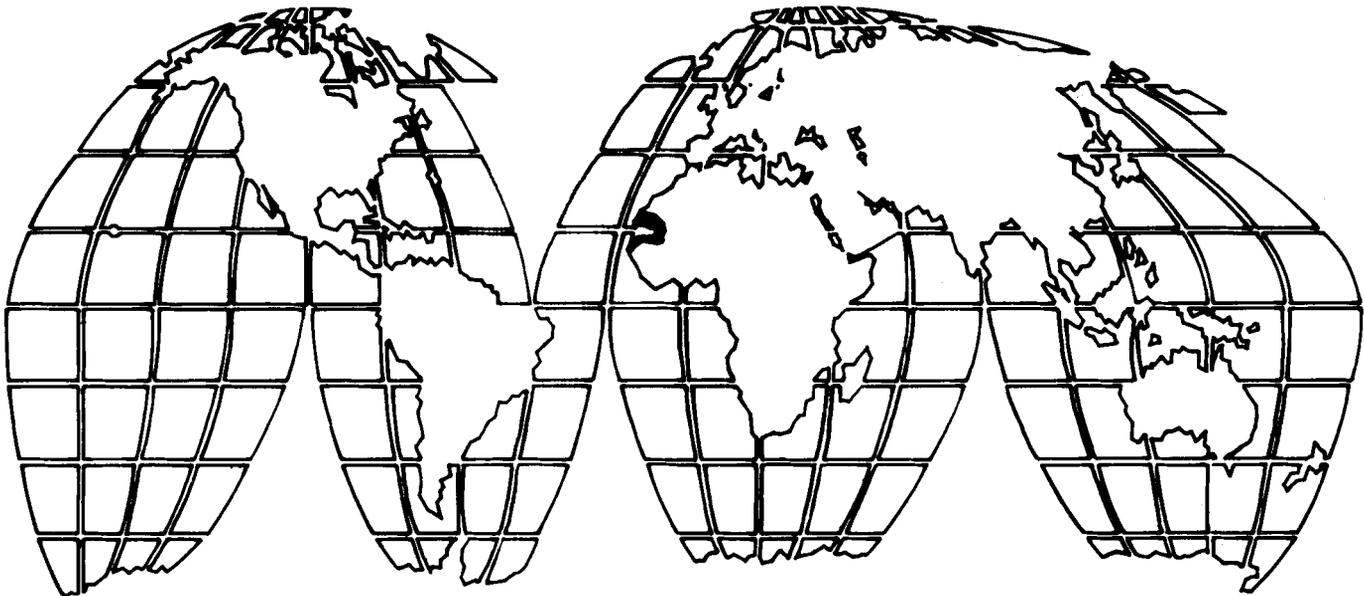


A.I.D. Project Impact Evaluation Report No. 9

Senegal: The Sine Saloum Rural Health Care Project



October 1980

Agency for International Development

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- No. 10: Tunisia: Care Water Projects (October 1980)

(continued inside back cover)

SENEGAL: THE SINE SALOUM
RURAL HEALTH CARE PROJECT

PROJECT IMPACT EVALUATION NO. 9

BY

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U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

October 1980

The views and interpretations expressed in this report are those of the authors and should not be attributed to the Agency for International Development.



Will we be able to provide her with basic health care by the year 2000?

SUMMARY

The project agreement for the Sine Saloum Rural Health Project was signed in August 1977. Significant progress with the training of village health workers and with the opening of village huts has been made. There have been, however, considerable delays and the project is far from ready for an assessment of its final health impact. When looking for indicators of potential impact the team found a project with serious problems and in danger of collapse. This evaluation report alerts the Government of Senegal and A.I.D. to the problems and suggests actions which may be taken.

This ambitious project calls for the building of 600 village Health Huts, each staffed by a health worker, a birth assistant, and a sanitary worker. The Huts are equipped with basic medicines which are dispensed for diseases common to the region. Villagers pay for the medicines and services of the health team in order to cover costs and assure a continuous medicine supply.

The Health Huts are the lowest and broadest level of the total pyramid of health services in Senegal. Although they depend on the Ministry of Health for supervision and support, the Huts belong to the villages, and the health teams are not government employees.

The \$3.3 million A.I.D. grant was to finance a U.S. technical assistance team, provide necessary vehicles, equipment, support, training and supervision, and to purchase the initial inventory of medicines for the Huts.

In April, 1980, the evaluation team found a project which appeared to be making slow, but steady progress. In Nioro and Kaolack departments about 200 villages had been organized and had built Health Huts. Village-level staff had been trained and the huts had opened. Basic health services were more accessible to people living near the Huts. A closer look, however, indicated that the project was in serious trouble. One third of the Huts in Nioro Department, where most had been open for the longest time (about 9 months), had already closed. Some had already closed in Kaolack and it appeared very likely that many more would close shortly.

We identified three vital elements which must function effectively for the project to survive: (1) Huts must be financially viable; (2) the Government must deliver adequate support and supervision; and (3) an efficient medicine resupply system must be organized. In fact, all the Huts visited by the team are threatened with bankruptcy because they do not take in enough money to replace the initial donated stock of basic medicines. Adequate supervision and support are not being provided, even though A.I.D.

is paying most of the costs, and there are no grounds for optimism that the Government will pick up these costs at the end of the project. Although it is too early to be sure, it appears probable that a reasonably efficient medicine resupply system is emerging.

The evaluation team found several specific management difficulties that contribute to the basic problems. Matters such as selection of health workers, location of Huts, procurement of medicines in the U.S., remuneration of health workers, handling of transportation, and use of the records were not resolved in ways which assure the integrity of the planned system.

Cutting across all the difficulties which beset the project is the clear failure of A.I.D. to manage the project prudently and effectively. Although the amount of the grant is relatively small, the scale of the project, with 600 individual units, is very large and administratively difficult. To jump into such an undertaking without a thorough pilot project is folly.

A.I.D. has not provided adequately the one ingredient which the recipient country has every reason to expect--firm, experienced project management and technical assistance. The Mission appears to have operated with a kind of "arm's length" or "hands off" style, taking the position that it was up to the Senegalese Government and the villagers to take responsibility and solve the problems. Adequate mechanisms for the effective exercise of Senegalese and A.I.D. joint responsibilities for the project were not established. This is a sure formula for failure and the result, for over 800,000 people in rural Sine Saloum, is likely to be only increased, but unfulfilled expectations, and the consequent frustration and alienation from government health and other development projects.

Our limited investigation shows a trend for health treatment at the village level to be substituted for treatment at the Health Posts, the next higher level of facilities, wherever Huts are operating. If financial, management, and supervision problems can be overcome, the project could have a profound effect on health.

Postscript

Since the draft report was presented to the Mission in Dakar on April 18, several corrective measures have been taken by the Government of Senegal and USAID. These have included a review of the project by the National Assembly, the appointment of several new project personnel, a delay in opening new Health Huts pending the solution of current problems, and the redesign of the project by appropriate Ministries and USAID.

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FOREWORD

In October 1979, the Administrator of the Agency for International Development requested that, in preparation for an Agency-wide ex post evaluation system, between twenty and thirty projects be evaluated during the subsequent year, focusing on the impact of these projects in several representative sectors of the Agency's program. These impact evaluations are being performed by Agency personnel and will result in a series of studies which, by virtue of their comparability in scope, will ensure cumulative findings of use to the Agency and the larger development community.

This report differs from the other impact evaluations because it does not describe the impact of a completed project. It deals with the implementation process and the implications for potential impact. Most A.I.D. basic health projects started after 1975 so it is virtually impossible to find any where ex-post evaluations can be done, and few have progressed far enough to affect the health status of the majority of their potential beneficiaries.

Though we were aware that the Sine Saloum project was not scheduled for completion until 1981, the Studies Division, Bureau for Program and Policy Coordination, and the Intra-agency Health Evaluation Working Group chose the project because, based upon information available in Washington, it was thought that it had progressed far enough for some initial impacts to be assessed, and for some intermediate indicators of long-term impacts to be observed.

Upon going to the field, the team found a project which had not progressed as far as anticipated. Also, implementation problems had developed which could have serious long-term negative impact. This exercise shows that impacts begin to appear as soon as implementation begins. It indicates that a broad definition of impact needs to be adopted. Questions regarding present and potential impact should be asked during assessment of project implementation. Indeed, if this evaluation had been delayed there might not have been a project to look at and any questions regarding potential changes in health status would have been pointless.

PREFACE

"A main social target of governments, international organizations and the whole world community in the coming decades should be the attainment by all peoples of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life. Primary health care is the key to attaining this target as part of development in the spirit of social justice."

Alma-Ata Declaration, World Health Organization

"Our theory consists of democratic socialism, reconsidered by the Senegalese and for the Senegalese, in a purely African context. Our aim is to make the Senegalese people happier and better by providing them with health, wealth and culture. In more concrete terms, our major goal is to become part of industrialized civilization by the year 2000 . . ."

H. Exc. Leopold Serdar Senghor
President of the Republic of Senegal

"Hygiene and cleanliness constitute the essential problem posed for the government in the area of public health. Our constitution, our laws, have established the right to health for all Senegalese. It is a question of bringing all Senegalese to a level of health which permits a socially and economically productive life."

Mamadou Diop
Minister of Public Health
The Republic of Senegal

"Without the right medicines the project will fail. People will not come to the Huts if they do not have the medicines."

Several villagers and project staff, Sine
Saloum

"We built the Hut--I even paid for the iron roofing sheets myself--but the Secouriste has left and the people have to travel a long way to see the 'doctor'."

Village Chief, Sine Saloum

As these quotations suggest, from the world community of nations and specific governments there is considerable commitment on the theoretical and policy level to broadly based health care, but some service problems exist on the practical level. It is with the practical problems that this report is concerned.

That these same problems are the subject of public concern in Senegal is attested to by a barrage of articles about the problems of the Sine Saloum basic health project which appeared in Senegal's leading newspaper while the evaluation team was in the country.

The evaluation team comprised the Director of the Office of South American Affairs (team leader), a behavioral scientist from the Office of Evaluation (PPC), an anthropologist from the Africa Bureau, and a research assistant from the Office of Evaluation, (PPC), who had been a Peace Corps Volunteer in a village close to the project area. The team visited Senegal between March 21 and April 18, 1980.

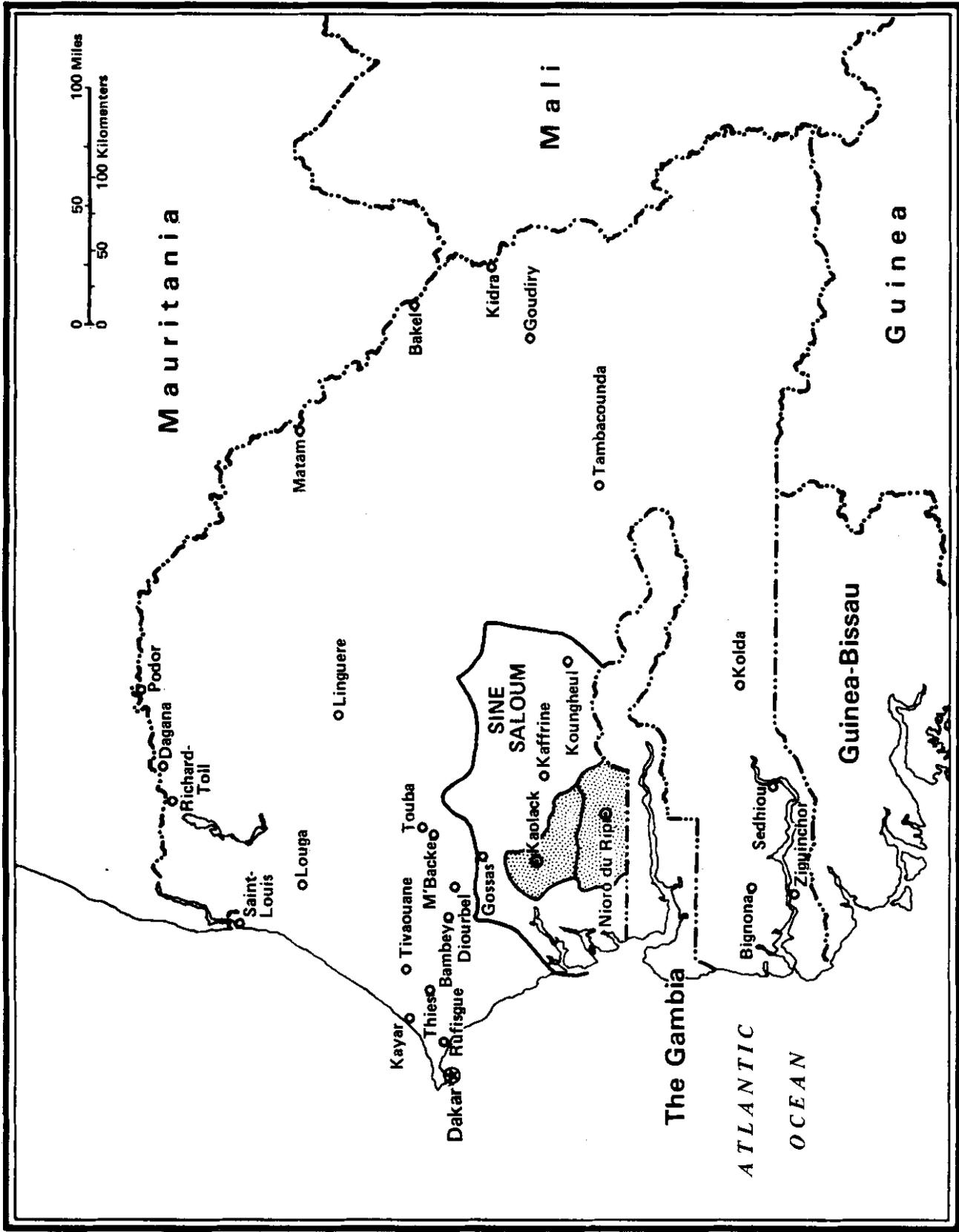
To learn as much about the project as possible in a short time we studied project documents, previous evaluations, and reports about the basic project design and other similar projects in West Africa. This work was done both in Washington, D.C. and Dakar. We met with people in A.I.D., other donor agencies, and Senegalese officials involved with the project. Most of these latter discussions took place in the Sine Saloum region. We spent two weeks interviewing staff and clients at 28 Health Huts and 5 Health Posts primarily in Niore Department, but also in Kaolack where we checked some of our observations from Niore.

The team would like to acknowledge the excellent cooperation they received. Government officials in Dakar and Sine Saloum were universally kind and helpful. We wish to thank the Governor of Sine Saloum for his support. Dr. Kane, the Medecin Chef of the Region, was especially helpful. The USAID Mission and its Director, David Shear, were unstinting in their assistance. Dr. Marc Vincent, USAID/Dakar, Health, Population and Nutrition Officer gave us indispensable background and assistance in arranging contacts. Mamadou Ndaw, our interpreter, greatly increased the effectiveness of our field work. Our special gratitude goes to Mrs. Denise Harned, whose rapid typing and uncomplaining diligence produced a first draft of the report before we left Dakar. This report also owes much to the Peace Corps Volunteers attached to the project, Jim Herrington and Brian Fitzgibbon, whose rapport with the people of the region is inspiring. We gratefully acknowledge the assistance of these and others who helped us; however, all errors of fact and interpretation are the responsibility of the evaluation team alone.

GLOSSARY

<u>Region</u>	A major political subdivision, of which there are eight in Senegal including Sine Saloum.
<u>Department</u>	A secondary political subdivision, of which there are six in Sine Saloum.
<u>Communaute Rurale</u>	The smallest formal political subdivision, of which there are 71 in Sine Saloum, established during the administrative reform.
<u>Medecin Chef</u>	The principal medical officer of a Region or Department.
<u>Chef de Poste</u>	A trained nurse who is in charge of one of the Health Posts at the Communaute Rurale level.
<u>Sage Femme</u>	A fully trained midwife who is in charge of a Rural Maternity associated with a Health Post.
<u>Hygieniste d'Etat or Agent Intinerant</u>	A sanitary worker graduated from the two-year course at the Khombole School and assigned to a Health Post with the job of supervising Village Health Huts.
<u>Village Health Team</u>	Works at a Village Health Hut and consists of:
<u>Secouriste</u>	First aid or health worker in charge of a Hut.
<u>Matronne</u>	Village birth assistant.
<u>Hygieniste</u>	Village sanitary worker.
<u>Promotion Humaine</u>	Senegalese agency responsible for community development and related activities.
<u>Pharmapro</u>	A dependency of the Ministry of Health responsible for providing pharmaceuticals to the health system, including the Sine Saloum Project.
<u>Cotization</u>	A system of collective support whereby villages pay their health workers in food, or crops, or cash, or contribute labour to the workers' fields, or provide other in-kind services.
<u>Monetary Unit</u>	CFA Francs, about 220 = \$1.00.
	In the text references to Francs mean CFA Francs.

