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EVALUATION OF MAJOR PROGRAMS
OF TECHNICAL AND FINANCIAL COOPERATION IN
HEALTH OF USAID TO THE GOVERNMENT OF HAITI

MISSION REPORT
DECEMBER, 1986

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INTRODUCTION

Recent political events in Haiti have raised the hopes of the people that their standards of living will improve, and they expect the new Government to provide, among others, the essential health services. In response, the Government has given priority to health and education, and intends to progressively invest its own resources, as well as those provided by the international community of social and economic development agencies.

The analysis and revision of the major health problems, policies, and programs of Haiti are a logical first step toward the overall goal of improving the health status of the people. Accordingly, USAID decided that, on the basis of its own health project portfolio, an evaluation of the progress and achievement to date should be performed. As a result, criteria can be established to appraise the feasibility of the Mission's FYs 1987-88 Action Plan goals, targets, and benchmarks. If justified, suggestions to reorient the health sector program should be made.

An evaluation team was appointed to implement these objectives. It was composed of a public health administrator, a specialist in population and family planning, and one in health economics. The members were in Haiti between 18 May and 19 June.

More specifically, the evaluation team was asked to examine the profile, experience, and achievements of seven institutions:

- a) Service National des Endemies Majeurs (SNEM);
- b) Division d'Hygiène Familiale et de Nutrition (DHFN)
- c) Agence d'Approvisionnement des Pharmacies Communautaires (AGAPCO);
- d) Centre Médico-Social de la Cité Soleil (CMSCS);
- e) Association des Oeuvres Privées de Santé (AOPS);
- f) Centre Haitiano-Arabe (CHA);
- g) Institut Haitien pour la Santé de l'Enfant.

Besides evaluating these seven institutions, we were asked to review several specific programs related to the Child Survival Policy: Oral Rehydration Therapy (ORT), the Expanded Program of Immunization (EPI), and Rural Health Development Services (RHDS). We also examined the Food for Development Program (P.L. 480 Title III), Health Sector. We have included a proposal for a comprehensive nutrition program to be developed in Haiti. As a framework for all these reviews, we describe the Haitian health care system in perspective.

The scope of work, which we may consider the terms of reference for the team, is included in Annex 1. A series of 23 issues are distributed under five major headings: Institution Development, Privatization, Public-Private Sector Collaboration, Program Issues, and Program Planning. We have tried to address all the issues, taking into consideration that some overlap, and that for others valid information is lacking.

Methodology of Evaluation

Our evaluation is perforce retrospective, in view of the nature of its major objectives. In examining the targets of the 1987-88 Action Plan, the team was also asked to do an analytical exercise, and not a prospective study.

We were asked to pay particular attention to the recommendations of the latest evaluation reports on each of the institutions assigned to us. In fact, we looked at, jointly with Government officials, the suggestions that have been implemented, and to what extent and why others have not yet been carried out. In some cases, we disagree with the original recommendation in view of the present situation, and suggest a different or new course of action.

We have read many documents, listed as references at the end of each chapter. Our purpose was to understand the characteristics of each problem; the rationale of the policies of the Government, USAID, and international organizations; the inputs, outputs, and constraints of every institution; and the plans for the future.

Two programs recently started are Mobilizing Mothers for Child Survival, sponsored by the Haitian Arab Center, and the Haitian Institute for Child's Health. In fact, the proposal regarding the former was presented to USAID only in June 1985.¹ We strongly support the basic strategy, namely, to improve the survival of children at risk by offering interventions targeted to their mothers. We also agree with the series of approaches described to attain this goal.

The Haitian Institute for Child's Health is a dependent of the Executive Directorate of AOPS. As a research institution, it has a very important role to play, provided that the studies developed are related to the major health problems affecting children in Haiti.

Regarding both programs, there was not enough information to make a comprehensive analysis of their objectives, outputs, and constraints. Still, we hope that they will be effectively developed.

The terms of reference contain a series of economic issues. It was difficult to obtain information on amounts budgeted and spent per year in every institution, in order to express our views on trends and future financing. Data were sometimes not available.

In view of the lack of current data, we could not always consider in depth all the questions related to the recurrent costs, cost-effectiveness, sustainability, and replicability of services. Still, we examine them in the report.

Because of the social unrest while we were in Haiti, we could not visit health services, public or private, outside Port-au-Prince. We regret this, because we did not have the opportunity to observe programs in operation and, more importantly, to obtain from the officials their views about results, constraints, and the foreseeable future.

His Excellency the Minister of Health, the Director-General, Heads of Divisions, Directors of Regions and of some Districts, the Director of SNEM, and other staff provided us with valuable information related to specific issues contained in the terms of reference. We also obtained very useful returns from the authorities of the institutions we examined. The international community was also most cooperative. In USAID, Dr. White and his staff helped us to clarify and interpret the terms of reference, the projects and their outcomes, and our approach to the extension of some of them. We want to single out Dr. Amedée-Gedeon, who was very understanding and helpful and, who, for all purposes, acted as a member of our team.

Annex 3 shows the list of persons interviewed in Haiti. We want to express our deep sense of gratitude to all of them.

We feel honored by the assignment entrusted to us by USAID. It gave us the opportunity to examine a series of health programs that deal with priority problems in Haiti, sponsored by the Government and USAID. While we agree with the approach of most of them, and praise the efforts of all, we offer some suggestions to strengthen or expand outputs and, presumably, outcomes. This mission has enriched our knowledge and experience about a society which we have always believed deserves a better fate. For this we are grateful.

References: Introduction

1. Haitian Arab Center. Mobilizing Mothers for Child Survival. Submitted to USAID, Haiti. Port-au-Prince, 1985.

II. EXECUTIVE SUMMARY

The purpose of this evaluation is to review the entire USAID health project portfolio in Haiti and assess its progress to date. As a result, criteria can be established to appraise the feasibility of objectives, targets, and benchmarks included in the Mission's FY 1987-88 Action Plan. If justified, suggestions to reorient the health program should be made.

The focus of the evaluation should be on seven major institutions--particularly their profiles, experience, and achievements.

They are the following:

- a) Service National des Endemies Majeurs (SNEM), Malaria
- b) Division d'Hygiène Familiale et de Nutrition (DHFN);
- c) Agence d'Approvisionnement des Pharmacies Communautaires (AGAPCO);
- d) Centre Médico-Social de la Cité Soleil (CMSCS);
- e) Association des Oeuvres Privées de Santé (AOPS);
- f) Centre Haitiano-Arabe (CHA);
- g) Institut Haitien pour la Santé de l'Enfant.

Besides examining these seven institutions, we reviewed a series of specific programs that are fundamental for implementing the policy of Child Survival in Haiti that is basic to USAID health contributions. We refer to Oral Rehydration Therapy (ORT); Immunizations (EPI); the Rural Health Development Services Project (RHDS); and Food for Development (P.L. 480 Title III), Health Sector. We also include a proposal on Nutrition.

The Statement of Work (Annex I) contains a series of economic issues related to institutional development, privatization, and public-private sector collaboration. Insufficient information, and at times the lack of it, have not allowed the examination in depth of these issues that we would have liked to make.

We summarize major findings and recommendations related to the institutions and specific programs mentioned.

Malaria in Haiti remains at a level of high endemicity, with an estimated prevalence of approximately 300,000 cases per year, and no less than 3,000 deaths per year, affecting mainly children and pregnant mothers. We strongly support the policy of reducing mortality by the early treatment of fever cases through the network of voluntary collaborators. Their numbers should be increased up to 18,000, with emphasis in areas of the country with high rates of transmission of the disease.

This policy should be coupled with studies on the dynamics of malaria and a series of measures of vector biological control to be applied in different homogeneous areas, resulting from a process of operational stratification.

No regular intradomiciliary spraying will be performed. Our evaluation team strongly recommends the use of fenitrothion, malathion, and other insecticides such as carbamates, according to the characteristics of the vector, to interrupt transmission and thus control malaria. A detailed plan of operations should be prepared and external financing ensured for its total implementation.

Following WHO recommendations, the present trend in malaria control is to integrate specific activities into all levels of the national health system. SNEM should determine to what extent this policy is feasible in Haiti. In any event, its success will depend on an effective operational stratification of the malarious areas, a permanent surveillance system, and the regular monitoring of processes and evaluation of outcomes, the latter in terms of morbidity and mortality.

From the results of 1977 and 1983 surveys it has been established that the Haitian population knows about family planning and wants to use a contraceptive method. Yet the total number of acceptors has declined in recent years. Operations research to identify the underlying causes of low service utilization is highly advisable, and should provide basic information to strengthen the ongoing activities for family planning. More important, its data should be used to prepare a detailed five-year plan, including goals and specific objectives linked to the available human, material, and financial resources, and an effective monitoring of processes and evaluation of outcomes.

The long-term plan is the basic recommendation of our evaluation team. It will require sustained assistance from USAID, and other donor agencies, in both the preparation and implementation phases, including efficient management and logistical systems.

The timing is right for such a major effort, because the Government of Haiti has created the National Council of Population (CONAPO) and a technical arm, at the central level, to implement the national population policy.

The creation and development of the Agence d'Approvisionnement des Pharmacies Communautaires (AGAPCO) makes possible the satisfaction of a basic need, namely, the provision of essential drugs at a cost that is affordable to the rural poor. As an activity of primary health care, this is contained in the Declaration of Alma Ata in 1978, approved by practically all the governments of the world.

The rationale is sound, the implementation is complex. AGAPCO is a component of the Rural Health Delivery Services Project (RHDS), one of the most successful joint undertakings of the MSPP and USAID. In the short span of four years, 200 rural pharmacies have been installed, equipped, and staffed.

This network, as expected, has faced problems of organization, management, logistics, supplies, and financing that prompted the decision to consolidate the advances until now. No new pharmacies have been established. Furthermore, an evaluation of AGAPCO focused on its capacity of becoming self-supporting through increasing sales, the agency having been able to finance only 36% of total expenditures through revenues. Some may feel that, after four years of actual operations, this is a very encouraging rate.

Given that the provision of basic generic drugs to the rural poor is an essential activity of primary health care, our evaluation team strongly recommends that the network be sustained and expanded. To attain these objectives, we have put together a series of measures to increase sales and thus revenues, and we propose that the most cost-effective be selected through operational research. Furthermore, we suggest that the Government give serious consideration to subsidizing the network of pharmacies over and above revenues, with the technical and financial cooperation of USAID or other contributors, or both. We recommend, since both alternatives are interrelated, that both be implemented on the basis of careful monitoring and supervision of the system.

The Social Medical Complex of Cité Soleil (CMSCS) has an original approach for Haiti and many other poor urban communities in the Americas. Its focus is multi-sectoral and multidisciplinary, based on the assumption that health cannot by itself progressively reduce the ravages of poverty. As a sector of development, health must act in concert with other sectors that contribute to reduce morbidity, mortality, and illiteracy, improve the nutritional status of the people, increase annual per capita income, and promote well-being.

In Cité Soleil, health, including nutrition, is associated with education, both remedial and vocational, and with labor to reduce unemployment and increase family income. Trainees are actually placed in positions within and outside of the city. As stated in the evaluation report, "Cité Soleil is on track with the large majority of its contractual commitments. It has achieved its targeted coverage and, at the same time, it is showing steady gains in the number and quality of its preventive and curative services."

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The major constraints facing CMSCS are in the areas of management, financial control, and, particularly, funding. Despite sustained and successful efforts to increase internal revenues by means of patient fees, sales of products, and other approaches, these are still very far below actual expenditures on health services. Because this is a valid undertaking, we strongly recommend that external assistance, including from USAID, be continued for at least the medium term, until improvements in its use of available resources and increases in its revenues make CMSCS self-supporting.

Our team believes that the same inter-sectoral approach to promote health and socioeconomic development can be applied to similar poverty-stricken urban areas of Haiti, and that it will also be useful to rural development programs. In its efforts to expand health coverage, the Government should give careful consideration to the CMSCS model, including adequate financing.

Historically, the health programs sponsored by NGOs in Haiti, at present more than 200, have had a major emphasis on curative services delivered at hospitals and clinics, with very limited, if any, preventive activities. Stimulated by the MSPP to implement the priorities in the Nouvelle Orientation through primary health care, and with technical and financial cooperation from USAID, the response was the creation of the Association des Oeuvres Privées de Santé (AOPS), the focal point for the coordination of the health activities of all its members. These apply a common strategy, a true model, to implement specific activities in PHC that interprets, in operational terms, the Basic Health Policy of Haiti and USAID Action Plans.

A complete census of the population and longitudinal data collection are key elements of the AOPS strategy. On these bases, it attempts to evaluate structural processes and interim program impacts based on rates of immunizations, malnutrition, prenatal care, and family planning acceptors. End-of-project impact is to be evaluated along two parameters: the nutritional status of children 0 to 5, and pregnancy prevalence rates, both during the last month of the project.

Early this year, an evaluation team examined the quality of performance of the 25 active AOPS projects and ranked them according to an ad hoc system. In those functioning well, there have been significant increases in coverage, all far above 1983 national levels. The report states that "AOPS projects show that real improvements can be produced by the model in the area of family planning, ORT, and growth monitoring/nutrition education and can very quickly surpass national achievements and status levels in those areas, but that only a few of the projects are now realizing this potential," (page viii).¹ Notwithstanding, "coverage, effectiveness and impact data are not adequately available in any AOPS project at present" (page 32).¹ Our team strongly recommends that this basic information be progressively collected, analyzed, disseminated, and used for decision making.

A thorough analysis of the sequence of managerial and administrative activities of the AOPS projects was made by the evaluation team. We have listed in this report the major achievements, which indicate that progress is impressive. The most important identified constraints that should be corrected relate to monitoring, evaluation of outcomes and impacts, and the regular provision of information within AOPS and to MSPP and USAID.

Overlapping, i.e., the simultaneous presence in a community of a public and private health service, particularly when either one could provide all necessary care, is on the decline in Haiti. The present trend is to a much closer collaboration and coordination between both sectors. AOPS procedures correspond to those of the MSPP, as stated in the GOH Health Services Act of 1983, and as such are being implemented. The clearance of all institutions was obtained from the appropriate regional and district representatives of MSPP. Different arrangements are in place, and we list several of them in this report. They seem to be working smoothly, with constraints mostly related to the unavailability of some resources during certain periods.

Nevertheless, there is room for improving collaboration and coordination. We make a series of suggestions in this report.

After 40 to 50 years of continued services in the field of health care in Haiti, NGOs, especially AOPS projects, should be considered as institutionalized, i.e., established on the basis of common principles, structures, strategies, and practices. They may be judged as functionally sustainable, because they are potentially capable of formulating, implementing, and evaluating programs that respond to national health priorities. They are not as yet financially sustainable, because they depend on external resources, being unable to absorb recurrent costs with their internal revenues. Because the private sector provides health services to an important proportion of the population--whose size has not been determined, and should be--there is ample justification for continuous support from the international community, particularly USAID, during the medium term.

"The AOPS philosophy is that sustainability is more likely when the locus of control is the mother, who is motivated and taught to take charge of her child's health." We add, to also act as a symbol to other mothers in the community, actually showing them what is to be done, particularly for children at risk of death. The creation of "viable mothers' action groups" in Mirebalais, or "mothers' clubs" as they are called in other countries, is a rational approach.

We believe that the AOPS model in PHC can be replicated by the public sector in Haiti, and perhaps, to some extent this is already happening. In any event, health services should be carefully planned for the population identified in the census, personnel should be trained and supervised, actions monitored, and objectives evaluated in terms of outcomes, using the information for feedback and for the readjustment of programs.

The Haitian Arab Center, although created in 1974, only recently in June 1985 presented to USAID a proposal for mobilizing mothers for child survival. The focus is on mothers at high risk of subsequent infant death, whose condition can be prevented or improved by appropriate medical care. It has been estimated that these children from a small proportion of mothers contribute over 70% of all infant and child deaths. We fully agree with the approach and the rationale of this program, as well as with the actions proposed.

The Haitian Institute of Child Health was also recently created. It will mainly deal with research related to the major health problems affecting children in Haiti, which is also a very valuable purpose.

Because diarrheal disease is the leading cause of mortality among infants and children below five in Haiti, accounting for 40% to 65% of all deaths in these age groups, it is a priority problem included in the Nouvelle Orientation, the USAID Action Plan, and the policies of WHO/PAHO, UNICEF, and other international agencies. Oral Rehydration Therapy (ORT), combined with continuing feeding, particularly breast-feeding during and after an episode of diarrhea, is the well-tested short-term approach to ensure child survival.

This is the rationale of PRONACODIAM, a joint effort of the MSPP and WHO/PAHO, USAID, and UNICEF, which has shown remarkable advances in its first two years of operation with regard to ORS knowledge and use, but not with regard to feeding the child. The program seems at present to have lost momentum, as indicated by several not always substantiated determinants. These should be elucidated by means of operations research.

We strongly recommend that a "second phase" of PRONACODIAM be carefully planned on the basis of lessons learned from the program until now, and that it include a nutrition component. The international community, so effectively associated and coordinated for the implementation of PRONACODIAM, should continue its joint efforts and investments until the problem is under control.

ORT neither prevents nor reduces the incidence of diarrhea. Children return to the same contaminated environments in which they may be exposed to a series of new episodes--six to 12 per year in some experiences--that become more severe, the greater their degree of malnutrition is. To control this by reducing morbidity and mortality, a cluster of activities, integrated into primary health care, is required.

The problem of infections preventable by specific vaccinations has priority in Haiti in view of the high morbidity and mortality rates. However, the regular and complete immunizations of children and women at the health infrastructure under the MSPP must certainly be enlarged, the goal being to cover all those in need. Some AOPS projects and CMSCS show very promising results. They should be expanded to all AOPS and voluntary health units.

The Government of Haiti has prepared a National Program of Vaccinations that appears to be sound and includes all components for the successful immunization of mothers and children throughout the country. However, no geographical priorities are established. We strongly recommend that the program be progressively put into practice as a component of primary health care, on the basis of the strategies included in the Plan, and taking into account the constraints that may explain the low immunization coverage. The policy in Haiti of sequential, not simultaneous, implementation of basic activities in PHC militates against the Vaccination Program.

The Rural Health Development Services Project (RHDS), a joint undertaking of the Government of Haiti and USAID, has made significant contributions to the improvement of the people's health status, despite difficult economic and social conditions and constraints. Although not all planned objectives have been reached, progress is evident in a number of them, listed in this report, in terms of changes in policies, structures, functions, technologies, and training.

It is encouraging that the project extension includes increased rural coverage by the Community Health Outreach Teams (CHOTs). It is regrettable that the process of extending the health infrastructure with established services has been stopped due to Haiti's economic situation. We hope that it will resume as soon as economic conditions improve.

In agreement with high officials of the MSPP, we recommend the overall goal of reaching 60% of the rural population with effective services by 1990. Coordinated joint efforts of all public and private established health units and rally posts are basic for the attainment of this objective. To this end, we list a series of activities that must be implemented.

The 1983 evaluation team of RHDS recommended no further expansion of the rural system until current programs are adequately supported, and an overall goal of reaching 40% of the rural population by 1990. Recent political events make it imperative to accelerate the provision of effective social services to the people. Among them, health and nutrition should have priority, in view of the high morbidity and mortality rates. The clamor being heard reflects urgent basic needs that must be satisfied to the degree that actual and forthcoming resources permit.

We recommend a study on the supply-demand of health services, identifying determinants of their actual under-utilization throughout the country. With the information on hand, it may be possible to increase coverage with available resources and to strengthen them if demand increases substantially.

We support the process of administrative decentralization, and recommend that it be pursued toward the actual delegation of authority and responsibility to the Directors of Health Regions and Districts. There is also a need for financial and budgetary decentralization. The MSPP should closely exert its statutory functions of technical and managerial assistance for planning and implementing programs, auditing and financial control, supervision, and training.

Norms and procedures for the application of appropriate methods and technologies related to the control of priority health problems should be prepared by MSPP, or brought up to date if needed. This should be a parallel process with the modernization of the managerial and administrative systems.

Haiti presently faces severe problems of food consumption, reflecting an unbalance between increasing demand, as a result of population growth, and reduced agricultural productivity, as a consequence of a declining resource base. Despite the lack of updated information, it can be safely stated that protein-energy malnutrition, hipovitaminosis A, and iron deficiency anemia among children under five have a high incidence. Some believe that malnutrition is the single most important health problem in Haiti, both in terms of morbidity, and as an underlying or associated cause of infant and early childhood mortality.

In the RHDS project extension to 1990, nutrition interventions are reduced to growth monitoring and vitamin A distribution. Our evaluation team believes that these activities are not enough. We recommend that a comprehensive policy and specific programs be formulated to be administered by a newly created Department of Nutrition at MSPP. Furthermore, we suggest that a National Council of Food and Nutrition be organized at the highest possible level of the Government, and that it should have a Nutrition Advisory Group. We also recommend the industrial production of AK 1000, a well-tested weaning food, to be distributed or sold in the country. The incorporation of nutritional considerations and actions into diverse programs related to PHC, and the educational and agricultural systems, will require, besides some of the above recommendations, external capital for their implementation. The Inter-American Development Bank should be asked to send a mission to Haiti, at no cost to the Government, to design, jointly with Haitian authorities and specialists, a nutrition project for implementing the policies and programs referred to.

The evaluation team believes that the Food for Development Program (P.L. 480 Title III) is an original approach of cooperation with the Government of Haiti for the purpose of improving the health status, lowering the nutritional deficits, and increasing the income of the poor. Without Title III inputs, it could be safely assumed, the policy reforms and specific activities included in the Agreement between the Government of the United States of America and the Government of Haiti cannot be implemented in the same time span.

We have carefully examined the different proposals related to policies and actions and have made, as requested, a series of recommendations contained in this report. We urge the GOH and USAID to review, and to try to simplify, the norms and procedures established by the Title III Management Office that are presently impairing the efficient operation of a very valuable contribution of USAID to the health sector, one that should continue in the medium term.

The USAID Action Plan for FYs 1987-88 aims to promote human development in Haiti by reducing population growth, improving health, and fostering educational reform. These effects are to be combined, and hopefully, closely coordinated, with the reversal of natural resource degradation and the stimulation of agricultural production, and increased employment by expanding industry. Health, after all, is an essential component of economic and social development.

The scientific and managerial bases of the Plan are sound. Its implementation, although complex under the present conditions of Haiti, must be pursued. This will require the efficient and effective use of all available resources, national and international, and in both the public and private sectors. Operations research is also needed to select the most cost-effective technologies for some problems. It is essential that the people be properly informed, so that they will actively participate in decisions and actions to better their individual, family, and community health.

III. THE HAITI HEALTH CARE SYSTEM IN PERSPECTIVE

Health Profile

With an average yearly per capita income of \$300, Haiti is by far the poorest country in the Western Hemisphere. Poverty, which is at the root of all social ills, explains why health and nutrition indicators in Haiti are the worst in the Americas. In Table 1 of this chapter, the most recent information, usually from 1982 to 1984, is presented. These data refer to demographic, health, coverage with health services, human resources, economic, and other indicators, as defined by WHO and the U.N.¹ As a comparison, we include in Table 2 data on Haiti from two sources, PAHO and U.N. World Population Prospects (WPP), as well as information on the Caribbean, and the countries of Latin America with the highest and lowest rates of demographic, morbidity, mortality, and other indicators, from WPP, PAHO, and other sources.

In developing countries, questions are raised about the quality, completeness, reliability, and uses of data. Haiti is no exception. Information usually collected is not collated and analyzed in a timely way--sometimes up to two years elapse--and is infrequently used for decision making. Governments act and distribute funds following routine budgetary procedures, without paying close attention to outputs and outcomes, even of those programs that are carefully designed and implemented.

With reference to Haiti, data in Table 2 from PAHO and WPP show some important differences for the same indicator. For instance, population density is 198 per km² in the former series, and 236 in the latter. Crude birth rate is 36 per 1,000 in the PAHO data, and 41.3 in WPP estimates. Perhaps more significant, infant mortality per 1,000 live births appears to be 124 and 108 respectively, while life expectancy at birth is 48 years and 52.7. Low birth weight, i.e., below 2,500 grams, is registered at 17% in the PAHO data, a high rate indeed. No information was estimated by WPP.

We cannot explain these differences, because we do not know the origin of the information within each country and the criteria used to estimate every indicator.

Whatever data are used, keeping in mind their quality and their likelihood of being incomplete and inaccurate, the health situation of Haiti is at a critical stage. Data from the Caribbean and Latin American countries (see Table 2), with the lowest rate for each specific indicator, reveal what can be expected, through time, with planned, sustained, and monitored efforts.

While infant mortality was 124 in Haiti in 1982, in the Caribbean, as an average, it reached 58 per 1,000 live births in 1980-85, and Puerto Rico during the same period had a rate of only 17. Life expectancy was 48, 62.1, and 73.4 years in Haiti, the Caribbean, and Cuba, respectively. Crude birth rate per 1,000 was 36 in Haiti, 27.1 in the Caribbean, 16.9 in Cuba, and 44.2 in Nicaragua. Crude death rate was 16.5 and 8.4 in Haiti and the Caribbean, respectively, and only 4.2 in Costa Rica. The maternal mortality rate per 1,000 population was 34 in Haiti, 5 in the Caribbean, and 2.6 in Costa Rica.

TABLE 1
DONNEES DE BASE

	<u>Année</u>	<u>Nombre</u>
<u>Indicateurs Démographiques</u>		
Population estimée (en milliers)	1984	5,500
Densité de la population (habitant par km ²)	1984	198
Taux de croissance annuelle (%)	1984	2.0
Population moins 15 ans (%)	1984	40.0
Population 65 ans et plus (%)	1984	4.0
Population urbaine (comme définie par le pays - %)	1984	26.0
Population en localités de 20,000 habitants ou plus (%)	1982	17.0
Population en localités de moins de 2,000 habitants (%)	-	-
Taux de naissance (naissances vivantes par 1,000 habitants)	1982	36.0
Taux de mortalité (morts par 1,000 habitants)	1982	16.5
Taux de fécondité (naissances vivantes par milliers de femmes 15-49 ans)	1982	162.0
<u>Indicateurs de Santé</u>		
Espérance de vie à la naissance	1982	48.0
Taux de mortalité infantile (par 1,000 naissances vivantes)	1982	124.0
Taux de mortalité maternelle (par 1,000 naissances vivantes)	1984	2.3
Taux de mortalité 1-4 ans (par 1,000 enfants, 1-4 ans)		
Enfants 0-5 ans avec poids/age correspondant aux normes de croissance adoptées par l'OMS	1983	31.0
Nouveaux-nés à poids de naissance inférieur à 2,500 grammes (%)	1983	17.0
Disponibilité en calories per capita/jour	-	-
Disponibilité en protéines (grammes) per capita/jour	-	-

Table 1 (cont.)

	<u>Année</u>	<u>Nombre</u>
<u>Liste de 10 premières causes de mortalité à tout âge</u>		
<u>(taux par 100,000 habitants): 1982.</u>		
1. Infections intestinales		
2. Tuberculose		
3. Malnutrition		
4. Maladies métaboliques		
5. Pneumonie		
6. Cardiopathies		
7. Meningite		
8. Hypertension		
9. Maladies cardio-vasculaires		
10. Causes perinatales		
<u>Liste de 10 premières causes de mortalité à tout âge</u>		
<u>(taux par 100,000 habitants): 1983</u>		
1. Maladies intestinales		
2. Paludisme		
3. Pneumonie		
4. Maladies gynécologiques		
5. Typhoïde		
6. Cardiopathies		
7. Malnutrition		
8. Tuberculose		
9. Hypertension		
10. Ophtalmopathies		
<u>Indicateurs de la Couverture de Services de Santé</u>		
Enfants moins d'un an immunisés contre:		
- Diphtérie (%)	1984	13.4
- Poliomyélite (%)	1984	13.0
- Rougeole (%)	-	-
- Tétanos (%)	1984	13.4
- Coqueluche (%)	1984	13.4
- Tuberculose (%)	1984	69.0
Femmes enceintes immunisées contre le tétanos (%)	1984	20.0
Femmes recevant des soins périnataux (%)	1984	52.0
Femmes assistées à l'accouchement (institutionnellement ou par personnel entraîné) (%)	1983	20.0
Femmes recevant des soins puerperaux (%)	-	-
Enfants d'un an ou moins recevant des soins d'un personnel entraîné (%)	-	-
Population desservie avec l'eau potable (%)	1984	49.8 _a /

Table 1 (cont.)

	<u>Année</u>	<u>Nombre</u>
Population desservie avec un service d'assainissement (%)	1984	19.0 ^{b/}
Population dont les services de santé y compris la disponibilité au moins de 20 médicaments essentiels est situé dans une proximité d'une heure de marche ou par un moyen habituellement utilisé par la communauté (%)	1984	55.0
Consultations en service santé par 100 habitants		
	Total:	1983 20.0
	Professionnelles:	- -
	Autres:	- -
Nombre de lits par 1,000 habitants	1985	0.98
Nombre de exéats (%)	1984	1.0

a/ 54% urbaine et 25% rurale.

b/ Population urbaine; la quantité par population rurale est de 12%.
(Dernier rapport DHFN)

Table 1 (cont.)

