in the case of copayments in the indirect system of payment used in the Boboye district than in the direct payment system in use in the Say district.

Approximately 62 percent of individuals aged 15 and above in the Boboye district stated that they would be willing to pay more if the current rates were not high enough to assure the continuous availability of drugs. In the Say district, the corresponding proportion was 66 percent. In other words, people would be willing to accept an upward adjustment of rates if the current rates were too low to recover the cost of the drugs, which is precisely what occurred with the 50-percent devaluation of the CFA franc.

To summarize, the movement in the number of return visits to public health facilities in the test districts shows that the quality of care improved markedly and was reflected in more continuous patient coverage in the treatment of illnesses. In this respect, the differences noted between the test district of Say and the test district of Boboye are more reflective of the greater relative availability of drugs and greater continuity of care in the test district of Say during the baseline year, due to the fact that actual allocations for drugs in the central budget were greater there and most patients lived in the villages where the health facilities were located. Moreover, virtually all adults in the two test districts, regardless of their income group, stated that they would be willing at all times to pay, at public health facilities, as they did during the early months of the tests, in order to guarantee the availability of drugs at the health facilities.

## **4.6 MOBILIZATION OF RESOURCES AND COST RECOVERY**

Apart from the ability to hold down the recurrent costs of the reforms, one of the primary components of the reforms to be implemented to ensure that the local health financing system is viable is the capacity of the proposed method of payment to generate revenues. Lasting improvements in quality of care, which are the main prerequisite if the local financing system is to be sustainable, can be based only on sound management of resources and on covering the drug needs and administrative expenses of the care delivery system.

The premise underlying the analysis presented in this section is that State subsidies will be kept at their present levels. The capacity to mobilize internal resources will therefore be gauged by the additional financial resources generated by applying the alternative payment methods tested; the indicators of the capacity to recover the recurrent costs of the reform package will be based on drug costs, on the one hand, and incremental management costs, on the other. The attitudes of the people to the different methods of payment will also be summarized.

### **4.6.1 Mobilization of Additional Resources**

*Exhibit 4-5* summarizes the capacity of the two payment methods being tested to mobilize additional internal resources. During the first ten months of tests, implementation of the direct method of payment in the test district of Say generated CFAF 6.5 million. On an annual basis, direct payment generated CFAF 8 million during the test year in the test district of Say: based on an estimated population of 210,000, this contribution by the people is equivalent to CFAF 38 per capita. Secondly, in the test district of Boboye, indirect payment was able to produce additional resources of CFAF 19.5 million, 15 million from the surcharge on the district tax and CFAF 4.5 million from copayments by users of the public health facilities. Based on an estimated population of 250,000, the contribution by the people is equivalent to CFAF 78 per capita, CFAF 60 of which comes from the tax surcharge and CFAF 18 from copayments. In short, in terms of capacity to generate

revenues, data from the first ten months of pilot testing show that indirect payment is twice as effective as direct payment.

#### **4.6.2 Rate of Recovery of Recurrent Costs**

Panel A of *Exhibit 4-6* summarizes the performance of the two methods of payment in terms of recovery of drug costs, on the one hand, and drugs and incremental management expenses, on the other. Firstly, the addition of funds from the tax surcharge to receipts from copayments, combined with more expert use of the DTPs, enabled the medical district of Boboye to achieve a 149-percent rate of recovery of the cost of drugs. In contrast, in the district of Say, receipts from lump-sum payments led to a 52-percent rate of recovery of the cost of drugs. Secondly, receipts from the tax and from copayments covered 89 percent of the expenditures on drugs and of the incremental management costs attributable to the introduction of cost recovery and improvements in the management of the health facilities in the district of Boboye. In contrast, receipts made it possible to cover 30 to 40 percent of the expenditures on drugs and of administrative costs in the district of Say.

Panel B of *Exhibit 4-6* poses the following question: What financial resources (CFAF) would be needed to keep real expenditures on drugs at the same levels as observed in the two medical districts during the test period after the change in the par value of the CFA franc? To answer this question, it was assumed that *prices of drugs purchased through the ONPPC would rise by 50 percent, and drugs purchased outside ONPPC channels, which are priced in US dollars, would cost 100 percent more.*

Under these working hypotheses, receipts using the direct payment method would permit recovery of 29 percent of the cost of drugs consumed in the Say MD. In contrast, receipts using the indirect payment method in the Boboye district would permit recovery of 82 percent of the cost of drugs consumed during the test period. In other words, sharp increases in rates would be needed under the direct payment method to recover all drug costs in the aftermath of devaluation; under the indirect method of payment, the increases required would be relatively small: there are, moreover, three options under the indirect payment method, namely to raise the surcharge on the district tax, to increase the copayment, or a combination of the two.