Senegal — Showing Sine Saloum Region and Kaolack and Nioro Departments



PROJECT DATA SHEET

1. Country: Senegal
2. Project Title: Sine Saloum Rural Health Care
3. Project Number: 685-0210
4. Project Implementation:
 - a. First Project Agreement FY 77
 - b. First Obligations FY 77
 - c. Final Input Delivery (Projected FY 80-1)
5. Project Completion - Final Disbursement: FY 80
(Project is not completed, but all A.I.D. funds have been obligated.)
6. Project Funding:

	<u>Totals</u>
a. A.I.D.	\$3,373,682 (Grant)
b. Other Donors	None
c. Host Country (Counterpart Fund)	\$1,647,600
Grant Total	\$5,021,282
7. Mode of Implementation:

Project Agreement between USAID/Dakar and Government of Senegal, August 1977.
8. Evaluations/Studies:
 - a. Project Evaluation Summary (PES) - by Linda Neuhauser, USAID/Mauritania, July, 1979.
 - b. "Five Primary Health Care Projects in the Sahel and the Issue of Recurrent Costs" by Mead Over of Harvard Institute for International Development for CILSS (1979 - Draft).
9. Responsible Mission Officials During Life of Project:
 - a. Mission Directors: Norman Schoonover and David Shear
 - b. Health Officer: Dr. Marc Vincent
10. Senegalese Exchange Rate:
 - a. Name of Currency: Francs (CFA)
 - b. Exchange Rate: \$1.00 = 220 CFA (April 1980)

I. INTRODUCTION

The Sine Saloum Rural Health Project is in many ways more about management and administration than it is about health. Its stated objectives are: "(a) to establish a network of village health posts staffed and supported by community-level personnel throughout the region, and (b) to improve and strengthen the support infrastructure of the Government of Senegal for services to health centers." These involve establishing self-supporting Health Huts in 600 villages in five departments of the Sine Saloum Region serving some 880,000 rural people. Although the medical treatment involved is very simple, the potential impact on the health of rural people is immense. The project agreement, involving a grant of \$3.3 million, was signed on August 2, 1977. Completion was scheduled for December 31, 1981.

We evaluated the project in April, 1980, nearly two-thirds of the way through its planned four-year duration. Because of long delays in the early phases of implementation, there are functioning Health Huts in only two departments. In Kaolack, Huts have been operating for
Previous Page Blank
In Niore, most have been established for eight or nine
.....,s report is perforce an assessment of project implementation, not an evaluation of final project impact.

II. THE PROJECT SETTING

A. Senegal and Sine Saloum

Senegal, a country at the confluence of several cultures and climates, covers an area of approximately 80,000 square miles on the extreme western tip of Africa, between Mauritania and Guinea. Of the country's five million people, one million live in Dakar, a modern city and a major center of trade and culture. Outside Dakar, the transition is quickly made to a traditional village society. Climatically, Senegal spans the transition from the arid Sahelian climate in the north to the humid tropics in the south.

Since independence in 1960, Senegal has maintained an open society where political dissent is not suppressed and intellectual life flourishes.

Economically, Senegal is a one-crop society. Peanuts account for some 80 percent of exports. There is little industry and the country is acutely vulnerable to the searing droughts that have plagued the Sahel in the past decade.

Senegal is ethnically diverse. The Wolof, Serrer and Peul represent about 75 percent of the population. Wolof is the most common language; only about 20 percent speak French, the official language. Eighty percent of Senegalese are Muslims as a result of the Islamic expansion from the north and east in the 19th Century. Nevertheless, European influence is strong among the urban elites and national leaders of Dakar.

Sine Saloum covers the Saloum river basin, stretching from the coast some 150 miles along the north border of The Gambia. The people, who live in medium-sized (500-1500) evenly dispersed villages, grow peanuts as their major cash crop. About 800mm of rain falls each year, during July to October. The terrain is flat; the soil sandy; and transportation is relatively easy by foot or horse and cart.

B. The Health Problem

The Senegalese have serious health problems. Malaria, measles, tuberculosis and venereal diseases are prevalent. Infant and childhood mortality are high, especially in rural areas. Diarrhea, respiratory complications, and perinatal tetanus contribute significantly to these deaths. Most rural people do not receive even the most rudimentary modern health care because there are not enough Health Posts, the lowest level of government facilities, and these do not receive adequate financial support. There are large disparities in the allocation of health resources. Forty-seven percent of the Fourth Four-Year (1973-1977) Plan health budget was invested in hospitals. The Cap Vert Region (including Dakar), with 19 percent of the population, received 45 percent of the budget, and has one physician for every 3,800 persons. In contrast, the Sine Saloum Region, with 20 percent of the population, received 9 percent of the funds, and has only one physician for every 77,000 persons.

The Sine Saloum Rural Health Project was designed to provide better health care and to start to redress the imbalance in the allocation of health resources.

III. THE PROJECT

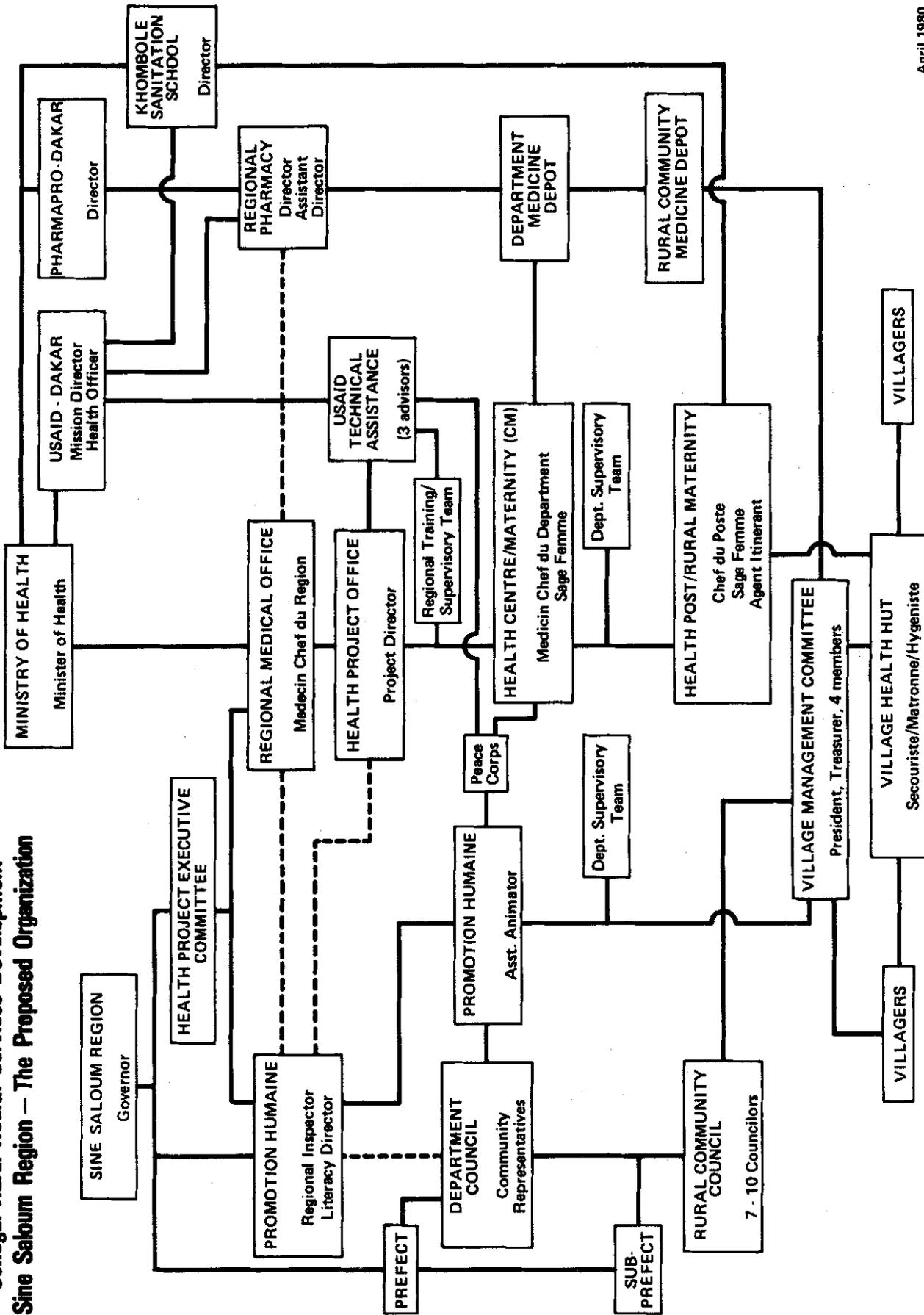
A. The Proposed Organization

A brief outline of the project as planned in the Project Paper, but not currently operating, is presented in this section as a basis for the discussion that follows. (See Chart on page 3.) The project adds a new and broader base to the existing structure of regional health services.

Figure 1: Health Facilities in Sine Saloum by Administrative Level

<u>Health Facilities</u>	<u>Administrative Level</u>
Kaolack Hospital	Region
9 Health Centers	Department
79 Health Posts/Maternities	Communaute Rurale
<u>600 Village Health Huts</u>	<u>Village</u>

Senegal Rural Health Services Development Sine Saloum Region -- The Proposed Organization



The three top layers are part of the Ministry of Health system staffed by permanent government employees and provide free services. The fourth layer is based on community participation and is largely sustained by villagers' payments for services. This emphasis on decentralization and local participation in the health structure corresponds to the administrative reform implemented in Sine Saloum, which established the Communautes Rurales as the basic administrative units. (For a comparison of pre-project facilities with project facilities see maps in Appendix B.)

In selected villages in the Sine Saloum Region, Health Huts are established, staffed by a Secouriste, a Matronne, and a Hygieniste, and stocked with basic medicines and equipment.¹ The villagers build the Hut, pay for the services and medicines, and support the unit through communal labor and contributions. A Village Management Committee receives the income from the Hut; checks the records; and, when necessary, orders new supplies of medicine from the Communaute Rurale medicine depot. Promotion Humaine assists with the selection of the sites, the training of the Management Committees and the subsequent organization of community support.

The medical aspects of the Health Hut are supervised by the Chef de Poste. The major responsibility for regular visits, however, rests with the Agent Itinerant (graduate of Khombole Sanitation School) who is provided with a horse and buggy. Each Post has between five and ten dependent Health Huts five to fifteen kilometers from the post (See Map 2 in Appendix B).

The Communaute Rurale oversees the activities of the Village Management Committees, receives money from them for medicine resupply, and decides how the village health workers will be paid. They are assisted by the departmental team from Promotion Humaine, which also organizes literacy classes for illiterate committee members and health workers. A Peace Corps Volunteer works closely with the Promotion Humaine Team, the Health Center Medecin Chef, and the Sage Femme who are responsible for training Health Hut staff.

The entire operation is run by the Project Director, under the direct supervision of the Medecin Chef du Region. The Medecin Chef is also the executive secretary of the Project Executive Committee which is chaired by the Governor. Three public health advisors (education, administration, and training) are provided by A.I.D. to help the Project Director and provide liaison with A.I.D. to Dakar. The Regional Pharmacy in Kaolack is the link between the drug suppliers in Dakar (A.I.D. or Pharmapro) and the Departmental Medicine Depot.

¹See Glossary, page ix for definitions and functions.

These activities were planned on a phased basis with construction and training coming first, followed by village level promotion and operations. The project started in Nioro and Kaolack Departments where Huts are now operating. Gossas and Foundiougne Departments are now in construction and training, and plans are being made for Kafferine Department.

The Project plan outlined above has unfortunately not been carried out in some of its most critical elements, notably the establishment of a functioning Project Executive Committee and the appointment of a Project Director. Instead the Regional Governor has apparently taken direct personal charge of project administration. The serious problems resulting are discussed in Section IV.

B. Achievements

Although this report concentrates on problems which need urgent attention, it is important to note the progress that the project has made so problems can be seen in perspective. The project staff and villagers have demonstrated that it is possible to deliver basic health services to rural people in Sine Saloum. Huts have opened in more than 200 villages in Nioro and Kaolack Departments. This required considerable organization, energy and commitment. Project staff were able to motivate villagers to build the Huts, organize management committees, and select Secouriste, Matrones and Hygienistes. The training programs, Regional, Departmental, Post and Village were designed and implemented for two Departments. Training materials and reference manuals were developed and distributed. A records system was designed and staff were trained. Scheduled building and renovation of Health Posts were completed. Furniture was provided for the Huts. Horses and buggies, for the Post supervisory staff, and cars for the Regional and Departmental staff were procured. The first allocation of medicines was delivered to the Huts and some resupply has taken place.

Thousands of people have visited the Huts and found help for their common health problems. Most of the Huts are still open. The Regional staff has moved to the second phase in two more Departments, where motivation is completed and building and training are underway. A weekly radio program--not envisaged in the original plan--has been developed to provide information, coordination, and direction for all participants in the project. (See Appendix I.)

IV. PROJECT IMPLEMENTATION AND DESIGN ISSUES

In this section we try to sort out the issues, distinguishing the major problems from the less important.

A. Major Problems

There are three vital elements which must function effectively from the beginning if the primary health care project is to survive:

- The Health Huts must be financially viable in the sense that they cover operating costs;
- The Senegalese bureaucracy must deliver effectively the needed support and supervision services; and
- An efficient medicine resupply system, which is the life-blood of the entire project, must be organized.

1. Financial Viability

As we visited randomly selected Health Posts and associated village Health Huts, it appeared that the system was decapitalizing itself at the village level. To test this we selected one of the best Rural Communities in Niore Department and made a simple financial check on each of the eight dependent Huts. We also took spot checks elsewhere in Niore and in Kaolack Department, where Huts have been operating for a shorter period. The basic calculation took the value of the beginning inventory of medicines (provided free by A.I.D.) and compared it to the value of inventory plus cash in the hands of the Secouriste and the village treasurer with allowance for any receivables or payables. These should be equal or for optimum operation show a slight profit. In effect we asked whether the Hut took in enough money to replace medicines used and to cover other operating costs. Nearly every Hut showed a significant shortage. For the eight Huts, most of which had been in operation for nine months, the opening inventory was 412,560 Francs, the present inventory was 265,007 Francs, and the cash on hand was 63,440 Francs giving a deficit of 84,113 Francs. At this rate, the Huts will soon cease operating because they will be unable to pay for medicine resupply. We compared reported receipts with reported expenditures and found that, with one exception, the villages did not have the cash on hand that their books indicated they should have. The details are contained in Appendix C. There are a number of possible explanations including: inaccurate records, medicines priced too low, excessive salaries taken by health workers, theft of receipts or medicines, and medicines not charged for. The conclusion is that this self-financed primary health care scheme is not financially viable as it now operates and Huts will close as soon as the initial capital is used up, if not before. Health Hut financial viability is not the only aspect of bottom-up village participation which is not fully satisfactory; we emphasize it because it is an essential condition to system survival.

2. Support and Supervision

Senegalese Government agencies are not now delivering adequate supervision and support in the departments where the project is in full operation. Supervision and support are supposed to be provided by a three-person Ministry of Health Regional Supervisory Team, and a two-person Departmental Supervisory Team. In addition, the Project Paper calls for the Hygieniste d'Etat assigned to each Health Post to supervise the health workers at the satellite Huts depending on his Post. Presumably the A.I.D. technical assistance personnel and the Peace Corps Volunteers also should be making frequent inspection and support visits. This process barely functions.

We would like to emphasize that support for the new Health Huts involves far more than the formal training and routine supervision. This is a new and strange activity which inevitably involves the Secouriste in considerable confusion and uncertainty. To help him gain assurance and confidence frequent reinforcement and moral support from the Health Post are absolutely essential. Wherever we went it was clear that visits had been few and far between. At the Hut level, the most systematic visits were made when the Peace Corps Volunteers carried the Chefs de Postes around in the Volunteers' car. At the Health Post level, visits by the Regional Supervisory Team were clearly not a regular occurrence.

There are a variety of reasons for this state of affairs. At the Regional level the supervision team (and the A.I.D. technical assistance person) is more occupied with expanding the project into new departments than it is in assuring proper functioning where the system has been established. It appears that the departmental supervision teams foreseen in the Project Agreement have never been organized, thus throwing the burden of supervision on the Department Promotion Humaine Director and Medecin Chef in addition to their regular duties. Also, there are constant transportation problems, which makes supervision difficult.

Most of these support and supervision shortcomings could probably be sorted out with time, good technical assistance, and adequate budgetary support. However, adequate budget support appears most unlikely. The health sector budget as a proportion of the national budget has declined from a high of 9.2 percent in 1969/70 to 6.0 percent in 1978/79 (Appendix D). In absolute terms the amounts for health do not appear to be keeping pace with inflation. More important are the specifics of the disaggregated health sector budget for the Sine Saloum Region. We did not attempt to collect new data since the important points are conclusively made in the study on the Financing of Recurrent Costs for Health Care Projects, prepared by A. Mead Over for the Club de Sahel, the relevant sections of which are included in Appendix E. The Project Paper examines recurrent costs on an aggregate basis. With regard to increased costs after project termination (A.I.D. pays the increases during the project) the paper states: "This added outlay is less than 12 percent of the budget for Sine Saloum and Khombole or 63 percent of last year's budget increase. It was only 0.5 percent of the total Ministry of Health budget in 1975/76. Thus, it seems well within the Ministry of Health budgetary capacity." Mead Over, in his analysis, disaggregates the Sine Saloum health budget into its component parts of Personnel, Medicines, Operations, and Common Expenditures pointing out that there is little or no transfer possible between the first two categories, which account for some 85 percent of the budget, and the latter two categories. Operations and Common Expenditures include almost all of the increases which will result from the project such as vehicle maintenance, gasoline, per diem, and equipment replacement. Thus, for example, at the Sine Saloum regional level the Common Expenditures budget item would have to increase by 310 percent when A.I.D. funding ceases. Similar large percentage increases will occur throughout the detailed budget line items on which the project depends for the supervision and support function. Resources to cover such large increases appear unlikely to be available. Over's conclusion is: "The result will be that the Project will be starved

of supervision from above and thus will function poorly or cease to function at all."

3. Medicine Resupply

The life blood of this project is a reliable supply line of medicines. We cannot reach any firm conclusions on this point. In Nioro, Huts were issued one half of their basic A.I.D. financed inventory to start with; reserves were held partly at the Health Post level and partly at the Regional Pharmacy. The regional reserve for the department has now been transferred to the Departmental Health Center in Nioro thus bringing it closer to the point of use. Health Huts are only now beginning to run out of initial stocks and so far have been able to resupply by going to the Health Posts with their money. Thus at the time of our visit it had not yet been necessary to test the supply line from Pharmapro. Additional comments on medicine supply are in Appendix G.