	<u>Année</u>	<u>Nombre</u>
<u>Indicateurs de Ressources Humaines</u>		
Médecins par 10,000 habitants	1983	1.4
Dentistes par 10,000 habitants	1983	0.2
Vétérinaires par 10,000 habitants	1983	0.1
Ingénieurs Sanitaires par 10,000 habitants	-	-
Infirmières par 10,000 habitants	1983	1.9
Infirmières/Sage femmes par 10,000 habitants	-	-
Auxiliaires infirmières par 10,000 habitants	1983	3.6
Agents de santé communautaires par 10,000 habitants	-	-
Nutritionnistes-Diététiciens par 10,000 habitants	-	-
<u>Indicateurs Economiques</u>		
Per capita (PIB) Produit Interne Brut (EUA\$)	1983	300.0
Dépenses en santé per capita (EUA\$)	1983	9.0
Dépenses totales en santé comme pourcentage du PIB	1984	3.0
Dépenses totales en santé comme pourcentage du Budget national	1984	10.0
Dépenses totales en santé primaire comme pourcentage du Budget national pour la santé	1984	9.0
<u>Autres Indicateurs</u>		
Taux d'alphabetisme (supérieur à 15 ans) (%)		
	Total: 1983	37.0
	Hommes: -	-
	Femmes: -	-
Nombre de personnes par ménage	-	-

BASIC INDICATORS ON HAITI, THE CARIBBEAN AND LATIN AMERICAN COUNTRIES

Indicator	HAITI DATA						RANGE					
	OD-199		WPP ^{a/}		WPP ^{a/}		HIGHEST			LOWEST		
	Year	Data	Year	Data	Year	Data	Country	Year	Data	Country	Year	Data
Population density (Km ²)	1984	198.0	1985	236.0	1985	134.0	Barbados	1985	614.0	Suriname	1985	2.0
Population growth (X)	1984	2.0	1980-85	2.51	1980-85	1.51	Honduras	1980-85	3.39	Martinique	1980-85	0.02
Population <15 (X)	1984	40.0	1985	43.6	1985	34.4	Honduras	1985	46.9	Cuba	1985	26.4
Population 65+ (X)	1984	4.0	1985	3.4	1985	5.7	Uruguay	1985	10.7	Nicaragua	1985	2.5
Urban population (X)	1984	26.0	1985	28.0	1985	55.5	Venezuela	1985	85.7	Trinidad	1985	22.6
Crude birth rate (per 1,000)	1982	36.0	1980-85	41.3	1980-85	27.1	Nicaragua	1980-85	44.2	Cuba	1980-85	16.9
Crude death rate (per 1,000)	1982	16.5	1980-85	14.2	1980-85	8.4	Bolivia	1980-85	15.9	Costa Rica	1980-85	4.2
Fertility rate (per 1,000 women 15-49 years of age)	1982	162.0	1980-85	170.0	1980-85	109.0	Honduras	1980-85	203.0	Cuba	1980-85	65.0
Life expectancy at birth	1982	48.0	1980-85	52.7	1980-85	62.1	Cuba	1980-85	73.4	Bolivia	1980-85	50.7
Infant mortality rate (per 1,000 live births)	1982	124.0	1980-85	108.0	1980-85	58.0	Bolivia	1980-85	124.0	Puerto Rico	1980-85	17.0
Maternal mortality rate (per 10,000)	1983	34.0	-	-	1982	5.0 ^{b/}	Paraguay	1983	31.1 ^{b/}	Costa Rica	1983	2.6 ^{b/}
Literate population (X)	1983	24.0	1985	37.6 ^{b/}	-	-	Guatemala ^{c/}	1985	45.0	Cuba ^{c/}	4.6	-
Newborns with weight <2,500 gr. (X)	1983	17.0	-	-	-	-	Guyana	1982	19.5	Colombia	1977-81	3.4

PERCENTAGE OF DEATHS DUE TO:	HAITI, OD		CARIBBEAN ^{d/}	HIGHEST			LOWEST		
	Year	Data		Country	Year	Data	Country	Year	Data
Infections and parasitic diseases (001-139)	1982	19.4	3.9	Guatemala	1981	29.6	Puerto Rico	1983	1.7
Tumors (140-239)	1982	2.1	16.0 ^{e/}	Uruguay	1984	22.9 ^{e/}	Guatemala	1981	3.2 ^{e/}
Heart disease (390-429)	1982	4.4	26.8	Argentina	1981	29.9	Guatemala	1981	4.5
Motor vehicle traffic accidents (E810-E819)	1982	0.5	-	Venezuela	1983	6.4	Uruguay	1984	0.9
Signs, symptoms and ill-defined conditions (780-799)	1982	60.1	6.8	Honduras	1983	48.1	Grenada	1984	0.9
							Cuba	1983	0.4

^{a/} Source: United Nations. World Population Prospects. Estimates and projections as assessed in 1982. ST/ESA/SER.H/85. New York, 1985.

^{b/} Source: PAHO/WHO HST data bank.

^{c/} Source: UNESCO. Statistical Yearbook, 1984 and 1985.

^{d/} Includes: Bahamas, 1981; Barbados, 1984; Cayman Islands, 1983; Cuba, 1983; Dominica, 1984; Dominican Republic, 1981; Grenada, 1984; Martinique, 1982; Netherlands Antilles, 1981; Puerto Rico, 1983; St. Christopher-Nevis, 1983; Saint Lucia, 1981; St. Vincent, 1983; Trinidad & Tobago, 1979; British Virgin Islands, 1982; U.S. Virgin Islands, 1980.

^{e/} Malignant tumors only (140-208).

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Mortality in children 1 to 4 years old reveals the state of socioeconomic development and standard of living, the influence of cultural, behavioral, and environmental factors, and the availability and effectiveness of health services. In Table 1, for 1983 the rate of early childhood mortality per 1,000 children 1 to 4 is shown as 31.0. The goal in the Plan of Action to attain Health for All in the Americas is 2.4 deaths, using the same indicator. There is a long road ahead for Haiti.²

It is regrettable that data about specific infections and parasitic diseases in terms of morbidity and mortality rates are not included. We only have information on percentage of deaths for the group as a whole (001-139 of the International Classification) with an indicator of 19.4 that has been reduced to 3.9 in the Caribbean, and to 1.7 in Puerto Rico.

Rates for diarrheal diseases, infections that can be controlled by immunizations, tuberculosis, and malaria--all considered priority problems in the Nouvelle Orientation--do not appear in Tables 1 and 2. It has been stated that diarrheal disease is the leading cause of mortality among infants and children under five in Haiti, accounting for 40% to 65% of all deaths in these age groups.¹

On the other hand, 45% of registered deaths are due to infectious diseases, of which 25% correspond to those that can be prevented by specific vaccinations. Tuberculosis has a high prevalence rate in Haiti, affecting 2% to 3% of the population.³ With regard to malaria, it has been estimated that there are 300,000 cases per year, with mortality due to P. falciparum of 3,000 (see Chapter VI.B of this report). We must reiterate that all these data need validation.

It is interesting to point out that 60.1% of deaths in Haiti are registered as signs, symptoms, or ill-defined conditions (780-799 of the International Classification). The same indicator is 6.8% in the Caribbean, and 0.4% in Cuba. The rate for Haiti shows how inefficient the medical care system in the country presently is. Most patients not being seen by a physician lack diagnosis and appropriate therapy.

Health Resources

Haiti confronts a high prevalence of acute health problems, most of which can be prevented. If the diagnosis and treatment of patients are timely, death rates will be drastically reduced. AIDS, for the time being, is a well-known exception. Unfortunately, the human, physical, material, and financial resources are insufficient to deal effectively with each problem in its entirety. Because resources are scarce, they must be targeted according to priorities and high-risk groups.

Table 1 shows the indicators of human resources for 10,000 inhabitants in 1983. We have compared them with those of Latin America and the Caribbean in 1984.³

With reference to physicians, in Haiti the rate was 1.4, while it reached 7.1 in the Caribbean, and 11.2 in Latin America. There are, of course, wide differences in the availability of physicians among countries, and, within them, between urban and rural areas, and large and small cities.

In planning for the number of physicians, careful attention must be paid to the relation between the overall human resources for health, and health programs and services. Failure to take this relationship into account may induce the problem of a plethora of physicians and their unemployment or underemployment, as is already happening in some Latin American countries. However, Haiti certainly needs to increase the number of physicians for its present and forthcoming problems.

It is interesting to note that for every 10,000 inhabitants there are 50 practitioners of traditional medicine--birth attendants, herbalists, voodoo priests, witch doctors, and magicians. This may explain, to some extent, the gross under-utilization of existing services in the country--or their use when it is too late for the patient--and the average expenditure on health per family.

A similar situation exists with reference to dentists per 10,000 inhabitants. The rate in Haiti in 1983 was 0.2--fewer than 100 professionals--while in Latin America it was 1.6, and 1.0 in the Caribbean. Nurses are an essential component of the health team. However, in Haiti there are only 1.9 per 10,000 inhabitants, while in the Caribbean this rate has increased to 22.1, and is 4.1 in Latin America.

When there is a lack of professional nurses, well-trained nurse auxiliaries are an invaluable resource. In Haiti, in 1983, there were 3.6 auxiliaries per 10,000 inhabitants; in the Caribbean and in Latin America the rate was 7.8. The number of auxiliaries is almost double the number of nurses in Haiti. In situations where acute, preventable diseases prevail, these resources, carefully planned, can save and prolong lives in significant ways.

To these data, we must add the 449 "agents de santé," the 8,000 indigenous birth attendants trained by the RHDS Project, and the 6,700 malaria voluntary collaborators, the latter becoming diversified to treat fever cases and provide ORS and contraceptives.

Problems of distribution throughout the country, of training, motivation, incentives, logistics, supervision, lack of accessible health infrastructure, and other factors, make this "health force" less productive than it can be. In several chapters of this report we refer to the coverage of specific services, such as ORT, immunizations, family planning, AOPS, AGAPCO, RHDS, and others. Some of them are indeed encouraging because of their effective use of available resources. Others, however, need strengthening and expanding.

The physical health infrastructure includes 36 hospitals, 117 health centers, 230 dispensaries, and six other establishments. Of these 389 units, in 1982, 66 were private and 118 "mixtes," i.e., a combination of private and public resources.¹ The health system provides only one bed per 1,000 inhabitants, while the accepted average in Latin America is 4.

In 1983, there were 20 consultations per 100 people, i.e., 0.2 per person, per year, a very low rate indeed. However, we do not know whether all visits were registered, nor do we know the role of traditional medicine and its results. At the end of 1984 there were just under two hospital discharges per 100 inhabitants, per year, which is one of the lowest proportions in the Region of the Americas.

We tend to agree with most of the following statement: "The outlook for development of the health services system is primarily linked to the coordination of resources of the public and private subsectors; to the rehabilitation of the installed capacity, instead of the creation of new institutions, which would cause increased operating costs that would then be difficult to cover; and to substantial improvement in the planning, execution and evaluation of health care programs. In this regard, external assistance and investment are of primary importance to the health services system if pressing national problems are to be solved."³

Elsewhere in this report we recommend that the MSPP continue the expansion of the health infrastructure when economic conditions permit it: The experience in Latin America and the Caribbean shows that the logical approach is to make services geographically, functionally, and economically accessible. Since the health field is essential, it requires increasing investments for effective coverage.

Other Resource Indicators

Other resource indicators are significant for health care delivery. In 1984, only 32% of the population--54% in urban areas, and 25% in rural areas--were estimated to have access to safe water. As a result of the International Drinking Water Supply and Sanitation Decade, 17 priority projects, with a cost of \$143 million, have been initiated. Only 19% of the urban and 12% of the rural populations have excreta disposal facilities. Other components of the physical environment are not controlled.³

The illiteracy rate of the adult population is around 67%. The lack of schools explains why only 43% of children six to 12 years old attend classes. The private sector covers 70% of the 3,000 primary schools of Haiti.¹

With an average of five children per mother, and small and poor dwellings, the overcrowding in both urban and rural areas, coupled with lack of basic sanitation and personal hygiene, explains the high incidence of communicable diseases.

Unemployment has recently been estimated at 60% of the working population. Of the economically active labor force, 67% were engaged in agriculture and 33% primarily in secondary and tertiary activities in urban areas.

All these data are related to the annual per capita income which, at an average of about \$300, includes large segments of the population who receive less than \$100 per person, per year. Per capita expenditures for health were estimated at \$9 in 1983. This amount represents 3% of the Gross Domestic Product. Total expenditures on health are 10% of the National Budget (Table 1).

According to other sources of information (World Bank, 1983), annual per capita expenditure on health is estimated at around \$15. Of this amount, over 50% is supposed to be private out-of-pocket expenditure. GOH expenditure on health is estimated to be about \$6 per capita. While this amount may constitute a significant proportion of public expenditure, its effectiveness is seriously compromised by the fact that over 80% of it is spent on salaries.

USAID is the major source of external financing of health care in Haiti. Its current health portfolio consists of seven projects, whose LOP funding is about \$37 million. Of this amount, 15% is to be used in support of private sector health activities.

Health System

We include as Annex 1 the Organigram of the MSPP. As we did not have the description of each service, we do not know whether this is the most efficient distribution of functions in relation to the Basic Health Policy of the country.

In Annex 2 we present the structure of the MSPP, to show the hierarchical relationships of some of the agencies whose analysis is the object of this report. AGAPCO, SNEM, and PVOs are identified. They are considered autonomous entities, the first two reporting directly to the Director General of Health and, through him, to the Minister of Health.

The country is divided into four Regions, each having a Director of Health, following the same model of the other Ministries. Regions are composed of 15 Districts, each with a Director of Health, and 133 communes. Health centers in the latter are supposed to be the basic units of the system, each serving 10,000 inhabitants and having a physician, an auxiliary nurse, and four "agents de santé." Our impression is that this organizational scheme, whose soundness needs to be tested, has been put into effect in a limited way.

Data about the actual coverage of the country with established health services, including the public and private sectors, vary from 40% to 60% of the population. An attempt to obtain precise information will be extremely useful for health planning and program formulation and implementation.

In the last five years, Haiti has made significant progress in the field of health. The enactment of the Basic Policy called the Nouvelle Orientation has given a conceptual and operational framework to the entire health system. Six priorities are identified, five of which relate to conditions of high frequency and mortality, including those preventable by immunizations, and one that relates to an essential service, namely, maternal and child health comprising family planning.

This policy has created a new language in the Haitian "health community," and has influenced the international agencies' investment and redeployment of resources to implement it, a complex process. Primary health care is the level of the system where the bulk of activities is occurring, or should occur, with the emphasis on prevention, without impairing, when feasible, the timely referral of severe cases.

The process of decentralization to Regions and Districts, already referred to, is facilitating the adaptation of the basic principles of the Policy to local conditions and available resources. This is significant progress indeed.

In several chapters of this report we refer to encouraging results regarding coverage of health activities in different health units, both private and public. The coordination between both sectors has also definitely improved.

Haiti faces critical health problems, characteristic of developing societies, which are acute, widespread, induce high morbidity and mortality, and are, to a large extent, preventable. Although available resources are far below the known needs, they are still not used to their full potential. It has become imperative to increase their productivity and, at the same time, to make larger investments in order to consolidate and expand the health infrastructure.

The international organizations, both multilateral and bilateral, with remarkably good coordination have rendered effective cooperation to MSPP and the private sector for planning and developing priority projects. USAID, the larger contributor, has played a very important role, through seven large programs leading to better health for significant numbers of mothers and children.

Our evaluation team is convinced that, at least in the short and medium terms, such cooperation of the international community will be indispensable. The moment should arrive when a critical mass of well-planned actions will break down the trends of mortality and morbidity due to major preventable conditions.

References: Chapter III, The Haiti Health Care System in Perspective

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2. Organización Panamericana de la Salud. Salud para todos en el año 2000. Plan de Acción para la Instrumentación de las Estrategias Regionales. Documento Oficial No. 179. Washington, D.C., 1982.
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IV. USAID/Haiti Action Plan for FYs 1987-88

The USAID Action Plan for FYs 87-88 aims to promote human development in Haiti by reducing population growth, improving health, and fostering educational reform. These efforts are to be combined and, hopefully, closely coordinated, with the reversal of natural resource degradation, the stimulation of agricultural production, and increases in employment by expanding industry. After all, health is an essential component of economic and social development.

The scientific and managerial bases of the Plan are sound. Its implementation, although complex under present conditions in Haiti, must be pursued. This will require the efficient and effective use of all available resources, national and international, and in both the public and private sectors. Operations research is also needed for choosing the most cost-effective technologies for attacking certain problems. Perhaps of equal importance, it is essential that the people be properly informed and encouraged to actively participate in decisions and actions to improve their individual, family, and community health.

The overall health sector goal of the Plan is to reduce infant mortality to 50 deaths per 1,000 live births by the year 2000, from an estimated base rate in 1985 of 125/1,000. Benchmark performance indicators are 115/1,000 in 1988 and 90/1,000 in 1990.

Benchmark Actions established for 1987-88 are the following:

- 1) Improving the management of public sector health resources;
- 2) Increasing the mobilization of community resources;
- 3) Increasing the collaboration of the public sector with PVOs and improving their performance.

Each benchmark includes a series of specific activities to which we shall later refer.

Our evaluation team was requested to review the goals, objectives, and benchmarks of the health sector program, as laid out in the Mission's FYs 87-88 Action Plan. We were asked to determine if they are achievable given the financial resources available to the the Mission, and to provide, if warranted, appropriate recommendations to refocus the program. (See 5a of the Terms of Reference, Annex 1.) We first examine the feasibility of reducing infant mortality rates as stated in the Action Plan, and then discuss the Benchmark Actions for FYs 87-88 to achieve the performance indicator.

In principle, it should be possible to reduce infant mortality rates in Haiti, from 125/1,000 live births in 1985 to 115/1,000 in 1988. We do not know on what basis the 1985 rate was estimated. Considering the

country's overall economic and social conditions, and that most indicators may be underestimated, we are inclined to believe that in Haiti average infant mortality is higher than reported.

In any event, the Action Plan's objective is to reduce the IMR by 10/1,000 in three years. A series of quasi-experimental projects, and some large-scale PHC programs in several developing countries, including Haiti, have obtained significant decreases in IMRs and other health indicators within the first ten years of operation. At the same time, in some case studies moderate and severe malnutrition in young children was clearly reduced by more than 50%.¹

In Petit-Goave, Haiti, infant mortality rates declined between 30% and 70% from 1974 to 1978. According to Dr. Carlo Boulos, in Cité Soleil the IMR was reduced from 220/1,000 to 70/1,000 in ten years. We do not have the time series data of infant and early childhood morbidity and mortality in the Albert Schweitzer Hospital area in Deschappelles. But the latest IMR is 30/1,000 live births, a remarkable figure under present conditions in Haiti.

Again, the goal of the Action Plan 1987-88 is to reach an average IMR of 115 for the country as a whole. Where health services are more accessible--geographically, functionally, economically, and culturally--this figure should be significantly lower than, for instance, at rally posts. The average IMR can then be obtained.

To this end, it is essential to implement the new health information system in the greatest possible number of health units, both public and private, and of rally posts throughout the country. The information thus collected should be collated and analyzed, to determine where specific actions need to be strengthened to ensure child survival. ORT and the immunization program (EPI) are two efficient and effective activities. USAID should continue to join efforts with PAHO/WHO and UNICEF to mobilize the political and financial support needed for both programs.

Benchmark Actions: FYs 87-88

We now refer to the benchmark actions for FYs 87-88. Most of them directly continue the activities identified for FYs 86-87. Of those not listed for 1987-88, we point out that for budgetary reasons health education has been delayed. As soon as possible, it should be incorporated into the series of measures leading directly to child survival. The "social marketing" approach to health education shows the effective outcomes of well-planned projects.² In Haiti, as in many other developing countries, mothers need to change their behavior and life styles to improve the prevailing conditions of child health and nutrition. To this end, health education is a most effective instrument.

We believe that not all benchmark actions will contribute to the overall goal of the USAID Action Plan for 1987-88, of reducing infant mortality from 125/1,000 live births to 110. Only those that directly affect mothers and children will induce the expected IMR. Breast-feeding, immunizations, control of diarrhea and other intercurrent diseases, growth monitoring, and food supplementation are some examples.

The same considerations will apply if USAID includes in its overall goals a reduction in early childhood mortality. All other benchmark actions may indirectly lower the IMR in the medium and long term, but not in the coming two years.

As presented, the Action Plan for FYs 87-88, establishes no priorities. Therefore, all proposed activities should be implemented at the same time. But this seldom happens, even when funds are available, particularly when an international agency depends on a series of national institutions, both public and private, to carry out specific actions for fulfilling preestablished goals.

We suggest that an order of priorities for benchmark actions should be identified, based on the overall goal of the Action Plan, and that priorities should be reviewed and adapted for future Action Plans.

We shall comment briefly on some of the benchmark actions for FYs 87-88. In the area of Improving the Management of Public Sector Health Resources, we point out the importance of the simplified health information system. We encourage both GOH and USAID to hasten and broaden its application throughout the health care system, both public and private. It is expected that only by the third quarter of FY 88 will specific disease and intervention rates be regularly reported by District. We do not know if data from rally posts are included for each District. In any event, we urge that this information be translated in terms of infant mortality rates per district and the overall goal of the Action Plan.

Elsewhere in this report we refer to the malaria program. Although we support the reduction of mortality through the COLVOLs, we do not agree with the suspension of all efforts to interrupt transmission leading to effective control of the disease. It is important to measure the average number of malaria attacks per person, per year, particularly during the season of peak transmission. This proposed study is included in our report. The information analyzed may be very useful to GOH and USAID in making better plans to reduce malaria death rates.

Another important benchmark is "privatizing AGAPCO" by the third quarter of FY 87. But the Action Plan provides no explanation of how this is to be done. Does it mean that AGAPCO should serve all PVOs, those that are members of AOPS, as well as those that are not? Or, should privatizing AGAPCO be interpreted as making the agency a self-supporting private concern? Our evaluation team is not of one opinion about this approach.

We fully agree with the Priority Programs, namely ORT use and complete immunization coverage. Again, we urge GOH and USAID, and other international agencies involved, to speed up the preparation of specific annual regional and district work plans. Although we do not know the basis for the goals as stated in the Action Plan for both programs, they are encouraging. The use of ORT now seems to have retrogressed. A study should be made of the determinants of this situation, and, if warranted, newer measures should be applied.

We strongly assert that nutrition interventions in primary health care should be included in the Action Plans for FYs 86-87 and FYs 87-88. They should not be limited merely to growth monitoring and mass distribution of Vitamin A. We recommend that a Department of Nutrition be created at the MOH, and that a food and nutrition policy and its corresponding plans, programs, norms, and procedures be prepared for the progressive reduction of malnutrition in the country. If external capital is needed, the Inter-American Development Bank should be approached. We expand on these suggestions and include others in Chapter VI of this report.

In the area of Increasing the Mobilization of Community Resources, we reiterate the need to include health and nutrition education.

We support the extension and diversification of the VCs network. They should not only give timely treatment of malaria cases but should also provide ORS packets and contraceptives.

In the area of Increasing the Collaboration of the Public Sector with PVOs and Improving Their Performance, we note the implementation of evaluation protocols and the training of health workers for all child survival projects. Both are important measures related to the overall goal of the Action Plan. It is also significant that the population to be served with child survival activities will grow by more than 100,000, and that AOPS will cover 150,000 more people.

According to the evaluation team, most AOPS I/II projects lack preestablished specific objectives, and therefore there is no rational way to evaluate progress. We certainly hope that the new and simplified Health Information System will facilitate the measurement both of processes directly related to child survival actions and of outcomes in some of the projects.

Population. Information and comments about this part of the Action Plan are contained in Chapter VI.

Financing the Action Plan for FYs 87-88

The evaluation team was asked to determine if the goals, objectives, and benchmarks of the Action Plan in the health sector can be achieved, given the financial resources available to the Mission. (See item 5a of the Terms of Reference, Annex 1.)

For the evaluation team, this question cannot be answered by considering only USAID investments. Several actions essential to reaching the overall goal of the Plan and implementing benchmarks require significant contributions by the GOH and various international agencies that provide technical and financial cooperation in health. Disaggregated data from GOH and multilateral and bilateral organizations about specific actions that enhance child survival are not available. In the case of USAID, an attempt was made that did not yield useful information, because the formats used to prepare cost tables were not sufficiently uniform. Nor were data available for the public sector--or were incomplete and inconsistent for the NGOs--to determine actual expenditures by activity or actual inputs or both.

Without basic information on costs per child and per action directly related to reducing the IMR, it is not possible to determine if the present level of investment in the health sector can be effective to reach the overall goal of the Action Plan. The evaluation team believes that these studies on costs and cost-effectiveness should be developed for determining better basic goals and objectives of future USAID Action Plans, as well as GOH plans and programs. It will then be easier to determine the number of children to be benefited with preventive and curative services and food supplementation. At present, these actions should be pursued by targeting high-risk children, usually in poverty-stricken communities where morbidity and mortality are rife. Much more knowledge about costs per activity is needed for planning rational uses of available resources.

Conclusions

1. The evaluation team agrees with the scientific and managerial basis of the USAID Action Plan for FYs 87-88. Under the present socioeconomic conditions of Haiti, its implementation will require the efficient and effective use of available resources, both national and international, and in the public and private sectors. This approach entails joint planning, programming, monitoring, and evaluation.
2. The experience in Haiti and other developing countries shows that the overall goal of the Action Plan, to reduce infant mortality from 125/1,000 live births in 1985 to 115 in 1988, seems feasible. As we have emphasized, all existing resources should be mobilized. We also urge that the new Health Information System be put into practice in the largest possible number of health units, both public and private, and rally posts throughout the country. The data obtained should then be used for decision making at all levels of the health system.

Recommendations

Our evaluation team recommends the following:

1. Establish an order of priorities for benchmark actions, based on the overall goal of the Action Plan. Priorities should be reviewed and adapted for future Action Plans.
2. A reduction in early childhood mortality should be introduced as another goal of the Action Plan.
3. The new Health Information System should be carried out in the largest number of health units in the country, both in the public and private sectors.
4. Health and nutrition education should become a regular component of activities of the health care system.
5. Make efforts in the malaria control program to include the interruption of transmission. Since external financing will be needed, our team suggests that the Government of Japan and the Inter-American Development Bank should be approached with an updated plan based on the suggestions in the 1984 Evaluation Report.
6. Nutrition interventions in primary health care should be included in the Action Plans for FYs 86-87 and FYs 87-88. They should not be limited only to growth monitoring and mass distribution of vitamin A.
7. USAID should sponsor both the creation of a Department of Nutrition at the MSPP and the formulation of a food and nutrition policy and its corresponding plans, programs, norms, and procedures for progressively reducing malnutrition in Haiti. There is a definite need for external resources. Our evaluation team suggests that the Inter-American Development Bank be consulted.
8. In order to reach the goal of the Action Plan for FYs 87-88, it is urgent to strengthen the ORT and EPI programs in the greatest possible number of health units and rally posts throughout the country.
9. Motivating and organizing mothers in communities to cooperate in major activities, to fulfill the overall goal of the Action Plan, may well turn out to be one of the most cost-effective approaches.

References : Chapter IV.; USAID Action Plan for FYs 1987-88

1. Wilcox, J., C.H. Teller, and A. Horwitz. Making Primary Health Care Nutrition Work: Issues Raised in a Review of the Record. Paper prepared for the International Nutrition Planners Forum, Conference on Nutrition in Primary Health Care. Egypt, 1984.

2. Manoff, R.K. Social Marketing: New Imperative for Public Health, Praeger, 1985.

V. USAID Health Approach in Haiti

The evaluation team examined the major programs in the last five years of technical and financial cooperation in health by USAID to the Government of Haiti. Our observations are included in Chapter VI of this report. We asked ourselves if and how the same order of investments, through different approaches, could produce greater or better outcomes for the country in the short or long term. In a theoretical exercise, we identified the following alternatives:

1. Special Purpose Programs

Develop vertical, separate programs for each health priority problem, particularly those that can effectively be prevented, either successively or simultaneously. This can be considered as the categorical approach, or "special purpose programs." To a certain extent, it is the basis of the "child survival strategy."

In cases of diarrhea, the condition with the highest incidence and mortality in poverty-stricken communities, children survive through rehydration and replacement of water and electrolyte losses. But attacks of diarrhea will recur in the same child, as long as the same environmental determinants and cultural constraints prevail. If the child is moderately or severely malnourished, the risk of death increases after each bout.

The prevention of communicable diseases by immunization is another typical categorical program. The worldwide eradication of smallpox by governments, WHO, and PAHO is truly a remarkable human venture that inspires many to try to reproduce such a singular outcome. But even for those diseases with no intermediary vector, with humans the only host of the agent, eradication still faces technical and managerial constraints. Measles and poliomyelitis are the two best examples because of their frequency and consequences.¹ Even though eradication may not soon be attainable, immunization programs, based on available knowledge and experience, must proceed to the largest possible extent in all countries, including Haiti. The question is how to do it, either as a special purpose program, or by integrating immunizations into the cluster of activities implemented through primary health care.

Family planning has also been developed in some countries as a vertical program, sometimes even in actual competition with other essential health activities.

2. Extension of the Physical and Functional Health Infrastructure

Based on experience in other countries of the Americas, the Governments of Haiti and the USA can progressively increase coverage --access to health services and growing demand--by extending the physical and functional health infrastructure. This requires building, equipping,

and staffing dispensaries, health centers, and district and regional hospitals. The process will take time and require significant investments of domestic resources and external capital. But in the long term it is likely to have a much greater health impact than more limited special programs. This approach has already been realized to a limited extent by GOH, IADB, and USAID, through the RHDS Project. (See Chapter VI of this report.)

The argument that staffs at health centers and other units, particularly physicians, are more concerned with treating patients than preventing disease cannot be generalized. Nor can the argument be accepted that they rarely leave their stations to work in the communities, where the opportunities for health education and preventive actions are indeed great.

The fact remains that several countries have reduced their health indicators of infant, early childhood, and maternal morbidity and mortality of acute conditions to levels close to those in the industrialized societies, by the longitudinal approach, i.e., by progressively enlarging the health infrastructure.² In these nations there was no need to dissociate prevention from cure at the health centers, as has been suggested. Rather, both kinds of actions were organized and implemented through community activities from established health units. Furthermore, primary health care as the basic strategy for reaching the goal of Health for All is very much in vogue in most developing countries. This entails people's informed participation as a result of education and specific programmed activities in their homes and villages provided by the staffs of local health units.

3. The Regional Demonstration Approach

Another approach that might be developed by USAID in Haiti is to concentrate all investments and resources in one region. Such a demonstration of sound health plans and programs and their implementation should include appropriate technologies, effective management, monitoring, and evaluation. This approach should be based on the major priorities of the national health policy. Operations research will certainly be needed to identify the most cost-effective methods of reducing morbidity and mortality rates of vulnerable groups and promoting their health.

The problem with demonstrations in the health sector is that they must fulfill goals and objectives with available resources, those the Government and communities can afford in the short and long term. But they must also show that the overall plan can be reproduced in similar areas of the country. This has not often been the case, because of excessive investments of national and external funds in human and material resources, which may not always be available to extend the process to other regions. Demonstrations then become just pilot

projects. In view of the political, social, and economic conditions of Haiti in this crucial period, it is important to keep in mind the causes of the ultimate failures for the whole country of apparently successful demonstrations.