EXHIBIT 4-5: COST-RECOVERY RECEIPTS: MAY 1993-FEBRUARY 1994		
	SAY—DIRECT	BOBOYE—INDIRECT
<b>SOURCE</b>		
Proceeds of the tax	—	12,750,000 <sup>a</sup>
Payments to the health facility	6,574,000	3,709,275
<b>Total</b>	<b>6,574,000</b>	<b>16,459,275</b>
Number of new visits	45,900	100,441
Population (1993 estimate)	210,000	250,000
Average receipts per new visit	142	163
Average receipts per capita (annualized basis)	38	78
<sup>a</sup> In the Boboye district, the tax surcharge generated CFAF 15.0 million under the indirect system of payment. The proceeds from the tax were distributed monthly pro rata to the number of new visits each month, to allow the performance of the two payment methods to be compared during the period May 1993 to February 1994.		

EXHIBIT 4-6: RECOVERY OF DRUG AND MANAGEMENT COSTS:  
MAY 1993-FEBRUARY 1994

	SAY—DIRECT	BOBOYE—INDIRECT
<b>PANEL A</b>		
Total receipts (CFAF)	6,574,900	16,459,275
Recurrent charges (CFAF), of which:	18,559,756	18,580,643
Drugs	12,702,597	11,034,607
Management	5,857,159	7,546,036
Rate of recovery (%)		
Drugs	52	149
Drugs and Management	35	89
<b>PANEL B</b>		
Impact of devaluation:  Resources that would be needed to keep real expenditures on drugs at the same levels as during the tests, under the following assumptions: ( <i>R</i> ):		
50% increase in the prices of drugs purchased through the ONPPC	22,760,000	20,202,000
100% increase in the prices of drugs purchased outside ONPPC channels		
Ratio Receipts/ <i>R</i> (%)	29	82

### **4.6.3 Methods of Payment: Attitudes of the People**

During the final survey, the two methods of payment were described to individuals aged 15 and above; they were then asked which one they would have chosen had it been up to the adults in their district to select the method of payment to be used. In the two test districts of Boboye and Say, virtually all individuals aged 15 and above said they preferred the indirect to the direct method of payment: in the same two districts, about 84 percent of the respondents stated that they preferred the indirect payment method, against 6 to 8 percent who preferred the direct method of payment. Within each district, there was very little variation in this pattern of preferences between different socio-demographic and economic groups.

The reasons respondents gave for not preferring the direct payment method, on the one hand, and for preferring the indirect payment method, on the other, are consistent with the principles of insurance. Most respondents in the two districts stated that they did not favor the direct payment method either because they lacked resources or because they found it hard to come up with CFAF 200 for each illness. They also preferred the indirect method of payment because they find it costs less or because they feel it is easy to come up with CFAF 200 per year: in other words, it is easier to finance the cost of illness under the indirect method of payment.

In summary, the indirect payment method generates more revenue and thus permits recovery of much of the drug and management expenses involved in implementing reforms such as those introduced under the test program. The relative capacity of the two payment methods to recover drug costs, however, is essentially dependent on expert use of the DTPs, which kept the cost of drugs down in the test district of Boboye: in other words, had the DTPs been used as expertly in the test district of Say as they were in the test district of Boboye, it would have been possible to recoup a much higher percentage of the cost of drugs than was actually recorded; even under this assumption, however, the recovery rate under the direct payment method is unlikely to have been as high as that achieved in the test district of Boboye under the indirect payment method. Finally, the people indicate a preference for the indirect method of payment since, in their widely shared view, it is easier to finance.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

### 5.1 POLICY IMPLICATIONS

The 1994-2000 Health Development Plan (HDP), currently under development, opens up new approaches to strengthening the capacity of Niger's public health system. As part of its effort to pursue the general goal of striking a balance between population growth and health sector resources, the HDP aims to institutionalize cost recovery in all the country's health facilities. The administrative and policy reforms initiated by the MPH in the area of cost reduction and recovery in the hospital and non-hospital sectors represent significant steps toward this goal.