B. Secondary Problems

The problems discussed in the preceding section are of vital importance to the continuation of the project. In this section we review some of the second order issues which contribute to the major problems.

1. Selection of Health Workers

Over one-third of the Huts in Nioro have either lost or changed their Securistes since they began operating nine months ago. This suggests that the method of selection may be wrong. With hindsight, it can be seen that there was a basic contradiction in the selection criteria used. On the one hand, there was a recognition that the Securistes needed strong ties to their villages so they would remain in place after training. Thus, one should have looked for those with roots: married men with families, substantial fields being worked, probably thirty years old or more, and similar evidence of village attachment. On the other hand, the project designers decided health workers should be literate in French to facilitate training, bookkeeping and transmission of information. This meant that they would have to have had some formal education which in turn meant that they would be younger and less attached. In practice, the contradiction was resolved in favor of literacy rather than attachment. Since French language literacy is an important job skill in a society where 80 percent of the people do not speak it, it should come as no surprise that Securistes seek to better themselves elsewhere.

2. Location of Huts

In Nioro, there are too many Huts too close to each other and too close to the Health Posts. They are competing for clients and are too much of a supervisory burden on the Chef de Poste. In a town called Wak N'Gouna, a Hut was established 800 yards away from an operating Health Post. In one area in Kaolack Department, there are two Health Posts only 15 kilometers apart. Between them are three Health Huts, thus on the average there is a health facility every three kilometers. Two of the Huts closed within three months of opening.

In Nioro Department 50 percent (54) of the Huts which were opened are within five kilometers of a Health Post or eight kilometers of the Nioro Health Center. Half of these Huts (27) are currently closed. Of the 56 Huts more than five kilometers from a Health Post only 20 percent (11) are closed. It should also be noted that there is no place in the Department which is more than five kilometers from a health facility, and there are several Huts with two to four other Huts within five kilometers; a relatively easy walk or ride in horse and buggy for most villagers. The Department suffers from Hut overcrowding. (See maps in Appendix B.)

The Communaute Rurale Councils chose the Hut locations. Most councillors secured one for their own village and a few additional larger villages were selected regardless of proximity to other Huts and Health Posts. Few guidelines were given to the Councils when they made their choices, and A.I.D. does not appear to have monitored the process closely. Five to ten Huts were planned for each Post. The final count ranges from eight to twelve with an average of exactly ten for each Post. Because of pressure to open Huts as soon as possible in other departments, it is not clear that the lessons from Nioro are being applied.

3. Payment of the Village Health Workers

Village health workers appear to share 60 percent of the cash income of their Hut as compensation. In some cases, when there were only two workers, they each received 30 percent of the income. In other cases, the Secouriste had taken 60 percent of the income, but had not yet distributed the other workers' shares. The Secouristes and Matrones contribute to the income of the Hut, the Hygieniste usually does not.

The decision regarding the amount to pay the health teams was supposed to be made by the Communaute Rurale Councils. In fact the decision was made by the Prefet, the Sub-Prefets and the Departmental Council and everyone was informed in an administrative memorandum signed by the Prefet of Nioro. Thus, the practice has been established that income is divided 60 percent for the workers, 35 percent for medicines, and 5 percent for maintenance. The charge to each client was established in the same way. In Nioro, it is 50 Francs for the first visit and 25 Francs for subsequent visits for the same complaint. In Kaolack, the Department Council decided to charge 200 Francs per client, regardless of the number of visits for each diagnosis. This was later changed to 65 Francs a visit regardless of whether it was a first visit or a revisit. These decisions on charges and revenue distribution were made without regard for system financial viability and without adequate guidance from A.I.D.

Paying the village health workers the major share of the Hut's income severely drains the system's capital. However, a second look at the financial analysis of eight Huts in Appendix C shows that even if the workers were not paid from the Hut's income, they would still be losing money. Obviously, a new financial structure has to be worked out as soon as possible.

The problem of payment for health workers has its origin in a basic philosophical contradiction that was not faced squarely at the outset: are these people to be low level, paid health functionaries or are they to be part-time, trained volunteers who receive support from their village in the form of shared labor, millet, peanuts or something else? The issue was to a considerable extent decided in favor of money payment.

There is clearly a dilemma: the project cannot support substantial payments to three village health workers from the sales of medicines at reasonable prices, yet a clear result of the training and increased skill of the workers is a desire for money payment. One approach to this dilemma might be to consider whether the Communautés Rurales could provide a small regular payment from the proceeds of the Community Tax. This would have the advantages of letting the health workers have some certainty about how much money they receive, of strengthening decentralization, of tending to stop speculation about the Ministry of Health's hiring the health workers, and helping to rationalize the medicine sales operation. It would also make clear to the villagers just how much money income their health workers were receiving and thus facilitate decisions about other forms of village support for the health teams.

4. The Transportation Dilemma--Horses and Buggies

The regular supervision of village health workers by Health Post personnel was recognized in the project design as essential. In order to assure that supervision took place regularly, horses and buggies were to be placed at the disposal of the Health Post. It was assumed that this "appropriate" mode of transport would be cheaper to buy and to maintain than motor vehicles. The buggy could, as well, be used to transport medicines to village Huts and to evacuate patients from villages to the Health Posts. The Rural Communities were to be given the responsibility for feeding and taking care of the horse, which further promoted the involvement of the rural community in the new health system.

At this point, the horses and buggies may be more aptly termed "inappropriate technology". According to original estimates, horses would be purchased at about \$400 each and the buggies for \$120 each. Simple, single seat, buggies are common throughout Senegal and are widely used in the project area. However, large, cumbersome, four seater carriages were designed and built for the project. The final cost was \$600 instead of \$120 as originally planned. The horses were also purchased at a much higher cost than originally foreseen. Regardless of higher costs of the horses and buggies, if they are used effectively to facilitate supervision by Health Post Chiefs, they might be worth the cost. However, such visits are not thereby assured. Chefs de Poste at only 3 of the 12 health posts in the Department of Niore reported they had used their horse and buggy to make supervisory visits. Those who did not use their buggies said it took them too long to make their supervisory trips to the villages. There were no indications that the buggies were being used for patient evacuations. A few said they used their own cars or motorcycles instead of the horse and

buggy. The low incidence of horse and buggy use at this early stage suggests that supervision by Health Post personnel may ultimately cease if the transportation issue is not resolved.

There is a dilemma here. Psychologically, Chefs de Poste--and others--who have advanced to automobiles or motorcycles are going to resist the loss of status and convenience involved in going back to the horse and buggy technology. Yet we know from our own and other donor experience that the Senegalese Government cannot and will not provide financially or administratively for effective vehicle maintenance or gasoline supply. (Indeed, the courtyards of Senegalese offices in Sine Saloum are littered with the hulks of old donor-provided vehicles.) We also know that the project will not be able to support autos or motorcycles from the proceeds of medicine sales. However, it makes no sense to go on mechanically buying horses and buggies that will never be used. We do not have an answer, but the USAID and the Senegalese Government should try to find a flexible, workable solution as soon as possible.

5. The Disappearing Village Management Committees

Once the sites of the Huts were known, control of the health unit was to be vested in Village Management Committees. We found that most committees had been formed and their members' names listed at the Health Center in Nioro, but that they were not managing their health team. "The Secouriste and the Chef de Poste are the only people who really know what is happening," said one treasurer. In several villages, the only members of the Committee who could be positively identified were the Chairman, usually the Village Chief, the Treasurer and occasionally the Communaute Rurale Councillor, when he was not the Treasurer. In no village did we find a health team who felt they were managed by the Village Committee. Decisions regarding payment for the village health workers had been made at the Department level; decisions on the medicines to be ordered were being made by the Secouriste and the Chef de Poste.

The decay of the village committees is probably the result of inadequate supervision and support from Promotion Humaine and the Chefs de Poste. The tasks of the committee and the village health team are new and strange. Without constant attention and reinforcement there is little likelihood that the structure and functions established during the motivation and training phases will be maintained. One example of how the planned system is deteriorating is that the simple records system is falling into disuse and is not a tool for managing and monitoring the project.

C. Other Models--Other Donors

There are several other countries and agencies involved in rural health projects in Senegal and their experiences can provide useful guidance for this project (see Appendix F for more details.)

A similar project in Fatick Department of Sine Saloum, assisted by the Netherlands, has dealt differently with selection and payment of the village workers, selection of sites for Huts, and community involvement. It

is also supervised very closely by a resident Dutch project manager. A Belgian project in Pekine, a Dakar suburb, has established health posts, staffed by Ministry of Health personnel, but controlled and financed by local committees. The Canadian Gossas health project and the UNICEF rural maternity and village pharmacy projects, all in Sine Saloum, have information useful for the solution of the problems of the A.I.D. project.

V. IMPACT

A. The Substitution Effect

The impact of this project on health cannot be measured because the Huts in Nioro have been operating for a maximum of only nine months and there are no pre-project health status indicators. However, we were able to review Health Post records which suggest that many villagers are now being treated at their own village Health Huts rather than at Health Posts for some of their common ailments. This leads us to believe that the project has been, to a certain extent, successful in bringing primary health care to many villagers, eliminating costly trips to health posts, as well as providing a source of treatment for health problems that would otherwise go untreated.

By comparing the average number of new clients diagnosed for specific ailments at the Posts before the Huts were opened with the numbers diagnosed after they were in operation, we can determine if there was a substitution of care at the Huts for care at the Posts, assuming that disease incidence was approximately the same at the same time of the year. We calculated changes in averages at the 12 Health Posts in Nioro for 11 common ailments which may be treated in the village Hut. Because of seasonal variations in disease incidence, we compared averages for months from two seasons (Fall and Winter) independently. The results indicate that a substitution is taking place with fewer cases being diagnosed at most Posts after the village Huts opened (Appendix H). This conclusion needs to be viewed with caution since the uniformity and consistency of diagnoses at the Posts are, to say the least, highly variable. However, this is the only data that now exist in a form that can be easily monitored. It should be exploited while efforts are made to improve diagnoses at Health Posts and Huts.

B. Expectations and Frustrations

In almost every village, we met one or more members of the Village Management Committee and several notables and older members of the community. Towards the end of our field work, these meetings became increasingly depressing. It was difficult to face these interested and concerned, but confused and frustrated, community elders. Their interest in and concern about village health had been demonstrated by their building of the Hut. They told us, with some pride, of communal labor by the village youth and their money contributions to buy doors, paint, extra cement and iron sheets for the roof. They were confused and frustrated because many Huts had closed. If Huts continue to close, as seems probable, the main impact of the project may well be the frustrated expectations of some 800,000 villagers.

VI. LESSONS LEARNED

A. A.I.D. Management Style

This project has not been well managed by A.I.D. We emphasize A.I.D. rather than the Senegalese Government because in a project like this, if A.I.D. brings any ingredient to the situation, it must be experience and management know-how. The Senegalese already have the other ingredients. Since sloppy management threatens to turn what should be a sure-fire project into a dud, a little introspection is in order.

Senegal is in the process of undergoing an administrative decentralization which gives the Communautes Rurales increased responsibility for their own affairs. The Regional Governors and Departmental Prefets, while still appointed by Dakar, are also being given much greater autonomy and decision-making authority. So, when the Project Agreement was drawn up, the Governor of Sine Saloum was delegated as the chairman of the Project Executive Committee, apparently on the assumption that a Project Director, who has never been appointed, would be given executive authority under the Governor's general policy direction. It didn't work out that way. Most people can't remember when the Project Executive Committee last met. The Governor runs the project personally and keeps the project checkbook in his desk drawer. What is more, there aren't any easy checks and balances. The Governor is an important political figure. When little, but important, things go wrong, the A.I.D. project person in the field has no recourse short of getting the USAID Director in Dakar to take it up with the Governor's superiors in the Ministry; not a route one can use often.

The other side of the management equation is just as bad. The Senegalese may have decentralized their part of the management to the project area, but we kept ours in Dakar. More accurately, we have never provided a strong, cohesive, experienced technical assistance team, headquartered in the project area to give the project the leadership it clearly needs. The discussion in this report illustrates the critical need for constant, close support and direction--a "hands on" style rather than the "hands off" style we have actually adopted.

There are those who argue that this "hands off" style of management is preferable since it assures that the local bureaucracy and the villagers will regard the project as theirs, and take responsibility for it. (In fact, they refer to it as the "A.I.D. project" anyway.) This may be true, but if the project collapses, as it threatens to do, what has the "hands off" style accomplished?

The basic rule should be that the project has to work, no matter what the management style, otherwise everyone loses. In this case, there is a comparison that can be made. The Dutch primary health care project in Fatick Department has almost identical objectives, but is being managed in a very firm "hands on" style with close technical support to all aspects being provided by the Dutch project manager resident in Fatick. It may be that time will show the "hands off" style to be superior, although at this stage the Fatick project is conceded to be working much better.

B. A.I.D. Project Design

This project was "well designed" by A.I.D.'s standards. There were the requisite consultant's reports--professional and expensive. The project documents are thick and cover all the usual points. We even have a PERT Chart and a Logical Framework.

The point is that you can't substitute project design for on-the-ground experience and good, tough-minded management. In this case, we didn't even follow our own design in its most important aspects--the Executive Committee never meets and the Project Director was not appointed, yet we did not have the courage to stop the project. It is interesting to contrast our grandiose style with that of the Dutch in Fatick where they consciously started with only a rudimentary plan, but a determination to test ideas and adapt as they went along.

In this case, A.I.D. jumped into a massive, 600 unit, health project without running a pilot project first. All or most of the problems could have been identified and avoided had we taken one Communaute Rurale and run an experiment.

C. A.I.D./Peace Corps Cooperation

The Sine Saloum project provides an example of what might be accomplished by effective joint programming between the two agencies. The Project Paper contains a vague description of the PCVs' role. Basically, they are tacked on to the project at the Department level with a charge to cooperate with the Ministry of Health and Promotion Humaine teams. Their role is ill-defined. According to the Volunteers, no one in A.I.D. ever told them what was expected of them. In fact, they worked out a useful role for themselves. In a project as starved for good management as this one, Volunteers can be a priceless asset. As it is, with a non-functioning Project Executive Committee, ineffective project reporting, and no A.I.D. personnel at the project site, the two Volunteers in Niore have become a major source of information about what is happening. They could do much more if they were formally integrated into the project structure and given clearly defined duties and responsibilities. This might require some adjustment in the conventional wisdom of the two agencies, but it would be well worth it.

VII. RECOMMENDATIONS

1. Steps should be taken urgently to review the structure of charges. Changes should be made to prevent financial collapse of the system.
2. USAID should strengthen the project management team, possibly through an institutional contract, and locate the team in Kaolack.
3. The location of Huts should be reviewed and redundant Huts closed as quickly as possible.

4. Policy on payment of health workers, literacy requirements and provision of project vehicles should be reviewed.
5. An adequate support system for the village management committees should be worked out and implemented.
6. The record-keeping system should be developed so that it can be used by illiterate villagers and as a useful tool for project managers.
7. Until Huts are operating satisfactorily in Nioro and Kaolack and management has been strengthened, preparations for moving into additional departments should be postponed to the maximum extent possible.
8. No Huts should be opened in additional departments until arrangements are made to incorporate an active family planning component, as specified in the Project Paper. We have not commented upon this in the body of the report as no actions had been taken. Something must be done, however, as the project may have significant implications for population growth in Sine Saloum.
9. A careful review of the continuing costs problem should be undertaken with the Senegalese Government in light of the analysis in the Club de Sahel Draft Working Paper on Recurrent Costs, and firm assurances on availability of budgetary resources should be obtained.

VIII. POSTSCRIPT---THE IMPACT OF THIS EVALUATION

Since the draft report was presented to the Mission on April 18, 1980, several corrective measures have been taken by the Government of Senegal and USAID Mission. These include:

1. A joint GOS/US briefing was held on May 9, with officials of the Ministry of Plan and Cooperation and Ministry of Health.
2. The Health Committee of the National Assembly visited the project.
3. The Ministry of Health appointed a project director.
4. An experienced A.I.D. project manager is being recruited.
5. A new Governor has been appointed to Sine Saloum. He will not be involved in the daily project management.
6. Expansion of the project has been delayed pending correction of existing problems.
7. Methods used by other donors, in similar projects, have been studied by a health specialist.
8. A redesign team has visited Senegal, and will complete its work there during September.
9. A separate evaluation has been started by the GOS Bureau of Organization and Methods, The President's Office.
10. AID/W is closely monitoring the redesign of this project.

APPENDIX A

BACKGROUND STATISTICS FOR SENEGAL AND SINE SALOUM

BACKGROUND STATISTICS FOR SENEGAL AND SINE SALOUMA. POPULATION DATA

	<u>Senegal</u>	<u>Sine Saloum</u>	<u>% in the Sine Saloum</u>
Population (April, 1976)	5,085,388	1,007,000	20
Land Area (sq. km.)	196,840	23,620	12
Population Density (persons/sq. km.)	26	43	
Birth Rate (births/1000 people/year)	47	-	
Death Rate (deaths/1000 people/year)	23	-	
Rate Previous Page Blank	2.6	4.0	
Infant Mortality Rate (infant deaths/1000 births/yr.)	93	41	
Life Expectancy (years at birth)	44	-	
Total Fertility Rate (1978)	6.5	-	
Urban Population (% of total population, 1980)	25		
Principal Ethnic Groups (data—1960/61)			
Wolof	36%	34%	
Fulani	18%	8%	
Serer	17%	43%	
Toucouleur	9%	6%	
Diola	9%	5%	
Mandingo	7%	3%	
Other African	5%	3%	
Other (approx)	1%	(approx) 1%	
GNP per capita (dollars, 1978)	340		
Average annual growth (1960-78)	-0.4		
Adult literacy rate (% , 1975)	10		
Access to safe water (% , 1975)	37		

B. MEDICAL FACILITIES IN SENEGAL AND SINE SALOUM

	<u>Senegal</u>	<u>Sine Saloum</u>	<u>% in the Sine Saloum</u>	
Hospitals	9	1	11	
Health Center	35	9	26	
Maternities	231	89	39	
Health Posts	448	83	19	
Mother and Child Centers	65	10	15	
Population per Hospital Bed	719	972		
Population per Physician	14,590	77,000		
Population per Nurse	1,668	4,797		
<u>Government Expenditures on Health (CFA Millions)</u>				
Personnel	3596.8	322.8	9	
Materials	798.3	68.3	9	
Medication	459.8	43.3	9	
<u>Incidence of various diseases in Senegal and Sine Saloum</u>				
	<u>Senegal</u>	<u>Rate</u>	<u>Sine Saloum</u>	<u>Rate</u>
Cases of Malaria	184,731	(1/28)	32,655	(1/31)
Cases of Tuberculosis	932	(1/5456)	104	(1/9682)
Cases of Poliomyelitis	183	(1/27,789)	24	(1/41,958)
Cases of Tetanus	520	(1/9779)	21	(1/47,952)

Source: Government of Senegal: Statistiques Sanitaires, 1974.