4. Inter-Sectoral Programs for Better Health

There is much evidence of the interdependence of different sectors of economic and social development for improving health and nutritional status. Consider the pertinence of the following. "Equity in health, however, requires equity in development as a whole. Equity-oriented strategies of development have demonstrated remarkable success in improving the health of the population and raising the quality of their life, within the constraints and low levels of per capita income... National development strategies need to include elements in all important sectors which are directed toward the goal of equity and the amelioration of the leading conditions of the disadvantaged and poorer social groups."³

The synergism between infections and malnutrition at the root of infant and early childhood mortality is a classic example.⁴ The need is apparent to coordinate programs of agriculture, education, water supplies and sanitation, family planning, income generation, housing, and others, with those of health promotion and disease prevention and treatment. In terms of health indicators, the final outcomes are greater than when each program is implemented independently, where the potential for strengthening actions and effects leading to better health is lost.

It is recognized, however, that coordination is difficult because of the excessive division of responsibilities in governments within and among ministries and their institutions. Unless the leading staffs are strongly motivated, they do not usually consider the negative or positive impacts that their programs may have on the people's health. Agriculture and nutritional status is an example. Coordination reflects much more than a style of management. It expresses attitudes and behaviors, ways of thinking and acting, of all of those responsible for different sectoral projects.

Despite these constraints, coordination must be pursued. Dissociation within governments should be replaced by the association of different departments that share the same social objectives. This will reflect an active dialogue among academicians, specialists, and managers to plan, to investigate, and to implement. But experience also shows that coordination is more feasible at the local level, in communities, than at the central level, in governments.

On these bases, it is advisable, when appropriate, to introduce health and nutrition considerations and interventions into different programs of economic and social development. Our evaluation team

believes that this approach is useful for GOH and USAID, and we recognize that it complements others, because it cannot become all-inclusive to promote health and to prevent and treat disease.

5. Vertical and Longitudinal Programs Combined

The approaches discussed are not all mutually exclusive. On the contrary, they may well reinforce each other, particularly when community participation is active and informed.

The "special purpose programs," or vertical approach, should not be considered opposite to the progressive coverage system, or longitudinal approach. Both have a role to play in the development of health care in any country. Particularly during large outbreaks, diseases with high incidence and mortality, that can be effectively prevented, may need to be controlled by special programs.

Consider the validity of the following assertions. "An unfortunate and unnecessary confrontation between the so-called vertical and integrated approaches can now be resolved...It may be desirable to organize campaigns to get mass coverage with particular cost-effective interventions and as a means of initiating sustainable long-term efforts. This can facilitate tight management and the operational advantages of focusing resources to achieve specific targets. It also makes possible the mobilization of public and official interests and increasing resources."⁵

There is, therefore, a "combined approach," which uses the established health infrastructure as a whole, while improving the supply of and demand for services, and which creates special programs for specific conditions, even in the absence of health units. The latter requires more information, motivation, and mobilization of the people, i.e., more effective health education, to reach places where the announced preventive measures are applied.

Our team believes that this is the case in Haiti, with an established public and private health infrastructure that provides services to 40% of the population, mostly in urban areas, but for which there is still low demand. Accessibility to health units in the rural areas is poor, requiring on average one and a half hours of walking. In Haiti rally posts are traditional. Under these conditions, they in fact are the key to the outreach strategy. Led by an "agent de santé," the rally post serves the people by fulfilling specific objectives such as immunizations, ORT, family planning, and food supplementation.

Our evaluation team concurs with this combined approach, which the GOH has approved as the basis for implementing the national health policy and its major priorities. The extension of the RHDS project to 1988 is based on this same combined approach, including the Community Health

Outreach Teams (CHOTs). However, we also recommend that larger activities than at present be based on more comprehensive programs of malaria control, nutrition intervention, and family planning.

Still, we believe that, as soon as feasible, the Government of Haiti should continue to expand the process of health coverage by extending the physical and functional infrastructure. In the long run, this will ensure the people's easy access to community and institutional services. We realize that this requires both increases in the Ministry of Health budget, and larger external contributions or loans. For the foreseeable future the latter should be provided with the easiest possible terms, until the Haitian economy and the people's income can support essential social services, including health.

Conclusion

To implement the overall Child Survival Policy, USAID in Haiti is providing the Government with technical and financial cooperation through a series of sound programs. These activities directly relate to the six major priorities of the Nouvelle Orientation. On the whole, they fall into the category of the "combined approach," using the established health infrastructure in the public and private sectors, and implementing special programs for specific conditions, even in the absence of health units. Improving the management and the financial control of the health system is a key activity.

We recommend, among other projects, larger and more comprehensive programs for malaria, malnutrition, and family planning.

Our evaluation team asserts that USAID is making very significant contributions to improving the health status of the Haitian people. Under present and foreseeable circumstances in Haiti, USAID's efforts should not only continue, they should be progressively expanded.

References: Chapter V.; USAID Health Approach in Haiti

1. World Health Organization/The Johns Hopkins University. Smallpox and its Eradication. In: Development of the Global Smallpox Eradication Campaign. I. Arita, F. Fenner, I. Ladnyi, A. Langmuir, and M. Siegel (Eds.) In press.
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3. World Health Organization. The Role of Intersectoral Cooperation in National Strategies for Health for All. Doc. A39/Technical Discussions. Thirty-Ninth World Health Assembly. Geneva, 1986.
4. Scrimshaw, N.S., C.E. Taylor, and J.E. Gordon. Interactions of Nutrition and Infection. World Health Organization, Geneva, 1968.
5. United Nations. On Evaluating the Potential of Primary Health Care. Report of a Working Group of the UN Subcommittee on Nutrition, Advisory Committee on Coordination (ACC/SCN). Washington, D.C., 1985.

3. A key component for achieving Recommendations 1 and 2 is technical assistance from USAID and outside consultants. A technical assistance plan, for long-term as well as short-term consultants, should be developed. All future consultants must meet all of the following criteria: technically competent in their area of expertise, fluent in French, and possessing excellent interpersonal skills.
4. Burgeoning management, financial, and logistical systems need nurturing as they are instituted throughout the country. It is a delicate time, and the systems need the continued input of USAID during this critical implementation phase.
5. No mention was made in this report of a commercial social marketing contraceptive program, because during the previous five years funds were not allocated for this budgeted item. It is recommended that a social marketing program be made part of the plan described in Recommendation 1.
6. USAID should work closely with CONAPO, and should support its first important efforts.
7. USAID can further assist in the success of future family planning activities by encouraging donor agencies to share their future program plans, which may lead to better use of limited resources. The strength of the donor agencies can also be harnessed in order to encourage the MSPP to develop a national family planning plan.
8. From the results of the 1977 and 1983 surveys, it is clear that the Haitian population knows about family planning and wants to use a contraceptive method.

There are many theories as to why the population is not using the available services. A serious effort should be made, no later than the end of the 24-month project extension, to determine the underlying reasons for low service utilization.

References (Chapter VI.A; Family Planning)

1. Ministère de la Santé Publique et de la Population. "New Orientation and Strategy for Health for All by the Year 2000." Haiti, 1982.

VI. INSTITUTIONAL REVIEW AND ANALYSIS

VI.A Family Planning

A review of family planning activities during the last three years must focus on both the successes and failures of the family planning outreach program. There is a tendency to emphasize program failures and to discount the successes. A few of the successes should be discussed, in order to gain a more realistic picture of the situation.

There have been some positive results regarding knowledge of and attitudes about family planning. According to the 1983 Westinghouse Contraceptive Prevalence Survey, 87% of Haitian women knew about at least one method of contraception. Over 50% of the women interviewed in 1983 did not want an additional child, an increase from the 1977 Haiti World Fertility Study of more than 10%. In the 1983 survey, 46% of the women interviewed said that they were interested in using family planning in the future.

Although the total number of family planning acceptors has declined in recent years, two family planning methods--sterilization and Depoprovera--are increasingly in demand. Female sterilization increased from 80 procedures in 1980 to 882 in 1985.

In 1984, the administration of Depoprovera injections started at the regional level. At the end of 1984, there were 800 acceptors, and in 1985, 3,203 women used this method. This interest in Depoprovera was confirmed by the 1983 Westinghouse Contraceptive Prevalence Survey. 3,321 non-users were asked which family planning method they would use in the future. After the pill (28.6%) the two methods most mentioned were Depoprovera (13.0%) and female sterilization (4.6%).

The key service delivery question is why there are so few family planning acceptors. The program began with a steady increase, from 60,000 receptors in 1980 to 83,200 in 1982. There was a decline to 65,300 acceptors in 1983 and 71,900 in 1984. Figures just released by the DHFN for 1985 show an increase to 103,125. Many theories abound, but specific studies with reliable data to answer this very important question do not seem to be available.

There has been severe criticism in a number of evaluation reports of the management information system of the MSPP (Ministry of Public Health and Population)/DHFN (Division of Family Hygiene and Nutrition). Principal criticism includes its inefficiency in collecting and processing data, as well as the selection of data to be collected. After over two years of work, a new MSPP management information system was to be inaugurated in October 1986. There were previously 27 forms used in the system. Now there will only be five forms, including one form for family planning. The other forms are for rally posts, health agents, dispensaries, hospitals, and health centers. The family planning form

will include information on both women and men, age, date of initiation of contraception, number of children, date of visit, total number of users per month, and total number of acceptors per month. For the first time all MSPP data will be processed and analyzed electronically at a central office location.

While collection of these data and the development of this system is certainly a major step forward, the family planning form could be improved. For example, there is no category for tracking family planning supplies, and it is important to know how many condoms, pills, etc., are distributed. Also, how are users and acceptors to be differentiated? This has been a problem since the beginning of the program. Now might be the time to come to terms with these two key concepts. Another look at the family planning form might well prove useful before it is incorporated into the national reporting system.

Another MSPP/DHFN system that has shown marked improvement during the last three years is the logistical support system that provides transportation and supplies. Several problems criticized in earlier evaluation reports have been corrected. First, transportation and supplies did not reach all FP outlet points, and second, supplies were not always available in a timely fashion. During the last few years, the supply system has been greatly expanded, as well as improved, and now reaches virtually all DHFN supply points. The system, furthermore, now manages to resupply most points in a timely manner. Transportation, storage, and supply systems operate quite smoothly, and, for the most part, problems stem from factors beyond the DHFN's present scope of responsibility.

The DHFN's administrative functions have been significantly altered through the decentralization of responsibility for service delivery in institutions and communities to regional and district offices. Several DHFN functions (education, training, and planning) have also been integrated into other MSPP divisions. The DHFN has actively participated in the decentralization effort by transferring supervisory and management functions, where appropriate, to the regional administrative offices.

Administrative activities, particularly financial tasks, are well defined and carried out by DHFN staff. MSPP/DHFN personnel were instrumental in the design and implementation of a regional and district level financial management system. The initial trials of the system were carried out with DHFN staff assistance and employing DHFN data. Overall, the DHFN's management capability is adequate to the functions for which it is now responsible. The task of management functions outside of DHFN, which are critical to family planning success, is extremely challenging.

Many questions remain about the delivery of family planning outreach services in Haiti. A number of different strategies have recently been tried through experimental research projects. Four examples are: household distribution (distributors paid stipends and year-end bonuses,

a DHFN project); a community-based malaria volunteer project (DHFN/SNEM); community health workers receiving incentive payments (Mirebalais; AOPS/DHFN program); and salaried community health agents (Albert Schweitzer Hospital program).

These four projects illustrate the variety of family planning service delivery approaches being tried in Haiti: first, with different types of community workers; second, with different payment mechanisms; and third, with different types of organizations managing the project, from public to private agencies or private hospitals, or both.

There does not now appear to be a consensus regarding the strategy that is preferred by either the public or the private sectors. There does, however, seem to be agreement on the services to be offered, particularly the priority ones. The strategy follows the six priority services identified in the 1982 MSPP paper entitled "New Orientation and Strategy for Health for All by the Year 2000."¹ Family planning is listed as the fourth of the six priorities. This was a major step forward in providing direction for health services, but the MSPP must go considerably further to develop a national policy, along with a detailed step by step plan for rural health services. The task will not be easy, for, as outlined above, there are many options to consider, since many service delivery models have been tried in Haiti.

USAID can play a key role in this area. The family planning outreach project is being extended for forty-four months. During this time, USAID can work with the MSPP/DHFN to develop a national plan for the next five or more years. The plan needs to be highly specific and very detailed. It would not be enough to say that x% of the population should be served in five years. A step by step plan with quarterly benchmarks is needed to show how this goal is to be reached. To write the plan, a review of services available during each quarter of the five years will be necessary. For example, objectives might be set at each six month interval. Writing and implementing such a plan would entail a great deal of work, as well as a commitment on the part of both the MSPP and USAID.

The timing might now be right for such a major effort. The Government of Haiti has taken a major policy step by creating CONAPO, the National Council on Population, and a technical arm, at the central level, to implement national population policy.

Furthermore, the MSPP, as noted above, has made major strides in the development of financial, logistical, and management information systems. With the underlying MSPP systems soon to be in place, and with the beginning of the development of national population and health policies, it may now be possible and feasible to develop a plan for national service delivery.

USAID should consider making a strong commitment to family planning, to provide further impetus for the successful completion of this effort. It would be beneficial if this commitment could be demonstrated by actions of both the technical and the administrative staffs of the Mission.

With the start of the extension and into the next contract, now is the time to develop a strong USAID Technical Assistance (TA) Program. During the last five years, much of the needed TA has not been provided to the MSPP/DHFN. Indeed, only 1% of allocated technical assistance funds were spent. Regarding long-term TA, there has been some discussion about having a family planning coordinator, similar in status and function to the oral rehydration therapy coordinators at the central level of the MSPP. USAID has discussed the possibility of hiring a management expert fluent in French and with excellent interpersonal skills to work with this Haitian counterpart. Short-term consultants in health planning and management, as well as in other areas, will be greatly needed.

Another area in which USAID could be especially helpful is with the donor community. Presently, communication among donor agencies is good. However, exchange of ideas and information could be taken a step further. Perhaps USAID could involve other donor agencies, where appropriate, in the development of this plan. Furthermore, it might be useful if the donor agencies shared their plans for future programs with one another.

During the next two years of the FP outreach program, not only would a plan for the next five or more years can be developed with the cooperation of the MSPP/DHFN and USAID technical staff and short-term consultants. Specific interventions that can also be accomplished in the two years of the project extension should be initiated, first, to reinforce existing private and public programs, and second, to build a bridge to the long-term plan to be developed by the MSPP.

Financial Considerations

DHFN receives funds from GOH's Trésor Publique, P.L. 480, USAID, and UNFPA. Over the last five years, its annual receipts from these sources and its actual expenditures increased from approximately \$1 million to nearly \$2 million. Actual expenditures by source of fund for FY 85 follow.

VI.B Malaria Control

We were asked to assess the degree to which USAID and the Government of Haiti have implemented the recommendations of the Malaria Project Evaluation.

Between August 26 and September 19, 1984 an evaluation team made an in-depth analysis of malaria eradication in Haiti. They concluded that the situation is worsening.¹ From the incomplete information available, the total number of cases may be estimated at 250,000 to 300,000 a year. The number of deaths due to P. falciparum, particularly of young children and pregnant mothers, is estimated to be no less than 3,000 a year.

The evaluation team thoroughly examined the complex process of malaria control in Haiti, and issued a series of concrete and specific recommendations. These served as a frame of reference for our discussions with the Director of SNEM, his senior staff, and international advisers. We were benefited by the concise and clear document prepared by Dr. Jean-Francois (Annex 2), in which he summarizes the evolution of malaria activities in Haiti, the major constraints identified during 25 years of experience, and his own perspective.

On the whole, one can say that a number of the evaluation team's recommendations have to some extent been implemented or are to be put into effect. We shall examine the most important ones.

Case detection. Regarding case detection, which will contribute to a more accurate stratification of the malarious areas in Haiti, the voluntary collaborators (VCs) provide only presumptive treatment to fever cases. They do not take blood samples, as was customary. Instead, periodic parasitological and serological surveys are performed in ten selected groups of the population, to determine the prevalence, incidence, and distribution of malaria.

Only in large hospitals and some health centers with experienced microscopists can clinical cases of the disease be identified. In smaller ones, and in many health centers and dispensaries, the lack of microscopists interferes with specific diagnosis. This is, no doubt, a serious limitation, all the more so because the chief of the SNEM laboratory has no authority to supervise the MSPP laboratories and to develop periodic quality control testing.

This recommendation of the evaluation team has not yet been implemented. Nor have mobile laboratories been introduced in rural areas where there is no health infrastructure. Dr. Jean-Francois believes that this is not feasible, due to budgetary constraints and difficulties in supervising personnel.

Should resources become available, it can be questioned whether the VCs should again take blood samples of fever cases. To this end, it will be essential to increase the number of microscopists in the SNEM, the MSPP, and in private health services. A malaria laboratory system, properly managed, supervised, and evaluated, should provide timely responses to the flow of slides coming from the VCs, so that diagnosed cases can be adequately treated.

The policy of integrating malaria control into the primary health care system, by diversifying the activities of the VCs, entails increasing their numbers from 6,700 to 14,000 in the next five years, and to a final goal of 18,000. They will then become a unique network in Haiti, reaching deeply into the rural malarious areas. The more fever cases receiving a timely diagnosis as suffering from malaria, the greater will be the success of the control program.

The present surveillance system is based on monthly blood surveys in ten different areas identified as "highly malarious." As stated, we believe that the Malaria Passive Case Detection System in fever cases, through an enlarged VC network, may well prove to be more effective in dealing with the dynamics of the disease. Furthermore, as stated by Dr. Jean-Francois, with the present approach prevalence rates cannot be current, nor can they be extrapolated for the country.

The process of increasing the VC posts to 14,000 has not yet begun. For an effective malaria control program, this should be carefully planned and implemented. The paramount issues are training, retraining, supervision, information, evaluation, and management.

Mass Drug Administration (MDA). The report of a group of consultants in January 1986 clearly specified the conditions for the use of MDA.² SNEM follows these guidelines, which are consistent with WHO recommendations.³ MDA has practically no application in the context of malaria control operations. However, it may be useful in the control of epidemic malaria, in conjunction with effective antivectorial measures.

Research. Among the recommendations of the evaluation team not yet implemented, we want to point out the need for a conceptual framework for understanding the epidemiology of this disease. It is also important to conduct an in-depth study of the interactions of social, economic, ecological, and biomedical factors affecting malaria transmission and control.

Epidemiological research is essential to address significant issues about malaria dynamics in Haiti. Among them, as suggested by Dr. Sneller, we include levels of endemicity in the four ecological zones, incidence rates, frequency of attacks in individuals, fluctuations of prevalence, and age and rate of asymptomatic cases in malarious areas.

From an operational point of view, the actual capacities of the health system, public and private, to contribute to the diagnosis, treatment, and control of malaria need to be determined. The causes of the lack of productivity of VC posts, including cultural and migration patterns, are factors that may also influence rates of transmission, and which should also be studied. The actual feasibility of diversifying the activities of the VCs, by adding the distribution of ORS and contraceptives, including potential and actual constraints already identified,^{3,4,5} should be determined, for an effective and progressive implementation.

The monitoring of the P. falciparum sensitivity to chloroquine and other antimalarials in vitro and in vivo must remain because of its significance for the effective control of malaria.

As suggested by the evaluation team, simple and economical methods for detecting human plasmodial antigens in the human and vector populations, should continue to be explored.

This series of studies requires a stronger research section in SNEM.

Vector control. According to the evaluation team, in a given situation without house spraying with residual insecticides, use of larvicides, and space spraying with adulticides, biological control and source reduction may be the methods of choice. It is recommended that all of these be tested and evaluated, both entomologically and epidemiologically, to determine how, when, and in what circumstances each should be used in SNEM's regular operational program.

Dr. Jean-Francois is sceptical. According to him, Haiti has been a large laboratory for research in biological control and source reduction, but none of these measures has been successful, nor has integrated control. Despite this situation, the role of the community, properly motivated and guided to reduce breeding places, should be assessed.

Stratification of the malarious areas. Based on incomplete data, it can be said that in Haiti there is an epidemiological stratification of malaria. The evaluation team recommended an operational stratification to determine the feasibility of remedial measures. This should include, besides levels and timing of transmission, accessibility, house concentration, land cultivation, irrigation, and watering systems, among other factors. Their proposal seems to us to be more of an ecological stratification for identifying homogeneous areas of malaria transmission that may lead to different combinations of control measures. Still, the need is apparent for identifying focuses of high endemicity and the applicability of effective methods, and these should be developed. This recommendation of the evaluation team has not yet been implemented.

Administration. In its report the evaluation team thoroughly analyzes the administration and management of SNEM, and then makes specific recommendations for each major element of the system. It goes so far as to state that "a re-organization and strengthening of the administrative management of SNEM is necessary before undertaking any other action." This process is being developed at SNEM, with the exception of financing, in the areas of decentralization--auditing, information, personnel, financial management, accounting, procurement, and computerization of some of these processes. Regarding transportation, we were informed that the management and maintenance of vehicles have been difficult. SNEM has many outdated vehicles whose maintenance costs far exceed their utility value. New ones are periodically being provided by USAID. A recent expected reduction of personnel did not affect the field staff, and therefore has not impaired operations.

USAID has appointed an experienced management consultant to SNEM, who is cooperating full time. We need not emphasize how essential is efficient and effective management to a program such as malaria control, which spreads--or should spread--throughout the rural areas of Haiti to reach the people at risk.

The application of remedial measures. Of great importance is the endorsement by the evaluation team of the policy to reduce mortality, shorten the time of illness, and alleviate human suffering due to malaria. This policy must be carefully monitored and evaluated. However, in areas of high endemicity, besides treating suspected cases, it is recommended that transmission be interrupted, reducing the prevalence of the disease by applying fenitrothion at least once a year, preferably twice, before the main peaks of transmission occur. The evaluation team warned that "if no insecticide is used in Haiti, the country would be subjected to catastrophic epidemics, since integrated vector control programs seem not yet feasible on a regular basis."

For budgetary reasons, the Executive Committee of SNEM decided to implement the policy of reducing mortality and eventually, morbidity, through the network of VCs, coupled with studies on the dynamics of malaria and on different measures of vector biology control. No regular intradomiciliary spraying of the malarious areas will be performed, with the exception of the experimental use of fenitrothion provided by the Government of Japan.

As reported by Dr. Jean-Francois, there has been no national spraying campaign since eradication times, around 1974. The fact remains that the malaria situation in Haiti has progressively deteriorated, particularly since 1978.

The evaluation team estimated the prevalence of malaria in 1984 at about 300,000 cases, a level of high endemicity, which we believe still prevails. It is not known whether this is the homeostatic stage, i.e., of adaptation in nature of man, mosquito, and parasite, or whether the incidence can continue to increase.

In January 1986 an expert group examined the actual role of residual insecticides.² Their report states that "in case of total coverage with residual insecticides in a given area in a country (no less than 50,000 km²), to accelerate the process of malaria control by means of interrupting transmission completely through vector control at the domiciliary level, the original transmission levels of malaria are usually re-established two to three years after withdrawal of the control measure, if no provisions for maintenance of the results achieved are taken." The team adds that if an incidence of less than 0.2/1,000 TMA is achieved, withdrawal of residual insecticides is compatible with disease control, if the specialized malaria program is supported by national permanent information and surveillance systems. These must be responsive enough to treat any new epidemic or residual focuses of transmission. This is precisely the methodology followed to eradicate or control malaria in several countries of the Americas, particularly the Caribbean islands.

Following the recommendations of WHO,⁷ the present trend is to integrate all activities for malaria control into the national health system, particularly at the peripheral level through primary health care.

Malaria control entails normative and operational activities.⁸ The former include epidemiological information from each homogeneous ecological strata with the appropriate specific measures, training of health staff, monitoring processes, and evaluating outcomes of programs. The latter entail surveillance, prevention and control of malaria, and should involve all resources of the national health system.

SNEM should determine the extent to which malaria activities can be integrated into the health infrastructure, both public and private. The diversification of functions of voluntary collaborators should be implemented without impairing the timely treatment of suspected malaria cases. Very essential for effective control are both an operational stratification, based on identifying homogeneous areas susceptible to common measures, and a surveillance system to predict outbreaks and reduce high endemicity, and which evaluates outcomes in terms of morbidity and mortality rates.

A model for integrating malaria control into health care services could be prepared by SNEM and tested in one of the Regions. This would follow discussions with the Regional and District Directors and representatives from the private sector, and the training of different categories of staff. Perhaps even more important, the delegation of authority and responsibility, even at the most peripheral levels for developing local programs, should be considered. SNEM should retain technical assistance, supervision, monitoring, and evaluation of malaria control activities in this experimental Region.

The socioeconomic characteristics of malaria have been clearly stated: first, it affects children and pregnant women most severely; second, when undetected and untreated it is frequently an underlying or associated cause (e.g., with gastroenteritis or malnutrition or both) of the high rate of infant mortality in Haiti; third, it contributes to lost workdays, low rural labor productivity, and poor school attendance; fourth, malaria outbreaks in urban areas and beach resorts are a disincentive to tourism, a major source of foreign exchange for Haiti; and fifth, it taxes the health care system with excessive outpatient visits and hospitalizations.⁹

Because of the present severe financial limitations of Haiti, our group agrees with the control policy as designed. However, enormous efforts will be needed to mobilize all the health resources of the country, including expansion of the VC network to 18,000, in order to identify and promptly treat all suspected cases of malaria. This will require effective systems of information, surveillance, supervision, evaluation and training, and efficient management.

In the absence of any significant program to interrupt transmission, and thus to prevent the disease, the control policy will at best have a slow impact on the prevalence and incidence of malaria in Haiti.

Taking into account the encouraging results obtained with fenitrothion, our team recommends its use in the malarious areas of the country to control transmission of the disease. In accordance with the results of the process of operational stratification, including the susceptibility of the vector, malathion, carbamates, and other insecticides could also be used, considering costs and time for the development of resistance. This activity should be integrated with the approved strategy of timely treatment of fever cases and, whenever possible, the application of other vector biology control measures.

We suggest that the Inter-American Development Bank (IADB) be consulted as a potential contributor to this program, which should be designed through the joint efforts of GOH, AID, IADB, PAHO/WHO, and the Government of Japan.

SNEM Financial Considerations

Sources of funding for the operation of SNEM include the GOH from its normal budget (Trésor Publique), P.L. 480, a USAID Grant, Technical Assistance from USAID and PAHO, and insecticides from the Government of Japan. Budgeted amounts and actual receipts from these sources in FY 85 are given in the following table:

MSPP/DHFN
FY 85

<u>Source of Funds</u>	<u>Expenditures (In thousands US\$)</u>	<u>Salaries</u>	<u>Percent of Total</u>
GOH - Trésor Publique	89	89	100
GOH - P.L. 480	431	63	15
USAID Grant	837	372	44
UNFPA	<u>512</u>	<u>120</u>	23
	1,869	644	

Source: Administrator of DHFN

Over the period FY 82 to FY 85, funding from GOH's regular budget remained constant at about \$89,000 per year. The increase in expenditures was thus absorbed by increases in funding from the other three sources. Although salaries are financed by all four sources of funding, they account for only 34% of the budget, while in the MSPP's FY 85 recurrent budget, they accounted for 87%.

Currently, the USAID grant finances 45% of actual expenditures of this project. Life of project funding by USAID amounts to \$9.62 million. Of this amount, \$5.69 million is already obligated, and \$4.26 million had already been disbursed as of March 31, 1986. With the project activities completion date set at September 30, 1986, both obligations and disbursements are considerably behind schedule. Extension of the project thus merits serious consideration.

Recommendations

1. A long-term family planning strategy, linked to a detailed plan for five or more years, is needed. This plan should include not only goals, but also objectives for each quarter, along with accompanying monthly benchmarks. Quarterly objectives, for example, could be linked to available resources, and could state specifically how monthly benchmarks would be reached, and how this in turn would contribute to the quarterly objectives.

2. For the short term, the next 24 months contract extension period, a long-term plan should first be developed. Punctual family planning interventions, that could realistically be accomplished during a 24-month period, and that could lead to the long-term plan, could then be implemented.

SNEM FUNDING, FY 85
(In thousands of US\$)

<u>Source of Funds</u>	<u>Planned</u>	<u>Actual</u>
GOH - Trésor Publique	281	257
GOH - P.L. 480	1,100	1,100
USAID Grant	2,013	2,039
USAID Technical Assistance	480	47
PAHO Technical Assistance	332	280
Govt. of Japan - Insecticides	<u>1,346</u>	<u>Unknown</u>
	5,552	3,723

Source: Administrator of SNEM; PAHO; USID Project Files.

From FY 82 to FY 85 actual expenditures of SNEM almost doubled. Officials indicated that most of the increase was due to increases in salaried staff paid by the USAID grant and the P.L. 480 counterpart funds. Over the same period, funding from the regular GOH budget declined rather sharply, from \$1 million to \$0.25 million.

The USAID grant finances 55% of the actual expenditures of SNEM. P.L. 480 counterpart funds finance another 30% of the actual expenditures. Life of project funding by USAID amounts to \$8 million. Of this amount, \$7.05 million was obligated and \$5.86 million had been disbursed, as of March 31, 1986.

Conclusions

1. Malaria in Haiti remains at a level of high endemicity, with an estimated prevalence of around 300,000 cases and no less than 3,000 deaths due to P. falciparum per year, affecting mainly children and pregnant mothers.

2. For budgetary reasons, the Executive Committee of SNEM decided to implement the policy of reducing mortality, and eventually morbidity, through the network of VCs, coupled with studies on both the dynamics of malaria and different measures of vector biology control. No regular intradomiciliary spraying of malarious areas will be performed, with the exception of the experimental use of fenitrothion provided by the Government of Japan.

Recommendations

1. Our evaluation team strongly recommends the use of fenitrothion and other insecticides, according to the process of operational stratification and vector susceptibility.
2. A detailed plan of operations of this extended program of malaria control should be prepared by the Government of Haiti with the technical cooperation, if needed, of PAHO/WHO, USAID, and other international agencies.
3. We urge sustained efforts to ensure external financing for the implementation of the plan. The Inter-American Development Bank, the Government of Japan, and other sources of funds should be consulted as potential contributors.

