

RURAL HEALTH SERVICES DEVELOPMENT PROJECT  
Project Number: 688-0208

USAID/BAMAKO

FINAL REPORT  
May 1986

Estimated Project Funding:

A. Total	\$4.76 million
B. U.S.	\$3.89 million

Period Covered by Report:

From:	May 1982
To:	June 1985

Project Officer:

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## SUMMARY

A Project Evaluation Summary (PES) was prepared in May 1982, as a result of a decision to close out the project by June 1982. The project was redesigned instead and Phase II was approved and implemented in November 1983. The new Project Assistance Completion Date (PACD) became March 31, 1985 and, later, June 30, 1985.

Phase I of the project experienced many difficulties. The previous PES document concludes that the project was not successful in establishing an affordable and replicable primary health care service system. The main reasons for this includes:

- o Inability of Malian Government to finance the program
- o Poor contractor performance
- o Poor site selection
- o Poorly developed infrastructure (administration, facilities, supplies and personnel)

The main conclusion reached in Phase I was that a program based principally on training of Village Health Workers, without strengthening the health infrastructure, was inadequate.

Phase II was designed to incorporate some of the lessons learned from Phase I and approximately, \$650,000 of unearmarked funds were remaining in the project. The strategy for implementing the extension was to:

- o Continue the project only in the Koro Cercle
- o Investigate community participation and financing possibilities
- o Upgrade facilities and supplies
- o Promote more direct involvement by Malian personnel
- o Minimize outside technical assistance

Phase II has accomplished most of the planned activities and the health care situation seems to have improved. Other donors have moved into the Koro Cercle and are continuing to expand and make use of the contributions left by the USAID project. Some problems are still unresolved. The major issue is still that of health services financing which is in the process of being studied.

## BACKGROUND

The Rural Health Services Development Project began in June 1978 for a four year period at a cost to AID of \$3,890,000 in the form of a grant. Its purpose was to develop an affordable and replicable primary health care service system bringing both curative and disease preventive services to the village level. The majority of the project effort went into training village health workers and birth attendants. The training emphasized basic health care interventions such as oral rehydration therapy,

simple curative and preventive treatment, nutritional surveillance, medications, sanitary birth practices and referral.

Two regions of the country, vastly separated from each other, were chosen as project sites. One site, the Yelimane Cercle in northwestern Mali, was especially inaccessible, requiring a two day journey to reach under normal conditions. During the rainy season this project site was totally cut off. The other site, the Koro Cercle in the southeastern part of the country, could be reached within a day and a half on better roads--although a one day trip was possible.

The project experienced several problems from the start. Some of the consultants were not sufficiently briefed on what they were supposed to do and others had very limited French speaking capabilities. Harsh living conditions and isolation, especially in the Yelimane area, prevented consultants from working effectively. In the middle of the project there was a complete turnover of both technical assistance staff and Ministry of Health project personnel.

Integration of project activities into the Malian health system was never accomplished since the technical assistance team continued to manage most aspects of the program up until their departure. As a result, no Malian counterparts were capable of continuing the activities at the end of Phase I.

A specific weakness of the project was its total uninvolvedness in strengthening of the health delivery infrastructure. Health facilities at the Arrondissement and Cercle levels were either in a decrepit state, with little or no supplies, or inexistant. At the same time, village health workers (VHW) were expected to make referrals to these facilities whenever patients needed higher level health care. Unfortunately, these facilities had nothing to offer. Not surprisingly, the credibility of the VHW suffered and many became discouraged.

Complicating the situation further was the poor project accounting that existed at the national and local levels. No one was sure of the financial status of the project and, as a result, planning and implementation were poorly executed. Requests for advances to USAID were chronically late, receipts for purchases became lost or misfiled, and reconciliation of the accounting records became extremely difficult. Since the accounting system was so defective, the project had no clear plan of action for using its resources to reach its goals. Conflict and poor working relations among USAID, MOH, and the technical assistance developed and the project became more stifled.