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APPENDIX B

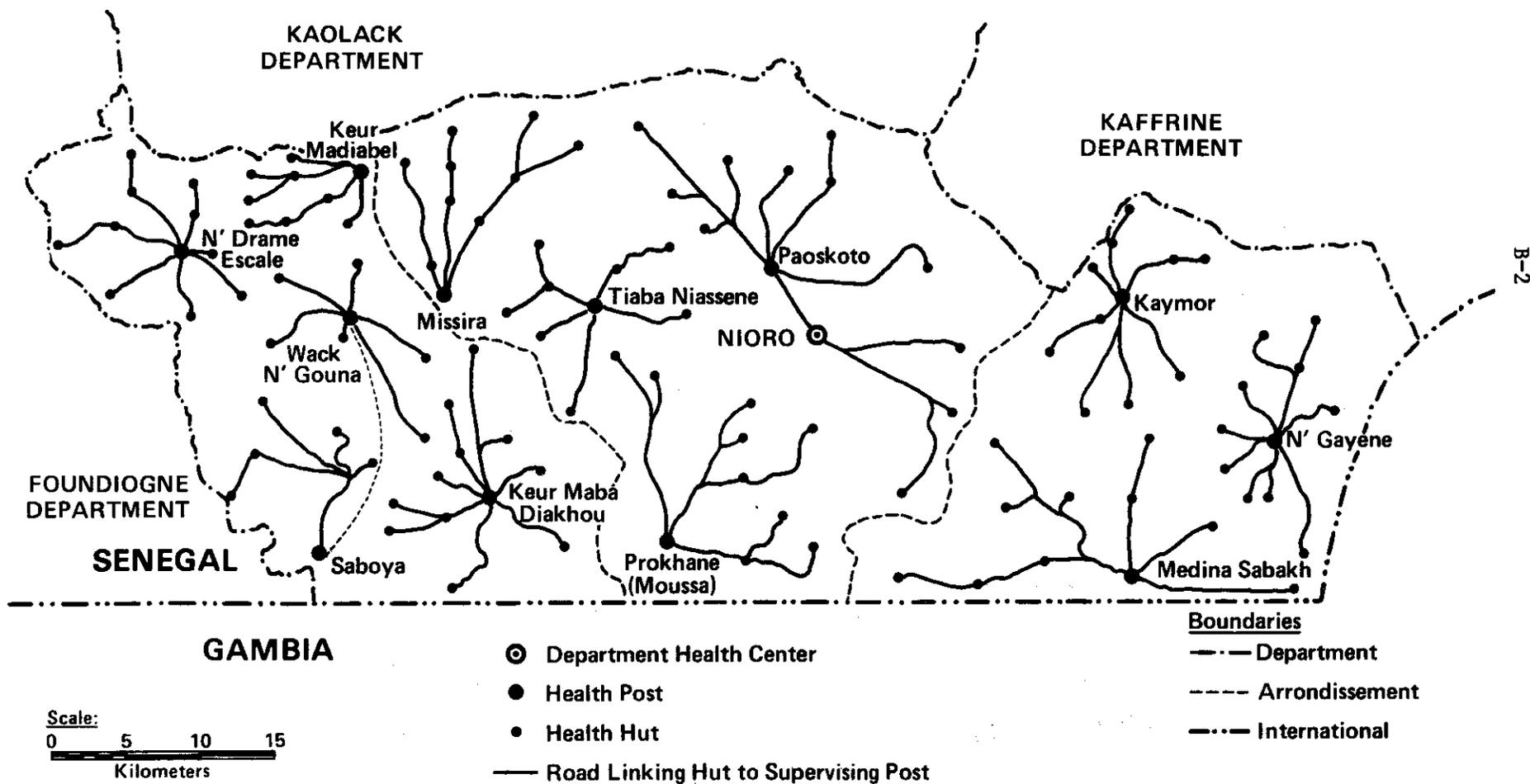
**MAPS OF PRE-PROJECT AND CURRENT HEALTH FACILITIES
IN NIORO DEPARTMENT**

Senegal Rural Health Services Development

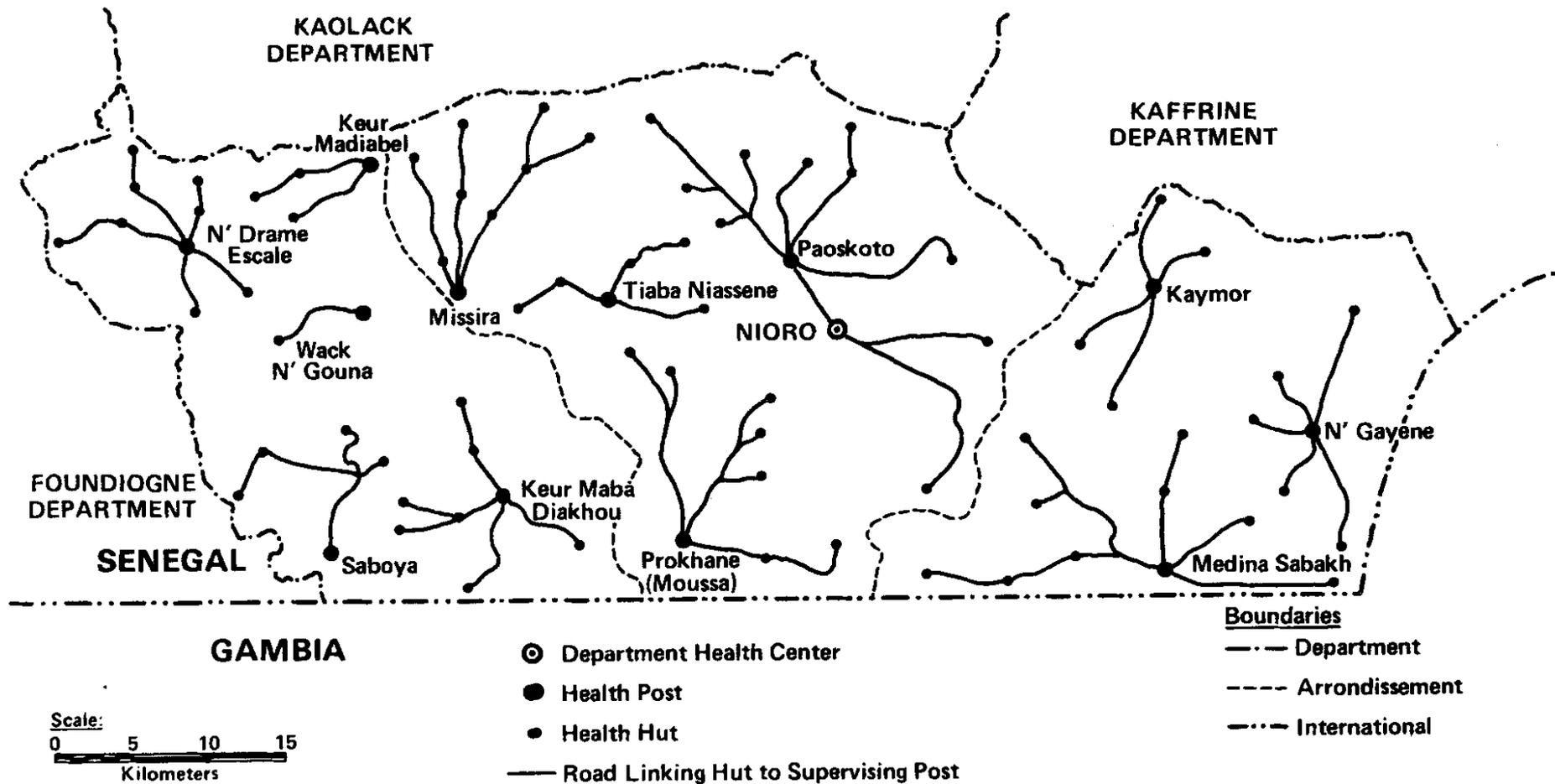
Sine Saloum Region – Department of Nioro du Rip

Health Huts Built by Project in 1979

(Linked to Their Supervising Posts)



Senegal Rural Health Services Development Sine Saloum Region – Department of Nioro du Rip Health Huts Actually Open in April 1980



APPENDIX C

FINANCIAL SURVEY OF EIGHT HEALTH HUTS IN NIORO

Financial Survey of Eight Health Huts in Nioro Department (Figures in CFA Francs)

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Huts	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
Months in Operation	9 Mos.	7 Mos.	9 Mos.	9 Mos.	9 Mos.	5 Mos.	9 Mos.	4 Mos.
1. Value of Opening Inventory	51,570	51,570	51,570	51,570	51,570	51,570	51,570	51,570
2. Receipts from Visits	20,475	32,095	57,930 ^{2/}	8,150	20,550	19,250 ^{4/}	18,700	8,225
of which (Maternity)	(7,000)	(7,000)	(11,000) ^{2/}	—	(3,000)	(4,000)	—	(2,000)
3. Expenses	16,195	19,900	36,590	7,260	13,575	3,765	7,730	425
of Which: (Salaries)	(10,740)	(16,650)	(26,145)	(5,670)	(10,000)	—	(6,480)	(425)
(Medicine Reorders)	(1,250)	(3,250)	(10,250)	(1,250)	(1,250)	(2,260)	(1,250)	—
(Commercial Medicines)	(3,880)	—	—	—	(500)	(1,065)	—	—
(Other)	(325)	—	(195)	(340)	(1,825)	(440)	—	—
4. Expected Cash on Hand Plus Receivables (2-3)	(4,280)	(12,195)	(11,840)	(890)	(6,975)	(15,485)	(10,970)	(7,800)
5. Actual Cash on Hand Plus Receivables	3,620	7,850	10,700	1,055	11,375	12,025	9,015	7,800
6. Discrepancy (4-5)	(- 660)	(- 4,345)	(- 1,140)	(+ 165)	(+4,400)	(- 3,460)	(- 1,955)	—
7. Value of Present Inventory	38,744 ^{1/}	29,810	10,757	41,890	35,420 ^{3/}	34,637	25,899	47,850
8. Balance ((5+7)-1)	-9,206	-13,910	-30,113	- 8,625	- 4,775	- 4,908	- 16,656	+4,080
9. Volume (No. of Visits)	377	550	868	142	584	215	432	143

NOTES: ^{1/} Includes estimated maximum value of commercial medicines in inventory 3,880.
^{2/} Includes accounts receivable 1,500.
^{3/} Includes estimated maximum value of commercial medicines in inventory 500.
^{4/} Includes accounts receivable 4,200.

This survey was done during the first two weeks of April 1980. Inventory valuations are those used in the project and reflect the cost to the Health Huts to replace medicines dispensed. Other figures are taken from Health Hut records.
200 CFA = \$1.00

APPENDIX D

GOVERNMENT OF SENEGAL HEALTH BUDGET

SENEGAL, HEALTH BUDGET AS PERCENTAGE OF THE NATIONAL BUDGET

Year	National Budget in '000,000 CFA	Health Budget in '000,000 CFA	Health Budget Year as % of Prior Year	Percentage (2/1)
	(1)	(2)	(3)	(4)
1965/66	36,049	2,707	-	7.5
1966/67	35,548	2,834	104.6	7.9
1967/68	36,065	3,251	114.7	9.0
1968/69	36,750	2,252	69.3	9.1
1969/70	37,850	3,491	155.0	9.2
1970/71	39,000	3,556	101.8	9.1
1971/72	41,440	3,727	104.8	9.0
1972/73	44,000	3,794	101.8	8.6
1973/74	47,000	3,657	96.4	7.8
1974/75	55,000	4,103	112.2	7.5
1975/76	71,000	5,067	123.5	7.1
1976/77	86,000	5,247	103.6	6.1
1977/78	89,000	5,375	102.3	6.0
1978/79	101,470	6,134	114.2	6.0

Source: Government of Senegal, Statistiques Sanitaires et Demographiques, 1978.

APPENDIX E

EXCERPT FROM DRAFT CLUB DU SAHEL WORKING PAPER ON
FIVE PRIMARY HEALTH CARE PROJECTS IN THE SAHEL AND THE ISSUE OF
RECURRENT COSTS

by

A. Mead Over, Jr.

EXCERPT FROM DRAFT CLUB DU SAHEL WORKING PAPER

Recurrent Costs to Senegal of the Sine-Saloum Project

The project paper for the Sine-Saloum study estimates the total project recurrent costs at 267 million CFA per year. These costs are divided between the Ministry of Health and the participation of local villagers as given in Table I. Note that the ministry pays only 40 percent of this total while the villagers pay 60 percent.*

Expenditures on personnel by the Ministry of Health can be broken out into several categories as illustrated in Table II. According to the project paper those indicated by an asterisk would be s Previous Page Blank ry of Health regardless of the existence of the other expenditures were engendered by the project. Since 80 percent of the personnel costs were programmed in the absence of the project only the 20 percent actually engendered by the project need be considered the recurrent costs of the project from the perspective of a financial analysis.** Using this criterion, the additional financial burden imposed on the personnel budget by the Sine-Saloum project can be said to equal 19 million CFA.

* However, the components of the villagers' contributions are more subject to variation. If the village health workers are content to work for less, if the health huts do not require as much maintenance, and if villagers buy less medicine than predicted, their contribution to total costs could drop considerably.

** However, from an economic perspective, the true recurrent cost of a project is the cost of all inputs which maintain it and permit it to operate. Thus, if the time of certain categories of personnel will be largely occupied with rural health services, their salaries should be considered an economic cost of the project even though their salaries had already been budgeted before the project began. By considering these salaries to be a part of the recurrent cost of this project, we recognize that, by using these people on this project, we are preventing their productive use elsewhere in the health care system.

Tableau I. Couts Recurrents Annuels du Project Sine-Saloum

Couts du Ministère de la Santé

1. Personnel	94,809.600
2. Autres depenses	<u>10,812.000</u>
Sous-total du ministere	105.621.600

Couts des Villageois et des Communautés Rurales

3. Primes aux Travailleurs de Santé Villageois	20.736.000
4. Entretien des 600 Cases de Santé	27.360.000
5. Paiements pour Medicaments	138.240.00
Sous-total de las participation locale	161.712.000

TOTAL	267.333.600	FCFA
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Tableau II. Ventilation des Depenses Personnel du Ministere
de la Sante

Categorie de Personnel

1.	Infirmiers Chefs des Postes de Sante	
	a) Infirmiers des 64 anciens postes	40.550.400*
	b) Infirmiers des 15 nouveaux postes	9.504.000
2.	Agents Itinerants des Postes de Sante	
	a) Agents des 64 anciens postes	27,648.000*
	b) Agents des 15 nouveaux postes	6,480.000
3.	Equipes de Supervision Departementales	
	a) 12 personnes	7.603.200*
4.	Equipe de Supervision Regionale	
	a) 3 personnes	<u>3,024.000</u>
	TOTAL	94.809.600 CFA
	TOTAL Moins Chiffres avec asterisques	19.008.000 CFA

* Les asterisques indiquent les quantites que le Gouvernement de Senegal aurait depensees meme sans le projet Sine-Saloum.

Table III breaks out the 10.8 million CFA of other costs from Table I. The costs which are the most crucial to keep the program functioning in the short run are marked by an asterisk. These costs total 5 million CFA or 46 percent of the 10.8 million CFA in the category Autres Depenses.

The original project design document*, which is the source for the figures presented in these tables, analyses the recurrent costs of the Sine Saloum project (*ibidem*, pp. 29, 30). This analysis states that "the budget increase required during project life is 10 percent of the current (1975/1976) budget for the Sine Saloum Region and the Khombole School", and that "upon project termination the Ministry of Health will incur additional annual expenses equal to an additional 12 percent of the current budget for Sine Saloum and Khombole". Thus, the report concludes that the project "seems well within the budgetary capacity" of the Ministry of Health.

Our attempt to reconstruct the budget of the Sine Saloum medical region from Senegalese sources is presented in Table IV. The 197.1 million CFA budget for personnel in the Sine Saloum in 1975-1976 can be compared to the additional outlays for personnel that will be engendered by the project. If we use the figures without asterisks from Table I for the personnel cost engendered by the project, we conclude that there are 19 million CFA of such costs. Thus, the project imposes increased personnel costs which are 9.6 percent of the regional personnel budget for 1975-1976. From the perspective of the personnel budget we are thus led to agree with the original project report that this amount does not seem excessive.**

* The A.I.D. Project Paper.

** Even if we add the salaries of the departmental supervisory teams to the total, the percentage increase is only 135 percent, an amount which one could hope to be within the capability of the Ministry of Health.