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VI.C Rural Health Development Service Project (RHDS)

Our team was asked to evaluate the extent to which RHDS project objectives were achieved, and whether they were realistic and measurable, and, where warranted, to propose revised targets.

RHDS is one of the most important contributions that USAID has made to improving the health status of the Haitian people, particularly the vulnerable groups, pregnant and lactating mothers and children under five. The project has been a joint undertaking of the GOH with the technical and financial cooperation of USAID. RHDS deals, in essence, with strengthening and expanding the national health infrastructure and improving its accessibility and effectiveness. It should facilitate the implementation of the basic health policy of the country, as contained in the Nouvelle Orientation and its six priorities. This low-cost, rural health delivery system, decentralized through regions, districts, subdistricts, and health centers, was to be developed concurrently with a major reform in the management and administrative capabilities of MSPP.

The original long-term goal was to significantly improve the health status of the rural poor by 1990. The purpose was to provide access to low-cost preventive and curative services for up to 70% of the Haitian population by 1984.¹

More specifically, the basic expected outputs of the project were: first, 275 dispensaries constructed or reconstructed, staffed with 550 trained auxiliary nurses who would support 1,500 trained health agents throughout rural Haiti; second, a supply and logistical operation able to support national, regional, and local health delivery systems; and third, trained upper echelon professionals to administer the RHDS at the national, regional, and district levels.

Results of the RHDS Project

Despite the fact that these objectives, as a whole, have not yet been accomplished, very significant outputs have been reached. In making this judgment, our evaluation team is mindful of the political, economic, and social situations in Haiti since the project began. Some of these concrete results are:

- a) The formulation of the Nouvelle Orientation policy, fully consistent with the USAID Child Survival Strategy.
- b) The measurable, although limited, successes of PRONACODIAM and PEV, tuberculosis and malnutrition controls, which are encouraging enough to extend them to new communities through a systematic outreach system. Elsewhere in this report we discuss these two programs in some detail.

c) The creation of AGAPCO, which, in four years, has established in isolated rural areas a network of 200 pharmacies, most of which are affiliated with an MSPP dispensary or health center. There is no doubt about the need to regularly supply essential generic drugs to the poor. Questions have been raised regarding AGAPCO's organization, management, and prospects for self-financing.

d) In conjunction with the IADB's Health Construction Loan, the project has contributed to the construction or renovation of nearly 200 health facilities. It has funded 77 of them, mostly in rural areas without any previous organized health service. All these facilities are at present operational.

e) On the basis of training modules prepared by the project, 480 auxiliary nurses and 550 health agents have been prepared in the field in ORT techniques, vaccinations, growth monitoring, and family planning. We must add that, to improve the quality of prenatal and delivery care, 6,000 traditional midwives were retrained, thus contributing to a reduction in infant and maternal mortality.

It is true that the number of health agents prepared is far less than the original goal of the project. Furthermore, only 449 of them are now working in the priority programs of the MSPP. Even more significant, their training has been stopped for budgetary reasons, because the Government is unable to absorb those already prepared, even when the need is so great. Nevertheless, the valuable lessons learned will help improve the process. The basis for continuing this training has been established, and we hope that it will soon be started again.

f) The general policy of decentralizing the Government has been developed in the health sector. Four regions and 11 districts have been identified, staffed, and given the responsibility to plan, program, implement, and manage the overall policy of MSPP in their jurisdictions. There is not yet financial and budgetary decentralization, in the sense that regions and districts cannot allocate funds to carry out each program.

g) MSPP and USAID support to AOPS has resulted in a change of outlook of the PVOs and other private sector health units regarding the significance of prevention and the need to implement the priority programs. This is a very significant accomplishment. Facilities have been provided to this end, such as infant weighing scales, "cold chain" materials, growth charts and vaccination cards, and health education materials. This process should continue both among and without AOPS members, in view of the significant numbers of people, particularly mothers and children, who use these services.

h) A health information system, mostly related to the major priorities and to some curative activities, has been designed, tested, and taught in national and regional seminars. It should evaluate processes in the MSPP health infrastructure and, hopefully, in private facilities. The flow of data, while measuring project performance, should provide useful feedback for readjusting objectives to be commensurate with resources.

i) A national MSPP transportation system has been created, which includes a network of ten garages and seven warehouses with trained staff, as well as vehicles, tools, and equipment.

j) The development of a computerized personnel management system and a regional financial accounting system are essential tools for the effective administration of project activities. There is still the need for appropriately training MSPP personnel to use them as planned.

Project assistance has been instrumental in opening two new Regional offices, the West and Transversal, and several District offices. In the Northern Region, emphasis was placed on improving management systems for project funds, personnel, equipment, and transportation, which are still in full operation.

These are among the major activities developed by the RHDS project. Each one, besides its direct outcomes, is having a demonstration effect that is difficult to evaluate, but which is nevertheless occurring. We believe that these achievements are remarkable in the short period of six years, under difficult political, economic, and social circumstances. They speak highly of the dedication of the Haitian health staff, as well as the quality of the technical cooperation of the project staff.

The project has encountered significant constraints during its development. Most of them are related to the management of human, material, and financial resources, and they have prompted corrective measures that are today in place. The lack of continuity in the leadership of the MSPP has also limited in no small measure the attainment of general and specific objectives.

Evaluation of the RHDS Project

In February 1983, three and a half years after the signing of the Project Agreement between the MSPP and USAID, an evaluation of the RHDS Project was carried out by a team of five independent public health specialists.² They intended to determine the progress made toward the project goal of improved health status of rural populations and health services coverage for 70% of the rural communities, as well as the reinforcement of MSPP systems needed to support these services.

The major recommendations of the evaluation team served as a framework for our discussions with high officials of the MSPP regarding whether the goals and objectives had been achieved, and whether they were realistic and measurable. Drs. Kernisant, Hilaire, the Directors of the Northern, Southern, and Transversal Regions, the Chief of the District of Miragoane, and other officials of the MSPP were present at our meetings.

The RHDS project was found to have been too ambitious and unrealistic in its original design. It presupposed the existence within the DSPP of administrative capacities that did not exist. It also assumed a potential for expansion and support which was and is beyond the financial and human resources of the DSPP.

More specifically, the evaluation team felt that rural coverage of 70% could not and should not be achieved within the duration period of the RHDS project, because of the certainty of outstripping the support capabilities of the DSPP. An objective of 40%, including private coverage, seemed more attainable, provided that the administrative strengthening of DSPP was implemented.

Taking into account the progress made thus far, both in increasing coverage in the rural areas and in improving management of the MSPP, the participants and our team agreed that the RHDS project could reach, by 1990, 60% of the rural population, of which 25% will be served by the private sector, including mixed institutions, and 30% to 35% by the public sector. It has been estimated that, at its best, the private sector can serve no more than 25% of the people in the rural areas, using a financially self-sustaining strategy. Should this estimate be confirmed, it will show how essential an effective, well-managed public sector is to improving the health status of the Haitian people.

The objective of providing health services coverage to 60% of the rural population by 1990 assumes that:

- a) the basic health policy of the MSPP, focusing on the six major priorities, will remain in force and be implemented;
- b) the process of decentralization in Regions and Districts will be strengthened, giving authority and responsibility to the respective directors to carry out the approved plans and programs, while the MSPP retains its essential roles of formulation of policies and guidelines, supervision, evaluation, education, and research;
- c) the extension of the Project as proposed by USAID will be approved;
- d) the strategy of Community Health Outreach Teams (CHOTs) included in the Project extension will be progressively carried out and carefully monitored in targeted districts first, and will then be extended to other rural communities;

- e) a consensus of the population to be served, following the experience of the private sector health facilities, should always be implemented;
- f) in the absence of an accessible health unit, rally posts in fact become the key to the outreach strategy. They should be organized and led by trained "agents de santé," supported if possible by an auxiliary nurse from the nearest dispensary;
- g) the Health Information System should be used by the CHOTs;
- h) the process, already started, of strengthening the management capabilities of the MSPP should continue, and should include all essential components of the system;
- i) training should be actively pursued at all levels of the health care system, for professionals as well as nonprofessionals, including "agents de santé" and voluntary collaborators;
- j) malaria voluntary collaborators have diversified functions, including ORT and family planning activities, besides their specific ones. Their present network should be increased to 18,000, adequately trained and supervised. This may well turn out to be a significant input to the health outreach process in isolated rural areas;
- k) the provision of essential generic drugs should be ensured by AGAPCO in the unserved and underserved communities, once the managerial and financial capabilities of the agency have been reviewed and improved.

We agree with the 1983 evaluation team when it states that "the overall approach to rural services being developed is more likely to have long-term institutional and health impact than the more limited vertical programming." However, the team recommended the consolidation of the gains made up to March 1983, with no further expansion of the rural system until current activities are adequately supported.

Although the officials of the MSPP were in agreement with this recommendation, our group believes that it should be reviewed. We prefer to interpret consolidation as increasing the utilization of accessible services, i.e., raising the effective demand, and applying the results of operational research for the better use of available resources. In the country there is certainly an under-utilization of MSPP services. For instance, the Director of the Western Region estimated that only 22% of its population uses the health system. In the Southern Region, according to its Director, 21% of the accessible population utilizes the services. The rate rose from 15% in 1982 to 21% in 1984, when the objective for that year was 25%. The Director said that in 1985 utilization was 30%. She also reported that the "agents de santé" cover 40% of the accessible population, and that 80% of pregnant mothers use prenatal services, which

is encouraging. In the Northern Region, about 36% of the people make use of the health system. However, the Assistant Director of the Region believes that this rate is underestimated, because many health establishments do not report their activities.

It is interesting to note that, according to its Director, there are no private health institutions in the Southern Region. Of 84 establishments, 35% are "mixtes." The latter receive from the MSPP vaccines, Vitamin A, the "cold chain," contraceptives, and forms for reports, while the staffs are trained by regional and district teams. The Director claims that a unified health system is operating in the Southern Region. We should remark that the relations between public and private sector officials are good.

In the North there are 69 institutions, of which eight are private, 12 are "mixtes," and 49 are public. Cooperation in general is effective. However, in a few cases those responsible for private establishments do not recognize the authority of the regional or district staff.

There is clearly an underutilization of the installed capacity of the health care system of Haiti. This condition seems to affect the public, private, and "mixtes" institutions. Still, a study is in order to more accurately determine the supply of and demand for services. If the latter is below capacity, the determinants should be identified and corrected. Thus, a real consolidation will occur.

Officials of the MSPP offered some explanation for the underutilization of health services. We note the following:

- The MSPP faces problems with the supplies of drugs, materials, and furniture needed for the functioning of the system, despite the existence of AGAPCO.
- The staff, who are poorly paid in comparison with other ministries, lacks motivation.
- The budget has been frozen for the last three years, causing financial limitations.
- There is a lack of specialists for providing regional and district services.
- Field personnel are frequently rotated.
- Cultural factors: some people prefer traditional medicine (charlatans) to modern medicine, thus the need for health education.
- Better utilization will occur if health institutions are well structured and equipped, i.e., if they are functional and able to provide good quality services to the population.

- The lack of legislation about public functions, so that administrators responsible for health programs do not have the legal authority to act vis-à-vis their staffs.

Today, we cannot agree with the evaluation team in their recommendation of "no further expansion of the rural system until current activities are adequately supported." Besides the people's sense of urgency about improving their health status, the strategy of effective outreach of the health system (CHOTs) must be implemented, while the consolidation process previously referred to advances. Both actions are complementary and mutually reinforcing. It is obvious that they can only be developed within the budgetary possibilities of the Government and international agencies--both bilaterals and multilaterals--cooperating in the health field.

The evaluation team recommended a "focus" of project activities on the DSPP's six health priorities and their requirements. There is a consensus regarding this strategy. The team also suggested the simplification of systems, especially information ones, that support MSPP activities. This has been a concrete accomplishment of the RHDS Project. The more than 20 forms to report health services outputs and outcomes have been reduced to six, in order to follow up and evaluate actions concerning the six major health problems directly related to the Child Survival Policy. As presented, it appears that the system will register more processes than outcomes, which is still a useful exercise. However, it is equally important to follow the trends on morbidity, mortality, low birth weight, malnutrition, and other indicators of the vulnerable groups.

There was also agreement regarding the need to implement the series of management and administrative systems already designed. Our team was told that specific studies to apply the corresponding procedures were being developed. We strongly recommend that the latter be simplified as much as possible without impairing the attainment of the objectives of each system.

We were pleasantly surprised when informed that supervision is performed at all levels of the MSPP--central, Regions, Districts, communities and localities--following a preestablished calendar. The purposes of supervision are mainly to educate and to solve problems, not to inspect. However, due to budgetary limitations, field visits can only be performed every two months. The Director of the Northern Region focuses supervision on the revision of techniques related to the priority programs. Supervision is, of course, "the critical element in assuring effectiveness." Our group recommends analysis of the methods in operation, in order to strengthen them, if necessary.

The evaluation team also recommended an internal evaluation process to permit strategy adjustments in midstream and regular feedback on priorities. Evaluation should be directly related to an effective information system, as well as to programs with specific objectives commensurable with resources. We have already mentioned that a simplified information system for the major health priorities of the MSPP has been tested and will be implemented in the near future. It will be a major advance toward internal evaluation throughout the national health service, including the PVOs. In the meantime, we were informed that in each Region workshops are being organized exclusively about institutional care. It is even more important to implement them for community care, in relation to the Child Survival Strategy. Thereafter, as a viable information system becomes operational, the planning process will be improved, and internal evaluation and feedback will be effectively carried out.

At present, each Regional and District Director must prepare an annual report of activities performed on the bases of programs and constraints. The MSPP is trying to consolidate these statements for the country as a whole. It would prefer a monthly report based on the new information system. We hope that it has already been decided where and how the data flowing from the "agent de santé" upwards will be aggregated and analyzed for decision making and feedback. These are essential conditions for effective programming, supervision, monitoring, and evaluation.

While strongly supporting the MSPP general policy, the Nouvelle Orientation, the team recommended the strengthening of the Bureau of Health Planning and Evaluation (BHPE), so as to make available the technical assistance needed. It was suggested that the Bureau be expanded to include manpower planning, financial planning, facilities planning, and program planning and evaluation. A substantial portion of the efforts of this revised BHPE should be directed to assisting regions and districts with their planning needs.

As a result of these recommendations, we were informed that BHPE presently includes Sections of Studies and Planning, Evaluation, Statistics, Information, and External Assistance. Two economists, one of whom is the Assistant Director of BHPE, and a program specialist have been added to the professional staff. It is to be expected that the national health plan will be based on the regional and district plans.

Haiti's dire economic situation affects all social services and impairs the well-being of the people. Because health and nutritional status are more sensitive and vulnerable, particularly under conditions of critical poverty, the negative impact as reflected in morbidity and mortality rates is more evident.

We previously mentioned that the MSPP has stopped the training of "agents de santé" for lack of financial resources, because it was unable to absorb those already prepared. The situation is better described by the fact that during the last three years, the budget of the MSPP has been frozen, despite the reality that the Ministry is responsible for new health establishments and their functioning. It is worth noting that the evaluation team stated three years ago that "the DSPP is not capable of supporting costs of the RHDS project. It must be recognized that the DSPP is underfunded in an absolute sense, and will be forced to rely on external donor assistance for the intermediate term (10-year horizon)."

The team recommended that the RHDS Project should develop strategies for increasing self-sufficiency and halting the expansion of coverage. We have expressed our disagreement with the latter and, on the contrary, suggested, with the concurrence of high officials of MSPP, an increase in effective demand of underutilized health services.

Furthermore, the strategy of Community Health Outreach Teams included in the extension of the RHDS Project will certainly contribute to increasing coverage for the prevention and treatment of priority conditions. We must add that the policy of making mothers responsible for their own health and that of their families, and also motivating their neighbors, should certainly expand the effective use of available resources. This policy is included in the extension of AOPS projects in the private sector. There is no reason why it should not also be implemented in the MSPP health infrastructure.

As is already happening in the private sector, the MSPP should try to increase its revenues from the health services it provides, and thus contribute to their financing. This is a recommendation of the evaluation team with which we concur. When the general economic situation of Haiti actually improves, it will be advisable to study the feasibility of a prepaid health system through a social security or other approach.

Financial Considerations

According to records of the USAID/Haiti Comptroller's Office, USAID funds obligated, and actual expenditures from 1979 to 1985 were \$17.5 million and \$15.2 million respectively. Over the same period, Title I allocations to the project were \$11 million. Funding from other sources, including GOH's Trésor Publique, is unknown. In principle, the Trésor Publique and Title I financed most of the salaries of the Project.

The RHDS Project Amendment was signed in December 1985. In theory, project implementation was to have started in October 1985. But the current Director of the project was not appointed until 20 February 1986, and the current Administrator/Accountant was not appointed until April 1986. Hence, information on the financial performance of this project was not readily available.

Per the Project Amendment, the Title III allocations for FY 86 will be \$2 million. Of this amount, \$176,000 is earmarked for AGAPOO. In addition, the project will receive nearly \$1 million in grants. Thus, the portion of RHDS's recurrent cost financed by a USAID grant and P.L. 480 funds would be about \$2.8 million per year.

Conclusions

1. Our evaluation team considers that the Rural Health Development Service Project, a joint undertaking of the Government of Haiti and USAID, has made significant contributions to the improvement of the people's health status, despite difficult economic and social conditions and constraints.
2. Although not all objectives have been reached, for a number of them, listed in this report, progress is evident in terms of changes in policies, structures, functions, technologies, and training.
3. It is encouraging that the Project extension includes increased rural coverage through the Community Health Outreach Teams. It is regrettable that the process of extending the health infrastructure with established services has been stopped, due to Haiti's economic situation.
4. The RHDS evaluation team in 1983 recommended no further expansion of the rural system until current activities are adequately supported, and an overall goal of coverage for 40% of the rural population by 1990.
5. Clearly, there is an under-utilization of the installed capacity of the health care system in Haiti. This condition seems to affect the public, private, and "mixtes" institutions.
6. The implementation of RHDS in its first phase is providing very important lessons, which must be carefully considered in developing the second phase of the project. These lessons reflect the great impact that RHDS has had on Haiti's entire health care system.

Recommendations

1. In agreement with high-level officials of the MSPP, we recommend the overall goal of reaching 60% of the rural population with effective health services by 1990. This effort should, as far as possible, include all institutions of the public and private sectors in coordinated actions. Despite a lack of solid data about coverage, it seems that 60% of the people can be reached by established health units and rally posts.
2. The overall goal requires that the series of activities listed in this report be implemented. We strongly recommend all of them.

3. There is an urgent need for operations research on the supply-demand of health services to identify the determinants of their actual under-utilization throughout the country. With this information, it may be possible to increase coverage with available resources, and to strengthen them if demand substantially increases.
4. We support the recommendation of the 1983 RHDS report on the need for "an internal evaluation process to permit mid-term strategy adjustments and regular feedback on priorities." We suggest that this process be directly related to the simplified information system, as well as to programs with specific objectives commensurable with resources.
5. Our team recommends that the process of administrative decentralization be pursued, including the delegation of authority and responsibility to Directors of Regions and Districts, for the effective implementation of the Basic Health Policy of Haiti and specific programs. An actual financial and budgetary decentralization is also needed.
6. In agreement with high-level officials of the MSPP, we also recommend that technical norms and procedures for implementing priority programs be prepared or brought up to date if needed. This should be a parallel process with the modernization of the managerial and administrative systems in the MSPP.
7. It would be extremely useful for the people if all national and external agencies in the health field would follow, in planning their assistance, the Basic Health Policy of the Government, its priorities as well as its established norms and procedures.
8. Mindful of the present economic situation in Haiti, we still recommend that the health infrastructure be progressively increased to make services actually accessible to most of the people, if not all of the country. This should be the long-range goal of the Government if it wants to provide all Haitians with the opportunity to protect their health all the time, and particularly when they are in need. Although an expensive proposition, it has proven very effective in many countries of the Americas. Several of them have taken ten to 20 years to reach practically complete coverage of their populations. External financing seems today easier to obtain than in the past. The basic issue of recurring costs in Haiti calls for a carefully designed plan by the Government and the national and international financial agencies.

Perhaps even more important, an information system providing the same type of data should create a common language and be useful for monitoring the processes and evaluating the outcomes related to objectives. We note that a simplified information system for each health priority has already been tested and is ready for application in the field. It should be used by both the private and public health sectors, and should, with effective logistics and appropriate data analysis, induce feedback for periodically readjusting objectives.

Better collaboration between both sectors also results from an interchange of resources, for instance, in the referral of severe patients to the best available institutions, or of materials for immunizations or other programs. Training of "agents de santé," auxiliary nurses, and other staff members, following the same educational models, will certainly be conducive to better coordination in the field. The joint training of staffs from public and private health units will be even more useful.

The supervision of the staffs in each system sponsored by the MSPP, an educational and support objective, is another mechanism to improve performance, increase outputs and outcomes, and stimulate the emulation and collaboration between both sectors. Geography is a limitation. However, the regional and district staffs should implement supervision of all accessible health units and rally posts.

Better coordination will also result from committees at the commune or subdistrict level having the opportunity to examine issues of significance for both sectors. They should be composed of the leaders of all units in the area, and should regularly meet. The Director of the Health District should be the Chairman. The plans, programs, and monitoring of activities stemming from data collected and collated by the information system, as well as the frequent constraints to the effective delivery of services and other common problems should be periodically examined.

Comparative Survey of Salary and Other Job Conditions and Benefits of Employees in the Public and Private Health Sectors, and the Impact of any Identified Imbalances

With reference to physicians, Dr. Augustin informed us that, in the public sector, their basic salary is \$300 a month. Some received a salary supplement from USAID, which has presently been discontinued. In the private sector, physicians have a fixed salary of \$600 per month. Although some continue to be supported by USAID funds, this amount is included in the \$600. In Mirebalais, the M.D. receives \$700 per month. However, three days a week he visits different populations in the area, as a member of the community outreach team.

In view of the diversity of sponsoring organizations in the private sector, it is most likely that there are no common salary patterns. A sample regarding sources of funding is included in the following table.

TABLE

<u>ORGANIZATION</u>	<u>SOURCE OF FUNDING FOR COMMUNITY MEDICINE</u>
AOPS	Membership fees in FY 86 = \$3,200 The cooperative agreement with USAID.
FHASE	The cooperative agreement. Haitian friends of the organization. World Vision. FHASE's care funds.
CODIPP	The cooperative agreement. The president's law practice. Friends of the organization.
EYE CARE HAITI	Grants are received from an assortment of organizations and programs including AOPS, CHILD SURVIVAL GRANT, PACT, PRICOR, VIP and churches and women's groups. Patient fees. Mini-pharmacies. Women's groups membership fees.
BAPTIST HAITI MISSION	Mission funds. The cooperative agreement. The pigs program.
PIGNON	Fund raising in the U.S. The cooperative agreement. 20% of the hospital budget. A pig project.
UNION D'ENTRAIDE HUMANITAIRE	Contributions from members. The cooperative agreement. Patient fees. Product sales. UNICEF.
AMOOS	AOPS, IFPP, Eye Care Haiti, and the DSPP.

Source:¹

It would be interesting to determine whether there are striking differences in relation to the public sector, comparable with the scale of stipends for physicians, and what impact they may have on staff performance. Our evaluation team was unable to get the basic information needed for this analysis.

Efficiency Coverage and Achievements of Services Provided by the Government and Private Agencies

Dr. Augustin believes that before 1980 there were no differences--both Government and private agencies were inefficient. The private sector responded more and more extensively to demands for curative services. Community medicine focusing on prevention was poorly performed by institutions in both sectors. Malaria eradication efforts during the 1960's and early 1970's can be considered an exception, as can the successful eradication of yaws in Haiti during the 1950's.

Since 1980, the most significant accomplishment of the private sector has been the systematic extension of coverage, following the census of the population and the programming of specific activities. Our group notes that in the proposed extension of the RHDS project, the same approach is recommended for the health infrastructure, including rally posts, of the MSPP.

It must be pointed out that some private institutions have refused to become members of AOPS. Nevertheless, we believe that they should follow the policies, norms, and procedures of the MSPP, and should actively participate in efforts to improve coordination at the local level of the health care system of Haiti, in accordance with the Nouvelle Orientation.

In extrapolating his own experience to the national scene, Dr. Augustin states that USAID invests \$7 million annually, i.e., \$35 million in five years, in the public sector. The Government's budget for health amounts to \$90 million for the same period. With \$125 million, Dr. Augustin believes that the system should be able to function effectively. To support his argument, he mentions the experience in AOPS. With a contribution of \$480,000 for three years from USAID, the member institutions have served 500,000 persons included in censuses. Our group understands that this amount does not include contributions from the private sector itself, and if this is the case, we cannot estimate it.

On the basis of the project in Mirebalais, Dr. Augustin calculates the cost of community health at \$1.50 per capita per year. At the national level, this rate implies an annual investment of \$9 million. While the private sector can find the \$1.5 million needed for its usual clients, he believes that it would be very difficult for the Government to finance its own programs, inasmuch as it must also maintain the established infrastructure, i.e., the hospitals, health centers, and dispensaries.

With reference to the Child Survival Strategy, the goal is to provide mainly preventive services to three million persons living in the rural areas in three years. Of these, two million will be under the responsibility of the Government, with an annual cost of \$3 million.

Dr. Augustin suggests, and we agree, that both sectors should examine and determine their respective areas of intervention, so as to increase national health coverage. In other words, they should identify what each does and should do to implement national health policies, priorities, and programs.

Our evaluation team could not obtain information on the coverage and efficiency of services provided exclusively by the Government. The lack of an ongoing information system, whose data are regularly analyzed and interpreted, may explain this situation. We have already mentioned that this problem is presently starting to be solved. It would be of interest to examine, in a representative sample, the quality and quantity of services administered by the Government, particularly those directly related to the country's basic health policy. The results of this study on coverage and efficiency can be compared with similar indicators stemming from the recent evaluation of the private sector. Our group strongly recommends this comparative analysis of both sectors.

Use of Funds Generated by Health Facilities

There is usually a charge for health services in Haiti, both preventive and curative. The reason is that the people pay not insignificant amounts for traditional, empirical medicine, which may be more expensive than the scientific treatment for the same condition. We were informed that, in one study on the financing of the health system, it was estimated that each family annually spent, on average, between five and 24 dollars on medical care. A conspicuous example is the Serum Oral for dehydration due to diarrhea. Each package costs 0.75 gourde, an amount that does not appear to be excessive for most families.

Questions have been raised regarding how this financing system works in the governmental health institutions, how much is being collected, what the actual use is of these funds, and whether they contribute to the payment of salaries and the maintenance of units. Dr. Augustin indicated that moneys thus collected are insufficient for the operation of services, i.e., to meet recurrent costs. Each medical consultation, including drugs, but not radiographies and laboratory tests, costs between \$2.50 and \$3. The patient pays \$1 as an average.

In the private institutions, these funds are invested in maintaining effective functioning, as in the seven dispensaries of the Albert Schweitzer Hospital system and in Cité Soleil. However, in the MSPPP health units there is no information on their use, or how they are allotted in each one. In accordance with the law, all fees for services must be sent to the Ministry of Finance, but this is not generally done. Apparently, no auditing system is in place.

Our evaluation team would prefer that funds generated by health facilities be invested in their operating costs. To do this in the public sector, the law needs to be changed. It would also be useful to determine what the actual returns are in a sample of institutions. The amounts may not be of interest to the Ministry of Finance, but they may be significant for the maintenance of the health services. We would be surprised if, among the myriad of studies made in Haiti, this information had not already been collected.

With better data on hand, it will not be difficult to budget the income generated by each facility for operating costs, and to justify expenditures accordingly. This should be the responsibility of the administrators at the MSPP, the Regions and the Districts. Norms and procedures should be prepared, workshops should be organized to explain and apply them, and periodic audits should be performed.

Evaluation of AOPS I and II Projects and CMSCS

An ad hoc team evaluated three major private sector projects in April 1986, including: the Urban Health and Community Development II, also known as the Social Medical Complex of Cité Soleil (CMSCS); the Extended Community Health and Family Planning (AOPS I); and the Community Health Outreach (AOPS II). The last two were, in time, integrated into one AOPS project, and as such it is analyzed by the team.

AOPS is being implemented as a nationwide health program, and not as a pilot project, according to the evaluation team. The experience gained by the MSPP, at Petit Goave and the Albert Schweitzer Hospital and its satellite dispensaries and community, was very valuable in designing the common approach, structure, and support of all institutions that are members of AOPS.

The major issues examined by the evaluation team were:

- progress in meeting the project objectives;
- achievement of anticipated project outputs;
- relationship of project activities to the USAID/Haiti Action Plan
- program management and administration;
- financial management; and
- technical results and constraints.

The fact that the report was not available while we were in Haiti prevented us from examining its content and recommendations and discussing them with the appropriate health professionals in the public and private sectors. This was the methodology of evaluation of all

institutions we reviewed. Under these circumstances, we have carefully studied the report--a very valuable document indeed--and focus mostly on quality, coverage, and impact of projects, and on program management and administration. Still, we believe that this is not the best approach, because it cannot replace the active interchange of ideas and experiences with officials in the country.

Historically, the health programs sponsored by NGO--at present more than 200--had a major emphasis on curative services delivered at hospitals or clinics, with very limited, if any, preventive activities. Stimulated by the MSPP to implement the priorities in the Nouvelle Orientation through primary health care, and thus to prevent frequent diseases in mothers and preschool children, their response was the creation of l'Association des Oeuvres Privées de Santé (AOPS), the focal point for the coordination of the health activities of all its members. A general strategy was agreed upon to implement specific activities through the primary health care system with the limited resources available. The evaluation team calls it "the AOPS model," whose main components are:

- A focus on infants, children, and mothers.
- Emphasis on a limited set of priority interventions: ORT; promotion of breast-feeding; immunization of children under five, pregnant mothers, and women of reproductive age; prenatal care and family planning; control of tuberculosis and malaria; growth monitoring; and targeted food supplementation.
- Total population registration and longitudinal data collection by individual institutions in a defined population, ranging from 10,000 to 50,000, with identification and follow-up of priority groups, mothers and children under five.
- The rally post, an outreach approach to service delivery organized around growth monitoring, immunization, and other preventive services.
- Ongoing monitoring of the coverage and impact of selected interventions on high-risk groups. This component includes the surveillance of individuals in need of special care, rather than the determination of incidence and prevalence rates.
- A standard, basic service delivery plan. On the basis of the experience gained until now, two other components should be added to the model. These are:
 - Active involvement of the community of mothers.
 - Performance-based or results-oriented incentives for outreach workers.

