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SCOPE OF WORK
EVALUATION OF THE HEALTH SECTOR LOAN
IN THE DOMINICAN REPUBLIC



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HEALTH MANAGEMENT APPRAISAL METHODS PROGRAM

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PREFACE

This report presents two scopes of work; one for the upcoming retrospective evaluation of the AID-financed Health Loan #028 (referred to as Health Loan I) and one for the design and implementation of an evaluation system for the recently initiated Health Loan #030 (referred to as Health Loan II). The work scope team's report is the result of a two week visit to the Dominican Republic during the period 23 March to 4 April 1980. It was carried out under the auspices of the Association of University Programs in Health Administration (Health Management Appraisal Methods Project). Funds for the work were provided by the Office of Rural and Administrative Development, AID, Washington, D.C., under contract number AID/ta-c-1480.

The scopes of work were written after discussions, interviews, and document reviews with representatives of the Agency for International Development Mission to the Dominican Republic, the Health Secretariate of the Dominican Republic, and the Association of University Programs in Health Administration.

Many people contributed to the production of this report. Special thanks go to the assistance provided by Dr. Jose Herrera, especially during the field visits, and to Dr. Daniel Guzman. All of the Health Secretariate collaborators were helpful throughout the visit. The AID Mission staff also provided the team with support and direction. Dr. Oscar Rivera and Frank Miller were constantly available for counsel and coordination. Mission Director, Mr. Schwab, provided direction and orientation at the initiation of the visit. In Washington, AID officials Monteze Snyder, Barabra Sandoval, John Massey, and Mark Laskin assisted in orientation of the work scope team. Last, but not least,

thanks go to the AUPHA staff for their constant logistical and moral support.

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INTRODUCTION

This Scope of Work sets forth recommendations for evaluating the process and outcome of Health Sector Loan I in the Dominican Republic and presents a plan for later evaluation of Loan II. This proposed evaluation follows the program guidelines set forth by AID for preparing a Scope of Work. The Scope of Work for Loan I might differ somewhat from previous efforts to prepare AID evaluation plans in that it includes considerable detail on the process and criteria to be used for the evaluation. This approach was taken with the intent of having the Government of the Dominican Republic (GODR) understand and participate fully in the process and to assume major responsibility in some areas. Given the fact that the GODR is attempting to increase its information and evaluation capacity, this evaluation project carried out with their participation, should be instructive and have added significance in terms of program understanding and support.

Health Loan I has three components: Basic Health Services, Servicios Basicos de Salud (SBS), Management Reform, and Nutrition. The work scope is written in four sections that correspond to these three components and to the evaluation plan for Health Loan II. It uses the logical framework's criteria (and recommends others in some cases) as the source of information for determining accomplishment of Health Loan I. Specific questions, areas to investigate, and sources of information are presented which, taken together, constitute a step-by-step evaluation procedure for the Health Loans. This plan was prepared uniformly for each of the four sections by exploring the adequacy of problem definition, project relevance, project formulation and outputs, and project impact. The structure may be shown graphically as:

1. Adequacy of Problem Definition	Goals	Indicators	Assumptions
2. Relevance of Project	Purpose	Indicators	Assumptions
3. Project Formulation and Output	Outputs	Indicators	Assumptions
4. Project Impact	Inputs	Indicators	Assumptions

The evaluation project will require additional consultants outside the GODR, as explained in Section Seven of this report (evaluation methodology). This outside involvement is also important to assure objectivity. We recommend that the evaluation start as soon as possible, given the fact that Loan I has ended and Loan II is underway.

The Scope of Work includes seven major sections and three appendices. Sections 3, 4, and 5 present the work scope for Health Loan I. Section 6 describes the work scope for Health Loan II and the proposed evaluation methodology is presented in Section 7. The appendices include the logical frameworks for Health Loans I and II, a listing of people contacted during the visit, and a bibliography.

2. GENERAL FINDINGS

Although the task assigned to the AUPHA Team during its brief visit was to plan for evaluation of Health Loan I, the team collected data regarding management features of the rural health delivery (SBS) program which will be useful later in actual evaluation. The scope of organizations included in this report is as follows:

- o Central Offices of the Health Secretariate (SESPAS)
- o Regional and rural hospitals
- o Rural clinics

This section of the report provides intital observations on management in those areas, but makes no pretense at being comprehensive or entirely rigorous. It is a description of management problems and successes that the team learned from various informal conversations, meetings, document reviews, and so on. These data are presented for use as a source of information by collaborators on program evaluation in the Dominican Republic. The management areas covered include personnel, finance, information, planning, and logistical systems.