The conclusions of the review of the present situation of the district health system, supported by the results of the pilot tests in the control district of Illéla, confirm the relevance of the approaches to reform under consideration for financing the non-hospital sector. It is unlikely that the overall objectives of health promotion and protection for Nigériens in general, and for the vulnerable groups in particular, can be achieved at medium or long term with the present state of the district health system. The virtual absence of any formal private sector, coupled with the expanding role of the informal sector in the supply of medical and health services in rural areas of Niger, restrict the government's policy options for strengthening the basic public health sector.

The findings with respect to the behavior of demand for health care and resort to public health facilities, and private expenditures on the treatment of illness, show that under the existing set-up rural communities and households spend substantial amounts on promoting the health of their members. The results also indicate that these communities and households do not receive quality health services commensurate with the expenditures they incur. Finally, the underutilization of the resources of the basic public health system by the rural population under the existing set-up suggests that the present system is not yet serving as an efficient instrument for transferring resources to the country's rural majority.

The results of implementing the package of technical, administrative and financial reforms as part of the pilot tests confirm that measures to strengthen resource management and hold the cost of care delivery steady, while improving its quality, can be extended to the non-hospital sector in a sustainable manner by involving the people not only in financing improvements in quality but also in managing resources.

If a lasting foundation is to be laid for a local health care financing system that includes participation by the people, delivery of health care at the district level needs to be more efficient. The results obtained in the districts of Say and Boboye show that both the quantity and the quality of care delivered by the medical centers, medical stations, and rural dispensaries can be significantly enhanced, while at the same time improving the productivity of the health personnel and holding down the cost of drugs as a component of care delivery. These results were achieved thanks to the application of standardized diagnostic and treatment protocols and the use of essential generic drugs in providing care. The viability of a local health care financing system will therefore depend on what drug and human-resources policies are implemented in the health sector.

The people and the base communities can be involved in the management of public health facilities, and resources managed in a more rational manner, only if the managerial capacities of the health personnel are strengthened within the framework of a simple and transparent local management system. If there is a need to promote popular participation in the financing of health care, there is an equal need for health personnel to be held accountable for the resources entrusted to them to serve the people: they should be accountable to the people for the use made of these resources. Moreover, it is unlikely over the long haul that the people will place additional resources at the disposal of the public health facilities if they are not the ones managing and

deciding upon the end-use of those resources: the resources generated should be earmarked in a way that is responsive to meeting their perceived needs, with technical support from health personnel. It will therefore be possible to involve the people in the management of public health facilities only if both management and resource allocation are decentralized.

The financial reforms undertaken as part of the pilot tests have had mixed results. One result they have in common is that they lead to more equitable use of the health district's public resources and more efficient use of private household resources than under the status quo where health care is free. Firstly, in the district where no pilot-test activities took place, the accessibility of quality care during the test period deteriorated among women, people living in areas remote from health facilities, and the poor: looked at another way, when drugs are rationed as under the status quo of free care, access by the vulnerable groups to the other components of public health subsidies, such as the ability of a skilled nurse to diagnose and prescribe drugs, deteriorates. The first to be affected are households that have lower incomes or incur high opportunity costs in traveling to health facilities; within households, the first to lose out on account of cash constraints are women.

Secondly, patients at public health facilities in the test districts spent less money on private treatment of illness than they did before the start of the tests, or patients at health facilities do under the status quo. The results of the tests show that even the poor would be willing to spend more on treatment if they perceive that the marginal benefits of health care under the reforms have increased in comparison with the increase in the marginal costs of care.

From this twofold perspective, and regardless of what method of payment is used as a vehicle for cost-sharing by the people, the financial reforms are more equitable and more efficient than the present situation where care is free.

The two methods of payment had varying comparative effects on the efficiency and equity of the local financing system, however. Whereas the indirect payment method improves the efficiency of the care delivery system by raising the productivity of the health personnel, by virtue of the substantial increase in the demand for services, direct payment improves efficiency in the use of services by users by cutting down on use that would not a priori be considered technically necessary. However, the direct method of payment improves efficiency of consumption among groups that did not traditionally face serious constraints in using care, but does so at the expense of equity since it causes a simultaneous decline in affordability of care for the poorest.