The AOPS model seems rational and interprets in operational terms the basic health policy of Haiti and USAID Action Plans. However, we note that the Cooperative Agreements for the Development of AOPS I and II do not state specific objectives, nor do they include input, output, effectiveness, or impact indicators. For our team this is somewhat surprising, given the fact that a complete census of the population and longitudinal data collection are key elements of the AOPS strategy. Some attempt to establish objectives for each program should be made, and they can be readjusted in accordance with monitoring and evaluation.

It was decided to evaluate structural processes using the following indicators: 1) completion of staff training; 2) completion of census; 3) surveillance and service program setup; and 4) adequate population obtained.

The interim program impact was to be scrutinized on the basis of four parameters: 1) immunization status of children 0-5 years old; 2) nutrition, the proportion of malnourished children in regular attendance at nutrition supplementation sessions; 3) prenatal care, the proportion of pregnant mothers fully immunized against tetanus; and the average number of prenatal visits; and 4) family planning, the number of new and continuing acceptors; and contraceptive distribution.

In our view these are process indicators, and not properly impact ones. At any rate, they are very useful for monitoring and program readjustment, to make objectives consonant with resources.

The end-of-project impact was to be evaluated along two parameters: 1) nutritional status of the children 0-5 in the last month of the project; and 2) pregnancy prevalence rates during the last month of the project. These, we believe, are two valuable indicators that should regularly be measured, and not only at the end of the project. Furthermore, they should not be the only ones, but should be added to those reflecting the basic health activities through the primary health care system that AOPS institutions are supposed to implement, in accordance with their common strategy.

We note that the Cooperative Agreement expects the AOPS projects to significantly increase coverage with basic services, and, at the same time, to reduce mortality, morbidity, and fertility.

Quality of the Overall Project Performance

The evaluation team examined the quality of performance, population coverage, age distribution and other characteristics of the 25 active AOPS projects, i.e., in the health care institutions. As a whole, they serve 315,230 inhabitants. On the basis of an ad hoc ranking system applied to 23 of the 25, nine were functioning effectively, while three were showing relatively few problems. These 12 included some with rather large populations, and covered 75% of the total population served by AOPS

projects. Three others were evaluated as currently in operation but with moderate problems, and seven projects were having structural and functional constraints, but were worth saving. Only one was considered dormant; however, a newly appointed physician has shown interest in reactivating it.

The first grant agreements were signed in June 1983. The evaluation was performed less than three years later, a rather short span in terms of what has already been accomplished. A prescription for success is, according to the experts, a combination of strong leadership and active community support. The next best option is an active community with good paramedical leadership. This is followed by active community leadership but with an uncommitted M.D. In a few cases, physicians have been replaced at the demand of the people. It may also happen that a dedicated physician faces an apathetic or hostile community whose behavior he can and must change. Finally, projects that are not functioning well usually have an uncommitted community and doctor. We are mindful that there are 51 "commune physicians." Properly trained--and they probably already are--they can enlarge the coverage and outreach of both the MSPP and the AOPS health care institutions.

The classification of the projects is rather subjective in qualifying both the physicians and the community. Still, it seems useful to point out that 75% of the population covered after less than two years of activities is served with preventive measures by the community-based programs. This result speaks clearly about the AOPS model and its potential. Notwithstanding, "coverage, effectiveness and impact data are not adequately available in any AOPS projects at present."¹ Our team suggests that this basic information be progressively collected, collated, analyzed, and disseminated.

Program Management and Administration

Throughout this report we point out the importance of the management of the health care system of Haiti, both public and private. It is an essential ingredient for efficient and effective performance. We note that sustained efforts are being made at the MSPP with the assistance of USAID, and also at SNEM and other programs. The evaluation team makes similar recommendations to AOPS, after a thorough analysis of the sequence of managerial and administrative activities of the AOPS projects. It is pleasant to note that, with some exceptions, conditions have been complied with in regard to:

- The selection process of institutions that will most likely reach coverage of 450,000 total population.
- The application of norms and procedures set by the MSPP with reference to the National Health Plan, the role of regional and district administrators, the preparation of reports, and the auditing of funds.

- The technical assistance to each institution, by the AOPS central administration, on project design and specific primary health care activities. It is being implemented through seminars and workshops (16 until now), regular supervisory visits, and a newsletter.
- Training and continuing education, showing the attrition of 24% of the physicians trained, but an adequate number of nurse auxiliaries, record keepers, and voluntary collaborators. Training, according to the evaluation team, should be in basic management skills, with only marginal amounts of theory, and primarily organized around the practicum. Our group concurs.
- A census and recensus completed by all active projects but one.
- Supervision actively performed by the four project coordinators.
- Monitoring of the five institutions implementing large projects, to be performed jointly by the AOPS central staff and regional and district directors, has occurred in only one of them.
- Evaluations of structural processes have shown wide variations in timing, format, indicators, and content.
- Evaluations of program impact, including immunizations, nutrition, prenatal care, and family planning, have been somewhat erratic, with some real problems of easy, ongoing access to data. Our evaluation team believes that they are indicators of activities performed, and not of impact. Nevertheless, they are useful if regularly available, analyzed, and interpreted.
- The end-of-project evaluation impacts based on nutritional status of children under five and pregnancy prevalence rates, have not as yet been performed; baseline data exists.
- Financial management. All norms and procedures are being followed, with the exception of reporting, which has not been regularly performed, and which needs to be standardized and simplified. The evaluation team makes a series of sound recommendations to improve financial management, cost control techniques, and auditing in all AOPS member institutions.
- Private and public sector linkages. AOPS procedures correspond to those of the MSPP, as stated in the GOH Health Services Act of 1983, and as such are being implemented by the AOPS institutions. Clearance for all projects was obtained from the appropriate regional and district representatives of the MSPP. Different arrangements are in place, as reported to our team by Dr. Augustin, and are included in this report. They seem to be working smoothly; constraints are mostly related to the unavailability of some resources during certain periods.

Furthermore, the referral of patients to public sector hospitals appears to be irregular, and information from AOPS institutions to health authorities needs to be better organized. Despite some conceptual discrepancies--the acceptance of family planning programs by some PVOs is an example--the evaluation team report gives the distinct impression of harmonious compliance by AOPS projects with MSPP policy, norms, and procedures. Still, there is always room to improve coordination between the public and private sectors. We refer to some approaches elsewhere in this report.

For 22 active projects, an average of 20 months has passed since the dates they began services, with a range from five to 32 months. As reported by the evaluation team, the progress made in the areas of management and administration is certainly significant. The problems identified can and should be corrected. Perhaps the most important ones relate to monitoring, the evaluation of outcomes and impacts, and the regular provision of information within AOPS and to MSPP and USAID. But progress is impressive.

As the evaluation team declared, "Optimally, an AOPS project should have a technical and an administrative chief." Health care services that function smoothly usually have these two kinds of complementary experiences. Dr. Augustin strongly recommended the appointment of "gestionnaires" for each AOPS institution. They are essential for the larger hospitals and health centers, in both the private and public sectors.

Coverage and Impact

The census of the population to be served is one of the distinct features of the "AOPS model" of primary health care. It should provide the basic information for determining coverage with the different activities included in the model, and for monitoring and evaluating processes and outcomes in relation to predetermined quantifiable objectives. However, census data are not disaggregated in different categories such as age, sex, and others, to estimate achievements in terms of actions performed and outcomes obtained, as well as costs. We have already mentioned that, according to the evaluation team, no AOPS project shows data on coverage, effectiveness, and impact. We believe that efforts should be made to fulfill this need, starting with the institution having the best information and thus serving as a demonstration.

Following the format of the evaluation team report, we will first comment about the Rally Post Strategy and then on data of coverage with specific activities at different AOPS projects.

Rally Post Strategy

As we have already emphasized, the evaluation team points out the significance of "planned coverage," resulting from population registration with a rally post strategy, as opposed to "theoretical coverage." The former is, for the team, "by definition activist and result-oriented; in contrast, the typical public health approach is passive and linear with any ability to talk about proportions of any population but a national population severely circumscribed."

While praising the rally posts as a simpler and more effective way to facilitate primary health care, the team believes that those sponsored by AOPS are better organized, larger, and more purposeful and orderly than the ones set up by the MSPP. The "agents de santé" are in charge of the latter. However, the population census and the opening of family records and cards are not followed by the registration of health events and interventions and appropriate analysis of information for feedback and "feed up." Although useful, this is less productive than it can be. Rightly so, the evaluation team reiterates the importance of training and retraining physicians, managers, archivists, and voluntary collaborators (VCs) on the use of the information systems.

On the basis of the experience of AOPS, our group strongly recommends a similar approach for the health units of the MSPP--including the rallies convened by the health agents, with the participation of the aid nurse from the nearby dispensary and, when feasible, staff from the corresponding health center, including the physician.

The evaluation team makes a good analysis of the rally post: its organization with seven substations, its referral approaches for cases in need of special care, and the major characteristics and advantages of its strategy of services as compared with static and passive fixed facilities. We do not totally agree with this last view of the report. In fact, our evaluation team believes that, for the foreseeable future, the rally post strategy should be the basis for community outreach, population at risk targeting, and effective primary health care services, including nutrition.

In the long run, however, the Government of Haiti should continue the process of covering the country with the health infrastructure, based on accessible services that are both efficient and affordable. They need not be static and passive. Quite to the contrary, they can reach families within communities and motivate them to increase demand, which usually happens when people appreciate their usefulness because they are effective.

Countries in the Americas where child survival is no longer a priority and the emphasis is on child development have through time persistently followed this basic policy. Some will say that it is expensive. Societies should decide whether investment in human development has priority in their decisions, because it is the main resource for economic growth and social progress. There is also a need for studies on a national health insurance or social security system for Haiti.

Family Planning

The evaluation team recommendations regarding family planning in the AOPS institutions are to a large extent accepted by our group when we analyze this program elsewhere in this report.

According to the evaluation team, why dropouts and discontinuance rates appear so high should be investigated through operations research. We concur.

On the other hand, we advocate a more explicit, extensive, and effective family planning program in both the public and private health sectors. This entails a more thorough training process of field staff at all levels, based on a common educational module. The evaluation team includes in this process the VCs working in health care activities, as we understand it. We agree, but we believe that malaria VCs, as has been recommended and tested, should also distribute contraceptives, as a component of the policy of diversifying their functions, both in communities and at rally posts.

While in 1983, 7.11% of women ever in union were using family planning methods, in March 1986 four AOPS projects showed rates of contraceptive prevalence of 8%, 9%, 11% and 31%. (See Table 4, page 35 of the report.) We note that Pignon, with the highest rate, has a promotor of family planning. The evaluation team recommends that all large AOPS programs follow this example.

The suggestion for family planning stations at rally posts is questioned by the evaluation team, because there is no information about why mothers come and what they expect. Furthermore, it is not known how they will behave after their children have completed the vaccination series. Operational research should provide adequate answers. We recommend that it be implemented.

Similar questions were asked in the past in countries where increasing coverage of the population was obtained by the established health infrastructure. Time has shown that mothers most likely kept returning to health centers and other units because they received the effective services they expected for themselves and their children. They prove to be more sensible than we thought, and are able to determine the tradeoffs between the quality of care they receive and the cost, or the efforts to obtain it, or both.

A process of social consciousness progressively develops, particularly when a health education program is in place and, even better, when a prepaid health care system is in operation. But it takes time. This experience, we believe, should also happen in Haiti, because mothers will consider the benefits of vaccination, Serum Oral, growth monitoring, the treatment of intercurrent diseases by referral of cases, education, and the distribution of contraceptives.

Food Supplementation

The nutritional science community agrees with providing food supplements, within the primary health care cluster of activities, to severely malnourished children, stunted and wasted in the Waterlow classification. But opinions are divided regarding the mild and moderate cases. According to the scientists, in the first group, food acts as a treatment. In the second, growth monitoring, an excellent tool for mothers' education, should indicate how and when to improve children's feeding.

We are convinced that food supplementation, either in situ at the health center or the rally post, or "take home," is the best incentive for mothers to regularly return to the services. Among the series of primary health care activities, this is highly appraised by mothers, not only as a nutrient transfer, but also as an income transfer, even at their low microeconomic levels of survival.

The evaluation team refers to several AOPS projects that include food supplementation for malnourished children of Gomez types II and III: Carrefour--Poy, FHASE, Cité Soleil, and SAWS. In all of these programs, mothers returned for growth monitoring, even when their children were "graduated" from feeding programs. Food appears to be an incentive. The report states that "while food reward is highly valued, the long, hot waits are not, and any program has to consider its tradeoffs." We agree, but we believe that this is a management matter, particularly at the rally posts. Every administrative constraint should be overcome, in view of the impact of better feeding for pregnant and lactating mothers, infants, and young children.

The report suggests a study to determine the best ways to incorporate supplementary feeding into the AOPS model, and it questions whether the approach now being used is appropriate. We concur. Still, the Belle Anse project, classified as exemplary because of its effective growth monitoring, shows concrete reduction in Gomez types II and III (weight for age) through 13 rally post cycles. In fact, rates of Gomez II have diminished from 26% to 19% and, even more important, have fallen from 7.5% to 4% of Gomez III, reflecting severe malnutrition. Furthermore, nutritional improvement, measured by increases in the mean percent of expected weight gain, rose from 93% to 98% after five rallies in a seven month period.

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Puffer and Serrano recently examined the distribution of birth weights in 15 countries, both developed and developing. They point out the significance for child survival and normal growth of low birth weight--below 2,500 grams--and deficient birth weight--below 3,000 grams. This information, associated with length of gestation, becomes one of the best indicators of the success of maternal health programs.

Although low birth weight results from different determinants, the nutritional status of the mother and a poor diet interfering with a weight gain in pregnancy of 10 to 12 kg. are important for effective prenatal care and normal birth weight of the child. The complexity and cost of technologies to treat severe low birth weight, i.e., less than 2,000 grams, makes it imperative to prevent this condition. In practice, this entails pregnancy control, adequate diet, timely treatment of infections and addictions, and health education.⁵

Our evaluation team did not obtain useful data about low birth weight in Haiti. If data are not available, it is advisable to collect and analyze them in some health units, so as to have an indication of the severity of this problem.

We note that in the RHDS project extension to 1990, nutrition interventions are reduced, to growth monitoring, with data registered in the "road to health" chart, and vitamin A distribution. Our evaluation team asserts that these activities will not induce a downward trend in infant and early childhood mortality and morbidity rates.

We recommend the following:

- a) The MSPP should give a higher priority to the nutrition problem, focusing on pregnant and lactating mothers and on children below five.
- b) A nutrition policy should be formulated stating the significance of malnutrition, its different clinical, social, and economic consequences, and what the Government intends to do to control it. This policy should be based on the assumption that malnutrition is rooted in poverty, which conditions high risks of death and disease for mothers and children, and which reflects deficiencies in the production, consumption, and utilization of food. In other words, malnutrition is multi-sectoral and multidisciplinary. Nutrition considerations and actions must therefore be an important part of the health care, educational, and agricultural systems. In practice, nutrition interventions should be planned and implemented in primary health care, including food supplementation, school feeding, food production, in home gardens for consumption and income generation, and in food for work programs at the community level. An educational component should be added, based on carefully prepared and tested messages, with the participation of mothers.
- c) The promotion of breast-feeding should be actively pursued at all levels of the health care system, including rally posts. Public opinion should also be informed through modern methods of nutrition education.

- d) A nutrition surveillance system should be developed for planning, program monitoring and evaluation, and to provide early warnings of outbreaks of malnutrition. Information should be used for decision making.
- e) A Department of Nutrition should be created in MSPP. Its responsibilities and its functions in a decentralized regime, through Regions and Districts, should be defined.
- f) A National Council of Food and Nutrition should be organized at the highest possible level of the Government, e.g. in the Ministry of Planning. The Council's members should be the Ministers of Planning, Finance and Economics, Agriculture, Education, Health, and Information. The Council should be assisted by a Nutrition Advisory Group, which should provide scientific information, identify policy issues, recommend amendments and new policies when appropriate, suggest research programs, interpret results of monitoring and evaluating nutrition programs in different development sectors, and promote inter-sectoral activities. The Group should also advise the Department of Nutrition.
- g) An Institute of Nutrition and Food Technology in Haiti should be organized for research, advisory services to the Department, Regions, and Districts, surveillance, program evaluation, and the training of nutrition staff.
- h) The Inter-American Development Bank (IADB) should be requested to send a mission to Haiti, at no cost to the Government, to design, jointly with Haitian authorities, a nutrition project for implementing these policies and programs. Consideration should be given to the industrial production of AK 1000 as a well-tested weaning food. It should be distributed or sold at health units, both of the MSPP and the private sector, as well as at rally posts. AK 1000 should also be sold at commercial outlets in Haiti. The IADB project should include capital investment for the Institute of Nutrition.

References: Chapter VI.F; Malnutrition

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4. Habicht, J.P. Nutrition: A Health Sector Responsibility. Round Table. World Health Forum 4:5-9, 1983.
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VI.G Agence d'Approvisionnement des Pharmacies Communautaires (AGAPCO)

The provision of essential drugs as an activity of primary health care is included in the Declaration of Alma Ata.¹ The consensus is that the supply of low-cost, safe, and good quality therapeutic drugs for reducing mortality from endemic conditions is basic to the attainment of the goal of Health for All people by the year 2000. It is also recognized that the provision of drugs accounts for a large proportion of health sector expenditures, a cost that will significantly increase with the progressive extension of primary health care to eventually reach national coverage. Governments are well advised to formulate national policies and regulations for the import, local production, sale, and distribution of drugs and biologicals. The purpose is to ensure that the essential ones are available to the various levels of primary health care at the lowest feasible cost. The process is complex, and entails effective supply, management, and logistics systems.

These principles led to the creation of AGAPCO, a component of the Rural Health Development Services Project (RHDS), sponsored by the Government of Haiti and USAID. Since its inception four years ago, 200 rural pharmacies have been installed, a significant achievement under the socioeconomic conditions of Haiti.

In our discussions with the Manager of AGAPCO he stated that there is no free distribution of drugs, which he considers a bad policy. Products near expiration date are not utilized. The population pays a low, affordable price. The pharmacies have a profit of 30%, an amount that is returned to the community to finance health services. The Manager recognized that the community is not well organized to administer these funds. MSPP must establish norms and procedures for this purpose. In any case, funds must remain in the community.

Revenues of AGAPCO are far below expenditures. The Manager does not foresee any possibility that the agency will become self-sufficient. At present, it is totally financed by USAID. His opinion is that if this contribution stops, AGAPCO will fold. In the Haitian context, the Manager considers the agency as a service, and not as an enterprise.

Pharmacies have been established even in small villages that had not had them. However, once the goal of 200 was reached, the process was not continued. At present, new health centers may not even have a pharmacy. The private sector is not excluded, but it can be served if AGAPCO's assistance is requested.

The total population benefited by the network of pharmacies has not been determined, nor have such data been broken down by districts and communes. The Manager believes that in the country the population served must be around 60% in each community. In the public institutions this average can increase to between 70% and 80%. We may have misunderstood this information. In any case, it would be important to know, in a representative sample, the rate of demand on the pharmacies.

The financial performance of AGAPCO was recently reviewed by a financial consultant.² Based on financial data obtained from the consultant's report and from USAID project files, the following estimates of recurrent costs are made.

AGAPCO - 1985
(in US\$)

a. Sales	269,802	
b. Other revenues	347	
c. Total revenues		270,149
d. Cost of goods sold	(144,200)	
e. Cost of goods donated and/or destroyed	(119,114)	
f. Operating expenses	(292,006)	
g. Total costs		(555,320)
h. Profit (Loss)		(285,171)

The annual recurrent cost of AGAPCO, based on available data, is estimated to be \$555,320. This does not include the cost of technical assistance, use of Peace Corps Volunteers, and depreciation of vehicles and equipment. Thus, it is probable that the true recurrent cost is grossly underestimated.

USAID grants and Title I funds have been used to finance the deficit of this organization. In the past, these funds were made available to AGAPCO through the RHDS project. AGAPCO continues to receive Title III funds through RHDS and dollar funds directly from USAID. According to the project amendment of RHDS, AGAPCO's Title III budget is to be \$176,000. In the first eight months of FY 86, AGAPCO presented RHDS vouchers worth \$271,880.

Assuming that sales in 1986 will remain at the same level as 1985, AGAPCO will be able to finance some 49% of its cost from its sales revenues.

Some may consider that this rate of financing of total costs is encouraging, given the short span of operation and the complexity of AGAPCO. We were informed that the agency has definitely improved, and that plans were implemented to strengthen supervision, besides a central system, by having a supervisor in each region with a Peace Corps volunteer as the aide. There is certainly the need to improve management at all levels, as well as logistics and financing. To increase sales has become a central issue. Under the Agreement with the Government of the United States of America, the Government of Haiti is committed to expand sales by 25% during each of the three years of the Agreement. We do not know the basis for this estimate. Still, we believe that this goal is

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significant, and that to reach it will require sustained efforts by AGAPCO. All of this occurs in the face of a severe under-utilization of health services, reflecting reduced demand in Haiti.

We have put together a series of not mutually exclusive alternatives for increasing sales, which are transcribed from Chapter VI.I.

- a) Increase the number of community pharmacies;
- b) Raise wholesale prices;
- c) Reduce management costs;
- d) Purchase at better prices from worldwide suppliers such as UNICEF;
- e) Improve product presentation;
- f) Make more efficient the inventory control, drug distribution from central warehouses to local pharmacies, and auditing procedures;
- g) Provide continuous education to people and staff.

We suggest that the most cost effective alternatives be selected through operations research and that they be progressively implemented. Meanwhile, improving management as a whole will reduce recurrent costs.

Three major problems face AGAPCO in the short and medium terms:

1. To improve the effectiveness of the present network of 200 pharmacies;
2. To increase coverage of the unserved rural communities with pharmacies;
3. To make the whole system self-supporting through sales of drugs. Or to consider the service to be an essential Government responsibility, and to subsidize it, over and above revenues that will hopefully increase, with the technical and financial cooperation of USAID, or other sources, or both, for at least the medium term.

Of course, these three issues are interconnected, with the third being paramount. With regard to this question, the evaluation team is not of one opinion. Under present circumstances in Haiti, perhaps both alternatives should be implemented on the basis of careful monitoring and supervision of the system.

This is a decision to be made by the Government of Haiti with the advice of USAID. The prime consideration should be the right of the Haitian people to essential drugs that are safe, of good quality, and of low cost.

In the long run, once the average family income has significantly increased, the provision of drugs can be included in a prepaid health insurance or a social security system for Haiti.

Conclusions

1. AGAPCO responds to the need for essential drugs of people in the rural areas, to be served at the primary health care level. This activity is included in the Declaration of Alma Ata,¹ approved by practically all governments of the world.
2. In the short period of four years, 200 pharmacies have been installed and supplied, a major accomplishment of the Rural Health Delivery Services Project (RHDS) of the Government of Haiti and USAID.
3. Issues of organization, management, logistics, recurrent costs, and sustainability have prompted the decision to stop the coverage of this program when the need for it not only persists but is increasing due to population growth.
4. The Government of Haiti, with the advice of USAID, must take the appropriate courses of action to sustain this program, because it directly contributes to reducing infant, early childhood, and maternal mortality due to different causes. Furthermore, the availability of effective and safe drugs that are affordable to the people is an incentive for them to utilize health services, including rally posts.

Recommendations

1. Our evaluation team strongly supports the extension of AGAPCO and its network of rural pharmacies because it satisfies a basic need of the Haitian people.
2. All efforts should be made to increase the outputs of the present network of 200 pharmacies through better management, logistics, and supervision.
3. Although AGAPCO was able in 1985 to finance 36% of its total costs, the goal should be for it to become self-sufficient by increasing sales. To this end, our evaluation team has put together a series of alternatives and suggests that the most cost-effective be identified through operational research.

4. Facing the alternatives of making the entire AGAPCO system self-supporting or of subsidizing it over and above revenues, with technical and financial cooperation from USAID or other sources or both, we recommend that the Government seek to implement both approaches on the basis of careful monitoring and supervision of the system.

References . . . Chapter VI.G; Agence d'Approvisionnement
des Pharmacies Communautaires (AGAPCO)

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VI.H Public-Private Sector Collaboration

1. Private Agency for Health Care (AOPS)

With reference to public-private sector collaboration, our evaluation team was asked to specifically examine four major issues (see Annex I, Statement of Work 3a, b, c, and 2c):

- a) The extent of overlapping between the two sectors.
- b) Mechanisms or frameworks to strengthen the collaboration of public and private institutions.
- c) A comparison of salaries and other job conditions of staffs in both sectors, and the impact of any identified imbalances.
- d) The efficiency, coverage, and achievements of Government and private agencies.

For the analysis of these issues, our main source of information was Dr. Augustin, General Secretary of AOPS, and his staff. We had already heard the views of high officials of the MSPP in our discussions on the RHDS project.

While we were in Haiti, the report of the just completed private sector evaluation² was not available. Towards the end of our mission, we were provided with some parts of it in draft form. Later on, we received a still incomplete text of the report. We have used this material in our discussions on public-private sector collaboration, and on the evaluation of AOPS projects and CMSCS. We have focused mostly on the quality, coverage, and impact of projects, and on program management and administration.

We consider first the issues that our evaluation team was asked to examine regarding public-private sector collaboration. We then refer to CMSCS, with emphasis on the questions posed in the Statement of Work (Annex 1). To complement both of these analyses, we review the report of the evaluation team on AOPS I and II, and CMSCS.

Extent of Overlapping Between the Two Sectors

If by overlapping we understand the simultaneous presence in a community of a public and a private health service, particularly when either one could provide all the necessary care, then, although the process has existed in Haiti, it is presently on the decline. On the other hand, overlapping may reflect the situation where a physician or other staff member employed by the MSPP works in a public health establishment, as well as in a private institution, when both operate in the same geographical area. According to Dr. Augustin, this is a general rule. He mentioned that the MSPP has recently taken measures to minimize this type of overlapping. He also described the following different kinds of experiences.

1. The Government provides the land, while the private sector is responsible for all preventive and curative activities for the population of a certain area of the country. This is the case with the Albert Schweitzer Hospital and the chain of health centers in Deschapelles.
2. The Government provides a private organization with land, a health establishment, physicians in their period of social service, as well as other means, for the care of the population. The Sainte Croix Hospital of Leogane is a typical model of this arrangement.
3. The State authorizes a private organization to use a health unit; it may also provide vaccines. However, preventive and curative measures are applied by the private sector. Carrefou Poy is an example of this situation.
4. The State provides practically everything to the private sector: the buildings, the staff and part of their salaries, vaccines, and other materials. The responsibility for the quality of care lies with the private organization. The Service Oecuménique d'Entraide de Thomonde typifies this relationship between the two sectors.
5. The building belongs to the community; the staff is appointed by the Government, but they also have private practices. They actually perform as if in a private center, because they share the returns from their clients and the sales of drugs. The health establishment of Mirebalais exemplifies this arrangement.
6. Finally, there is a series of health institutions sponsored exclusively by the MSPP.

According to Dr. Augustin, the majority of local services are "mixtes," i.e., public-private, with some contribution from the Government. In general, relations between the two sectors are both good and effective.

There is long experience, going back 40 to 50 years, related to the contributions of the private sector to health in Haiti. There are shining examples of its effectiveness in reducing morbidity and mortality among vulnerable groups in the areas of its jurisdiction, that can be considered as true demonstrations of approaches and technologies useful for similar situations in the country.

At present, all health institutions follow the policies, principles, and purposes of the National Health Plan formulated by the MSPP. The private organizations willingly accept the supervision and training of their staffs by professionals of the corresponding Regions or Districts.

According to Dr. Augustin, private organizations are well managed and equipped, but are mainly oriented toward curative medicine. Preventive medicine in the communities is not often practiced, and specific coverage is therefore low. This is an essential area, where greater efforts are needed to intensify the application of the six major priorities and their pertinent technologies which are included in the basic health policy of the MSPP called the Nouvelle Orientation. On the other hand, the auxiliary nurses of the governmental services do not always systematically visit communities and homes for the early identification of cases --including malnutrition--education, and prevention. Supervision should be directed to this situation, which must be corrected.

With reference to coverage, the institutions that are members of AOPS, and others that are independent, practice a census of the people as their first activity. They can thus identify the target groups for each program. In other words, they have a clear and precise idea of the size and main characteristics of the population, a programmed coverage. Family cards and records are opened.

We strongly recommend that the MSPP institutions, particularly those at the community level, follow the same lead, thus identifying the people to be served. We recognize, however, that, by being governmental, they are supposed to provide health care to "outsiders," who may be more the exception than the rule. Identifying a target population contributes much to sound programming, with measurable objectives commensurable with available resources.

Taking the private sector as a whole, it has a coverage of approximately one million people. Out of these, about 150,000 live in the areas surrounding Port-au-Prince, and are served by three centers: Cité Soleil, 100,000; Frères, 30,000; and Fermathe, 20,000.

Mechanisms or Frameworks to Facilitate and Strengthen Collaboration Between the Two Sectors

Haiti does not have a unified private health system, according to Dr. Augustin. The different institutions do not have a "macro" orientation, i.e., they lack common policies, norms, and procedures, formulated at the central level. As a result, it is advisable to act at the peripheral level, focusing on the "commune" for a better utilization of available resources to reach preestablished objectives. Critical political changes usually do not affect the activities at the peripheral level.

Experience shows that coordination between diverse sectors of development, or among different institutions within a given sector, is more effective at the local level than at the central one. It is also evident that a common policy, such as the Nouvelle Orientation, should follow a similar model to stimulate specific programming related to the major health priorities in Haiti. Furthermore, common norms and procedures to control the different conditions may facilitate comparisons between local public and private units.