At the end of Phase I, it became clear that although the costs of continuing the current level of activities, that is, training and supervision of health workers, were modest, the MOH was unable to support them. Some form of community financing was needed to continue these activities. But more importantly, was

the question of whether this system which concentrated so much attention on VHW training was worth continuing at any price. Would it be possible or even desirable to replicate it throughout the country?

## PHASE II

At the end of the first phase of the project, July 31, 1982, the contract for technical assistance had expired. Approximately, \$650,000 in unearmarked funds were still available. On November 8, 1982, the Mission sent PIL # 6 to the MOH, authorizing an extension to March 31, 1983 in order to develop an extension proposal, procure additional copies of the village health worker manuals, and print a new drug treatment manual already drafted. No operational funds were authorized during this period. The Mission decided that the project was still viable.

A very important condition tied to the extension approval was that the accounting records would have to be rectified and a new financial accounting system installed. Over the period of several months, the Mission's accountants assisted the MOH project accountant to establish a whole new set of accounting procedures in addition to reconciling old financial records.

In the interim, the new village health worker manuals and the drug treatment manuals were procured and distributed around the country. The latter was the first drug prescription manual of essential medications ever distributed in Mali. Its purpose was to guide health personnel in prescribing to patients the safest, most cost effective medications while at the same time discouraging over-prescription and wastage.

On April 12, 1983, the MOH submitted their final proposal to the Mission. After review and revision, the Mission sent PIL #7 in May 1983 to the MOH approving the extension to March 31, 1985. The objectives as stated in the Mission's approval letter were:

- o to reinforce the existing health care delivery system in the Koro Cercle (Yelimane Cercle was discontinued),
- o to improve management and service delivery while stressing sound financial and administrative controls; and,
- o to look into the issues of health services financing.

A detailed budget and implementation plan was developed in consultation with the Mission. Phase II got under way in November 1983. The process was greatly facilitated with the assignment by the MOH of a new and energetic project director. The total budgeted for the extension was \$350,400.

The activities at the Koro Cercle proceeded well. Training, retraining and supervision of village health workers and traditional birth attendants was restarted. The accounting system and project planning improved. The renovation and construction activities got under way. Equipment and supplies were ordered from UNICEF and from local sources. Additional drug treatment manuals were printed and distributed.

Around August 1984, it became evident that the UNICEF equipment, ordered in February 1984, was not going to arrive in time to be installed. Nor would there be time to train the Koro health staff in its correct use. As a result, another extension was approved from March 31, 1985 to June 30, 1985. The budget was also increased to \$476,310 in order to finance a Household Health Expenditure Study, overseas training in management, and increased operating expenses.

The renovation and construction activities were completed as planned around March 1985. At the Koro Health Center, all existing buildings were repaired. A new perimeter wall was built around the health complex in order to keep vehicles and animals out. An operating block and hospital, previously begun by the population, was completed and put into operation with project funds. Primary health care services were strengthened throughout, using supplies and equipment appropriate to the rural realities. Only simple, durable, and repairable equipment was installed.

Administrative improvements were also introduced in Koro. An improved patient flow system was adopted which greatly facilitated processing of clients. The maternity was redesigned making it a more comfortable and sanitary facility. Working areas were created for oral rehydration therapy and nutritional surveillance thus emphasizing the importance of these interventions. Shaded waiting areas were created and consultation rooms were designed for increased privacy.

Electrical power was supplied to critical locations through the acquisition of two small generators which patient fees help maintain. Running water was piped throughout the compound from the city's water tank and two wells were deepened for security reserves. Old, dangerous, and contaminated equipment was replaced with newer equipment and staff training was carried out as to its use. Finally, a solar powered refrigerator for vaccine, a specially designed vehicle for vaccination campaigns, and a solar powered radio establishing direct communication with the Bamako project headquarters were procured for Koro.