Tableau III. Ventillation des 'Autres Depenses' du Ministere
de la Sante

Vehicules de Supervision

Essence: 200 litres/mois a 96 CFA/litre
pour 7 vehicules 1.612.800*

Entretien: 6000 CFA/mois pour 7 vehicules 504.000*

Amortissement: 17,600 CFA/mois pendant
5 ans pour 7 vehicules 1.478.400

Indemmisation pour Equipes de Supervision

Equipe Regionale: 15 jours/mois a 1440
CFA/jour pour 3 personnes 777.600*

Equipes Departementales: 15 jours/mois a
960 CFA/jour pour
12 personnes 2.073.600*

Nouveaux Postes de Sante

Entretien: 125,280 CFA/an pour 15 postes 1.879.200

Amortissement de l'equipment: 21,600
CFA/an pour 15
postes 324.000

Amortissement des Systemes Hydrauliques et
des Caleches et Chevaux 2.162.400

10.812.000

* Source: ibidem, p. 36.

Tableau IV. Budget Approximatif de la Region Medicale de Sine-Saloum*

	<u>Personnel</u>	<u>Fontion- nement</u>	<u>Medica- ments</u>	<u>Depenses Communes</u>	<u>Total</u>
1973-74	148,1	(8,9)	(32,8)	(2,8)	(192,6)
1974-75	187,1	(8,5)	(31,4)	(2,7)	(229,7)
1975-76	197,1	(9,9)	(36,2)	(3,1)	(246,3)
1976-77	204,1	(11,5)	(42,2)	(3,6)	(261,4)
1977-78	220,1	(10,6)	(38,9)	(3,4)	(273,0)
1978-79	232,2	(11,1)	(40,8)	(3,5)	(287,6)
1979-80	-	11,1	40,8	3,5	-

* Chiffres entre parentheses sont estimes a partir des chiffres pour fonctionnement, medicaments et depenses communes de toutes les Regions Medicales.

But personnel costs were about 80 percent of the total budget of the Region Medicale of Sine-Saloum in 1975-1976. The other 20 percent of the budget was spent on operating expenses and drugs. At the termination of the Sine-Saloum project, the Sine-Saloum region will have to absorb operating and maintenance costs into this part of its budget if it is to continue to operate its primary care system.

Other than personnel, the regional budget consists of the categories Fonctionnement, Medicaments, and Depenses Communes. Since expenditures on drugs are already too little to keep drugs stocked in the medical establishments for the entire year, we assume that funds cannot be shifted out of the category Medicaments, any more than they can be shifted out of Personnel, in order to pay operating expenses of the primary care program. Thus, when the project terminates all operating expenses must be absorbed by the remaining two categories. In 1979-1980, the budgeted amounts in the categories Fonctionnement and Depenses Communes were 11.1 and 3.5 million CFA respectively. Since Depenses Communes is defined to include expenditures on fuel, per diems, and vehicle repair, the expenditures marked by an asterisk in Table III must all be added to this category. But this will entail an increase of 5 million CFA or 143 percent in the size of this budget category for the Sine-Saloum. The other 5.8 million CFA increase must be added to the budget category Fonctionnement for an increase of 52.6 percent in this budget category. Increasing the allocation to these specific budget categories in the Sine-Saloum region by such large percentages is likely to prove very difficult for the Ministry of Health.

We have discovered that a disaggregation of the budget into its component parts leads to a different and more pessimistic view towards the additional budgetary effort that will be required by the Senegalese Ministry of Health in order to absorb the recurrent costs of this project. It is useful to carry the disaggregation one step further.

This year for the first time the budget of the Senegalese Ministry of Health contains an "article" for each circonscription medicale. The information in this detailed budget permits us to compare various items of the recurrent basis of the Sine-Saloum project to the parts of the budgets of the specific administrative entities which would require these expenditures.

For instance consider the budget of the central office of the Region Medicale. This office contains the regional supervisory team which is the critical level of control and supervision coordinated with the governor's office. The 1979-1980 budget for this office includes 450,000 CFA for "Depenses Communes", a category which includes fuel, per diem, vehicle repair, and transportation expenses. But the expenses of the regional supervisory team, which must be assumed under the category "Depenses Communes" at the end of the project, total:

Gasoline: 200 litres/month X 12 months X 140 CFA/litre	336,000
Maintenance of 1 light vehicle	72,000
Amortization of 1 light vehicle	211,200
Per Diem: 15 days/month at 1440 CFA/day for three supervisors	777,600
Total	<u>1,396,800</u>

Thus, in order to continue to operate the Sine-Saloum primary-care project at the same level, the central office of the Region Medicale will have to increase its budget for "Depenses Communes" from 450.000 CFA to 1.846.800 CFA, an increase of 310 percent.

A similar analysis can be performed for any of the 6 departments. Their budgets during 1979-1980 for the category "Depenses Communes" are given in Table V.

Tableau V. Budget Depenses Communes Par Circonscription
Medicale pour l'Annee 1979-1980

<u>Department</u>	<u>Circonscription Medicale</u>	<u>Budget</u>
1. Gossas	Gossas	250.000
	Guinguineo	250.000
2. Foundiougne	Foundiougne	250.000
	Sokone	250.000
3. Nioro	Nioro	250.000
4. Fatick	Fatick	375.000
5. Kaffrine	Kaffrine	400.000
6. Kounghoul	Kounghoul	<u>250.000</u>
		2.275.000 CFA

But for each of the 6 departments the project engendered expenses are the same as for the regional supervisory team except that the per diem for the department teams is calculated as follows:

Fifteen days/month at 960 CFA/day for two supervisors or 345.600 CFA each year. Thus, total budget requirements for this project are 964.800 CFA. Note that this amount is 286 percent larger than the budget of a department with one circonscription and 93 percent larger than the budget of the Foundiougne or Gossas departments which contain two circonscriptions.

Thus, a relatively small percentage increase in the budget of all of Sine-Saloum becomes an extraordinarily large percentage increase in the budget category which includes vehicles and per diem rates. An analysis which aggregates all of these charges together and describes the increase in the aggregate budget as a small percentage increase is subject to severe errors. The problem is that the aggregate analysis assume that funds can easily be shifted from one budget category to another. In fact shifting funds from personnel to other categories is difficult or impossible. Thus, a very large percentage increase in the demands on the category depenses communes cannot be met by reallocating funds from personnel.

If the Sine-Saloum region is unable to finance all recurrent costs, the productivity of the primary case program in Sine-Saloum will decline. Presumably the Senegalese will discard recurrent expenditures in the following order. First, they will decide not to pay the amortization funds listed in Table III. Second, they would discard the per diems for the supervisory team. Third they would cease to support vehicle maintenance. The last recurrent expenditure to be eliminated would be the fuel for the supervisory vehicles.

The first reduction in recurrent expenditure, the elimination of the amortization fund, will reduce recurrent expenditures by four million CFA, a large part of the total of 10.8 million CFA. The effect of this first reduction will not be felt until one or more of the seven supervisory vehicles deteriorates to the point of being irreparable. The amortization fund, if it existed, would pay for a new vehicle. In the absence of that fund, the new vehicle must be financed outside the Sine-Saloum budget or the supervisors will cease to function effectively. Since external financing by a donor might occur, it is possible that the lack of an amortization fund will not hurt the program even in the long run.*

* Note that governments of developed countries such as the United States and France do not use amortization funds to replace deteriorated publicly-owned equipment. They either buy such equipment on current account or they float a bond issue in order to borrow the funds to purchase the piece of capital. For the less-developed country, the lack of resources in the current account and the difficulty of borrowing make these solutions unavailable. Thus, an amortization fund may be a better idea in a less developed country than in a developed one.

The effect of discarding the per diems for supervisory personnel depends on the existing mix of monetary and non-monetary rewards to these supervisors for conducting the appropriate supervisory trips (tournees). If supervision does not take place with the per diems available, then the lack of them would have no impact. Alternatively, if the maximum possible number of tournees per month already occurs because the medical hierarchy recognizes and rewards supervision, then elimination of the per diem might have only a small negative effect on supervision. Which of these cases actually obtains in practice should be determined by the empirical analysis of supervision patterns. Data for such an analysis was not available to the author.*

Without vehicle maintenance supervision would stop as soon as the vehicles cease to function. This would probably happen within a few weeks to a few months for all seven vehicles.

Finally, the last recurrent expenditure to be suppressed would be the fuel. Without fuel the supervision would stop immediately.

Thus, it is important to ask whether the cost of fuel alone would be borne by the Sine-Saloum recurrent expenditure budget. Note that the 1.6 million CFA necessary for fuel in 1977 has now increased by 46 percent due to the increase in price from 96 CFA/litre to 140 CFA/litre. Thus, to cover 200 litres/month for all supervisory vehicles will cost 2.4 million rather than 1.6 million CFA.**

But to absorb 2.4 million into the Sine-Saloum budget will require an increase of 67 percent in the category of Depenses Communes for the entire region. The 336,000 CFA added to the Depenses Communes of the central office would increase its budget by 75 percent. Although these large increases will be necessary if the supervisory network is to continue to function they may be enough to strain the budgetary system to its limits.

* However, the results of the Gossas project suggest that, when there is neither a financial nor a bureaucratic reward, supervision does not occur.

** The one supervisory trip on which I accompanied a member of the regional supervisory team required approximately 13.5 litres of gasoline. Assuming 15 trips a month, the vehicle would consume 202.5 litres on supervision. Thus, 200 litres per month seems to be slightly too little. Perhaps 225 or 250 litres would be more appropriate quantities--especially during the months when most supervision occurs. Then the number of litres per month could be reduced by a corresponding amount during the months of the rainy season when less supervision can occur.

If we add to the 2.4 million for fuel the half million for maintenance of the vehicles, the increase required in the category Depenses Communes grows to 83 percent. Thus, maintenance does not present as large an additional expenditure as fuel.

However, the next step would be to provide traveling expenses in the form of a per diem to supervisory personnel. This would require an increase of 207 percent in the budgetary category Depenses Communes -- an increase unlikely to occur.

In summary, the recurrent expenditures associated with the Sine Saloum project appear small from the aggregate perspective adopted by the project design team. However, when we disaggregate those expenditures by budget category, we discover that their size is much larger relative to the categories to which they correspond. Since real needs as well as institutional rigidity prevent the easy transfer of funds from one budget category to another, the government of Senegal may have difficulty funding even the most necessary of these recurrent expenditures. The result will be that the project will be starved of supervision from above and thus will function poorly or cease to function at all.

APPENDIX F

OTHER MODELS--OTHER DONORS

OTHER MODELS--OTHER DONORS

A.I.D. was not the first in the primary health care field in Senegal, nor did we originate the concept of beneficiaries paying for their own medicines. Indeed the structure inherited from the colonial period, which remains the backbone of the present project, might have provided tolerable rural health care in Sine Saloum had it received adequate budgetary support and staff.

For many years the World Health Organization (W.H.O.) has been providing assistance to the existing system of Health Posts. However, W.H.O.'s role has been mainly one of providing advice and training, rather than operational project funding.

Since the early 1970s the United Nations Children's Fund (UNICEF) has supported the Health Post system with two supplementary projects: Rural Maternities and Village Pharmacies. Eighty rural maternities have been equipped at Health Post sites in Sine Saloum and about 100 health workers have been trained. Fees of 1,000 Francs per birth are charged to remunerate birth assistants and to cover operating costs. UNICEF estimates that only about one-third of the maternities remain in operation. UNICEF helped to establish 77 Village Pharmacies and trained 97 pharmacy workers. The Pharmacies sold medicines rather than dispensed them free, as at the Health Posts, so they were located at a considerable distance from the Posts to minimize the contradiction. These Village Pharmacies were the precursors of the Health Huts and are being converted into Health Huts wherever they exist.

The Canadian Government sponsored a primary health care project in the Gossas department of Sine Saloum which started in 1977. It had several unique aspects: a vaccination program financed by recipients and supported by cold storage all the way to the Health Post level where simple diagnostic laboratory facilities were installed; training of several village health workers to provide mutual support; training of health workers in the villages rather than at some remote sites. The project was supported by a large Canadian technical assistance team. When that team left in mid-1979, the project appears to have deteriorated rapidly. Gossas is to be included in the A.I.D. project.

Probably the most successful health project in Senegal is the Belgian-supported Pekine project, located in the suburbs of Dakar and serving a concentrated population of several hundreds of thousands clients. Started in 1976 it is based on six health committees, one to support each of the Health Posts, united in an overall health association at the level of the Pekine Health Center. The functions of the committees are: to collect the charges levied on users of the health posts; to keep the financial records and manage the accounts; to decide on disbursements of funds for procurement of medicines and other purposes necessary to support the Posts. The personnel of the Posts are regular Ministry of Health employees. A key

aspect of the Pekine project is the separation of the financial and management functions from the provision of health services. Although the project operates in an urban environment, it is relevant in that it demonstrates that with good conception, organization, and management an auto-financed health system can be made to work in Senegal among low income beneficiaries.

Of all the primary health care projects in Senegal, the one sponsored by the Dutch Government in the Fatick Department of Sine Saloum is the most comparable to and has the most lessons for the A.I.D. project. (Fatick was originally proposed for inclusion in the A.I.D. project.) The objectives and structure of the two projects are virtually identical, but the management styles have the following important differences:

1. the two (now only one) Dutch expatriate advisors were posted to Fatick and received only modest support from the Dutch Embassy in Dakar;
2. a single Communaute Rurale was selected as a pilot area and only when it was functioning well did the project move on progressively to other Communautes Rurales;
3. the motivation/training function was conducted step-by-step by the departmental medical team and the Dutch advisors without involving Promotion Humaine;
4. great care was taken in selecting village health workers to assure that they will remain attached to their villages and the project is designed to be run by illiterates. (The project director reports that there have been no defections of health workers.);
5. it was made clear from the beginning that the health worker would not be paid and that villages were expected to provide other support (cotization);
6. only two village health workers were included instead of the three programmed by A.I.D.;
7. health unit location was very carefully controlled, especially with respect to proximity to Health Posts and to each other; and
8. the Dutch advisors in the beginning gave very close support, spending a large amount of time in the field.

Thus, there is a broad spectrum of primary health care effort in Senegal against which the A.I.D. project can be considered.

APPENDIX G
MEDICINES AT HEALTH HUTS

MEDICINES AT HEALTH HUTS

The following medicines and supplies were supplied to the Health Huts in the departments of Nioro and Kaolack: aspirin, chloroquine, piperazine, iron tablets, rehydration powder, aureomycin three percent, scabies ointment, compresses, and gauze. (See price list on page G-3.)

These medicines are appropriate for the treatment of many common village health problems. There were, however, complaints at almost all the villages. Secouristes invariably mentioned their need for alcohol and mercurochrome as disinfectants for cuts and wounds, and in delivering babies. Many Huts had purchased alcohol, mercurochrome and methyl blue, for treatment of mouth sores, from private pharmacies at prices much higher than they would have had to pay at Pharmapro. Even though aureomycin (three percent) is recognized as a better disinfectant than mercurochrome, Previous Page Blank ers are familiar with these three medicines and their ab- initial stock may have reduced the Hut's utility in the ----- . Once villagers were introduced to treatments at the Hut with familiar disinfectants, aureomycin could have been introduced gradually as a more effective disinfectant. Matrones were particularly concerned that the absence of alcohol and mercurochrome encouraged women to continue to have their children at home or at the Health Post Maternity.

The absence of medicine at the Health Hut to treat diarrhea was another concern expressed by Chefs du Poste in Nioro and Kaolack. Although accepted medical opinion seems to be that there is no effective medicine for diarrhea (rehydration power is used in infants), this view is apparently not shared by Chefs du Poste, Secouristes or villagers. Health Hut case books indicate that piperazine (worm medicine) was frequently being used for diarrhea. Health Post personnel have in many cases distributed sulfa drugs to treat diarrhea and it is clear that Secouristes will continue to try to obtain them.

A.I.D.'s initial supply of medicines included ten liters of Scabies ointment (a relatively expensive medicine) for each Hut. Scabies was at an epidemic level during the project planning stage, but has since subsided. It might be wise to collect the Scabies ointment and store it carefully at a central point until it has to be used to combat another epidemic.

The initial supply of A.I.D. medicines was to have one percent aureomycin to be used in treating eye infections, which are very common. The one percent aureomycin was not issued because by the time the A.I.D. procurement process and the Senegalese Customs had done their worst the expiry date for the medicine had passed. Subsequent shipments have been received in the Regional Pharmacy which have not expired, but rather than issue these for Nioro and Kaolack Departments where they could be used immediately, they have been earmarked for future use in Gossas and Foundiougne--one hopes before a new expiry date has passed.

The whole question of U.S. procurement of project medicines needs to be looked at. It should be determined how the one percent aureomycin that was essentially useless on arrival was purchased. More importantly, is A.I.D. acting responsibly to procure medicines for this project from the United States with labels in English and strange names and dosages? As soon as village health workers get accustomed to them--if they do--they will have to switch to a permanent local supply line with different names, labels and dosages. We managed to supply locally purchased automobiles to the project, we should do it with medicines.

Republic of Senegal
Region of Sine Saloum
Department of Nioro

May 30, 1979

1. Prices for visits and revisits to the USAID Health Huts:

First visit	50 CFA
Revisits	25 CFA

2. Prices of the USAID medicines from the community depot:

<u>Product</u>	<u>Unit</u>	<u>Unit Price</u>
Aspirin	B/100	125 CFA
Chloroquin	B/100	250 CFA
Iron tablets	B/1000	2,500 CFA
Piperazine	B/100	625 CFA
Aureomycine 3%	tube	190 CFA
Bandages	roll	175 CFA
Gauze	box of 100	750 CFA
Oral rehydration powder	kilogram	1,000 CFA
Scabies ointment (Antigal)	liter	2,500 CFA

3. Prices for "Phamappro" medicines:

Aspirin	kilogram	1,250 CFA
Nivaquine	B/1000	1,850 CFA
Iron tablets	B/500	2,250 CFA
Piperazine	B/500	543 CFA
Aureomycine 1%	tube	48 CFA
Aureomycine 3%	tube	95 CFA
Cotton bandages	roll	65 CFA
Gauze bandages	roll	51 CFA
Compresses	each	13 CFA
Cotton swabs	kilogram	1,105 CFA
Carded cotton	kilogram	925 CFA
Scabies ointment (Ascabiol)	Bottle/125 cc	1,215 CFA

Note: Add 10 CFA to each unit price to cover the costs of transportation.