LIST OF PERSONS INTERVIEWED

Ministry of Public Health and Population

Dr. M. Lominy, Minister
 Dr. G. Deslouches, General Director
 Dr. J. R. Derosenat, Chief of Cabinet
 Dr. A. Hilaire, Director, UPE
 Dr. G. Kernisant, Director, UCDR/RHDS
 Dr. P. Kirsch, Assistant Director, UCDR
 Dr. R. Laforet, Assistant Director, UPE

Service National d'Eradication des Endemies Majeures (SNEM)

Dr. V. Jean-Francois, Director
 Dr. E. Nicolas
 Dr. S. Lamothe
 Dr. H. M. Richard
 Dr. V. P. Duverseau, USAID consultant
 Dr. L. S. Borges, PAHO consultant
 Dr. R. Magloire

Regions and Districts

Dr. J. Bijou, Director, South Region
 Dr. Y. Alexandre, Director, Miragoane District
 Dr. Y.V. Surena, Director, West Region
 Dr. J. Desormeaux, Director, Croix des Bouquets Districts
 Dr. E. Jean-Baptiste, Director, Petit-Goave District
 Dr. C. H. Amisial, Director, Transversal Region
 Dr. H. Geffrard, Director, North Region
 Dr. H. Blain, Assistant Director, North Region
 Dr. S. Destin, Director, Mirebalais Subregion
 Mr. R. Tingue, Administrator, West Region
 Mr. E. Jeantyard, Statistician, West Region
 Mr. E. Jean-Jacques, Gestionnaire - comptable RHDS
 Mr. P. Roc, MSPP comptable

Family Hygiene and Nutrition Direction (DHFN)

Dr. S. Armand, Director
 Dr. F. Lamothe, Assistant Director
 Dr. L. Jasmin, Chief, MCH Section
 Dr. Michaud
 Dr. Dieudonne, Chief, Community Development Section
 Mr. G.F. Celestin, Chief, Technical
 Mrs. Y. Papillon, Acting Chief, Nutrition Section

PROFAM

Dr. M. Edward, Executive Secretary
Dr. H. Sanhueza, Director, IPPF, Western Hemisphere, New York

Agence d'Approvisionnement des Pharmacies Communautaires (AGAPCO)

Mr. J. Jovin, Director
Mr. C. Piquion, Comptable
Dr. A. Augustin, Director, AOPS/CHI
Dr. C. Boulos, General Director, CMSCS
Dr. R. Boulos, Medical Director, CMSCS
Dr. M. H. Van, Administrator, CMSCS

Ministry of Planning; Bureau de Gestion; P.L. 480 Title III

Agr. C. Grand-Pierre, Director
Dr. G. Lerebours, Health Sectorialist

Multi and Bilateral Agencies

Dr. R. Fischer, PAHO/WHO Representative
Mrs. M. T. Hevia, UNICEF Representative, a.i.
Mr. C.T. Greenwood, IADB Representative
Mrs. B. Bonneveau, WFP/PAM Representative
Mrs. E. Lataillade, UNFPA/FNUAP Representative
Dr. H. I. Doering, GTZ-PROCHAS, Representative
Ms. E. Cort, Director, International Programs, Unitarian
Universalist Service Committee

USAID Mission in Haiti

Mrs. L. Morse, Deputy Director
Dr. M. K. White, Director, PHO
Mr. C. McDermott, PHO Public Health Adviser
Mrs. D. Kreutzer, PHO/Project Manager, SNEM
Mr. B. Marseille, Program Assistant
Mr. W. Bair, Consultant in Population
Mrs. A. Simms, PHO/Private Sector
Mrs. G. Balmir, PHO/FP Program Assistant
Mrs. M. Charlotin, PHO/ Program Assistant
Dr. M. Amedee-Gedeon, PHO/SHT
Mr. R. Gilson, DRE
Mr. D. Cesar, DRE
Mr. G. Caprio, OEA

Secretaries of PHO

Mrs. M. C. Jean-Joseph
Mrs. G. Monosiet
Mrs. Y. Romeus

LA LUTTE ANTIPALUDIQUE EN HAITI
CONTRAINTE ET NOUVELLES PERSPECTIVES

Le programme de lutte antipaludique en Haïti a démarré il y a vingt-cinq ans après la signature d'un protocole en 1961 avec l'OMS, l'USAID et l'UNICEF. La stratégie adoptée au tout début de cette campagne fut celle de l'éradication. On croyait ferme à cette époque que l'objectif visé, c'est-à-dire l'arrêt de la transmission du paludisme grâce à l'aspersion intradomiciliaire à l'aide d'un insecticide à effet rémanent pouvait être obtenu au bout d'une période de dix ans subdivisée par les experts en quatre étapes: phase préparatoire, phase d'attaque, phase de consolidation et phase de maintien.

L'espèce vectrice principale, *A. albimanus*, ayant été identifiée, on décida d'utiliser contre elle un organo-chloré, le DDT, à raison de deux cycles de six mois et à la dose de 2gm/m^2 . Ce choix se justifiait par le grand crédit qu'on faisait à ce produit dont l'emploi dans le programme d'éradication de nombreux pays semblait autoriser tous les espoirs. En outre, il présentait le triple avantage d'être peu toxique pour l'homme et les autres animaux, peu coûteux et d'effet rémanent prolongé.

Toutefois, après cinq cycles d'aspersion, l'enthousiasme du début dû s'attiédir un peu quand on eût constaté que la transmission ne s'arrêtait pas dans les aires très malariques conformément aux critères de Mac Donald. (Réduction de la prévalence de 80% de sa valeur initiale à la fin de la première année) - On ne se tint pas pour battu et dès 1965, l'adoption de la distribution massive de médicaments antipaludiques comme mesure complémentaire de lutte devait avoir une incidence heureuse sur la situation épidémiologique qui s'améliorait progressivement. Cette évolution favorable devait se confirmer définitivement.

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vement en 1968 avec un taux de positivité de 0.2%, le plus bas jamais enregistré en Haïti. Aurait-on enfin atteint le but visé? Tout semblait l'indiquer. Hélas! ce succès n'était qu'un mirage car contrairement à toute attente, la positivité devait remonter en flèche jusqu'en 1972 où l'on dût se rendre à l'évidence que le programme d'éradication avait bel et bien échoué.

Un changement de stratégie s'avérait alors nécessaire. Le SNEM s'engagea dans cette voie en essayant de recourir à l'emploi de mesures combinées de lutte telles la réduction de sources, le traitement chimique de gîtes, la fumigation etc... recommandé par un comité d'experts. Rien n'y fit et la situation s'empira au fil du temps.

En 1978, il fut décidé d'expérimenter un autre produit, le fénitrothion, appartenant au groupe des organophosphorés. Cet insecticide avait donné d'excellents résultats dans une région très malarique du Kenya durant la période Août 1972 et Juin 1976. Il fut utilisé en aspersions intradomiciliaire à raison de $2\text{gm}/\text{m}^2$ dans l'étroite bande côtière de la péninsule du Sud entre les Cayes et Aquin réputée pour être l'un des foyers les plus réfractaires du paludisme. Au bout de 13 cycles, on constata, à la lumière des résultats du dépistage passif, une régression spectaculaire de la positivité qui de 31% en 1979 tomba à 4.66% en 1981.

En dehors de ce projet dit "projet Sumith III", une autre recherche opérationnelle connue sous le nom de "projet modèle" dont le protocole avait été établi par K. C. Liang, T. Sanchez et R. Taylor en 1979, devait voir le jour. L'objectif visé était de comparer l'efficacité du fénitrothion, du malathion et du DDT pour voir lequel des trois, dans les conditions locales, pouvait arrêter la transmission du paludisme. La conclusion du comité d'évaluation de 1981 fut sans équivoque: seul le fénitrothion pourrait permettre l'atteinte de cet objectif. Malheureusement, le coût très élevé de ce produit ne permet de l'utiliser que d'une manière très restreinte, insuffisante pour produire des résultats significatifs à l'échelle nationale.

Dès 1979, le SNEM devait adopter, à l'instar de nombreux pays d'Amérique Latine, des Caraïbes, de l'Asie et de l'Afrique, un programme de contrôle dont les objectifs et la stratégie sont nettement différents de ceux de l'éradication. Puisqu'il était impossible de couper la transmission, on devait plutôt chercher à réduire le niveau de la maladie à un degré tel qu'elle ne constitue plus un problème majeur de santé publique.

Pour atteindre cet objectif principal, on devrait tenter de réduire et de prévenir la mortalité, de réduire la morbidité et d'assurer la protection des femmes enceintes et des enfants de 0 à 5 ans qui constituent les groupes à haut risque.

Tous les efforts déployés depuis, pour s'engager dans cette nouvelle orientation sont demeurés très éloignés des résultats escomptés. En effet, durant la période 1978-1983, la situation a empiré de manière alarmante, puisque le nombre absolu de cas s'est situé entre 41.252 et 67.121 en moyenne. Et si on la compare à celle qui existait durant la période 1972-1977, où le nombre de cas variait entre 15.087 et 27.679 on est clairement édifié.

LES CONTRAINTES.-

Comment expliquer cette dégradation qui semble irréversible? Une analyse objective nous permet d'en détecter les causes.

a) Contraintes techniques -

Le succès de notre campagne de lutte antipaludique s'est également heurté à des problèmes techniques qui ont surgi depuis la période de l'éradication. En effet, l'une des causes principales de cet échec est la résistance du vecteur principal de la malaria, A.albimanus au DDT. Les premières manifestations de cette résistance ont apparu dans la "Cité Simone O. Duvalier" (actuellement "Cité Soleil). Ce phénomène malencontreux s'est étendu progressivement aux autres régions géographiques du pays. Son remplacement comme arme antivectorielle par le fénitrothion dont l'efficacité a été clairement démontrée par les bons résultats obtenus au cours des projets "Sumith III" et "modèle" nécessi-

terait des débours considérables qui dépassent nos possibilités financières. Aussi avons-nous dû nous contenter d'utiliser ce nouvel insecticide organo-phosphoré pour prévenir les épidémies avant les pics de transmission dans des aires très restreintes.

En dehors des autres problèmes techniques liés à l'élaboration de nouvelles méthodes d'approche pour la planification, l'exécution et la supervision des activités, l'incapacité de notre système de surveillance à détecter précocement les épidémies et ce, jusqu'en 1984, nous a toujours empêché d'adopter et d'exécuter les mesures de lutte de manière opportune et efficace. Le réseau passif qui avait joué un rôle important durant l'éradication avait perdu son efficacité dans la prise de décisions opportunes à cause du retard considérable entre la date de prise et la date d'examen des échantillons sanguins et ne jouait qu'un rôle purement historique.

Signalons enfin les facteurs climatiques: cyclones, ouragans, inondations qui aggravent de façon alarmante la situation épidémiologique et font perdre le bénéfice des activités réalisées.

b) Contraintes opérationnelles -

Tous ces problèmes administratifs ont des retombées manifestes sur le déroulement des opérations en campagne.

Au niveau des salaires l'impossibilité d'accorder aux employés une augmentation qui puisse leur permettre de faire face au coût excessivement élevé de la vie qu'entraîne une inflation galopante se traduit par une baisse de leur rendement quantitatif et qualitatif qui à son tour peut influencer négativement sur la qualité des opérations.

D'autre part, l'absence de matériel ou l'arrivée tardive du matériel réquisitionné sur le terrain a toujours gêné considérablement le déroulement normal des activités. Ce problème s'est accentué durant la dernière décade au SNEM. Il faut signaler également l'extrême lenteur observée souvent dans la réparation des véhicules avec les conséquences fâcheuses que cela entraîne sur la supervision des activités. En effet,

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l'absence ou le manque de supervision est souvent la cause principale de l'échec d'un programme dont l'exécution ne peut être évaluée et corrigée opportunément sur le terrain.

Un autre problème opérationnel majeur qui retient l'attention est le changement rapide de stratégie dont le rythme dérouté souvent le personnel qui doit changer de comportement.

c) Contraintes administratives -

En premier lieu se détachent les contraintes administratives qui ont toujours représenté un obstacle majeur au succès de tout projet de santé publique. On pourrait se demander à la lumière des faits, si la volonté politique de lutter contre le paludisme exprimée dans le décret loi créant le SNEM s'est réellement manifesté au niveau du budget de la nation.

En effet, la faible participation du Gouvernement Haïtien au budget de lutte antipaludique souvent objet de réduction en cours d'exercice fiscale compromet l'exécution des activités programmées. De plus, le mode de financement et de décaissement des fonds imposé par les bailleurs de fonds ne facilite pas la tâche de gestion du programme. Il convient toutefois de signaler également le manque de gestion dont la lenteur paralyse la technique.

PERSPECTIVES :

Depuis 1984 se dessine une nouvelle orientation du programme. Tenant compte des recommandations du comité d'évaluation PAHO/USAID/GOT haïtien, le comité exécutif a pris toute une série de dispositions importantes en vue de l'adoption d'une stratégie nouvelle mieux adaptée aux réalités socio-économiques et culturelles du pays. Les restrictions budgétaires qu'imposent le PL Titre III et la nouvelle philosophie de l'USAID en matière de santé ont déterminé les lignes de force de notre plan d'action.

Dans ce contexte, le réseau de collaborateurs volontaires ne joue plus depuis deux ans environ son rôle de détection de cas et a été transformé en un réseau de distribution de médicaments antimalariques sauf dans des aires sélectionnées dites "aires indicatrices" où nous nous pro-

posons d'étudier le dynamique de la transmission.

La restructuration de ce réseau et son extension dans un proche avenir permettra d'atteindre la couverture totale de la population vivant dans les aires malariques du pays avec pour objectif principal: la prévention de la mortalité par paludisme.

En outre tout a été mis en oeuvre pour intégrer la lutte antipaludique dans le système de soins de santé primaires. Le réseau de collaborateurs volontaires sera utilisé comme infrastructure pour l'exécution de ce programme. La diversification de tâches devient la pierre angulaire de notre plan d'action pour l'exercice 86-87. Les cols vols seront entraînés en vue de leur participation effective aux grandes priorités définies par le MSPP. En dehors de la distribution de médicaments antimalariques à titre présumptif à la population, ils devront distribuer également les sachets de sérum oral pour combattre la déshydratation provoquée par la diarrhée, les pilules contraceptives et les condoms qui seront mis à leur disposition pour la Division d'Hygiène Familiale en vue de l'extension de la planification familiale. Ils participeront également aux programmes d'éducation sanitaire destinés à motiver la population en vue d'augmenter sa participation à toutes les activités de santé.

En ce qui a trait à la malaria, des journées seront programmées à l'intention du personnel de santé pour améliorer la qualité du diagnostic et du traitement au niveau des institutions sanitaires. La réorganisation de notre système d'informations favorisera une action mieux concertée et plus opportune contre le paludisme et nous permettra d'avoir des données sur la morbidité et la mortalité, de prévenir à temps les épidémies.

La communauté sera entraînée en vue d'une participation plus effective aux activités de lutte antivectorielle dans les différents domaines de la planification, de l'exécution et de l'évaluation de ces activités. La supervision sera renforcée sur le terrain en vue d'une meilleure évaluation du personnel de campagne. Un programme de formation et de recyclage sera exécuté en vue d'augmenter la performance technique du personnel à tous les niveaux et favoriser son adaptation à la diversification de tâches.

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Le programme de recherche mis en train depuis 1982 se poursuivra en vue de tester la sensibilité de souches P. falciparum à la Chloroquine et autres drogues antimalariques telles le Méfloquine et le Fansidar.

En outre au cours de l'exercice 86-87, il sera mis en exécution deux nouveaux projets :

- a) Un projet de détermination de la prévalence de la déficience en G6PD et de ses conséquences sur l'utilisation de la Primaquine.
- b) Un projet d'étude clinique et immunologique dans une aire donnée permettant de voir la dynamique dans ces paramètres en rapport avec la transmission.

Dans le domaine sociologique, des recherches seront entreprises en vue de déterminer la cause de l'improductivité des postes de collaborateurs volontaires et la perception de la communauté vis à vis de la diversification de tâches. Un programme de recherche visant à déterminer les corrélations existant entre le type de culture, la migration et la transmission verra le jour dans un proche avenir.

Notre vœu le plus cher serait d'avoir les fonds suffisants pour exécuter les tâches décrites plus haut de façon opportune et complète pour un contrôle effectif de la malaria conduisant à une baisse notable de la prévalence ce qui pourrait entrevoir l'éradication à un coût moindre.

HEALTH SECTOR EVALUATION

STATEMENT OF WORK

A. OBJECTIVE

The Mission has decided to study the health sector program, representing 14% of total USAID FY 86 financial assistance to Haiti, to review the entire health project portfolio to evaluate progress achievement to date, to review sector objectives as laid out in the Mission's FYs 1987-1988 Action Plan to determine the degree to which targets and benchmarks are achievable, and to reorient the health sector program, as appropriate. Working under the joint guidance and supervision of the PHO Division Chief and the Mission Evaluation Officer, three experts in the fields of public health, population/family planning, and health economics shall be contracted for a period of six weeks, beginning the middle of May 1986, to implement the scope of work detailed below:

1. Institution Development

Over the years, Mission funds have either created or supported the functioning of several public and private health institutions, among which can be cited SNEM, DHFN, AGAPCO, CMSCS, AOPS, the Haitian Arab Center (HAC) and the Child Health Institute (CHI). The contractors are required to review the institutional profile, experience and achievements of each of these institutions by addressing the following issues:

- a) Describe the development mission, hierarchical relationships, personnel roster, modus operandi and management systems, including financial and information systems, of each institution. With respect to GOH institutions, the evaluators are to determine to what extent the Ministry of Health leadership has implemented sound management practices, including but not limited to decentralization, delegation of authority, and accountability;
- b) Review the performance record of each agency as measured against planned institutional targets, as established under their respective project agreements. Reasons for success or inadequate performance are to be highlighted and appropriate recommendations proposed to address problems;
- c) Compare the strengths and weaknesses of public and private health sector institutions as related to demonstrated ability in achieving institutional objectives;

- d) Determine in very general terms the recurrent cost burden of each institution, current self-financing capability, and the level of external support (USAID and other donors);
- e) Determine whether there is a marked imbalance between the current internal and external funding mix, the implications for long-range self-reliance, and recommend an appropriate strategy to minimize this imbalance.
- f) Assess future institutional needs, including manpower and funding resources, and possible sources of funding, self-generating and external; and
- g) Measure the funding percentage of PL 480 Titles I and III contributions of each project and evaluate the impact of timing delivery, policy conditionality, linkages, etc. of these inputs on the operating efficiency of project activities.

2. Privatization

- a) Measure the public and private investment share of the USAID health sector program, in terms of funding levels and project activities;
- b) Evaluate the soundness of Mission policy to privatize a certain percent of the USAID financed health sector program and the ability of private agencies to self-finance recurrent costs. The contractors will thoroughly review the findings of the just completed private sub-sector evaluation (CMSCS/AOPS I and II) in addressing this issue;
- c) Determine the efficiency, coverage, and achievements of Government and private sector implemented community health outreach approaches; and
- d) Review progress to date and further efforts needed to ensure that funds generated by health facilities are maintained for their operating costs.

3. Public-Private Sector Collaboration

- a) Determine to what extent overlap exists in the provision of services by public and private health providers;
- b) Conduct a comparative survey of salary and other job conditions and benefits of employees in the public and private health sectors and the impact of any imbalances identified; and
- c) Recommend appropriate mechanisms or frameworks to facilitate and strengthen collaboration between the two sectors.

4. Program Issues

- a) Review achievements to date in the Child Survival Program (i.e., ORT and EPI campaigns);
- b) Measure progress made to date in the Family Planning Population program;
- c) Assess the degree to which USAID and GOH have implemented recommendations of the Malaria Project evaluation;
- d) Evaluate the extent to which RHDS project objectives were achieved, and whether they were realistic and measurable. Propose revised targets, where warranted;
- e) Describe RHDS project accomplishments (e.g., AGAPCO, and assess to what degree the project has influenced the delivery of preventive services by private institutions; and
- f) Develop realistic program targets to be achieved over the next two years, and suggest funding levels necessary to achieve those targets.

5. Program Planning

- a) Review the goals, objectives and benchmarks of the health sector program as laid out in the Mission's FYs 1987-1988 Action Plan to determine whether they are achievable in relation to the level of financial resources the Mission has available, and provide appropriate recommendations to refocus the program, if warranted;
- b) Show how PHO projects contribute to the achievement of health sector objectives; and
- c) Review the health program objectives and activities of GOH and PVO institutions, highlighting areas of convergence and divergence with each other's and USAID's health objectives, and propose an action agenda to facilitate coordination and mutual support of each other's efforts.

B. REPORTS

The evaluation team will submit a draft report and conduct a debriefing session prior to departure from Port-au-Prince. The final report, not to exceed 30 pages, will follow the USAID evaluation report format (attached), and incorporate USAID, GOH and PVO comments, and will be submitted three weeks thereafter. The team leader agrees to be available to return to Haiti sometime in the fall to participate in a three-day seminar to discuss the results of the evaluation and to revise the health sector section of the USAID Action Plan, in light of evaluation findings and recommendations.

G. **CONTRACTOR QUALIFICATIONS**

1. Public Health Expert

- a) Education. This expert must have the equivalent of a master's degree in public health and should be a physician.
- b) Language. FSI-3 level, speaking.
- c) Experience. This individual must have a minimum of five years' experience directing public health programs in the Western Hemisphere. Previous experience with an organization is desirable.

2. Population/Family Planning Expert

- a) Education. This individual must have the equivalent of a master's degree in public health or a related discipline.
- b) Experience. This expert should have a minimum of five years work experience in the population/family planning field. Previous experience in a Francophone country would be desirable.
- c) Language. This individual must speak French at the FSI-3 level.

3. Economist

- a) Education. This individual must have the equivalent of a master's degree in economics.
- b) Experience. This individual must have previous experience analyzing the financial viability of health and population programs in the developing world.
- c) Language. This expert must speak French at the FSI-3 level.

Level of Effort

The principal drafter of the evaluation report should be chosen by an IQC firm. That individual must be available to work in Haiti for a period of six weeks. The other two experts should be available for a period of at least four weeks. All three individuals should plan to arrive in Haiti the first week in May, and spend the entire month of May preparing the first draft of the document. The principal drafter will spend the final two weeks revising the document. The team leader should be available to return to Haiti in the fall, probably in October, to participate in a three-day seminar to discuss the results of the evaluation and to revise the USAID action plan as a result of the evaluation results.

All individuals are authorized to work six-day weeks.

VI.D Oral Rehydration Therapy (ORT)

Diarrheal disease is the leading cause of mortality among infants and children under five in Haiti, and accounts for 40% to 65% of all deaths in these age groups. It is thus a priority problem, included in the Nouvelle Orientation, the USAID Action Plans, and the policies of WHO/PAHO, UNICEF, and other international agencies. Oral Rehydration Therapy is a typical child survival action, and is therefore an essential component of primary health care. It should include continuing feeding, particularly breast-feeding, during and after illness.

However, ORT does not prevent, nor can it reduce, the incidence of diarrhea. Children return to environments in which they may be exposed to six and up to 12 episodes of the disease per year, based on some experience. Overall, according to Mata, children are ill with diarrhea for 10% to 20% of their first three years of life.¹ To control it by reducing morbidity and mortality, a cluster of activities integrated into primary health care is required: the promotion of breast-feeding, for no less than four months and, preferably, for 12 months; proper weaning practices; growth monitoring; immunizations; the use of safe water, and a clean toilet or latrine; personal and domestic hygiene, especially hand washing; and food safety. Current evidence shows that safe water supplies, sanitation, and personal hygiene may reduce the incidence and mortality rates of diarrhea by 20% to 40%.²

In Haiti, primary health care develops as a series of sequential actions, rather than simultaneous ones. The Government and the international agencies have given priority to ORT. This reflects the emphasis on the general policy of child survival, an essential objective in the short-term that may, however, become self-defeating because the problem persists and the people become aware of the situation.

If ORT is not integrated with nutrition, then progressive malnutrition will finally induce the death of the child. As was so clearly stated, "it is neither beneficial to mothers and children, nor cost-effective to develop programs to counter diarrhea in isolation of nutrition programs, or vice versa. Both must be considered together and in the context of other measures aimed at improving health (maternal care, growth monitoring, immunizations, etc.) Within the context of its PHC policy, each country will need to take decisions regarding integration--both among diarrhea control and nutrition activities--and with other health activities and social sectors."³

National Program for the Control of Diarrheal Diseases and Promotion of Breast-Feeding (PRONACODIAM)

This program was officially inaugurated in Haiti on July 22, 1983. Its specific objectives are:

- to reduce diarrheal mortality by 50% per year;
- to ensure that 80% of mothers know about ORT, and that 60% of them use it effectively;

- to make ORS packets accessible to 100% of the mothers in the country;
- to ensure that 30% of the women in urban areas, and 60% of those in rural areas, breast-feed their babies exclusively for the first three months;
- to ensure that 60% of the urban women prolong breast-feeding for up to 12 months, and that 90% of the rural women maintain this habit of prolonged breast-feeding;
- to ensure that 60% of mothers are informed about good weaning practices.

These objectives were the focus of four main strategies: first, the training of health personnel in the promotion and use of ORT, and the organization of rehydration units in hospitals and health centers. These activities should lead to institutional development; second, the motivation of professionals and nonprofessionals from various ministries and non-governmental agencies. This can be considered a multi-sectoral approach; third, the dissemination of educational messages directly related to diarrheal diseases and the use of ORT, by health agents, natural leaders, and various staffs from public and private local units --a community-based educational program; and fourth, the commercialization of ORT through the use of mass media and other social marketing strategies.

The promotion of breast-feeding, an integral component of PRONACODIAM, has been deferred until the ORT campaign gains sufficient momentum.⁴ To our evaluation team this is not an appropriate decision, because, as already stated, feeding--especially breast-feeding--is just as essential as ORT to ensure not only children's survival but also their better resistance to environmental stresses.

In terms of objectives and strategies, PRONACODIAM is certainly complex and ambitious, although a priority program. Experience in Haiti shows that the continuous support of all concerned will be required to strengthen its feasibility.

Evaluation of PRONACODIAM

PRONACODIAM was evaluated in November 1985 by a team of 19 members representing the MSPP, WHO/PAHO, UNICEF, and USAID.⁵ The overall purpose of this evaluation was to identify, throughout the country, the validity and effectiveness of the program activities on the basis of a series of process indicators. These relate to planning and administration, training, supervision, treatment, supplies, information, public health education, and operational research. Because of recent surveys on mothers' knowledge of, attitudes about, and use of ORT, no interviews were included in the evaluation of the program. While in 1983 only 5% of mothers utilized ORT, in 1985 the rate was 36%. Knowledge rates rose dramatically, from 0 to 5% in 1983 to 58% to 98% in 1985.

The report considers that, after two years, the overall results of PRONACODIAM are impressive. An effective infrastructure is in place. A total of 5,450 health workers have been trained in the diagnosis of dehydration and the treatment of diarrhea by rehydration with ORS. This educational process has been complemented, following the multi-sectoral strategy, with the preparation of 11,943 staff members of various agencies, including malaria voluntary collaborators, Boy Scouts, and community leaders. It is expected that the introduction of health messages about diarrhea and ORT in the National Program of Alphabetization may reach around 57,000 fathers and mothers, thus adding to public knowledge about the disease and its therapy.

These data may be significant for the timely treatment of diarrhea in children. However, since we know neither the denominator of each group, nor the actual incidence of the disease per child and community, we cannot determine the real number of trained staff needed just for child survival. Still, the evaluation team found that all health staffs of the units visited recognized the value of ORS for preventing and treating dehydration, while professional and auxiliary nurses knew how to prepare it. In the health centers surveyed norms were available for the clinical evaluation of the degree of dehydration in the diarrheic child.

An intensive health education program, mainly using the mass media, particularly radio, has been developed. Some of the principles and methods of "social marketing" were employed, although Manoff, its main proponent, felt that they were somewhat faulty.⁶ Face-to-face education was the exception. More than 600,000 samples of different kinds of information materials have been printed and distributed. We hope that the messages were specific and were prepared with the collaboration of mothers, to ensure their effectiveness in terms of behavioral changes.

Serum Oral is produced mainly by a national company in Haiti. This arrangement has assured quality control, and is an indirect way to measure trends in the use of ORS. The evaluation team stated that this local production entirely satisfies national needs. Approximately 40% of sales are covered by the commercial sector, with 3,000 "postes de vente" established.

Despite these encouraging results, the evaluation team found serious constraints. Among these was the high lethality rate in hospitalized children, around 40% in several hospitals. To some extent, this situation can be explained by the lack of motivation vis-à-vis the program, as well as by the limited clinical and therapeutic capacities of young physicians. There is also a rather low demand on the MSPP health infrastructure, a common situation in many developing countries, that should be carefully analyzed through operational research.

A great imbalance is evident between the number of ORS packages needed for the program on a national scale, and the number utilized. The knowledge and use of ORS by mothers also shows a marked difference. Several surveys have disclosed that mothers, following cultural patterns, frequently treat their children's diarrhea for two to three days with different types of "herbal teas," sometimes adding sugar and salt. This period may be crucial for child survival, and the effectiveness of this therapy should be studied, given the high lethality rate in hospitals.

The evaluation team made a series of recommendations for each component of PRONACODIAM, with which we agree.

ORT in the Private Sector

The evaluation report on CMSCS and AOPS I and II⁷ states that information regarding ORT knowledge and use was meager or nonexistent. However, there are two positive experiences. In the Mirebalais project, knowledge about ORT rose from 0 in late 1983 to 87.7% as of March 1986. Its use for the last diarrheal episode increased from 0 to 40% of mothers. There was a significant reduction in child mortality associated with the introduction of ORS in 1983, particularly for mothers knowledgeable of Serum Oral.

In Cité Soleil recent evaluations showed that 90% of mothers there knew about ORS, and that 77% declared they had used it for their children's last episodes of diarrhea. A marketing study indicated that of all packets sold in the country, 12% were delivered in Cité Soleil, which has only about 3% of the total population.

In all other projects included in the evaluation report, there are clear weaknesses regarding the availability and distribution of ORS packets, which differ widely among different health units. On the other hand, the team believes that "there appears to be a crisis of confidence and commitment to the intervention," and lists several potential reasons to explain it. These should be analyzed and measured through operational research. Furthermore, the team suggests that it may be necessary for the MSPP and AOPS to articulate a policy decision on ORT, in accordance with recently revised WHO strategy. The need for training that includes a greater practical component for mothers is also emphasized.