At the arrondissement level, construction and renovation activities also took place. Two new dispensaries were built in communities where nurses had previously received patients in their homes. One other community had its dispensary totally renovated. All three dispensaries, received appropriate supplies and equipment. The local populations became involved in the improvement of their centers by contributing labor and money to

build walls around the centers.

As a result of the renovations and construction, the confidence of the local population in the health system increased. More people began using the facilities instead of traveling to the more distant regional health center, as many had done in the past. The nurses of these dispensaries reported an improvement in their relationship with the population due to the availability of supplies, equipment, and decent working space.

In order to explore ways to keep the health system operational after the project ended, a month long household health expenditure study for 30 villages of the Koro Cercle was carried out in February 1985. Several interesting and significant conclusions resulted. Most important of all was that it seemed even the poorest individuals were already spending an average of 25% of their monthly incomes on health care.

The study showed that people were willing to pay for health services and medications when available. Unfortunately, a significant amount of these expenses were being spent on useless and/or dangerous treatments.

The data from the study suggest that if the health system can provide good quality care and medications, people in Koro are willing and capable of supporting its continuation. The study concludes that a flat fee per patient per consultation could solve the system's financial problems.

The results of this study were not available until several months after Phase II ended but, they will be discussed with the MOH in the hope that some sort of community financing scheme will be implemented and tested in the future.

Any financing strategy will have to deal with the issue of drug supply to the population. In Phase I, village health workers were given a stock of medications which they sold to their patients. The revenues from these sales were used to resupply the initial stocks. The system has some limited success when intensive supervision from project personnel is present. But, over time, difficulties in resupply due to mismanagement, theft, lack of drugs, poor follow-up make the system unworkable.

At the end of Phase II, one other foreign donor was installing in Koro an alternative drug supply system called "magasin sante secheresse". Under this system, a central storage warehouse is set up at the Cercle level with a complete stock of essential medications. This warehouse supplies government sponsored stores which supply other essential commodities in locations throughout the Cercle. A patient needing medication is first given a prescription by a nurse and then is supplied at these stores. The money then flows back up the system and more medications are ordered from Europe.

The "magasin sante secheresse" system has been shown to meet the needs of the population in the areas where it has been installed. Along with the drug treatment manual produced by the project, this method of drug provision reduces incorrect and over-prescription.

But, some problems remain even with this system. Outside technical assistance is always required to continue its operation. In addition, it tends to destroy any other supply system operating in the same area. This is the case with the parastatal Pharmacie Populaire (PPM) outlets, which previously (although poorly) supplied the area. The main reason is that PPM outlets are incapable of competing with the newer, cheaper and more efficient drug supply system. For the moment, it seems that the "magasin sante secheresse" will be the principal source of drug supply for the Koro Cercle.

One unplanned activity during the project was the use of \$110,000 for an emergency meningitis and measles vaccination program designed in response to the drought related refugee problems in the Timbuktu and Gao regions. Originally, the Mission had requested AID/Washington to provide financing for these activities. AID/Washington instead encouraged the Mission to use the still unearmarked funds left in the project. After receiving MOH concurrence, the Mission proceeded to obtain three vehicles, vaccine, and related equipment which were presented to the Malian Government by Vice President George Bush during his visit to the country in March 1985.

#### PROBLEMS ENCOUNTERED

The equipment and supplies from UNICEF were ordered in February 1984 and did not arrive until May 1985, one month before the project was to be terminated. Installation of this material took place in June 1985 and there was very little time left to do thorough training on its use. The problem seemed to be with the UNICEF headquarters in New York and with the fact that too many small items were ordered. UNICEF/New York kept holding on to the order until all items, some of which were out of stock, were available. In the end, USAID instructed them to send what they had. A little more than one third of the equipment was not sent by UNICEF. In addition, some of the equipment such as the kerosene refrigerators never operated very well.