APPENDIX H

HEALTH IMPACT - THE SUBSTITUTION EFFECT

HEALTH IMPACT - THE SUBSTITUTION EFFECT

It is far too early to say anything definitive about the impact of the project upon the health of people living in Sine Saloum. We did, however, uncover some evidence that people were changing the place where they sought health care. It appears that people are now receiving treatment for many common ailments in the Health Huts rather than at the Health Posts as they did in the past. We found in the Department of Nioro that new diagnoses, for ten common ailments, made at the Health Posts had declined since the Huts had opened.

There are twelve Health Posts in Nioro. Each Chef du Poste sends a monthly report to Medecin Chef of the Department. The report lists all major disease categories treated at the Post, the number of new diagnoses and total number of visits (new diagnoses plus revisits) for each category. The ailments selected for analysis were:

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Fevers	Diarrhea	Wounds/cuts
Stomach Problems	Worms	Anemia
Dysentery	Eye Problems	
	Skin Problems	

We abstracted information from the monthly reports so that we could compare the average number of new patients coming to the Posts each month before and after the Huts were opened. Average total visits were not compared as they contain revisits which can be influenced by the severity of the illness and other factors not necessarily associated with the decision to seek care at the Huts. We were also concerned about seasonal variation in the incidence of disease. For example, there is always considerably more malaria in Sine Saloum in the rainy season than in the dry season. For this reason we compared monthly averages during two seasons of the year.

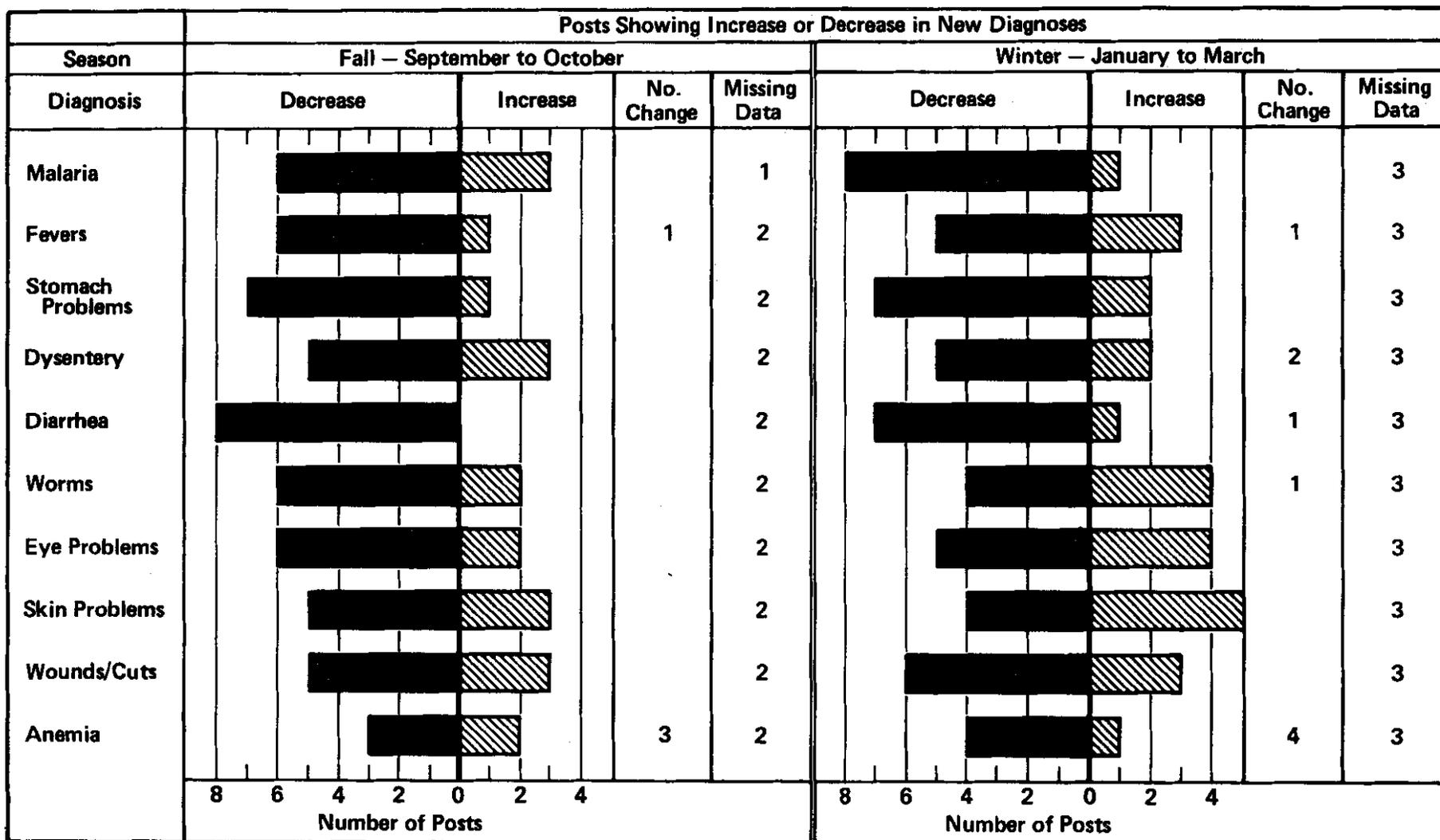
For the wet season (Fall), at each post, we compared the average number of new diagnoses for September and October, 1978 (before) with the average for September and October 1979 (after). For the dry season (Winter) we compared the average of January, February and March for both 1978 and 1979 (before) with the average of January to March 1980. The analysis is presented in the table on the following page.

The results clearly indicate that the number of Posts where the average number of new diagnoses has decreased is greater than the number where it has increased. For example, with regard to new diagnoses of malaria; in the Fall six posts showed a decrease and three showed an increase. Records for one post were incomplete and huts around two posts had not yet opened so we were not able to make the comparisons. In the winter, eight posts showed a decrease, while one increased, and again we had insufficient data on three posts.

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Sine Saloum Rural Health Project

Changes in the Average Number of New Clients with Common Ailments being Diagnosed at the Health Posts after the Health Huts were Opened.



H-2

Source: Monthly reports made by the Chef du Poste to the Medecin Chef du Department. Abstracted at the Departmental Health Center. Comparisons were made in both the Fall (wet) and Winter (dry) seasons to control for seasonal variations in sickness. In several instances the records were not complete and in two cases the Posts and Huts had not been open long enough to allow the Fall comparison.

APPENDIX I

THE PROJECT RADIO PROGRAM

THE PROJECT RADIO PROGRAM

On January 9, 1980, the Regional Radio Station in Kaolack broadcast the first half hour program for the Rural Health Project. The broadcasts, started at the suggestion of the USAID Health Officer, were designed to communicate with the staff and potential clients of the Health Huts. Organizational support and supervision of the Huts, which had already been opened in Nioro and Kaolack Departments, was becoming increasingly difficult for the Regional Staff. More and more of their time was spent organizing the opening of new Huts in Gossas and Foundiogne Departments.

A. The Objectives of the Programs

1. To provide information to the Health Hut staff, so that new procedures can be established in a standard way.
2. To motivate the staff at the Posts and Huts, by providing them with the Regional Staff and making them feel more closely
Previous Page Blank rtant organization.
3. Provide the Regional Staff with information from the Huts and villages as staff and villagers write letters to the radio station.

B. The Contents of some of the Programs

1. Roundtable discussion, by the Regional staff, about the opening of the Health Huts in Kaolack Department.
 - the role of A.I.D. in the project,
 - the role of the Village Management Committee, and
 - the importance of participation by villagers for the survival of the project.
2. Interview with Regional Inspector of Promotion Humaine.
 - the role of Communautés Rurales,
 - the selection of villages for Health Huts,
 - the selection of village health workers, and
 - the management committee and participation of the people.
3. Discussion by the Regional Supervisory/Training Team.
 - A.I.D.'s assistance in preparing the training materials and Hut manuals,

- the retraining of the Chefs du Poste and the training of the Secouristes, Hygienistes and Matrones, and
 - problems noted during supervisory visits to Huts--the illegal sale of medicines.
4. Regional team discusses the system of medicine supply--from Pharmapro in Dakar to the Huts.
 5. Repeat of program No. 4.
 6. Regional Team discusses the functioning of the Huts.
 - resupply of medicines,
 - Matrones are not being paid for deliveries at the Huts,
 - the inactivity of the Hygieniste,
 - the price of consultations, and
 - responses to five letters received by the radio station.

C. Response of Listeners to the Program

Both staff and villagers said that the program was useful and interesting. We discussed it at almost every site we visited and only found two Chefs du Poste who did not listen to the program. One lived so far south that he was out of range of the signal, and the other said that the program was on during the time when he was watching television. TV programs are only broadcast in the evening from Kaolack. All Chefs du Poste have been supplied with TVs. Several villagers in the south of Nioro mentioned that they were beyond the range of the Kaolack station, but they listened to a health program from The Gambia. In villages within the range of the radio signal we found all staff and many villagers knew the time and day of the program. Several also mentioned that there was a health education program broadcast from Dakar on the previous evening.

Instructions and information given during the programs were having an impact. In one village in Kaolack Department they had exhausted their stock of several drugs. They had planned to wait until they had depleted all their drugs before they reordered any drugs. The President of the Village Management Committee mentioned that as a result of the radio program they were going to reorder the drugs as soon as their stock reached one-third of their original inventory.

Not all opinions of the program were positive. A Chef du Poste mentioned that the villagers' health problems could not be solved by a group of people sitting in the radio studio in Kaolack. He stressed that it was important to visit the villages, sit under the palaver tree, and identify the relevant problems and work directly with the villagers on their solution.

D. Letters Received by the Radio Station

One of the Secouristes with whom we talked, said that he had written a letter in response to the radio program. He was looking forward to it being read and answered over the air.

After the first four programs, five letters had been received and were read over the air. Two were morale boosters saying that the village workers were proud to be a part of the project and urging others to work hard. Two raised questions about salary, one complaining that they had not been paid, the other noting that the population should realize that they worked for very little compensation and that villagers should help them in other ways. One letter complained that the Hygienistes and Matrones do not show up for work. This writer also mentioned that money was very scarce during the rainy season and that the people could not pay for services. He suggested that a schedule of payments be fixed for the entire year. The last letter was from a member of a literacy class (not a staff member). He asked some interesting questions--is a Hygieniste needed in each village?--Can people from villages with no Health Hut buy their medicines for the Communaute Rurale depot?--When is the Communaute Rurale depot going to be built and how is the manager to be selected?

Obviously there is some very useful material for the radio program in these letters. Answering specific questions and providing suggestions over the air can help to knit the program more tightly together.

E. Discussion and Suggestions

It is early to assess fully the potential of the radio program. It represents an innovative attempt to increase the effectiveness of the project staff. It appears to be performing some useful functions for the project--people are deriving useful information about the operation of the Health Project--it provides another means for the village staff to identify with the project and channel for them to air their problems. The presence of the radio program on the government radio station indicates, both to the public and the staff, that the project has some prestige and is important to the Government. Another indicator of the project's and program's importance is that the program is financed from the Regional Development Budget, and does not draw on project funds.

We would suggest that the staff follow the suggestion of the Chef du Poste and involve more villagers in the program. At the time of the evaluation, all speakers on the program had been from the central regional staff. Experience with other radio development projects, such as radio forums, suggests that involving villagers and village-level staff in the programs makes them more effective. This can be done quite cheaply by taking a small tape recorder on supervisory visits to the Huts and recording discussions with staff and their patients.

The radio program can be a significant and useful addition to the management of the project--but the senior staff must remember that it cannot substitute for other forms of support and regular supervisory visits to the Posts and Huts.

APPENDIX J

STRATEGY AND METHODS OF THE EVALUATION

STRATEGY AND METHODS OF THE EVALUATION

THE TIMETABLE

Prior to Leaving for Senegal

- Collected project papers, background materials from A.I.D. and State libraries, computer search of MEDLINE and CATLINE regarding basic health in Senegal, and materials from American Public Health Association library. Made copies to carry to Senegal.
- Met with Desk, Mission Director, Sahel Office, Africa Health and Evaluation, Bureau of Census personnel working on Senegal Joint Assessment, Development Support/Health, Population and Human Resources, Battelle Institute.
- Tried, unsuccessfully, to secure services of health professional an Missions and central bureaus.

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NOTE: Team d prior to departure, but planned for first few days in Senegal.

In Senegal

- Days 1-5
Read all project documents and related papers. With several members of the Mission and other evaluation teams saw Administrator's video-tape of talk to earlier workshop in Washington. Met with project, mission, and joint assessment staff. Developed scope of work for evaluation.
- Days 6-7
Scope of work discussed with Mission. Met with Canadian Embassy staff to discuss their basic health project in Gossas Department of Sine Saloum. Met with Ecole National d'Economie Appliquee (ENEA) to discuss collaboration regarding Health Beneficiary Survey. Rented two small cars for field work.
- Days 8-10
Team leader stayed in Dakar and met with persons from Ministries of Plan, Health, Promotion Humaine, Khombole Sanitation School, UNICEF, WHO. Other team members went to Kaolack to look at project sites, accompanied by translator from joint assessment team. Calls made on Governor, Prefects, Medecin Chefs du Region and Departments, Regional Promotion Humaine Staff, USAID project technician, and several Posts and Huts. Strategy for data collection developed. Assisted ENEA with the pre-test of their interview schedule.

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- Days 11-12
Team reassembled in Dakar, combined experiences and information and developed plans for further field visits. Drew up tentative lists of topics to be discussed and appropriate respondents for each topic. Several meetings with ENEA interviewers and survey supervisors to work on survey design and reformulating questionnaire (mainly precoding). One team member departs for Washington, D.C.
- Days 13-23
Team joined by the two PCVs assigned to the project. We formed two teams for site visits--coordinating results each evening.
- Days 24-27
First draft of report written and given to Mission.
- Day 28
Briefed mission about major findings and recommendations. Two team members depart.
- Days 29-30
Tied up loose ends. Collected report from ENAM. Pouched files to Washington, D.C. Last team member departed.

After Returning to Washington, D.C.

Weeks 1-4

Second draft circulated for comments. Developed graphics for report and briefings. Briefed Studies Division and participated in Impact Evaluation Workshop for departing teams.

Weeks 5-8

Third draft circulated for comment. Briefed Health Evaluation Working Group, Africa Bureau and two contractors leaving to work on project repair. Finalized work on graphics--secured additional photographs from USICA/Topic magazine.

NOTES ON OUR METHODS

Selection of the Project

The project was selected by Studies Division and the Health Evaluation Working Group because it met the following criteria:

1. It is to provide basic health services to rural people.
2. It "represents" West Africa in the sample of projects selected for evaluation.

3. It was begun after the basic needs legislation was enacted.
4. Based on information available in Washington, D.C., we thought that it had progressed sufficiently to allow us to observe some project impacts.
5. As the project was still being implemented it would enable us to look for intermediate indicators of long-term impact.

When in Senegal we discovered that the project did not meet criterion Number 4. We were not able to observe any significant long-term impacts of the project. We were, however, able to analyze several management and implementation problems and provide useful guidance for their solution.

The Workshop in Dakar

Most impact evaluation teams attend a three-day workshop at A.I.D./ Washington before they leave to visit their project. In order to respond quickly to the Mission's request to do the evaluation as soon as possible, we decided to assemble the team in Dakar and hold our workshop there. At the time this decision was made, we were expecting to be joined by a team member from a West African mission and we knew one team member was going to be in Dakar for two weeks prior to the start of the evaluation.

In order to make it possible for the team to hold the workshop in Dakar, two members of Studies Division were included on the team. These were the coordinator of the health impact evaluations and a research analyst who had been a PCV in Senegal. We also made multiple copies of all project documents and carried them in our luggage to Dakar. Finally, we took a video-tape recording of the talk which the Administrator gives to each Impact Evaluation Workshop.

During the first four days in Dakar, the team rented a hotel room as a meeting room (none being available at the Mission) and we held an informal workshop. The documents were studied and discussed at length. We drew charts and diagrams to help our understanding. Mission staff were consulted at length. We worked out preliminary lists of topics for the questionnaire and potential respondents. The video-tape of the Administrator was viewed and discussed with several mission staff and members of teams studying other projects for the joint Mission/GOS assessment of A.I.D. projects. We developed a scope of work for the evaluation and presented it to the Mission Director.

The disadvantages of holding the workshop out of Washington, D.C. are that it may be less structured, and not all the tasks will be completed. It can probably only be done when a Studies Division staff member is on the team.

The advantages are that the team is together as a unit and free from the distractions of meetings and regular work assignments in Washington, D.C. Several members of other impact evaluation teams, particularly consultants from outside of Washington, D.C. and those from overseas missions (including those from the country of the project) have missed the Washington, D.C. workshops and have had to be oriented after the team arrives in the country. This can be time consuming and redundant for the Washington, D.C. members and so is not always done adequately. A further advantage is that the team members can become familiar with the working conditions in the country during the workshops. Also, local mission and host government staff are available to provide first-hand information about the project and travel logistics, etc., which is invaluable for the preparation of the scope of work.