The Present Situation of PRONACODIAM

Despite the tangible accomplishments we listed, the general impression is that the program seems to have lost momentum. Several explanations have been adduced, most of which must still be substantiated. To start, there appears to be a drastic reduction in ORS consumption, to less than 200,000 packets a year.⁸ This may reflect an overestimation of demand, since the market was saturated by the national

production company. The irregular utilization of salts by the health system, both public and private, also contributes to the present situation. The commercialization of ORS, although showing concrete advances, is also far from covering the whole country, as originally planned.

Some other reasons reflect the beliefs and behaviors of mothers. Most associate ORS use with the cure of diarrhea. As this does not happen, some may become disappointed and have no further interest in the product. Episodes of diarrhea are usually self-contained and evolve favorably, particularly when dehydration has been controlled.

The first two to three days after the onset of the disease are crucial. But mothers usually treat their children with homemade herbal infusions. As the child becomes critically ill, assistance by the health system is required but not always requested. To explain this behavior, several reasons are mentioned: the lack of prestige of the health unit, or a preference for the traditional system; distance; and the expenses of transport and pharmaceutical products. Different beliefs about the causes of diarrhea lead to diverse treatments, which may not include ORS. On the other hand, there is widespread confusion as to how to prepare the solution. This may reflect misleading messages from health personnel, and the misunderstanding of educational messages, including posters.⁹

These and other interpretations--or misinterpretations--about the apparent decline in the use and impact of ORT have been proposed. It seems that the demand for ORS has been reduced, and that neither price nor knowledge and supplies can clearly explain it. Our evaluation team recommends that a study of the determinants of the present use of ORS be made. Results should be useful to design the "second phase" of the diarrhea control program, focusing, for the time being, on home case management, including the safe use of domestic fluids. This approach entails the strengthening and expansion of the four main strategies developed during the first phase of the program.

Breast-Feeding and Appropriate Weaning

This component of PRONACODIAM has hardly been developed. Its promotion is more the exception than the rule, and this is another expression of the policy of sequential rather than simultaneous activities of primary health care. The consensus nowadays is that, while rehydration and electrolytic balance are essential for child survival, feeding--and particularly breast-feeding when appropriate--during and after an episode of diarrhea are also vital. To dissociate ORT from breast-feeding is not biologically rational.

Our evaluation team strongly recommends to the MSPP and the international community associated with PRONACODIAM that the nutrition component of the program be introduced and developed as soon as possible. Three major components of this effort are: the promotion of breast-feeding, starting with colostrum; the production and commercialization of weaning foods, such as AK 1000, based on local staples; and feeding during and after bouts of diarrhea. They should all be carefully planned and implemented.

Conclusions

PRONACODIAM, a joint effort of the MSPP and WHO/PAHO, USAID, and UNICEF, has shown remarkable advances in its first two years of operation. It now seems to have lost momentum on the basis of several not always substantiated factors.

Since the problem of diarrhea persists, and is still so severe, it is obvious that the program must continue and expand, applying the lessons learned until now.

Recommendations

1. A "second phase" of PRONACODIAM should be carefully planned, and should include the most recent information about the four major strategies in operation.
2. The nutrition component of the diarrhea control program should be urgently developed. Feeding must continue during and after each episode. Breast-feeding and appropriate weaning are paramount.
3. Operations research should be developed on the major determinants of the present status of ORS use.
4. The international community, so effectively associated and coordinated for the implementation of PRONACODIAM, should continue its joint efforts and investments until the problem is under control.

References: Chapter VI.D; Oral Rehydration Therapy (ORT)

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V.2 Immunizations - EPI

Acute and chronic infections are among the leading causes of morbidity and mortality in developing countries. When their incidence is high in mothers and children, certain specific rates become a trait of underdevelopment. On the other hand, the synergism between malnutrition and infections has been well demonstrated experimentally, clinically, and epidemiologically. Infections are more severe in malnourished children than in well-fed ones, particularly those breast-fed and effectively weaned. Malnutrition reduces immunocompetence; those affected become high-risk groups with reference to death and diseases due to infections. The latter are often widespread in the poverty-stricken communities of developing countries. Some of them are preventable by specific vaccinations that should be applied as a priority program of the primary health care system.

The Expanded Program of Immunization (EPI), sponsored by governments and WHO/PAHO, UNICEF, USAID, and other bilaterals presently includes poliomyelitis, diphtheria, tetanus, whooping cough, measles, and BCG, for infants and children below five, and tetanus toxoid (TT) for pregnant mothers and women of reproductive age. The Program has been increasingly implemented in many developing countries of the world.

EPI in Haiti

The four major causes of morbidity and mortality among Haitian children are diarrheal diseases, infections controllable by vaccination, malnutrition, and tuberculosis. Each year these conditions are directly responsible for the deaths of 25,000 children. Infant mortality, which is at 130 per 1,000 live births, represents 60% of this total.

The EPI in Haiti started in 1979, and was organized following technical recommendations of WHO/PAHO. Since then there has not been a regular flow of published data about the numbers of mothers and children completely or partially immunized with each specific vaccine in every unit of the health system. Our team could only find some information. The report of activities of the four Health Regions in 1984 stated that only 15% of infants were completely vaccinated with DPT and polio. A national survey in July 1985, based on a random sample of 1,040 children under five, showed, in preliminary results, that less than 10% of them had all vaccinations.¹

The most recent nationwide information on immunization coverage that our team could obtain refers to children less than one year old, who from September 1984 to September 1985 were immunized at the health services of Regions and Districts under the MSPP.²

For the country as a whole, 61% of those children under one year had been vaccinated for BCG, 24% with three doses for DPT and polio, respectively, and 26% for measles. The infant population included is 184,230, approximately 3% of the total population of Haiti in this period. The North and West Regions had respective coverage rates of 78% and 74% for BCG. But in the South and Transversal Regions, coverage reached only 47%.

For DPT and polio there was more consistency around the national rate of 24%. With reference to measles, the North Region accomplished 41% of infants vaccinated, but in the South Region it was only 16%. The information available also shows some variations among districts within regions. Data on TT immunizations of pregnant mothers and women of child-bearing age is not included.

These results are encouraging, and are a good basis for strengthening activities in order to reach the largest possible number of women and children, if not all. As we shall refer to further, some AOPS programs show even better vaccination rates. There is certainly a need for a more reliable information system to show the actual progress of EPI.

It is important to ask what are some of the determinants of this low vaccination coverage, so as to identify and apply appropriate corrective measures. We can register the following:

- a) Frequent disruptions of the "cold chain";
- b) Irregular supplies of vaccines;
- c) Failures in the electrical system or lack of electricity;
- d) Problems of management, logistics, and coordination of resources;
- e) Lack of knowledge by and motivation of mothers to get themselves as well as their children vaccinated according to schedules;
- f) Lack of a sustained and effective program of health education based on modern epidemiological methods (social marketing).

These seem to be the most apparent causes of poor outputs of EPI in most health units in Haiti, and they should be corrected. Operations research may elicit other determinants.

In May 1986, the MSPP published a comprehensive National Program of Vaccination, 1986-1990.³ The Program covers all levels of the health infrastructure, namely the central one and the regions, districts, and communes, and includes the population by age groups. Objectives for each vaccine for the five years are clearly established. The BCG rate, starting at 61%, should reach 90% by 1990. For all other vaccines, the baseline rate is 35%, which we believe is rather high, and which should progressively increase up to 90% in 1990.

Among the strategies included in the National Program of Vaccination, we emphasize:

- a) Strengthen and expand immunizations by reorganizing existing health units;
- b) Increase coverage through "National Vaccination Days";
- c) Ensure the continuous support of the Government;
- d) Engage the cooperation of the staffs of different ministries, a multi-sectoral approach, as well as the information and mass communication media;
- e) Enlist the technical and financial cooperation of international multilateral, bilateral, and voluntary agencies.

Norms and procedures for successful immunizations are clearly established in the Plan, as well as the needs for human, material, and financial resources. We could not find the criteria used for different estimates. But with proper monitoring data can be readjusted periodically in accordance with experience.

We reiterate that objectives may turn out to be too ambitious for some districts. This, however, should not detract from the quality of the National Program. Our evaluation team believes that, with regular supervision, monitoring and evaluation in all areas where vaccinations are performed, the Program can be successfully implemented.

The Immunization Component of AOPS and CMSCS Program

As stated in the Evaluation Report of AOPS I and II, and CMSCS,³ the immunization components of their programs have been most successful in terms of their measurable impact. For all projects visited, except La Vallée, the vaccination coverage of the target population has increased. And there are no signs yet that it will abate.

The report refers to 13 projects in terms of vaccinations between 1983 and March 1986, as they appear in Table 3 of the document (page 33). Three of these projects, Pignon, Frères (FHASE), and La Vallée, were covered by hospital and clinical services and show modest immunization rates. For most of the others, the assumption is that pre-AOPS immunization coverage was practically zero.

Results are impressive, particularly when longitudinal data are available. Rates for BCG, as of March 1986, varied between 42% and 92%; for measles, between 12% and 72%; for DPT, between 18% and 73%, and for polio, between 13% and 74%. Several projects show no data, especially in 1983 and 1984. In Belle Anse, the greater the number of rallies, from

four to seven, the larger the coverage of vaccinations. In sectors where seven rallies were held, DPT reached 45%; polio, 45%; measles, 79%; and BCG, 85% of over 2,000 children under age three vaccinated.

Data from TT immunizations of pregnant women were not available for most projects. In three of them, rates were respectively 50%, 25%, and 43%. There is a clear need to improve these rates, as well as to administer TT immunizations regularly to women of child-bearing age and pregnant mothers.

In Cité Soleil, vaccinations with DPT, poliomyelitis, and BCG have been performed for the last eight years. Measles immunization was introduced in 1982. The first evaluation was done in 1983 through a major survey. Comparison of these data with a random sample of clinical records in 1984 and 1985 clearly shows a definite increasing trend. For DPT, rates rose from 38% to 56%; for polio, from 28% to 50%; for measles, from 7% to 54%, and for BCG, from 86% to 90%. The five-year master plan for CMSCS calls for 85% coverage by 1988. In principle, we believe that this can be accomplished on the basis of careful planning per area of Cité Soleil, regular monitoring of vaccinations, and supervision following WHO norms and procedures.

Conclusions

1. The problem of infections preventable by specific vaccinations has priority in Haiti, in view of the high morbidity and mortality rates. However, regular and complete immunizations of children and women at the health infrastructure under the MSPP must certainly be enlarged--the goal being to cover all those in need. Some of the AOPS Projects and CMSCS show very promising results. These should be expanded to all AOPS and voluntary health units.
2. The Government has prepared a National Program of Vaccinations that appears to be sound and to include all components for the successful immunization of mothers and children throughout the country. However, no geographic priorities have yet been established.
3. The policy of sequential implementation of basic activities in primary health care in Haiti militates against the Vaccination Program.

Recommendations

1. Immunizations should be performed simultaneously with other priority actions--PRONACODIAM is a prime example--in primary health care.
2. The National Program of Vaccination should be progressively put into practice on the basis of a set of geographic priorities. Among them we suggest the urban health infrastructure, both public and private, and the more promising rally posts.

References : Chapter VI.E; Immunizations - EPI

1. Ministère de la Santé Publique et de la Population. Programme National de Vaccination. Haiti, 1985.
2. UNICEF, SITREP No. 3 on EPI activities covering January-March 1986, Annex I.
3. USAID. Project Evaluation. Urban and Community Development II (521-0159); Extended Community Health and Family Planning (521-0181); and Community Health Outreach (521-0169). Haiti, 1986.

VI.F Malnutrition

National surveys, based on a stratified probabilistic sample developed by MSPP and HKI in 1976 and by MSPP and CDC in 1978, showed the severity of protein-calorie malnutrition, hypovitaminosis A, and iron deficiency anemia among children under five. Following the Waterlow classification, over 24% of these children were classified as moderately and severely malnourished (wasted and stunted). Vitamin A deficiency was reflected in advanced xerophthalmia, and perhaps in excessive mortality due to infections.

Since then, in the last eight years the health profile of Haiti does not seem to have significantly improved. In communities below the poverty line, where people eke out an existence, the health profile has most likely deteriorated. An accepted axiom is the synergism of malnutrition and infection, particularly in non-breast-fed children below one year, and, in general, children below five. Furthermore, from the Interamerican Investigation of Early Childhood Mortality¹ it is known that malnutrition, especially Gomez types II and III (weight for age), as either an underlying or associated cause contributes to 57% of the mortality of children under five. Without consideration of the nutrition problem primary health care is bound to be less successful or even fail.

On the other hand, Haiti faces very serious food consumption problems that reflect an unbalance between increasing demand from population growth and reduced agricultural productivity as a consequence of a declining resource base. Domestic food production does not meet the population's basic nutritional needs. This situation is clearly shown in the quality and quantity of the diet. Recent estimates indicate a nationwide caloric deficit of 20% and a total protein deficit of 31.5% (32.4% from animal protein) in terms of the WHO/FAO recommended levels. These average deficits increase respectively to 40% and 50% in rural areas, as do malnutrition rates, particularly of mothers and children.¹

As was so clearly stated, "it is evident that malnutrition is the single most important health problem in Haiti--both in terms of morbidity and as a major contributing factor to the extremely high infant and child mortality rates."²

Primary health care services lacking any significant nutritional component were introduced in India immediately after independence. Yet, three decades later, moderate and severe malnutrition afflicted 43.3% of preschool children.³ Habicht points out that the health sector can prevent a large proportion of deaths, of permanent handicaps such as blindness due to vitamin A deficiency, and of most mild and moderate cases of malnutrition through primary health care associated with fortification programs.⁴ We should add, food supplementation. The cluster of actions to reduce mortality and morbidity, low birth weights, and malnutrition rates in mothers and preschool children must include nutrition interventions.

Elsewhere in this report our group refers to the need for developing in Haiti an organized nutrition program within primary health care, and including the educational and agricultural sectors.

Immunizations

In our report we examine the situation of infections preventable by specific vaccinations in Haiti. We will briefly focus here on the private sector, based on the information contained in the evaluation report of AOPS institutions.¹

The report of the evaluation team contains an impressive table on vaccination coverage of children 0 to 3 years old in 13 projects at selected dates. (See Table 3, page 33.)¹ Included are DPT, polio, BCG, and measles. With reference to national rates in 1983, there have been remarkable increases in the percentages of children vaccinated in successive rallies. These outputs are more evident where real longitudinal data are available, such as in Pignon and FHASE. However, even in projects showing only one rate of coverage for any specific vaccine, results are worth noting--all of them far above the national average.

As with other primary health care activities in Haiti, immunizations are feasible, as shown by this series of selected AOPS projects. Our evaluation team hopes that, in future assessments of vaccination programs, the actual impacts will be demonstrated by the progressive reduction of morbidity and mortality rates for each specific disease.

Oral Rehydration Therapy (ORT)

A special chapter of this report analyzes the present status of the ORT program since it was officially launched in Haiti in 1983. We want only to emphasize here the remarkable results in the Mirebalais project --the most reliable information to date of all AOPS institutions on the subject of ORT, based on survey data. Knowledge of mothers about the salts increased from 0 in 1983 to 87.7% in March 1986, and use for the last episode of their children's diarrhea rose from 0 to 40% of mothers. Even more remarkable, while child mortality in families where mothers had knowledge about ORT in 1983 was approximately 120, it was reduced to 40 in 1984. The children of mothers not knowledgeable about ORT died at rates of about 190 in 1983 and 110 in 1984. It is important to determine that all other variables that may reduce child mortality were controlled. In other words, were other interventions with an impact on child mortality, food supplementation and immunizations among others, occurring simultaneously with ORT? Furthermore, as the evaluation report states, "without knowing very much about the quality of the methodology used to gather these data, we feel that the time period and the sample size involved makes this a fairly tenuous assertion at this point in the project's lifetime."¹

Improving Coordination Between the Public and Private Sectors

The evaluation team also recognizes the responsibility of the MSPP for implementing the Nouvelle Orientation as the basic policy for Haiti. This entails supervision of the private health sector enterprise. AOPS, in turn, has "committed itself contractually to function in an integrated and coordinated fashion with the MSPP." USAID has also embraced the national health policy--it actually collaborated in its drafting--and the six major priorities.

In practice, the team recommends, and our group concurs, that AOPS provide regularly to the MSPP copies of its standard technical reports. The better the MSPP is informed about the outcomes of the specific activities of every AOPS project, the greater will be the probability of obtaining human and material resources when available from the Ministry of Health. Regular visits to regional and district authorities by an AOPS project coordinator or member of the Executive Committee will also contribute to effective collaboration between the two sectors. Elsewhere in this report, our group recommends several other avenues for improving public-private coordination in health.

The evaluation team has emphasized the need for improving the reporting system of the AOPS projects' progress and activities. It suggests that reports should include not only quantitative data but also qualitative, administrative ones.

Institutionalization, Sustainability, and Replicability

After 40 to 50 years of continued services in the field of health care in Haiti, NGOs can be considered institutionalized, i.e., as established on the basis of common principles, structures, and practices. How long they will stay depends to a large extent on the continuity of sources of funding and on the capacity of the Government to satisfy the need of all the people, all the time, for the promotion of health and the prevention and treatment of disease. However, in countries with an extended health infrastructure and accessible services developed by the Government, there is usually room for the contributions of the private sector in the different areas of the health care system.

As noted in the evaluation team's report and in our own observations, in Haiti the relationships between the MSPP and the NGOs have significantly improved. Still, better coordination should be implemented, because, for the foreseeable future, the private sector has an important role to play in the well-being of the people, as some AOPS projects are already showing.

We must differentiate functional from financial sustainability. With regard to the former, we mean the capability of the NGOs to apply appropriate technologies to the solution of prevailing problems, particularly those included in the Nouvelle Orientation, to formulate

programs, establish objectives in harmony with resources, monitor actions, and evaluate processes and outcomes. With reference to the latter, NGOs are to become self-supporting, absorbing recurrent costs, while maintaining the same, or preferably higher, levels of health activities, once external resources have been terminated.

The Albert Schweitzer Hospital and its satellite peripheral units has been in existence for no less than 30 years. This is the best example of functional sustainability in Haiti. The AOPS model, i.e., the strategy for the delivery of health services, both preventive and curative, by all institutions, seems effective in some of them, at least with reference to certain programs.

We must reiterate that the time span since the creation of AOPS and the USAID investment in the Association and a group of its members, has been too short to test the sustainability of individual institutions. Notwithstanding, as reported by the evaluation team, of the 30 projects that experienced some startup activity, 10 have already or will soon expand their population coverage. The remaining 20 are active, not all without problems, but active. The problems relate to monitoring and evaluation, staffing, health education, logistical support from the MSPP, the creation of an increasing demand, etc.

All of these happenings, despite expected constraints, seem to indicate that the AOPS model is sustainable and may even be more so with greater experience in a larger number of projects. The evaluation team declared, "The AOPS philosophy is that sustainability is more likely when the locus of control is the mother, who is motivated and taught to take charge of her child's health." We could not agree more.

There is increasing evidence that certain mothers, even in high risk groups of the community, are able to cope and watch the growth and development of their children according to standards. They regularly recur to the health center, or rally post, and follow instructions carefully. Among other characteristics, they usually come from stable homes, and know basic norms of personal hygiene that they apply in breast-feeding and weaning practices as well as in food preparation. They can be of great help to other mothers in the community, not only as a symbol but by actually showing what is to be done, particularly for children at risk of death. The creation of "viable mothers' action groups in Mirebalais"--or mothers' clubs, as called in other countries--seems a rational approach.

With regard to financial sustainability, it is pleasant to note that, according to the evaluation team, "most programs seem to remain committed to the community outreach program, once they embark upon it and continue to find funds to operate it one way or another. They are not terribly concerned about the issue of recurrent costs if they see the program as a priority."¹

Elsewhere in this report, we indicate that there is no exact information about the proportion of operating costs financed by internally generated revenues. However, most projects have instituted revenue-generating schemes, such as pig raising, patient fees, and others, that are intended to defray some of their outreach program costs. In order to have better information on the financial sustainability of their operations, we suggest that USAID may consider requiring them to report on all their sources and amounts of funding, in addition to their accounting requirements for the use of USAID-provided funds.

Can the AOPS health model be replicated by the public sector in Haiti? In answering this question we agree with Smucker, in the sense that "the quality and effectiveness of primary health care programs is not categorically dependent upon whether the program is based in the private or public sectors. In the evolution of primary health care programs in Haiti, elements have been borrowed back and forth between the two sectors. What is crucial, however, is that certain programmatic elements be present. These include adequate finances, qualified personnel, supervision, resupply accountability, and the ability to establish good working relationships at the local level" (page 153).¹

With the exception of the rally posts, most components of the model have been effectively in operation in many countries of Latin America and the Caribbean. The rally post is typical of Haiti, and seems an efficient mechanism of community outreach, provided it is well organized and supervised. According to the evaluation team, when sponsored by the MSPP, outputs and outcomes are less significant than those coming from the AOPS projects. If this is the case, and the need for rally posts is apparent, then corrective measures are in order. But this situation should not detract from the application of the model, if the Government so decides. What will count, in the final analysis, is progress made in effectively implementing the priority health programs as established in the Nouvelle Orientation.

2. Social Medical Complex of Cité Soleil (CMSCS)

Cité Soleil, in the outskirts of Port-au-Prince, can be considered a shantytown similar to so many others that have erupted around the capitals or large cities in the developing Americas. They have in common a series of characteristics: critical poverty, overcrowding, unemployment, widespread ill health and malnutrition, illiteracy, high birth rates, and very low income per capita. Cité Soleil used to excel among its peers with regard to these social indicators. Not any longer, thanks to the initiative, creativity, and entrepreneurial spirit of Dr. Carlos Boulos, who organized and since 1974 developed the Social Medical Complex of Cité Soleil (CMSCS), with the sponsorship of the Haitian-Arab Center.

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The approach is original for Haiti and for many other urban communities in the Americas. It is multi-sectoral and multidisciplinary, based on the assumption that health cannot by itself progressively reduce the ravages of poverty. As a sector of development, health must act in concert with other sectors that contribute to reduce morbidity, mortality, and illiteracy, improve the nutritional status of the people, increase annual per capita income, and promote well-being. This is the rationale of CMSCS. It has been in operation since 1974, with significant financial contributions from USAID since 1980, and from other external donors.

In stages, in the last ten years the Complex has been engaged in activities that contribute directly to economic and social development. Among them are the following:

- a) Expanding and improving primary health care to cover the 150,000 people of Cité Soleil. Components of this program are preventive and curative actions for pregnant and lactating mothers, preschool and school children, and adolescents. These include nutrition rehabilitation.
- b) Strengthening the effectiveness of human resource development activities through remedial education, vocational training for adults and adolescents of both sexes, and job placement for them. Training is related to the labor market within and without Cité Soleil. This is an essential component of the Complex, since income accrued helps families to finance the health care and education of its members.
- c) Increasing the self-financing capability of the CMSCS through higher fees for services, marketing of products, improved fund raising in Haiti and abroad, and looking for new sources of revenues.
- d) Making more efficient the management capacity of the Complex and its institutions, including a planning model and program budgets.
- e) Broadening operations research related to issues that affect the morbidity and mortality of vulnerable groups, identifying cost-effective alternatives to solve them, and improving the management of the health care system.
- f) Organizing and expanding educational programs for health professionals and nonprofessionals, including TBA and "agents de santé," for improving the use and effectiveness of available resources.

This is a large social agenda which, despite increasing financial difficulties, has progressively been put in place. Although concrete data about inputs, outputs and outcomes related to preestablished objectives are not available, according to Dr. Carlos Boulos infant mortality rates have gone down from 225 per 1,000 live births in 1974 to 70 per 1,000 in 1985. If these data can be validated, they will reflect significant advances in the field of health and other programs sponsored by the Complex.

The evaluation report,¹ which includes CMSCS, stated: "Cit  Soleil is also on track with the large majority of its contractual commitments. It has achieved its targeted coverage and, at the same time, it is showing steady gain in the number and quality of its preventive and curative services. As one example, the average number of prenatal visits at CMSCS facilities has risen to five; the WHO norm is three. It is making adjustments in an area of primary concern to this evaluation, the ability of the Complex to cope with its greatly increased complexity, size, and comprehensiveness; the evaluation makes some qualitative recommendations about these adjustments" (p. viii).¹

In accordance with its objectives, as described in the Statement of Work, our evaluation team had three major interests in studying CMSCS:

- 1) to determine whether the multi-sectoral approach to dealing with health and social problems in an urban area in critical poverty is sound and feasible;
- 2) to analyze whether the whole undertaking, covering a variety of health, social, and economic development programs, can become self-supporting in the long run;
- 3) to examine whether CMSCS is replicable in similar urban communities throughout Haiti.

Besides our observations during several visits to Cit  Soleil, we have been greatly benefited by the comprehensive report of the evaluation team on major institutions in the private sector, whose final version we received only in July of this year.

Multi-Sectoral Approach to Health Care

The inter-sectoral approach to identify, prevent, and control health problems has been widely accentuated.² We recognize that it has not been applied to large programs, both rural and urban, in developing countries, but usually to pilot or rather limited projects. Ten years of experience in Cit  Soleil show the feasibility of associating health--including nutrition--education, both remedial and vocational, and labor, to reduce unemployment and increase income per family. This has been developed as a series of different activities within each sector, not necessarily planned on the basis of measurable objectives, nor integrated with the other sectors' programs. Questions of costs per activity, of cost-effectiveness of alternative solutions, and of improving management, have been deferred in a continuous effort to expand coverage both functionally and operationally. Operations research in all these areas should be started or continued.

The lack of baseline data and specified objectives does not allow the measurement of outcomes per program. However, the coverage and the number and quality of actions have definitely increased. We hope that the new Health Information System will be applied in Cité Soleil, and that reports will become more accurate and related to objectives.

Because the Complex is multi-sectoral in its approach, it stands a better chance to surpass the Goal of the USAID Action Plan FYs 87-88, and to reduce infant and early childhood mortality even further than present levels.

Financing CMSCS: Towards Self-Sufficiency

A recent evaluation of NGO health activities examined the financial performance and accountability of CMSCS in detail. The draft report of the evaluation contains some financial tables with information on recurrent costs and sources of funding. Some of the information presented in tables of the draft report varies slightly from data obtained directly from CMSCS. A thorough analysis of the financial position of this organization was virtually impossible in the limited time that our evaluation team had. Thus, the reader is advised to consult the report regarding issues of financial accountability. In this report, only the data on actual expenditures, sources of funding, and internally generated revenues obtained from CMSCS itself are considered. These data are analyzed in the tables below.

CMSCS has numerous donors. Over the last six years it received funds from 38 different organizations and individuals. But of the 38 donors, only 11 provided funds consistently over the last four years; seven provided over the last five years, and four over the last six years.

Over the period 1980-81 to 1984-85, several important changes in the financial position of CMSCS have taken place. Its intake from donors doubled. The number of donors, or sources of finance, tripled. USAID is still the major source of funds, and in absolute terms its contributions have more than doubled. But as a percent of the total, USAID's share declined from 50% in FY 81 to 45% in FY 85. Thus, CMSCS has diversified its sources, and hence reduced its dependence on a limited number of donors.

While CMSCS is far from being self-sufficient, its revenues from patient fees, product sales, and school fees have been increasing over the period FY 81 to FY 85. Available data on health revenues are analyzed below.

From FY 81 to FY 85, internally generated health revenues nearly tripled. Although the absolute amount generated is still only a small fraction of the Complex's recurrent costs of health services, the trend is quite encouraging.

Cost data that were made available to this team are relatively less reliable than revenues. The major problems of the data are that: a) in-kind contributions, or expenses for which direct payments are not made by the Complex, are omitted, and there was no easy way to estimate the value of such inputs in the time that was available. We suspect that such inputs, in particular the value of donated time, would be very high. b) It was difficult to determine the nature, the capital or recurrent expense aspect, of some line items for some of the years. At times it was necessary to apply some common sense. Thus, the figures reported below, while they are the best estimates available, are gross underestimates of the recurrent costs of health services in the Complex.

CMSCS: SUMMARY OF SOURCES OF FUNDS AND EXPENDITURES
(In US\$)

	<u>80-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>	<u>84-85</u>	<u>85-86</u> (1)
EXTERNALLY GENERATED FUNDS						
Amount	481,636	694,391	738,291	855,289	971,859	910,670
Percent change		44	6	16	14	-6
Number of donors	8	18	19	20	24	19
HEALTH REVENUES (INTERNALLY GENERATED)						
Amount		28,363	35,924	66,890	84,138	74,308
Percent change			27	86	26	-12
EXPENDITURES ON HEALTH SERVICES (DIRECT CASH COSTS) (2)						
Amount	277,329	504,226	503,100	450,830	501,271	NA
Percent change		82	0	-10	11	NM

Source: CMSCS

Notes: (1) Estimated annual figures based on 10 months of actuals.

(2) Cost figures include some capital items.

Depreciation is not figured in.

CMSCS: AMOUNTS RECEIVED BY SOURCE OF FUNDING

	<u>·80-81·</u>	<u>·81-82·</u>	<u>·82-83·</u>	<u>·83-84·</u>	<u>·84-85·</u>	<u>·85-86·</u>
USAID	243,047	378,069	356,607	438,037	432,721	391,190
Plan Internat.	149,024	165,544	127,344	80,004	99,000	88,690
OXFAM	20,070	30,000	30,000	30,000	32,000	17,500
HAC	17,385	15,500	18,000	18,000	18,000	13,500
MSPP (1)		59,578	62,844	62,844	78,780	65,650
EDH		4,800	5,464	5,400	5,400	8,409
Dr. Boulos		4,800	4,800	4,800	1,000	3,950
Belgian (SOS)			16,000	16,000	30,771	41,000
Soeurs Communautés			25,000	25,000	14,184	10,000
OFATMA			15,000	15,000	15,000	11,250
MOE			1,200	1,800	1,800	1,350
Subtotal	429,525	658,391	662,259	696,885	728,655	652,489
Other donors	52,111	36,000	76,032	158,404	243,204	106,403
Grand Total	481,636	694,391	738,291	855,289	971,859	758,892
Percent change	NM	44	6	16	14	NM

AS PERCENT OF TOTAL

USAID	50	54	48	51	45	NM
The seven most consistent donors	89	95	82	75	69	NM
Total number of donors	8	18	19	20	24	19

CMSCS: INTERNALLY GENERATED REVENUE - PATIENT FEES

	<u>·81-82·</u>	<u>·82-83·</u>	<u>·83-84·</u>	<u>·84-85·</u>	<u>·85-86*</u>
Boston Center	3,396	2,424	11,210	8,000	6,650
CHAPI Clinique			18,687	35,471	22,816
B'klynn Center	16,767	17,808	20,804	20,356	14,335
The Hospital	8,200	9,022	16,189	20,311	18,122
Dispensary		6,670			
Total	28,363	35,924	66,890	84,138	61,923
Percent change		27	86	26	NM

Source: CMSCS

*Data covers only July 1985 to April 1986.