Another slow delivery was the solar refrigerator which did not arrive until several months after the PACD. It is now installed in Koro and operating well, but, the project could have used it earlier. The delay seemed to have occurred both at the factory and at customs in the port in Abidjan, Ivory Coast.

One potential problem was averted by a site visit during the construction phase. The Mission health officer and FSN engineer

inspected the construction sites for the two dispensaries and found that the foundations and the bricks were not being made according to specifications. The foreman of the construction crew was putting too little cement into the bricks and the foundation ditch was much too narrow. The crew was instructed to redo the work and the issue was brought up with the owner of the company. The problem was corrected and a subsequent inspection by USAID proved satisfactory.

#### DISCUSSION AND LESSONS LEARNED

A Phase II to the project was conceived because of the conviction on both the part of the Mission and the MOH that changes to Phase I could bring improved results. The goal remained basically the same, i.e., to develop an affordable and replicable primary health care service system bringing both curative and disease preventive services to the village level.

The extension proposed to accomplish its goals by the following activities:

- o Train and retrain VHWs and Traditional Birth Attendants in the Koro Cercle.
- o Renovate Koro Health Center and an arrondissement health center
- o Construct two new dispensaries
- o Equipe all health facilities with appropriate health supplies and equipment
- o Install a cold chain from Bamako to Koro city
- o Improve the project accounting system
- o Publish and distribute 5000 copies of a Drug Treatment Manual.
- o Distribute all copies of the village health worker Manual

The difference between Phase I and Phase II was in the approach. Phase II operated under the premise that the health system could not function properly unless some basic improvements took place at the higher levels of the health infrastructure. Training of village health workers alone was judged inadequate.

Another important concept incorporated into Phase II was the transfer of increased responsibility for planning and management of the project to Malian staff. Training and supervision activities were to take place in the absence of outside technical assistance. Unlike Phase I, the extension phase accomplished all training using previously trained Malian health personnel.

Due to the problems experienced with UNICEF, in the future it would be better to hire a Procurement Services Agent who will procure, pack, ship, and label all of the medical supplies required by health projects. Otherwise, the same types of delays experienced in this project may reoccur.

One of the most important lessons learned is that construction activities should be closely monitored. Although, construction companies may have good reputations, individual employees may be dishonest, wasteful, or careless. Inspections should take place periodically.

## CONCLUSIONS

Although training and retraining of village health workers continued, it is no longer considered the most important activity. Training and supervision resulted in the largest expenditure in the first phase of the project. The fuel, vehicle replacement and repair and per diem expenses to train and supervise hundreds of village health workers make this one the most expensive health care modalities. It is unlikely that the Phase I model is affordable or likely to be installed in the over 10,000 villages located in Mali.

Other donors (such as Medicins Sans Frontieres) who have recently made an assessment of their own village health worker programs have come to the same conclusions. In many instances more than 90 percent of the village health workers were no longer active a year after their training. The issue of financing and continued support for village health workers services has not been resolved in Mali.

Whereas, it is clear that village people need and want services at the Arrondissement and Cercle levels and seem willing to travel and pay for them. Village health workers, although useful in certain roles, cannot meet a majority of the population's real or perceived health care needs. An improved infrastructure can reinforced the village health worker's effectiveness and credibility. This is the reason that higher levels of the health system need to be reinforced. In terms of replicability, and in the presence of community financing, it seems more likely that the Phase II model has a better chance of success.

Phase II was more successful in establishing a functioning health delivery system in the Koro Cercle. There is a good possibility for replicating this model in other areas of the country. The same conditions present in the Koro Cercle exist elsewhere. These are poor or inexistant facilities, lack of health supplies and equipment, and unmotivated and untrained personnel. Needed are initial investments by donors and some technical assistance. More critical, yet, is the development of a community financing scheme that will keep the services going. Although the project has ended, the Mission will continue to encourage the MOH to experiment with community financing of health services.