Relations with the Senegal Mission

The team came to Senegal earlier than originally planned at the specific request of the mission. This was done so that the results of the impact evaluation could be included in the joint assessment of four A.I.D. projects being done by the GOS and USAID. There were four other evaluation and project development teams in Senegal at the same time so mission support was limited. It was very willingly supplied wherever possible. The mission provided a typist, essential to the preparation of the draft report before the team left Dakar. They made initial contacts and introductions with appropriate officials in Dakar and Sine Saloum. They assisted with the renting of two cars and gave us gas coupons. They willingly met with teams and provided many background documents. Our interpreter was a regular staff member of the joint assessment team, but was loaned to us exclusively for our field visits.

This excellent support, together with the contingency fund (\$3500) of the team leader, allowed the team to do the evaluation in an independent fashion and with a minimum of bureaucratic involvement.

Relations with Local Institutions

Excellent liaison with appropriate GOS officials was provided by the mission and the PCVs working with the project. We found the GOS officials to be open and frank. They were not slow to criticize the project, A.I.D. or the GOS. They also pointed out the accomplishments of the project.

On a number of occasions it was suggested that someone from the Ministry of Health be included on the team. The team did not pursue it because we felt that the presence of a senior ministry official would make other project staff much more reluctant to discuss their opinions of the project. (Similar reasoning was behind our decision to ask that mission project staff not be included on the team.)

The team also worked closely with the ENEA staff and interviewers who were conducting the beneficiary survey. We assisted them with the pretest and precoding of their interview schedule and also discussed their sample design at some length. We were asked to participate in the training of their interviewers but were not able to because of time constraints imposed by our own scope of work. The results of the beneficiary survey are summarized in Appendix L.

Site Visits and Data Collection

1. Organization of the Team

During visits to the sites we stayed in the regional center, Kaolack, which is only two hours from the most distant project site. During the fieldwork the three team members from Washington, D.C. were joined by an interpreter from the mission and two PCVs, who were assigned to the project in Nioro Department. The PCVs had just completed their own survey of the Huts in Nioro so they were able to provide us with detailed information about the status of each Hut and its staff.

The team split into two groups for site visits. The first team comprised the team leader, research analyst, and the PCV fluent in Wolof. The second, the behavioral science advisor, the interpreter and the second PCV. We would depart to different sites each morning and compare notes in the evening.

2. Data Collection Forms

We used a flexible data collection instrument which was a list of topics to be discussed with appropriate people at each site, and forms used to enter information from the Health Hut records and to inventory the drug stock. It was changed several times during our field visits. Each evening we would draw up the forms for the following day (using carbon paper to make multiple copies) so that each team collected a common set of data.

Each evening the team would check over the forms for the day and calculate the balance sheet for each Hut.

3. Selection of Project Sites

The initial sites were selected randomly (by drawing numbers from a hat). After two days of fieldwork the main focus of our investigation changed from a beneficiary impact survey to a financial analysis of the records of each Hut. Because we were concerned about the financial viability of the Huts, we asked the PCV's where the most successful Posts and Huts were located and purposely selected these two Posts and their adjacent Huts. We felt that these Huts had the highest probability of being financially viable. Our results show that they are not, so we feel it is unlikely that any Huts in the system are viable at present.

Report Writing

The first draft and maps of the Huts in Niore were prepared in Dakar by the three team members from Washington, D.C. We worked from a detailed outline with each team member taking responsibility for drafting specific sections after a full discussion. The draft was reviewed by the PCVs before it was presented to the mission. Our drafts were typed immediately and were presented to the mission with a minimum of editing. Useful mission comments were received during this briefing.

The second and third drafts were completed in Washington, D.C. where they received wide circulation. Many people contributed suggestions. Maps, charts, and photographs were also added at this stage.

APPENDIX K

PEOPLE INTERVIEWED

PEOPLE INTERVIEWED

In Washington, Prior to Departure

David Shear, Mission Director, Senegal
Frances Johnson, Desk Officer, Senegal
Steve Josephs, DAA/DS/HRD
Jim Kelly, AFR/SFWA
Judy Gilmore, Team Leader, Morocco Impact Evaluation
Melvyn C. Thorne, Member, Morocco Health Impact Evaluation Team
Henry Miles, Evaluation Officer, Africa Bureau
Frank Dimond, Evaluation Officer, Africa Bureau
Jan Ennis, Survey Specialist, Bureau of Census
Len Robinson, Battelle Memorial Institute
Larry Heilman, Africa/DR
Tom Georges, Africa/DR/HN
Chuck Dubose, Africa/DR/HN

In Dakar, Senegal

American Embassy

Ambassador Herman Cohen

USAID Mission

David Shear, Director
Melvin McCaw, Deputy Director
Sam Rea, Program Officer
Don Brown, Economist, Coordinator, GOS/USAID Joint Assessment
Claude Salem, Joint Assessment Team
Linda Worthington, Joint Assessment Team
Mamadou Ndaw, Joint Assessment Team
Dr. Marc Vincent, Health Division
Christine Lyon, Sine Saloum Project
Ray King, Controller
Linda Neuhauser, USAID/Nouakchott

Peace Corps

Jack Schafer, Director

Ministry of Health

Mamadou Lo, First Technical Counsellor
Saliou Dembe Gacou, Chief of Training Division

Ministry of Planning

Farba Diouf, Cooperation Division

Promotion Humaine

Douda Diouf , Education Director

UNICEF

Bashige Bashizi, Program Administrator

WHO

Dr. Ralonaro, Technical Counsellor

Canadian Embassy

Mr. Ferguson, Consular Officer, CIDA Affairs

Ecole Nationale d'Economie Applications (ENEA)

Tijane Sy, Principal
Mrs. Diouf, Supervisor, Beneficiary Survey
Jacques Mercoyey, Beneficiary Survey Supervisor
Salem Baw, Beneficiary Survey Supervisor

Ecole Nationale D'Administration et Magistrature (ENAM)

Sidate Diouf, Graduate Student (Author of Study on Sine Saloum Health Project)

In Sine Saloum Region

In Kaolak

Moustapha Kane, Gouvenor of Sine Saloum
Dr. Ismaila Kane, Regional Chief of Medicine

Project Supervisory Team

Sangone Mboup, Health Technician
Djariatou Diop, Health Technician
Abdou Karim Thiam, Nurse

USAID Project Technician

Issatou Niang

Promotion Humaine

Mr. Camara, Regional Inspector
Mr. Ndour, Literacy Director

Regional Pharmacy

Mr. Barro, Director
Mr. Seck, Assistant Director

In Nioro

Seyni Male, Prefect, Nioro
Mr. Toure, Acting Sub-Prefect, Medina Sabakh
Mr. Diouf, Acting Sub-Prefect, Wack Ngouna
Abdoulaye Sy, Department Chief of Medicine
Chekiane Wade, Health Post Chief, Medina Sabakh
Ibrahim Camara, Health Post Chief, Kaymore
Mr. Badji, Health Post Chief, Ndrame Escale
Mr. Fall, Health Post Chief, Taiba Niassen

Jim Herrington, Peace Corps Volunteer
Brian Fitzgibbon, Peace Corps Volunteer

APPENDIX L

SUMMARY OF RESULTS OF BENEFICIARY SURVEY CONDUCTED BY
ECOLE NATIONALE D'ECONOMIE APPLIQUEE

Note: This summary became available after the report had been written. It is not discussed in the main report, but is presented as it contains additional useful information.

Source: USAID/Ministry of Planning and Cooperation, Joint Assessment of U.S. Assistance Programs in Senegal, Annex, p. 3.3.1-8, July 1980.

Summary of Findings from the Basic Health Project Beneficiary Survey in Kaolack and Nioro Departments. May 27, 1980

I. Beneficiary Profile

The Basic Health Care Project involves the whole population in Kaolack and Nioro Departments. However, as Health Huts are only established in villages selected for their polarizing effect on neighboring villages, it might be thought that people in villages with Huts benefit more from this new service. The survey confirms this hypothesis.

Health Huts were expected to deliver basic care to all segments of the population and in addition, provide assistance, a place for delivery and pre- and post-natal care to women. But the survey shows that there was low attendance by women (especially with respect to deliveries) though they are often responsible for taking their children to the Health Hut.

The survey also sought to analyze possible differences in behavior between those people involved in project activities and beneficiaries, and, between different age groups of beneficiaries. The evaluation showed a high attendance of the Hut by a sizable group of project workers; and an often low use of Hut services by young people.

The surveyed population is as follows:

Total:	460 people in Kaolack and Nioro	
People living in villages with huts		236
People living in polarized villages		224 (total: 460)
Men		281
Women		179 (total: 460)
Project workers		88
Other people		372 (total: 460)
Young people		117
Adults		249
Aged		94 (total: 460)

II. Use of Goods and Services

1. Knowledge of Village Health Workers, Management Committee Members and their Role

a. Over half of surveyed people know who the Village Health Workers are, especially the first-aid worker whose task is of most immediate need. Among people surveyed in villages with Huts, and mostly among men, workers involved with the project know VHWs better than other groups do.

b. Although management committee members are less known than VHWs especially in Nioro where less than 1/3 of surveyed people acknowledged knowing them (less than 50 percent of surveyed people in Kaolack do), the

committee chairman and treasurer are the best known of all three members; the deputy treasurer is not well known.

Groups who are well informed on the management committee members are the same ones who know who VHWs are. In polarized villages, women and those not involved with project activities hardly know who the management committee members are. (Over 70 percent of women surveyed in Kaolack and 70 percent of people surveyed in polarized villages.) All groups in the Kaolack area know VHWs and committee members better than in Nioro Department; this is probably because discussions held before project implementation are more recent and Hut attendance is higher.

c. The role of people involved with project activities is better known in Kaolack than in Nioro. The first-aid worker's role is best known: 50 percent of the Nioro sample and 61 percent of the total sample surveyed.

People are not very well informed about what the management committee members' roles are: in Kaolack 39 percent at most (16 percent in Nioro) know what the Chairman's role is. The most informed people come from villages with Health Huts, men especially, are involved in project activities; in polarized villages, the least informed regarding the management committee members' roles are women and young people, and in Nioro, adults and older people as well. The high percentage of people who do not know anyone involved with project activities (and are not informed about their role) results from a lack of information, or even a lack of interest which affects attendance and use of Health Hut services.

2. Health Hut Attendance and Use of Goods and Services

a. In both Departments, most people surveyed (65 percent) said they had not gone to the Hut for the last three months. This attendance rate is noticeably higher in Nioro where the Health Project has already been functioning for a longer period.

Whereas in villages with Health Huts few people involved with the project said they had not been to the Hut, in polarized villages, the largest number of people who said they had made use of the Hut included women, young people, and those involved with project activities (Kaolack) as well as aged people (Nioro).

At the most, 34 percent of the survey sample said they had been given care at the Hut over the last three months. Attendance in Nioro is fairly homogeneous in terms of groups, though differences between villages with Huts and polarized villages, men/women, young people/aged people, are still apparent. Attendance is less homogeneous in Kaolack: in polarized villages, less idle women and young men have been more often to the Hut than other groups. In both Departments, the family members of respondents go more to the Health Hut: 54 percent in Kaolack and 43 percent in Nioro.

One reason for this higher attendance is due to child care. Variations in categories are similar.

In comparison to other care delivery sources, the Health Hut ranks first for 61 percent of people surveyed in Kaolack, whereas in Nioro (21 percent), it ranks third after the Health Post and dispensary. This difference is due to a very high rate of consultations considered as hard to support in Nioro, whereas in Kaolack such consultations are considered as necessary; besides, as the project is more recent in Kaolack, prior information has made larger acceptance of this formula possible.

This difference is more marked with respect to drug supply: in Kaolack, Health Hut ranks first for 72 percent of surveyed people whereas it ranks third after the dispensary in Nioro (certainly after smuggled drugs from the Gambia with their well-organized and very spread-out networks).

In both Departments, malaria is the most cited illness, for which people have sought care at the Health Hut, followed by stomach problems, diarrhea and infections. There have been very few pre- and post-natal consultations, or child surveillance. This is the reason why nivaquine and aspirin are the first cited drugs. However, 19 percent of people surveyed in Nioro expect to get other medicines from the Hut than those usually distributed there. Few surveyed people report a shortage of drugs at the Hut: 13 percent said that the Huts were mostly running out of nivaquine, aspirin and aureomycine 1 percent (eye ointment).

In both Departments, deliveries (for about 3/4 of surveyed people) are performed at home with the help of a traditional midwife related to the family. Very few births take place at the Health Hut: this is mentioned by 5 percent of surveyed people. In case any problems arise, they go to the dispensary or to the Health Post.

The sanitarian has negligible impact on people: 76 percent of people surveyed in Nioro and 51 percent in Kaolack said they did not get advice from him or did not respond at all. One quarter of people surveyed in Nioro cited an action they performed upon the sanitarian's advice: none cited two or three actions, whereas in Kaolack 35 percent cited three and 13 percent cited one or two. People in polarized villages, women, people not involved with the project and young people, cited less actions performed upon the sanitarian's advice.

In both Kaolack and Nioro, the radio program has negligible impact: 70 percent of surveyed people said they could not recall the last program and 66 percent could not recall its topic. The largest affirmative group consists of young people in Nioro and men in Kaolack.

III. Project Support Beneficiary Involvement in Project Design

In both Departments, the project tasks were not subjects of discussion between the people and project officials: 1/3 of people surveyed in Kaolack had discussed these tasks; questions related to the organization and management of Huts were not discussed prior to project implementation, especially in Nioro (only 18 percent affirmative responses) and fewer people from polarized villages and women referred to such discussions.

Most people did not know how VHWs were selected: 13 percent in Nioro and 3 percent in Kaolack mentioned this was discussed prior to implementation.

This situation is due to the fact that only part of the population was informed about the project, and that in Nioro, information diffusion was carried out by village council members, (30 percent and 31 percent) whereas in Kaolack it was conducted by Animation and Health (33 percent and 25 percent). The regional radio station played no role in informing people prior to project implementation.

These findings show that Health Huts were established by outsiders, this includes people vested with project responsibilities, village chiefs, or individuals from villages with established Health Huts. Other groups have not been well informed about the Health project and thus were not much involved in its design. This is the reason for corresponding variations in Hut attendance and in use of goods and services by groups that were less involved in project design, and especially in the selection of VHWs or the Hut's organization and management.

Beneficiary Involvement in Carrying out the Project

Despite limited information and discussions prior to project implementation, especially in Nioro, respondents knew that villages contributed to selection of VHWs. Thus, it was their view that even though they were not well informed and did not discuss this project extensively, their villages (therefore other people) contributed to project establishment (that is, they carried out tasks) upon the project officials' requests. In Nioro, a small group (less than 1/3) mentioned village participation in organizing management committees.

Except for people from villages with Huts, men, and those people who are involved with project activities, most people did not know whether the rural council member took part in project establishment, or stated that he was not involved (especially people in polarized villages and, even more so, women, in Kaolack.)

Most people surveyed in both Departments thought that, unlike others, village chiefs were largely involved (except in polarized villages in Nioro, where only 20 percent thought they took a big part).

If project establishment was undertaken by more or less well-informed villagers, this was not the case with Hut management, especially the disbursement of money to the first-aid worker: 72 percent of people surveyed in both Departments said they did not know how this money was divided; this is true of less-informed groups, especially 96 percent of the women in the Kaolack sample. This lack of knowledge may be partly due to recriminations for drug prices.

Half of the people surveyed in Nioro stated that the Hut was never repaired or maintained. The remaining group said they did not know, and a reduced fraction stated that it has been maintained in the last three months of the year.

The VHW's payment system with receipts from drug sales is appropriate for 61 percent of people surveyed in Kaolack. Among these, 19 percent preferred group work and 8 percent contributions in kind in order to lower drug prices. In Nioro, most people did not respond. Those who sided with one idea or another, preferred group work (23 percent).

This situation is probably due to a lack of knowledge of the management system in operation and made more critical by black market medicines as by the difficulty encountered for several years in a row, to retain part of the family budget for health purposes despite the obvious advantages of this formula "proximity and rapid care."

In Kaolack, the failure of collective fields and the difficulties encountered during preceding rainy seasons (hivernage) has led the people interviewed to express a preference for the present set-up.

IV. Institutionalization

1. Few of the people surveyed were able to cite traditional organizations that took part in the activities of the Hut. This is perhaps a shortcoming of the project, which could explain some of its difficulties particularly since in Gossas, villages have been able, thanks to their traditional organizations, to pay the salaries of VHWs on a regular basis.

2. As for the ability of villages to take on this cost, once all external help ceases, respondents in Kaolack showed more optimism (40 percent) than those in Nioro (13 percent). However, 43 percent in Kaolack and 57 percent in Nioro gave a negative response to this possibility. This attitude can be interpreted to mean that a lack of know-how and a lack of information can explain the relatively low participation of the beneficiaries in the management of the system. (Note that in Nioro, 76 percent of those holding any position have answered negatively.)

V. Improvements

In comparison to the situation before construction of the Health Hut.

1) A little more than 1/4 of those questioned said that there has been no change.

2) Fifty-eight percent in Kaolack and forty percent in Nioro answered that there has been an improvement.

3) Fourteen percent in Kaolack and thirty-one percent in Nioro did not give any opinion or just failed to answer.

These results are encouraging since a majority replied that there has been an improvement but also somewhat troublesome if one considers the pessimism of those questioned about the capability of villages to completely assume the functioning of the project at a later date. What will remain if at this stage of the project, the great majority has not yet been motivated enough to insure the success of the Health Huts?

VI. Development, Integration

1) While in Nioro the great majority of those questioned mentioned only one medicine they would like to see distributed at the Hut; in Kaolack the majority mentions two or three medicines (antitetanic and antivenomous serums, alcohol, rheumatic balm, "huile gomenilee", nivaquine syrup).

This difference can be explained at the same time by a more marked interest in Kaolack for the Hut built only recently which reduces travel time, and also by the "black market" in medicines that exists in Nioro.