From the equity standpoint, the performance of the indirect payment method, despite an overall increase in the demand for care, is constrained by the quantitative rationing that occurs with increasing distance from public health facilities. Whereas those who pay the district tax share equally in financing drugs through the surcharge, regardless of which village they live in, those who live in villages remote from the health facilities, whose rate of use is relatively low, subsidize the provision of health care for residents of the villages that are close to those health facilities. Nevertheless, compared with the direct method of payment, the indirect method is more equitable in promoting access to care at health facilities for children, women, and the poorest segments of the population.

From the point of view of financial viability, or the capacity to mobilize resources and recoup the recurrent costs of care delivery, the indirect payment method is more efficient; moreover, the people find it easier to finance. However, the indirect payment method faces institutional constraints as far as its administration is concerned: since the tax surcharge to finance drugs is collected at the same time as the district tax, there is a risk that the proceeds of the tax will not be spent to buy drugs.

Finally, in terms of the district system's ability to strengthen preventive and promotional activities in the context of integrated care centers, the prospects opened up by the stimulation of demand for care under the

indirect payment method are decidedly better. Here again, however, this potential of the indirect method of payment can be realized only within the framework of enhanced integration of services.

The process of selecting one payment method over another therefore needs to take place as part of an overall package of administrative and rate-setting reforms, and with prospects of expanding a given health district's infrastructure. In a health district where there are clear prospects of improving the coverage of the health infrastructure and where the local fiscal administration is effective, the indirect payment method would make it possible to develop a viable, efficient and more equitable system of financing and care delivery.

Within such a district, channeling financial support to the district's decentralized activities through the subregional revolving fund would serve to enhance the equity of the indirect payment method. The strategy employed with the vaccination program and other promotional activities outside the villages where health facilities are located could be supported in part through the subregional fund. Moreover, the existence of a network of village health teams (VHTs) in such a district offers an additional way to improve the equity of the indirect payment method: in this context, arrangements for subsidizing kits and strengthening supervision of the VHTs could be financed through the subregional fund fed by the tax surcharge. To achieve this, however, the district tax surcharge and the copayments would need to be adjusted upward.

In a health district where the fiscal administration is weak and the coverage of the health infrastructure likely to remain limited at medium to long term, the direct method of payment would be the best course to follow. In this context, the direct method of payment would be more equitable and would afford better prospects of viability if accompanied by reforms to the rate-setting system. The rates charged under the direct payment method during the tests were not high enough to recover the cost of drugs, still less the recurrent costs of the entire package of reforms needed to strengthen the capacities of the health district. With a view to institutionalizing direct payments in a given district, therefore, rates would need adjusting upward and a policy to exempt vulnerable groups and the poorest would need to be clearly defined and implemented.

In summary, the results and improvements observed in the districts of Say and Boboye during the pilot cost-recovery tests provide the MPH with a sound basis for undertaking administrative and policy reforms aimed at strengthening the capacities of the country's health districts, in order to broaden access to quality health products and services for most of the population, including women, children, and the poor. The stimulation of demand for public sector health care, combined with the support shown by the rural population for the concept of shared community financing of improvements in the quality of care in the two test districts of Say and Boboye, are evidence that people are more likely to stay with a health system which guarantees the quality of the public service than with one which is based on the principle of free care but whose resources are too limited to support lasting improvements in the quality of service.

It is not only centralization or the constraints due to its method of financing that has kept the performance of the public health system weak in the last few years: other equally severe constraints that undermined the public health system were its procurement policies and the centralization of its system for supplying drugs. In other words, it is not only the public health system as a whole but also the people that are penalized by the management problems and the supply policies in the present centralized system— a situation that benefits only the informal drug distribution channels whose unsupervised quality constitutes a threat to the health of the poorest. Finally, the new economic environment stemming from the devaluation of the CFA franc is bound to tighten the financial constraints that beset the health sector: however, the savings that could be achieved by adopting and implementing a genuine procurement policy based on essential generic drugs could more than offset the increase in costs triggered by the 50-percent devaluation of the CFA franc.

The first prerequisite for the success of a policy to strengthen the capacities of the health districts is the existence of a reliable system of procuring low-cost drugs. The results of the evaluation bear out the fact

that people in the countryside have only a limited ability to pay for drugs. If there is no guarantee of generic-brand drugs being available, procured at reduced cost through an efficient and competitive market, it is the viability and the equity of the health system that will suffer: in such a setting, the poorest segments of the population will be the hardest hit.