EXPENDITURES OF CMSCS ON HEALTH SERVICES
(In US\$)

	<u>·80-81·</u>	<u>·81-82·</u>	<u>·82-83·</u>	<u>·83-84·</u>	<u>·84-85·</u>
Salaries	174,344	354,774	349,934	324,294	371,512
Maintenance	7,600	7,000	4,452	4,485	11,157
Supplies	4,057	17,135	2,980	6,579	13,699
Drugs	38,256	67,919	64,914	67,555	72,952
Training	-	3,751	6,285	9,941	1,100
Miscellaneous	1,130	-	3,228	9,231	3,578
Repairs	-	-	-	4,161	920
Food	-	14,200	8,648	8,639	9,354
Rehydration	2,200	-	1,238	1,828	531
Dental Lab	-	-	1,503	-	-
TB Clinic	-	-	-	6,537	5,173
Water	-	-	-	397	-
Functioning Administrative	-	3,000	-	-	-
					4,036
Total	227,587	467,779	443,181	443,646	494,014

We certainly agree with the statement of the evaluation team on AOPS I and II and the Complex: "Cité Soleil should assure itself a solid financial base before it launches into new endeavors. While it strives to accomplish self-reliant objectives, it will continue to need the full support of its current donors for at least the next five years. AID should not precipitously withdraw support, but should undertake a gradual, planned phase-out over the course of a few years, while the Complex is simultaneously acquiring new revenue sources, overhauling and strengthening its financial management and information systems, and attending to the needs of an ever growing and volatile urban population." (page X).¹

Sustainability and Replicability of CMSCS

Ten years of experience and a continuous expansion of activities involving several sectors of economic and social development--at the risk of over-stretching management and control capacities--have shown that the Complex is functionally sustainable. However, its operations have depended largely on generous contributions of different external donors, even though internal revenues have significantly increased. This weakness in the financing process, as well as in the management of the different activities, must be corrected, so that CMSCS can become a truly sustainable national inter-sectoral urban program.

Is it replicable in Haiti? Our team believes that the same inter-sectoral approach to promote health and socioeconomic development, as well as the organization, norms, and procedures of CMSCS, could be applied to similar poverty-stricken urban areas of Haiti. However, issues of program size, cost per activity, the cost-effectiveness of alternative solutions to each problem, the management of the whole operation, and regular financing, until solved in Cité Soleil, may militate against new multi-sectoral programs. In its efforts to increase health coverage of the population through expanding the health infrastructure, the Government should give careful consideration to the CMSCS model, including adequate financing.

Recommendations

The evaluation team of AOPS I and II and CMSCS makes a very long series of recommendations covering every area of their analysis. To a large extent they refer to management and administration. More specifically, they discuss integration and coordination between the private and public sectors, staffing and human resources, training and continuing education, monitoring and evaluation, supervision, and financial management and planning. A relatively small number of suggestions are related to research and technical issues. It would be very difficult to do better, taking into account the short period the evaluation team remained in Haiti.

The recommendations add to the richness and value of the report. We agree with all of them. However, with reference to some that are just operational, we would like to be certain that they are feasible, and whether there are more cost-effective alternatives. Let us reiterate that the team made a very commendable effort.

We strongly recommend that a similar study be designed and developed, including a representative sample of health units, both urban and rural, and managed and financed by the MSPP. As far as possible, it should follow the same format of the AOPS and CMSCS analysis. This will be useful not only for comparative purposes, but, more importantly, to learn about the present status of public sector services, their strengths and weaknesses, and to suggest corrective measures to improve their effectiveness.

References : Chapter VI.H.; Public-Private Sector Collaboration

1. USAID. Project Evaluation. Urban Health and Community Development II (521-0159); Extended Community Health and Family Planning (521-0181); and Community Health Outreach (521-0169). Haiti, 1986.
2. World Health Organization. Thirty-Ninth World Health Assembly. Document A39/Technical Discussions/4. Geneva, 1986.

VI.I. Food for Development Program (P.L. 480 Title III); Health Sector

Under the Agreement with the Government of the United States of America, the Government of Haiti is committed to implement a series of policy reforms in the health sector. They are referred to in items M through Q. The reference is Annex B of the Agreement.

The evaluation team was asked to examine the changes agreed upon in macro-level policies and institutions, and, when warranted, to suggest alternatives. We have kept in mind that, among other objectives, the overall purpose of the Agreement is to improve the health status and lower the nutritional deficits of the poor, and to increase their income.

(M) Improved Management and Financial Control of the Ministry of Public Health and Population (MSPP)

In the allocation of resources, emphasis should be placed on rural primary health care, and not on institutional care, particularly in the urban areas. This should be reflected in the annual budgets and activities of the MSPP at regional, district, and community facilities. The policy is sound, and its implementation may be difficult. In practice, it will entail the redeployment of funds from hospital care, especially in the capital and large cities, to the rural services. The evaluation team did not have all the needed information in time to determine whether institutions were over-staffed, and whether the transfer of health professionals and nonprofessionals to districts and villages was feasible under the present political circumstances and in the absence of adequate incentives. As happens in other developing countries, in Haiti staff may be concentrated in the capital.

Another approach for implementing this policy is to freeze all new appointments to positions in Port-au-Prince and large cities, and to use the corresponding funds for increasing coverage in districts and communities.

Should further increases in the MSPP's budget occur, the additional funds should be invested in strengthening and extending the rural network of services for implementing the six priorities of the national health policy. In putting them into effect, one should keep in mind the need to have an efficient referral system for those patients requiring more complex care than that provided at the primary level. Under the present geo-ecological conditions of Haiti, this does not seem feasible except in the long run.

Strengthening all levels of the health care system through better management and logistics will lead to the more effective use of available resources and to better care for a larger number of people.

(N) Decentralization of the MSPP

Elsewhere in this report we point out the significant progress MSPP has made, through the Rural Health Development Services Project, in decentralizing authority and responsibility to the Regions and Districts. However, the Ministry has not yet implemented the release and management of funds, and it has only partially provided adequate technical and administrative support to the Regions and Districts.

As we understand it, financial decentralization depends on regulations to be approved by the Ministries of both Finance and Health. Our evaluation team believes that they will facilitate the timely implementation of regional and district health plans and programs. However, it will at the same time be essential for MSPP to establish accounting controls and auditing procedures. All of these managerial methods will require the intensive and extensive in-service training of staffs at the central and local levels.

The Food for Development Program (Title III) includes the specification of annual performance targets in the priority health programs for each Region, District, and community. The purpose is to measure progress, and to design and readjust the support activities of the central office. To the evaluation team, these are all components of a regular health planning process. Furthermore, we believe that performance targets should include both processes and outcomes, and that these should be closely related to available resources.

In Chapter VI of this report, we refer to the strengthening of the Bureau of Health Planning and Evaluation (BHPE), following recommendations by a team that in 1983 assessed the RHDS Project. We state that a substantial portion of the efforts of BHPE should be spent advising Regions and Districts on their planning needs. It should also provide assistance for monitoring processes, and for readjusting objectives on the basis of outcomes.

Although guidelines for the formulation of regional, national, and district plans are presently available, their application is not yet as expedient as it should be. Nor are the monitoring of activities and the internal evaluation of each program. For all these operations, reliable information is essential. A simplified system related to the major priorities has been tested but has not yet been implemented throughout both the public and private health infrastructure of Haiti.

Our evaluation team strongly recommends that the information system be put into operation, because data properly collected, collated, analyzed, and disseminated will clearly improve health planning, programming, monitoring, and evaluation.

Administrative reform of the MSPP is progressing, and must continue and be extended to Regions and Districts, with appropriate support from the central level and in-service training. Similar efforts are needed by the Ministry of Health to regularly provide technical assistance to all local health units in both the private and public sectors. Updated norms and procedures related to the major priorities of the national health policy should be made available to all health facilities and institutions, and should be used for effective supervision. This is a basic task of MSPP that does not seem to be in operation.

(O) Reduction of Recurrent Cost Increases in the Health Sector

As a method for reducing recurrent costs to the Government, the Agreement focuses on the fees for services and the proceeds from drug sales to be retained by each health facility and invested in operating budgets. To this end, standardized systems should be designed by the Government of Haiti, and appropriate legal and administrative procedures enacted.

We were informed that, at present, fees for services are charged in many, if not all, health units, but that the funds thus collected are usually not accounted for, nor are they sent to the Ministry of Finance, according to the law. This irregular situation should be corrected, as stated in the Agreement. Funds should be retained by the health facilities and contributed to operating costs, once the present legislation is reviewed accordingly and adequate administrative procedures are designed and applied.

The under-utilization of health services, reflecting reduced demand, and unimportant returns from fees for services can be expected in many of the MSPP units. Nevertheless, the new legislation and management procedures referred to should be implemented because, on the basis of operational research on determinants of low demand, it is anticipated that the present situation will progressively improve.

AGAPCO is the other source for reducing recurrent costs mentioned in the Agreement. Our team endorses the principle that there is a need for supplying rural people, particularly those in critical poverty, with essential generic drugs at low cost. If at all possible, this should be the responsibility of MSPP because of the very low income of the rural poor.

Nevertheless, to expand sales by 25% in each of the three years of the Agreement will require important changes in the organization, management, and financing of AGAPCO.

Operational research is needed to compare alternatives and to select the most cost-effective ones for increasing the sales of essential drugs. Among these we suggest the following:

- a) increase the number of community pharmacies;
- b) raise wholesale prices;
- c) reduce management costs;
- d) purchase at better prices from worldwide suppliers such as UNICEF;
- e) improve product presentation;
- f) improve the efficiency of inventory control, the distribution of drugs from central warehouses to local pharmacies, and auditing procedures;
- g) continuously educate people and staff.

Several of these alternatives are not mutually exclusive, but they must be studied in order to apply those that will certainly improve AGAPCO's performance and contribute to self-financing as a final goal.

(P) Improvement of MSPP Collaboration with Non-Governmental Voluntary (NGOV) Health Providers

In our analysis of AOPS, which includes more than 100 NGOVs, we became convinced that the Association has a genuine interest in collaborating with the MSPP, to implement the national health policy and its priorities, and to avoid the unnecessary duplication of services in the same areas. We point out, however, that AOPS gives emphasis to curative medicine, and not enough to preventive activities, which are the basis for the six priorities of the Nouvelle Orientation.

On the other hand, our evaluation team did not obtain information regarding the 100 NGOVs that do not belong to AOPS. We presume that they also emphasize paid curative services, and neglect, to some extent, the prevention of disease.

The regulatory and supporting roles of MSPP regarding the NGOVs should be strengthened and made more efficient. Common norms and procedures for health planning, programming, monitoring, and evaluation--including minimum standards of care--should be applied by both public and private health facilities. This entails using the same information system, aggregating data at Districts and Regions, and analyzing the trends of the six major health programs of GOH.

(Q) Improved Access by the Population to Family Planning Services

There can be no disagreement that plans are needed for the availability of family planning services in public health facilities. But how are these plans to be developed, and with what resources are the services to be delivered? These are two of the key questions that remain unanswered. Perhaps USAID/Haiti can help the MSPF accomplish this goal. It is possible that outside technical assistance may also be needed for the planning process.

The need to expand nonclerical family planning services has been documented. There is some agreement that a pilot program with malaria volunteer collaborators would be a good way to proceed. Again, how is this to be carried out, and where, and when, etc.? A concerted effort is needed to carefully plan this program.

The MSPP agrees that the expansion of non-governmental health providers is needed to increase the availability of family planning services. The danger here is that some NGOs have tried to act independently of the GOH. Several have refused to comply with national reporting procedures or other norms. MSPP must not only work in concert with the NGOs but also needs to assume supervisory and coordinating functions.

Use of P.L. 480 Funds

Title I, until September 1985, and Title III since October 1985, are used to finance the GOH's counterpart contributions to projects in the public sector. There are currently three projects in the public sector. The share of P.L. 480 funds used in these projects is presented below.

PROJECT FUNDS, FY 82-FY 86
(In millions of US\$)

<u>Project</u>	<u>USAID</u>	<u>TP</u>	<u>P.L. 480</u>	<u>Other</u>	<u>Total</u>	<u>P.L. 480 as percent of Total</u>
RHDS	9.43	Unknown	41.33	Unknown	50.76	81
DHFN	3.38	0.45	1.13	2.51	7.47	15
SNEM	10.23	2.22	5.80	4.45	22.70	26
Total	23.04	2.67	48.26	6.96	80.93	60

In the public sector, P.L. 480 funds finance an average of 60% of the project cost. The percentage is higher in RHDS, where they are used to finance the largest share of salaries, and lower in DHFN, where other sources, including USAID funds, are used to pay salaries.

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A General Comment on Title III

The evaluation team believes that the Food for Development Program reflects an original approach for assisting governments to complement their budgets for essential projects of economic and human betterment. In Haiti's present situation, it can safely be assumed that, without Title III inputs, the policy reforms and specific activities included in the Agreement cannot be implemented in the same time span.

The evaluation team is not prepared to determine whether the agricultural policies have a disincentive effect on national production and impair the food consumption of the poor. We assume that these factors have been taken into account before specifying tax and price reductions and grain import licenses. We recommend that in the series of studies included in the Agreement, due consideration be given to monitoring the impact of these measures on the nutritional status of the needy.

The Food for Development Program is a complex operation that requires efficient management. This does not yet seem to be the case at the Ministry of Health, even though the implementation of the Agreement started only this year. Still, we were informed by the Division of the Ministry involved in Title III operations that staff salaries were six months in arrears. This situation will certainly be reflected in their performance, and may even delay specific actions contained in each project. It does not help the image of GOH and USAID.

Apparently, the norms and procedures established by the Title III Management Office are not easy to apply by Districts, Regions, and the central level of MSPP, with the result that the staff is not paid on time. Needed are either changes to them or their simplification, or more in-service training of those responsible for speeding up their application as they stand. Our team recommends that GOH and USAID give special consideration to this serious issue.

Conclusions

1. The evaluation team believes that the Food for Development Program (P.L. 480 Title III) is an original approach of cooperation with the Government of Haiti for the purpose of improving the health status, lowering the nutritional deficits, and increasing the income of the poor.
2. Without Title III inputs, it can safely be assumed that the policy reforms and specific activities included in the Agreement cannot be implemented in the same time span.

Recommendations

1. In order to implement the policy of giving priority in the allocation of resources to rural primary health care, we suggest a series of approaches that may not be mutually exclusive. The MSPP should select those that seem more feasible at the present time.
2. We strongly recommend the strengthening of the health care system at all levels through better management and logistics, because this will lead to the more effective use of available resources and better care for a larger number of people.
3. The decentralization process should continue until directors of the health regions and districts have actual authority and responsibility to implement the Basic Health Policy of the country and the plans and programs related to its six major priorities. Financial and budgetary decentralization should also be put into effect, including accounting controls and auditing procedures.
4. While administrative reform progresses, similar efforts are needed by MSPP to regularly provide technical assistance to all Regions and Districts, and through them to local health units. To this end, updated norms and procedures related to the major priorities of the national health policy should be made available to all health facilities and institutions, and should be redone when necessary.
5. We recommend that fees for services be retained by the health facilities, as a mechanism for reducing recurrent costs, once the present legislation is reviewed accordingly and adequate administrative procedures are prepared and applied.
6. We recommend different alternatives for increasing the sales of drugs by AGAPCO, thus contributing to operational costs. Operations research studies should determine which are the most cost-effective.
7. The relationships between the public and the private sectors, particularly the institutions affiliated to AOPS, seem to be in good order. Still, the regulatory and supporting role of the MSPP should be made stronger and more efficient. Using the same information system, common norms and procedures for health planning, programming, monitoring, and evaluation should be applied by both public and private health institutions. On the other hand, the so-called "health model" in use in the AOPS institutions (as described in the evaluation report) contains important components that the public sector should apply.
8. We urge the GOH and USAID to review, and to try to simplify, the norms and procedures established by the Title III Management Office, that are presently impairing the efficient operation of a very valuable contribution of USAID to the health sector.

VII. PUBLIC-PRIVATE SECTOR FINANCIAL ISSUES

VII.A USAID Support to the Sector

The current USAID portfolio has seven projects (three in the public sector, plus four in the NGO sector). USAID investment in these projects is analyzed below.

Direct USAID Financing of Projects in the Health Sector (In thousands of US\$)

A. Public Sector

Project Title	PACD	LOP Funding	% of Total
Rural Health Delivery System	6/30/86	17,500	48
Family Planning Outreach	9/30/86	5,690	15
Management of Malaria	3/31/87	8,000	22
Sub-total, Public Sector		31,190	85

B. The NGO Sector

Urban Health and Community Development II	4/30/89	2,100	6
Extending Community Health Outreach (AOPS II)	9/30/86	436	1
Haitian Foundation for Health Education (FHASE)	9/30/86	84	0
Mobilizing Mothers for Child Survival	9/30/86	3,000	8
Sub-Total, Private Sector		5,620	15
Grand Total, Health Sector		36,810	100

An attempt was made to analyze USAID funds used by activity, as requested in the scope of work. The exercise did not yield useful information. The major reason was that formats used in the preparation of project cost tables were not sufficiently uniform. Actual expenditures by activity or inputs or both was also attempted. The data required for such analysis are were not available for the public sector projects, and the information for the NGO projects was incomplete and inconsistent.

VII.B The Burden of Recurrent Costs

We shall attempt to summarize available data on recurrent costs by source of funding. These data were obtained directly from the projects and USAID files. Again, in some cases the available data is inconsistent and incomplete. Project evaluation reports focus on financial management and donor accountability, rather than on estimating recurrent costs, particularly after the termination of donor funding. During the three weeks engagement of the economist of this evaluation, team efforts were made to contact the relevant project personnel, in order to obtain the data required for this exercise. Our success was very limited. The information on recurrent costs that was made available to this evaluation is summarized below.

<u>DOES Project</u>	<u>Year</u>	<u>Recurrent Cost (in thousands US\$)</u>	<u>ESTIMATED</u>	
			<u>Estimate</u> <u>Includes</u>	<u>Estimate</u> <u>Does not include</u>
SNEM	1985	4,742	Estimated value of insecticides from Government of Japan	Depreciation of vehicles and equipment
DHFN	1985	1,869	All known sources of funding	Depreciation of vehicles and equipment
RHDS	1986	1,800	Title III funds per project amendment	GOH contribution of salaries and facilities; depreciation of vehicles and equipment
AGAPCO	1985	555		Depreciation of vehicles and equipment
CMSCS	1985	500		Depreciation of vehicles and equipment
AOPS (Not available)				

VII.C Current Self-Financing Capabilities

The public sector projects, SNEM, DHFN, and RHDS, have no self-financing potential. As public sector activities, they receive GOH contributions from the regular budget, and the P.L. 480 counterpart funds. For FY 85, the percent of their current expenditures financed by these sources is given below.

<u>Project</u>	<u>Percent Financed by</u>		
	<u>Trésor Publique</u>	<u>P.L. 480 Title I</u>	<u>Total GOH Sources</u>
SNEM	6	23	29
DHFN	5	23	28
RHDS	Unknown	Unknown	Unknown

These estimates do not include allowances for depreciation or in-kind contributions of GOH.

AGAPCO, among the public sector projects, is different in that it is a revenue-generating entity. Based on 1985 estimates, AGAPCO has the capacity to self-finance about 49% of its recurrent costs. Here again, there are a number of cost items not taken into account: depreciation, in-kind contributions of GOH, and technical assistance. The latter may be considered a development input. But, more than likely, AGAPCO will continue to need more technical assistance in the foreseeable future. At the current rate of progress and organizational setup, AGAPCO has very little chance of becoming self-sufficient. The reason is that, while sales have stagnated, operating costs have been rising over the last two years.

According to the recent evaluation of the NGO sector, CMSCS generates about 11% of its operating costs through patient fees and product sales.

AOPS generated some \$3,200 in membership fees in the current fiscal year. It appears that the balance of its operating costs (the amount is not indicated in the draft report) is covered by the USAID cooperative agreement.

Imbalance between the Current Internal and External Funding Mix

A. The Public Sector

The data required for this analysis was available for only two out of the three public sector projects (or four projects, if AGAPCO is treated separately). For these two projects, GOH contributions, which are the only truly internal source of funding, started at about normal or higher levels and diminished to lower levels during the course of the project implementation. See the following Table.

TRESOR PUBLIQUE AND P.L. 480 FUNDING

<u>Project</u>	<u>FY 82</u>	<u>83</u>	<u>84</u>	<u>85</u>
	Funds from Trésor Publique as Percent of Total Cost			
SNEM	57	12	9	8
DHFN	8	6	5	5
	Trésor Publique + P.L. 480 as Percent of Total Cost			
SNEM	72	65	48	40
DHFN	25	22	22	28

Normally, host country contributions from the regular budget increase progressively during the course of project implementation, such that the entire recurrent cost of the project is absorbed by the normal budget by the assigned PACD. The contrary is true in the case of these projects.

Data is not available on GOH's contributions from the regular budget to RHDS. From project files it was possible to determine only the amount of USAID grant and P.L. 480 disbursements. Funds disbursed to this project over the period FY 79 to FY 85 were as follows:

USAID Grant and P.L. 480 Disbursements to RHDS
(In thousands of US\$)

FY	79-81	82	83	84	85	86 (1)
USAID Grant	5,745	4,349	1,901	2,805	382	950
P.L. 480	13,840	11,130	9,820	8,610	11,800	10,000
Total	19,585	15,479	11,721	11,415	12,182	10,950
As percent of Total						
USAID Grant	29	28	16	25	3	9
P.L. 480	71	72	84	75	97	91

Source: USAID Project Files

Notes: (1) Planned

Here again, in the case of RHDS the share of P.L. 480 funds used to finance project costs has markedly increased. But since the value of GOH's in-kind contributions are unknown, we have no idea of either the true total cost, or the true share, of each source of funding.

The decline in the GOH's share of the financing of these projects is explained by a number of factors. The most important are: first, the lack of growth in real terms of revenues and hence allocations to MSPP; second, the lack of proper forecasts and budgeting for recurrent costs of on-going and new development projects (see the Birch & Davis report); and third, the expansion of project activities.

AGAPCO's sources of funding include the USAID grant, P.L. 480, and its own internally generated revenue. In 1985, its sales revenue was about \$270,000. Its receipts from the other two sources are not well documented. P.L. 480 funds budgeted for the current fiscal year amount to \$176,000. In addition, AGAPCO expects to receive some \$300,000 of a USAID grant. Thus, assuming that sales will remain at the same level as in 1985, AGAPCO will be able to finance some 36% of its cost from its sales revenues.

In the short-term, the prospects are not very bright for real growth in government revenues, and hence, in budgetary allocations to the MSPP. Even if there are increases in budgetary allocations, that such increases will be used to finance the recurrent costs of development projects is not guaranteed. Indeed, as recently happened, MSPP is more likely to use such allocations to employ more staff than to make the funds available for other purposes.

In this period, Haiti is experiencing profound political and social changes and rising expectations. Political issues are thus more likely to take precedence over economic issues. Therefore, the GOH is less likely to be able to absorb additional financial obligations for development projects in the health sector. Regarding this statement, the evaluation team is not of one opinion.

Increased availability of resources is not the only approach to increases and improvement of the delivery of health services. The same objectives could be achieved by the efficient utilization of existing resources or by the application of appropriate technology, or both. In view of the severe financial constraints of the GOH, perhaps the most cost-effective approach will be to use USAID funds in strengthening the MSPP's ability to manage resources and to actively promote appropriate technologies in primary health care.

B. The Private Sector

According to the recent evaluation report on the private sector, most of the USAID grantees were operating before their cooperative agreement with the Agency. Besides receiving support from churches, individuals, and other PVOs, they generate revenues from patient fees and product sales. Data are unavailable on the percentages of their operating costs covered by internally generated revenues. The evaluation report gives the impression that, for the majority of the grantees,

internally generated revenues constitute only small fractions of their operating costs. However, most have instituted small revenue-generating schemes, such as pig raising projects, membership fees, and patient fees, that are intended to defray some of their outreach program costs.

To assist these organizations in exploring more ways to generate revenues, USAID may consider financing operational research in this area. To have better information on the financial sustainability of their operations, USAID may also consider requiring them to report on all their sources and amounts of funding, in addition to their accounting requirements for the use of USAID-provided funds.

VII.D The Soundness of Mission Policy to Privatize

Exactly 15% of the Mission's health sector portfolio is implemented by NGOs. From the point of view of increasing access to health care as efficiently as possible, the Mission's policy of support for NGO health care activities is in the right direction.

Officials we contacted in both the public sector and the NGO sector indicated that coverage rates reported by NGO health sector activities are higher than those reported by public sector operations. Some of the same officials, staff of the USAID Health Office, and some reports consulted also indicated that most of the NGO sector operations are more cost-effective than those of the public sector. Shortages of required resources and limitations of managerial capacity in the public sector seem to have reduced the effectiveness of some government health services. Elsewhere in this report we recommend a study of a sample of them, similar to the recently completed evaluation of AOPS institutions. Notwithstanding, the assistance of USAID to the private sector should continue.

In the long run, the Mission's support to the NGO sector should be based on sound analysis of the NGOs' long-term interest in the sector and their comparative advantages in the delivery of health care.

As some officials in the NGO sector indicated, most NGO activities benefit from contributions of the public sector. Some of the NGOs utilize combinations of public facilities, personnel, and other resources. The two sectors have so far worked in tandem in the delivery of health care. Thus, as far as possible, support for the NGO sector should be undertaken as a complement to, and not a substitute for, investment in the public sector. Efforts should be made, and Mission support to both sectors should be used, to promote collaboration to the possible maximum.

The capability of NGOs to self-finance recurrent costs has been reviewed by the recently completed sub-sector evaluation. Unfortunately, the draft report of this evaluation did not contain the required information. Practically all the financial tables referred to in the draft report were missing. However, the draft report, as well as officials contacted, indicated that these organizations have been in existence for a long period and have a variety of sources of funding, some of which are reliable. In addition, some of the NGOs have instituted income-generating activities that will contribute to the financing of their community activities.

VIII. MAJOR CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The role of USAID in the health field in Haiti is efficient and is moving in the right direction. Activities related to priority problems and vulnerable groups are certainly making an impact. With more reliable information, outputs and outcomes can be even more solid.
2. USAID specifically addresses the National Health Policy of Haiti--the Nouvelle Orientation, and the Child Survival Policy.
3. It is safe to state that without USAID contributions, many health programs and operations, in both the public and private sectors, may have not started or reached their present coverages. Therefore, a significant number of mothers and children would not have their health improved and their lives prolonged.
4. The relationships between the Ministry of Health of Haiti and USAID are smooth and efficient. The Ministry manages and implements agreed-upon programs, and USAID provides effective technical and financial cooperation within its policies and regulations.
5. There is also remarkable coordination among the international agencies, both multilateral and bilateral, that collaborate in the field of health in Haiti.
6. The Action Plan for FYs 1987-88 is sound and valid. Its overall goal can be attained if the preconditions listed in this report obtain.
7. In a theoretical exercise looking for more cost-effective alternatives with the same order of USAID investments, (see Chapter V), the Agency's health portfolio falls into the category of the "combined approach." This uses the established health infrastructure in toto, while improving the supply of and demand for services, and providing special programs for specific conditions, even in the absence of health units. Under the present political, social, and economic conditions of Haiti, we believe that this is the right approach to follow.
8. Coordination between the public and private sectors has clearly improved. The latter agrees to implement the Nouvelle Orientation, accepts contributions of the MSPP, including training as well as supervision. The former can benefit from the experience of private institutions, some of which are better organized and show more significant outputs. Still, there is room for more effective coordination.

9. An investment of 15% of total USAID funds in the health field in the private sector responds to a historical process in Haiti, and is already producing a significant impact on the prevention of high incidence diseases.

Recommendations

1. Our evaluation team strongly recommends that USAID continues and expands its technical and financial cooperation in the field of health in Haiti, at least in the short and medium terms, in agreement with the Government.
2. Although we concur that emphasis should be on child survival and development, certain programs require strengthening and effectiveness, among others: ORT, immunizations, malnutrition, and family planning. In the respective chapters of this report we make specific recommendations.
3. Improvements to the management, financial control, administration, and logistics at the MSPP and its major departments and institutions, as well as at Regional and District services, must not only continue but should be speeded up. These actions will benefit more people, with the same investments, by increasing the production and productivity of every program and of the health infrastructure as a whole. This reduces expenditures and increases efficiency and effectiveness.
4. MSPP should also undertake the preparation or updating of norms and procedures for all health activities included in the priority programs, which should be disseminated to public and private health services. A common technical language will thus be created and tested, appropriate technologies used, and measurable objectives better determined, in close relation with available resources. International organizations, USAID included, should provide up-to-date scientific and technical information to the MSPP, the University, and research institutions.
5. Efforts to increase the revenues of health services, by increasing patient fees, sales of drugs and other products must continue. The goal is to finance recurrent costs, so that, eventually, all of them become self-supporting and sustainable. At this time, a relatively small proportion of total expenditures is being financed in this way. Under the present and foreseeable economic conditions of Haiti, it does not seem possible that the Government, even including increases in these revenues, will be able to sustain the health system. Hence, the financial and technical cooperation of USAID and other external agencies is needed for the ongoing priority programs.

6. In order to progressively improve the health and nutritional status of the Haitian people, we strongly recommend that the Government of Haiti, with external cooperation as required, prepares a long-range national health nutrition plan, that should include the extension of the established health infrastructure to cover the largest possible number of communities with services. A consortium of the international financing community should provide funds for implementing the plan in the most favorable conditions, with payments of interest and principal strictly related to the country's economic growth. The rationale for this proposal is that health is a basic need that the people demand, and it is an investment in human development essential to economic growth.

Specific Conclusions and Recommendations

When appropriate, these are included in several chapters of the report.