2) Whereas in Kaolack the majority questioned have no proposal to offer (48 percent), it is proposed in Nioro to change the architecture of the Hut (39 percent); the majority proposes changes in the structure and modalities of the system; operation and maintenance of Hut (33 percent), choice of VHW (25 percent) and their salaries (15 percent).

Therefore, it is with experience and by taking into account a smaller information base, that those questioned in Nioro are proposing to reformulate the system to insure that VHWs receive their salaries on a regular basis (which will not be borne by the beneficiaries), a lowering of medicine prices, the choice of older and more experienced midwives, and the training of beneficiaries in the project.

Proposals at Kaolack deal with changes in the Hut; it should have more rooms, should be built with cement, the women's room should be in a discrete spot; some mentioned the need for more training of the beneficiaries and a smaller range of medical supplies.

If in Kaolack there was no proposal for VHW salaries, the price of medicines was nevertheless judged too high.

VII. Future Recommendations

1. Beneficiary Proposals

a. It is in Nioro that proposed changes are most important. Those questioned proposed to modify the system of VHW salary payment by diversifying the care given, by associating the operations of the Health Hut to a production program in order to lower medicine costs and increase usage.

b. Those questioned in Kaolack want the same changes without proposing the means of achieving them, the present system is best for the time being.

c. Those questioned in Kaolack insist mainly on architectural changes and on the Hut plan: more rooms, cement construction, separate location for women's consultation room. As in Nioro they propose to increase the range of medical care given. The VHWs wish also to have adequate facilities to house and feed their patients.

d. In both cases, mainly in Nioro, those questioned wish better information for all groups, in order to bring about beneficiary participation, and an actual take-over of the project.

2. ENEA Proposal

Undertake (or pursue) a wide information campaign of populations, mainly of those groups that seem likely to be last reached.

For that purpose make available to the organizations involved audio-visual means in good working conditions, and adapted to different publics, and set up permanent information systems for villages.

Initiate or continue the training of beneficiaries, through surveys and collective discussions during which the ways and means of an actual take-over of the project by the villagers would be sought. This is a determining factor for a sustained development process, which has been neglected so far in the field.

Seek to create a management and control system among villages, in order for certain villages and groups not to think that the Hut only concerns the village in which it has been built or certain groups only.

Attempt to tie the health program to productive actions, a part of the surplus would allow to pay the salary of the VHWs. Health is a service that villagers cannot totally finance with their resources.

Diversify actual health care and consider the upgrading of the skills of VHWs to widen the range of proposed care. Enhance the value of traditional medicine by setting up a garden next to the Hut.

Increase the means at the disposal of the hygieniste (information/diffusion) in order to differentiate him from the secouriste. Let his program become the business of the village committee. The contribution of the hygieniste would be in the implementation phase.

Tighten the control of VHVs to avoid excesses made by some of them (rendering care for which they have not been trained).

Consider giving the midwives a complete gear-kit that they can take home; the building in a separate and discrete spot for a well-equipped room for women. Consider also the training of midwives with more experience (therefore older).

APPENDIX M

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APPENDIX N

PHOTOGRAPHS OF THE PROJECT

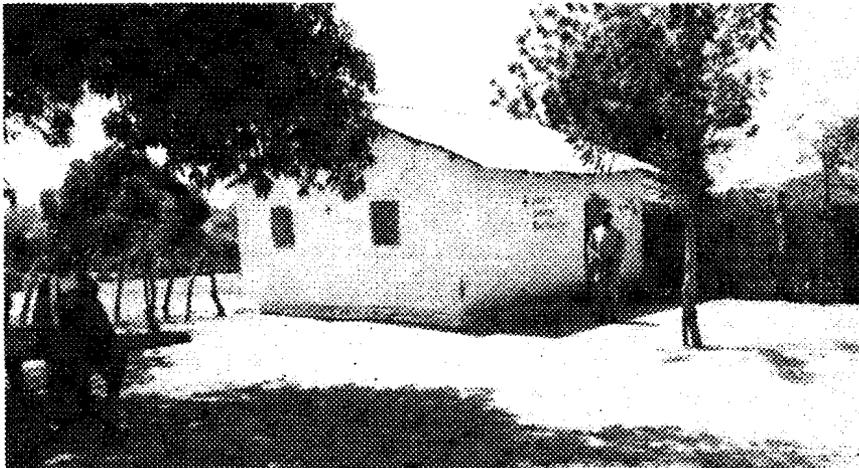
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Appendix N – 1 Photographs

Medicine in the Huts



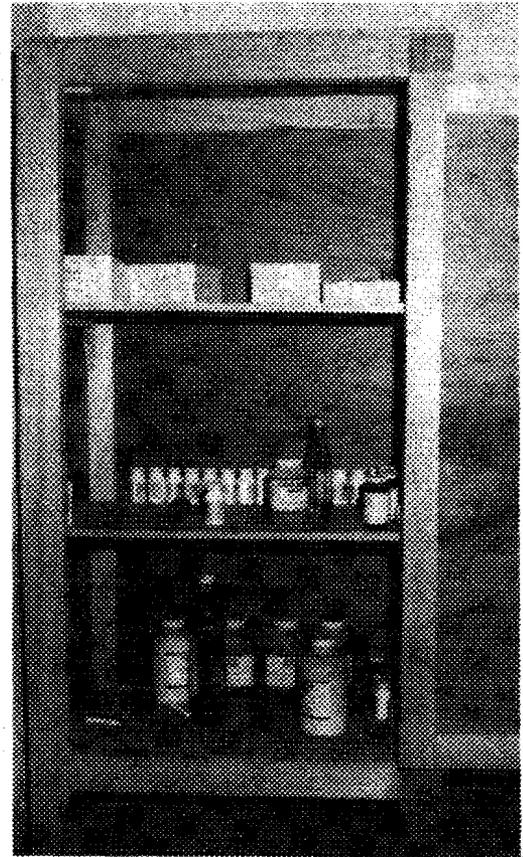
Sine Saloum landscape, with Baobab trees and horse and buggy, a common form of transport in this flat sandy area.



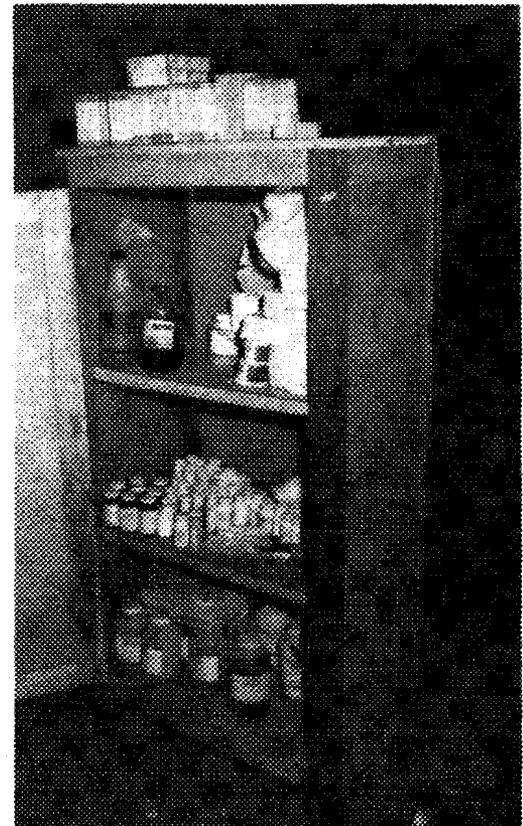
The "typical" Health Hut in Nioro Department. Its mud walls are plastered with cement and painted. It has a cement floor and corrugated iron roof.



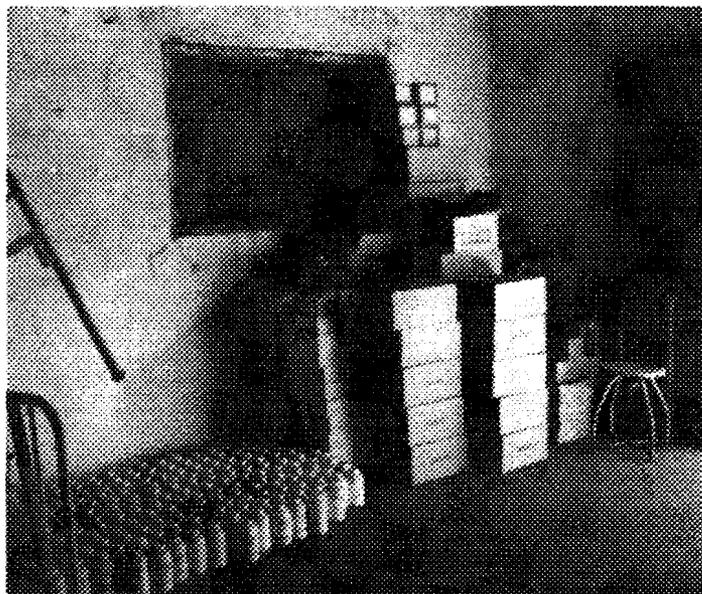
Secouriste and Matronne in front of their Health Hut in Kaolack Department. Notice the Secouriste's white "Doctor's" coat.



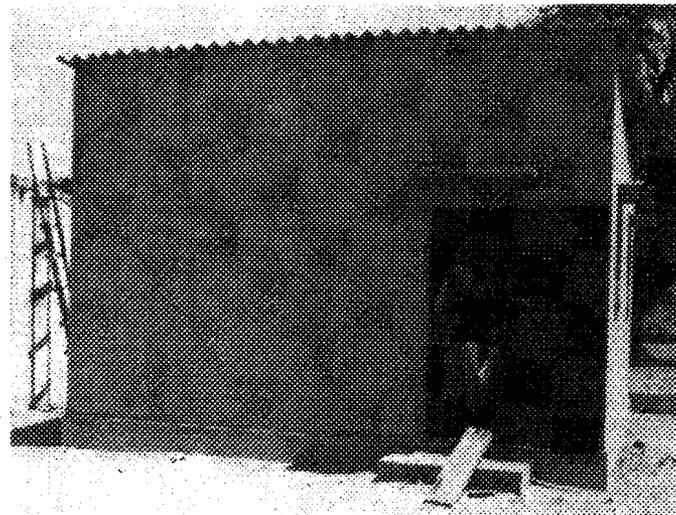
Stocks depleted at a Hut which had been open for nine months. (Nioro Department.)



Stocks at a Hut which had been open for three months. (Kaolack Department.)



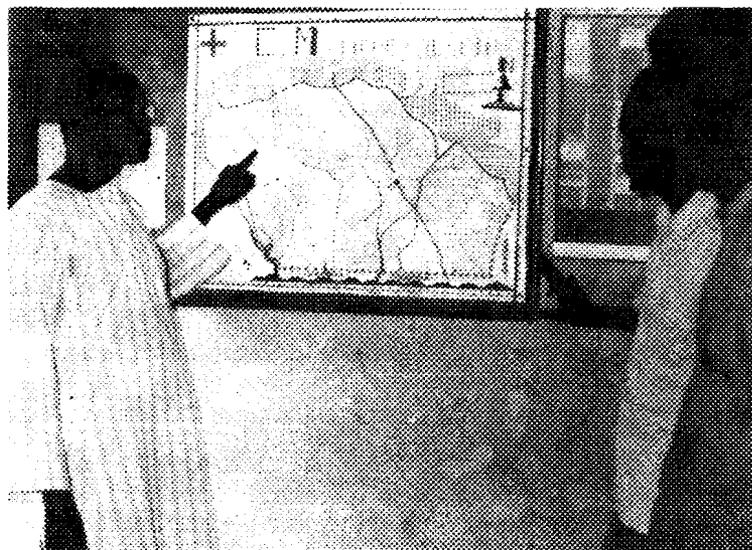
A.I.D. medicine stocks at the Health Center in Nioro.



Evaluation team member inspecting Communaute Rurale drug depot at a Health Post in Kaolack Department. Note complete concrete construction, steel doors, asbestos roof, and large size for a relatively small quantity of drugs.



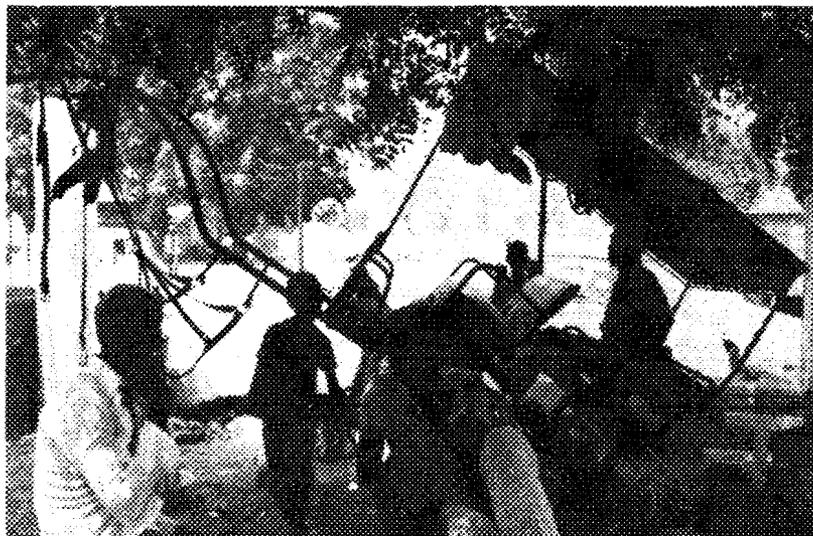
People awaiting care at the health center in Nioro du Rip.



Medecin Chef de Nioro discussing organization of project with evaluation team. Map shows location of Communautes Rurales, Health Posts and Huts.



The horse and buggy for the A.I.D. project. Chef de Poste is supervising Health Hut staff. This was the only time we saw one in use. Note heavy construction of buggy and compare with simple design in the first photograph.

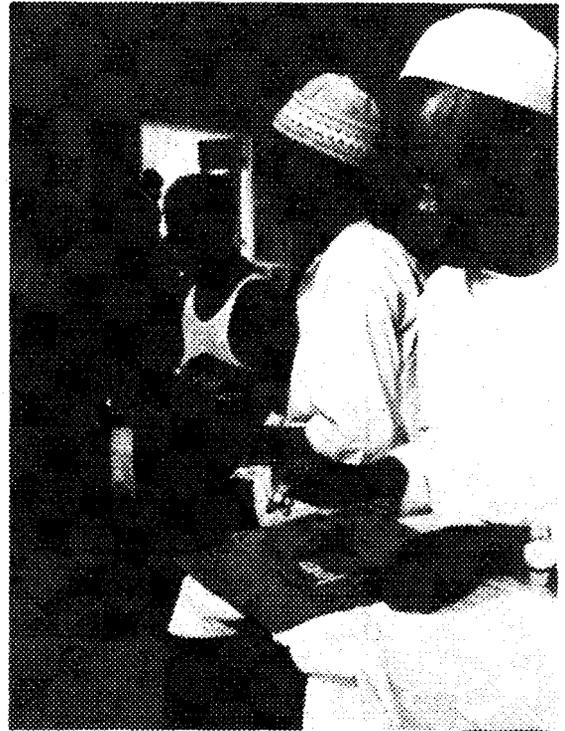


Buggy "in storage" at Health Post in Nioro Department.



A Health post - renovated by A.I.D.

(Photo by Topic Magazine)



(Topic Magazine)

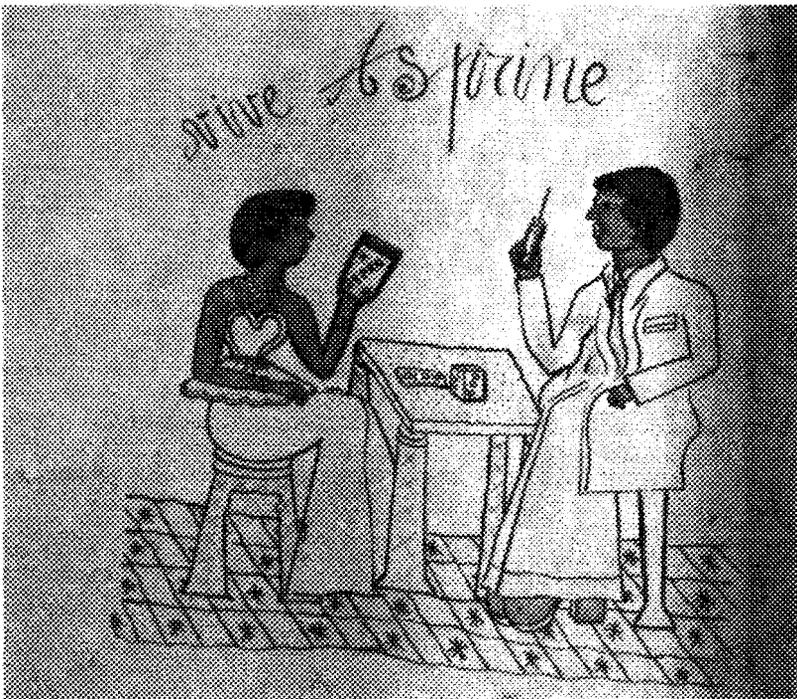
A literacy class for Management Committee members and Hut staff.



(Topic Magazine)

A village Chief and President of a village Management Committee.

"Long Live Aspirin"



Folk perception of health care in Sine Saloum. The Secouriste has a hypodermic needle for injections. The Matronne has a bottle of Aspirin.



The evaluation team with a Chef de Poste.



(Topic Magazine)

Appropriate technology lacking appropriate control and direction - a commentary on the condition of this project.

SPECIAL STUDIES

- No. 1: The Socio-Economic Context of Fuelwood Use in Small
Rural Communities (August 1980)
- No. 2: Water Supply and Diarrhea: Guatemala Revisited
(August 1980)

PROGRAM DESIGN AND EVALUATION METHODS

Manager's Guide to Data Collection (November 1979)