Pilot-test experience with drugs supplied through the ONPPC reveals that having the health system dependent on a sole source of supply involves enormous risks: such a drug supply monopoly runs counter to the basic principles of risk diversification; as with any system, the supply of products that are vital to the operation of the health system should be fragmented rather than concentrated in a sole source. In such a setting, the State should be a last resort and not the sole provider of services.

## **5.2 RECOMMENDATIONS**

The overall performance of the public health system against the objectives spelled out in the 1994-2000 Health Development Plan will depend on the performance of the health districts. The success of the administrative and policy reforms already under way in the hospital sector will depend in part on how effectively the lower echelons of the public health system are able to encourage behavior that enhances the individual and collective capacities of the people in the area of health and in terms of effectively taking over primary and secondary care. In a context where it is essential to extend the country's health coverage, improvements in the quality of basic health care can be made sustainable only by reforms aimed at containing the costs of health care and at mobilizing and rationalizing the use of internal resources. The design, implementation and results of the technical, administrative and financial reforms tested in the districts of Boboye and Say open up clear options in the process of decentralizing the public health system and strengthening both the capacities of the health districts and primary health care itself.

### **5.2.1 To the Government of Niger**

In this connection, it is recommended that the Government of Niger formulate a primary health care financing policy based on the principle of all Nigériens sharing responsibly in defraying the costs of health care, so that access to quality health care can be extended in a lasting manner to the majority of the population at large and to the poorest segments in particular. It is recommended that the financing policy incorporate provisions guaranteeing decentralized management, by the people, of the additional financial resources that they themselves contribute.

An evaluation of the performance of the alternative financing methods used in the pilot tests points unambiguously to the superiority of the indirect payment method from the standpoint of promoting equity; moreover, the people consider that it is easier to finance than the direct method of payment. It is therefore recommended that, in formulating the national policy on primary health care financing, the Government of Niger promote the indirect method of payment as an instrument for mobilizing internal resources through community participation. In the context of strengthening administrative decentralization, it is recommended that the government leave the final selection of the method of payment to the local authorities, which should be guided in their choice by their respective needs and constraints. Within this framework, the government should provide the local authorities with technical assistance in the process of selecting and implementing the method of payment.

It is recommended to the Government of Niger that it adjust upward the central budget allocations of drugs for the health districts. The performance of the health districts, especially those that elect the direct method of payment, will depend essentially on the level of State participation. The information on expenditures

on drugs gathered as part of the pilot tests should be used as a basis for setting the rates. It will take several years for employees of the country's health facilities, except in the department of Dosso, to become expert in the diagnostic and treatment protocols, the primary tool for reducing the cost of providing care. It is therefore recommended that the Government of Niger set rates at levels designed to fully recoup the costs incurred in introducing cost recovery in the fifth year of implementation.

It is recommended that the Government of Niger promote and regulate the country's supply of essential generic drugs so as to provide, at reduced cost, effective medical coverage of the growing needs of the population. In this context, it is recommended that an interministerial committee be formed to discuss the reforms needed in the pharmaceutical sector to allow the reforms undertaken during the pilot tests to be extended uniformly throughout the country.

It is recommended that the capacity of the drug procurement and distribution system be expanded through reforms that institute competitiveness and lower the financial barriers that impede access to quality drugs. It is recommended that the Government of Niger, with cooperation from the donors, establish a nonprofit, independent supply center for essential generic drugs based in Niamey. The center would be responsible for organizing international competitive bids for the procurement of essential generic drugs, in order to stock the regional depots to be established within each region; these regional depots would be responsible for keeping the health facilities in their respective regions supplied during the initial years of extending the reforms. The regional depots should be managed in a decentralized fashion and subject to audit by the center. At long term, after cost recovery has been extended to all the country's health districts, the regional depots would be converted into regional supply centers, drawing on the experience of the main center. This alternative system could exist side by side not only with the ONPPC but also with a private, regulated market for the import and distribution of drugs: the decentralized supply system that would result from such reforms would ensure the availability of drugs in the country even if one or more import entities were to run into financial or administrative difficulties. In this connection, it is recommended that the importation of essential generic drugs be exempted from tax to improve the equity of the health system.

It is recommended to the Government of Niger that it strengthen the human and physical resources of the health districts and public health facilities by providing for greater integration of health services. In this connection, it is recommended that adequate equipment be provided to the public health facilities in accordance with the standards established in relation to their respective technical status. Similarly, the integration of services will require the health facilities to be staffed with sufficient trained personnel to provide a minimum package of integrated services.

It is recommended that the human resources of the health districts and public health facilities be strengthened so as to rationalize the use of resources in providing patients with medical care. The viability of the reforms to be undertaken, and the levels of the rates to be charged in this respect, will depend essentially on how well drug costs can be controlled in delivering primary health care. It is accordingly recommended that use of the diagnostic and treatment protocols be extended to all the country's health districts and that supervision of the medical and paramedical staff in applying those protocols be strengthened.

It is recommended to the Government of Niger that it strengthen the management capacities of the health districts and health facilities. Involving the people in the management of the health facilities would require the installation of simple, transparent financial and drug-management systems in which responsibilities would be shared, and a system of controls established, between the health personnel and the representatives of the people.

Finally, it is recommended that the Government of Niger define and establish a new partnership among the base communities, the local authorities, the State, and the donors, centered around support for the domestic

efforts to be undertaken to strengthen primary health care and to meet the perceived health needs of the base communities. In this context, the participation and role of the different partners in financing the capital investments and operating expenses of the health district should be clearly defined and should be organized in such a way as to ensure that quality primary health care is sustainable.

### **5.2.2 To Niger's Local Authorities**

It is recommended that Niger's local authorities expand their support to the health districts under their jurisdiction. In the context of local authority participation in the financing of primary health care, it is recommended that they define and fund a budget line item to support community participation in the financing of primary health care. This line item could fund ongoing sensitization of the people in the area of community participation, occasional financial shortfalls in replenishing drug inventories, and the expenses of auxiliary personnel involved in managing the health district.

In administrative subdivisions where the indirect method of payment is to be introduced, it is recommended that the government and local authorities take all necessary administrative steps to ensure that receipts from the district tax surcharge to pay for drugs are passed intact, at the start of the fiscal year, to the respective subregional health committee responsible for managing the additional resources raised by community participation.

As they implement a primary health care financing policy incorporating community participation, it is recommended that the local authorities mobilize all their pertinent human resources to draw up a plan of action and support the implementation and monitoring of the policy.

### **5.2.3 To Niger's Base Communities**

Niger's base communities would be not only the first to benefit from a primary health care financing policy but also the key players in such a policy. The sustainability of better-quality health care will depend on their organization and their commitment to participate. As they implement a local financing policy incorporating participation by the people, it is recommended that the base communities strengthen community organizations where they exist—and establish them where they do not—with a view, on the one hand, to increasing the awareness of their respective populations, and, on the other, to mobilizing and managing their local financial and physical resources in order to bring about lasting improvements in the quality of health care, of which their populations are the primary beneficiaries.

### **5.2.4 To Donors in General**

Donors to Niger's health sector have provided significant support to primary health care in the country. However, the gains achieved through this support and the outcomes of future assistance can be sustained only if there is a viable system of health districts whose services are *first and foremost* responsive to the needs of the people served: as experience in Niger, other African countries, and throughout the developing world has shown, preventive and promotional activities can be sustained at levels that have a positive impact on the health of the population only where there is such a system and where the people have built up lasting confidence in the health facilities. In this connection, it is recommended that the donors expand and direct their support toward an integrated approach to the basic health system.

The performance of the reforms undertaken as part of the pilot tests relied on the synergistic effects of assistance from USAID, the World Bank, the Belgian Medical Cooperation Agency, WHO and UNICEF, to mention only these. It is recommended that the Government of Niger and the donors direct their cooperation within the institutional frameworks at the national, regional and subregional levels so as to serve as a catalyst in enhancing the synergistic effects of health-related activities on the system for delivering health care to the people.

It is recommended that the donors provide support to the government and the local authorities in implementing the technical, administrative and financial reforms in the non-hospital sector.

### **5.2.5 To USAID/Niamey**

Under the grant for health sector development, the assistance provided by USAID/Niamey has proved decisive in involving the health sector in the administrative and policy reforms in the areas of health planning, management and financing. Extension, strengthening and consolidation of these reforms will make for a more viable, more efficient and more equitable health system. The potential of the resulting new environment can be realized only if there are strengthened capacities at the decentralized levels of the health system. In this respect it is recommended that USAID/Niamey strengthen its support of administrative and policy reforms at the decentralized levels of the public health system.

It is recommended that USAID/Niamey assist the government in evaluating and resolving the problems that beset the pharmaceutical sector. Technical assistance could be provided through the mission's special funds or through existing bilateral projects, such as the Grant for Health Sector Development.

It is recommended that a project extending over five (5) years be developed to assist the government in extending the administrative and financial reforms in the non-hospital sector. Such a project could finance training for health facility staff in management and diagnostic and treatment protocols and enhanced supervision of the medical and paramedical personnel. The project should include a monitoring and evaluation component to permit an evaluation of performance in implementing the administrative and financial reforms in the country's health districts.

The pilot tests have been a major success both from a technical standpoint and in terms of the process of developing a government policy. USAID/Niamey could allocate funds, in the form of a buy-in, to a project centrally funded by AID to assure that information on the pilot tests is disseminated.

### **5.2.6 To the Belgian Medical Cooperation Agency**

It is recommended that the AMISAP project and the Belgian Medical Cooperation Agency at Dosso continue to provide technical assistance in the training and supervision of medical personnel in diagnostic and treatment protocols, within the framework of the government's future efforts to strengthen the health districts.

### **5.2.7 To UNICEF**

It is recommended that UNICEF play a leadership role in evaluating and resolving the constraints facing the pharmaceuticals sector. It is recommended that it make funds available to finance study visits by MPH officials to countries in the region that have established semi-autonomous systems for the supply of essential and generic drugs. UNICEF could not only provide the technical assistance needed to design a similar system in Niger but also assist joint efforts by the government and donors to implement such a system.

### **5.2.8 To the World Bank**

It is recommended that, in its health and population sector projects, the World Bank include a component for support in extending the administrative and financial reforms in the health districts. Through these projects, the World Bank could provide backing for the reforms, including the funding of initial inventories of essential generic drugs, training, supervision, monitoring and evaluation, and the purchase of vehicles, medical equipment, and computers.

## **5.3 ACTION PLAN FOR EXTENDING REFORMS: PRINCIPAL POLICY ISSUES**

The results of the pilot tests provide the Ministry of Public Health with an opportunity to shape a consistent financing policy for the non-hospital sector and to gauge in advance the consequences of the reforms to be launched in this connection. Experience with the pilot tests in the districts of Boboye and Say, and with the Bamako Initiative in the department of Maradi, suggests, however, that several policy issues in other fields need to be resolved and a number of programs launched in order to create an environment that is conducive not only to consolidating the gains made in the health districts of Boboye and Say, and under the Bamako Initiative, but also to extending the reform measures to other districts in the country.

If the package of technical, administrative and financial reforms is to be extended to the country as a whole, several actions need to be undertaken. These involve the mobilization of internal resources, reductions in the cost of providing care, community participation, the operational and financial aspects of extending the reforms, and finally monitoring and evaluation.

### **5.3.1 Mobilization of Internal Resources**

#### ***(1) Legal framework for extending the reforms***

Legislative reform to health care financing in the non-hospital sector will be needed to establish a legal framework that will enable the reform package to be extended to all health districts in the country. This reform should be built around two policies. The first is the policy of responsible participation by those involved in the sector in general, and by the beneficiaries in particular, combined with the principle of guaranteed quality of the public service: this should replace the policy of free care. The second policy is to decentralize management of the funds generated by cost recovery: management of the funds should be left in the hands of the people.

#### ***(2) Selection of the cost recovery system***

The legal framework should spell out the role of the State, the local authorities (LA), and the base communities (BC) with respect to the method of payment to be implemented. In the event that the choice of the method of payment is to be left to the LAs and BCs, the process of selection should be governed by the legal texts that define the legal framework for extending the reforms.

### **5.3.2 Improving the Quality and Reducing the Cost of Health Care**

#### ***(3) Supply of drugs***

How successfully cost recovery is spread will depend more than anything on what drug supply policy the country pursues in the years to come. To make local financing of health care by the people viable and ensure that the capacity of the health districts is strengthened in a sustainable manner, the key criteria for any drug supply and distribution policy should be efficiency and viability: effectiveness of drugs, minimization of drug costs, and a reliable, decentralized supply system.

In the pilot tests, which affected only eighteen health facilities, the ONPPC failed in its task, which was to supply the two medical districts of Boboye and Say.

Is the ONPPC capable of assuring regular supplies of large quantities of essential generic drugs to the medical districts likely to be involved as improvements in the quality of care and cost recovery are made more widespread?

Should an alternative system be considered? Or a contingency plan combining the ONPPC with another mechanism for procuring essential generic drugs (UNICEF-UNIPAC, for example)? What would the ONPPC's role be in an alternative system? What would the ONPPC's role be under a contingency plan?

#### ***(4) Integration of services***

To enhance the efficiency of the administrative, technical and financial reforms in the health districts, curative, preventive and promotional activities should be integrated. A minimum package of integrated activities should be defined, using the three-pronged approach—structure-process-result and impact—to direct

the upgrading of the physical equipment of the health facilities and the training of health personnel in how to carry out the minimum package of activities.

#### ***(5) Strengthening human capacities in the health districts***

The utilization of resources within the health districts should be rationalized through the use of diagnostic and treatment strategies and through sound management of drugs and financial resources. In this connection, implementation of the DTPs and installation of management systems should be extended throughout the country. The requisite training activities should be planned to make the best possible use of the institutions and resource persons that would provide technical support to the training function.

### **5.3.3 Community Participation**

#### ***(6) Community participation***

Community participation should be clearly defined in terms of a partnership made up of the base communities, the local authorities, and the State. Although it will be necessary to produce a framework document spelling out the roles of the different parties involved in this partnership, the framework should be flexible enough to be tailored to the country's different economic, social and administrative contexts.

The key element when it comes to community participation is that the people themselves should manage the financial resources generated by the cost recovery system.

### **5.3.4 Implementation**

Several actors and substantial financial resources will be needed to extend cost recovery nation-wide. There should be a consistent implementation strategy that defines an institutional structure and the parameters for extending the reforms in time and space, identifies the sources of financing, and pinpoints the resource institutions which are to provide technical support to the health districts in implementing the package of technical, administrative and financial reforms.

#### ***(7) Institutional framework for extending the reforms***

A flexible institutional framework should be established to ensure that extension of the reforms proceeds smoothly. The institutional framework cannot be unrelated to implementation in time and space: however, whatever strategies are considered, extension of the reforms must be pursued with an eye to greater decentralization of the health system and strengthening the capacities of the departmental health authorities.

Under a strategy of gradual, regionally focused extension (one department after the other), a strong central unit would not be required; the institutional model used in implementing the Bamako Initiative in the department of Maradi would be recommended. A central unit would be maintained at the level of the DPS to assume responsibility for monitoring, coordination and regulations; under this arrangement, the NHIS should be tasked with providing support for operational studies and research.

Under a strategy of incremental extension in several departments at once, a strong central unit would be needed with enough capacity to provide the necessary support to each DDS to start implementation in at least one district. Under this scenario, the central unit would be strengthened during the initial phase of

extending the reforms; during the second phase it should be scaled back to a unit charged with monitoring, coordination, and regulations. During the initial phase, the capacities of the DDSs should be strengthened to push ahead with extending the reforms in their respective departments during subsequent phases.

#### ***(8) Parameters for extending the reforms in terms of time and space***

The process of extending the reforms throughout the country should be designed in several phases. In this connection, two scenarios can be considered:

- Scenario A: a regionally focused approach (from one group of departments to the next), in which the phasing of extension over time would be defined in geographical terms: the scale of one phase could not exceed two departments over a two-year period; and
- Scenario B: incremental extension in several departments at once. Under this scenario, each departments would receive assistance from a central unit during the initial phase of the extension process in order to learn how to control the process and manage implementation in a demonstration district. In a second phase, the DDSs themselves would be responsible for extension implementation to the other districts in the department.

Regardless of the scenario followed, it is recommended that the scale of the initial phase of the extension should be kept to manageable proportions since the country does not yet have a reliable system for the supply of essential generic drugs and training activities will require collaboration among a number of resource institutions.

#### ***(9) Projections of financing needs and identification of sources***

Detailed projections should be prepared of the physical, human and financial resources needed for the initial phase of extending the reforms, along with tentative projections of requirements for the subsequent phases. These projections should be used by the Ministry of Public Health to initiate the process of locating and confirming sources of financing for extending the reforms.

### **5.3.5 Monitoring and Evaluation**

#### ***(10) Monitoring and evaluation***

A monitoring and evaluation (M&E) system should be installed to cover establishment of the legal framework, the institutional framework, and the parameters for extending the reforms in terms of time and space. Structurally, the system should clearly define what institutions are to be entrusted with monitoring implementation of the process of extending the reforms. As far as its components are concerned, the M&E system should focus on internal monitoring of the implementation strategy, audits, and an outside evaluation to measure process performance and implementation outcomes. The external evaluation should be phased to coincide with the different phases of the extension process.

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