The AUPHA Team expected to make extensive use on this visit of the reports, working papers, and observations prepared during the SESPAS/Arthur Young and Company Management Reform Project. The Team learned that a number of diagnostic instruments and analyses were prepared during that project that would contribute greatly to understanding of institutional capacity of the agencies implementing Health Loans I and II. Unfortunately, neither AID/Santo Domingo nor SESPAS officials were able to provide copies of materials from that Project during the team's short visit. It is strongly recommended that the products of that Project be made available to later evaluation efforts.

An effort is made here not to report management information that is already documented in other reports. Other sources of

information concerning management structures and practices of the Dominican health system are listed in the bibliography of this report.

Personnel

The SESPAS Central Personnel Office in Santo Domingo oversees all personnel transactions for the Secretariate. At the national level, a new technical assistant in the Central Personnel Office has recently initiated a campaign to establish job descriptions and classifications for all 25,000 Health Secretariate, Secretaria de Estado de Salud Pùblica y Asistencia Social, (SESPAS) employees in the country. Surveyors (students) are visiting all facilities to collect the employment data which will be used to produce personnel manuals. Obviously, this is a tremendous task, which may require a long period of time. It was supposed that time might be saved by collecting this information on a sample basis and using the sample to develop model personnel guides and regulations.

At the clinic level, a frequently expressed personnel problem was the length of physician time available. The general feeling was that physician hours devoted to rural clinics were not sufficient to meet demand. The promotoras, as a group, were viewed as being quite enthusiastic and committed to their jobs. A variety of problems and symptoms were described as being constraints to personnel and are included here for further consideration later:

- o lack of formal recognition of promotoras' performance
- o lack of specific promotora goals other than "visit each home twice a month"
- o problems in contacting teenage family members; the teens are often not available at the time of promotora visits (promotoras do not alter their visit times in an effort to encounter these family members)
- o because vaccinations are only provided by promotoras during campaigns (every 3 months), people needing them

sooner must go to the nearest clinic or wait for the next campaign

- o some of the promotoras visited by the team had not received their one week nutrition training

Finance

Total financing for Health Loan I activities was calculated at \$11.6 million of which \$4.7 million was to be AID financed (the remaining \$6.9 million was to be financed with Dominican funding). Prior to implementation, the total program cost was allocated to the three program components as follows: Basic Health Services, \$6.38 million; Nutrition, \$1.43 million; and Management Reform, \$3.83 million. (Source: Capital Assistance Paper, Health Loan I)

The financial arrangements described above were modified during Loan implementation. Modifications were due to a combination of problems in allocating funds in a timely manner. The impact on the rural health services program was as would be expected; delays in service implementation and extension and decreased allocation of funds to the management reform and nutrition programs.

During the team's brief review of the SBS financial situation, it appeared that adequate levels of funds have been made available to implement services within the constraints mentioned previously. For example, in talking with promotoras, the team learned that they do receive payment regularly, although the schedule is often characterized as "regularly late." Time did not permit more than a cursory look at the funds flow situation of the general health system. Problems do exist, and may be detailed in the Arthur Young reports. The Team sees a need for financial management system improvements as important to the successful integration of the SBS program into SESPAS. It is recommended that SESPAS carefully examine its capacity to deal with the financial management activities that will be affected by the planned SBS integration (see Chapter 6).

Information.

SESPAS recognizes the need to develop a well-planned, system-wide information system. In terms of the SBS program, data moves through the system in the following manner: promotoras collect various types of data including demographic statistics (births, deaths, pregnancies, migration, etc.), family planning information, data on diseases, and data on types of health services provided. This information is noted on the promotoras' records for each family (ficha familiar) and is periodically reviewed by promotora supervisors. Summary data is sent periodically to the SBS Offices in Santo Domingo. Current plans for integration of the rural health program into the general health system would change the flow of promotora data; the information would pass through each institutional level in the system: from the promotora, to clinic, to rural hospital, to regional level and, finally, to the Central Secretariate. The capacity of the current regionalized system is probably not adequate to process this information. Many people feel that the information collected at the bottom of the system (at the promotora level) is more accurate than that available at the national level. The Team's observations indicate that this is probably true. The further up the hierarchy one goes, the less confidence is being placed in the data. The point to be made here is that the Secretariate staff seems to be aware of the situation and is motivated to seek corrective actions.

An information technician was hired recently in SESPAS who plans to streamline the information system and revise currently used data forms. In the process of streamlining the system, the technician could probably use assistance in identifying what types of information are needed at each decision level in the health system and how the process should be carried out in the system. In fact, a step that needs to be taken prior to this is the identification of where and who makes decisions; many of the decision-making activities that are carried out in an ad-hoc manner ought to be identified and formalized as part

of the designing of an information system.

Another recently initiated data collection program is a monthly reporting system for the *compromesas*. The *compromesas* are the community health groups that are involved in selection of *promotoras*. In the past, *promotora* selection was their only function but plans are now underway to increase their involvement through *promotora* evaluation, participation in identifying health problems, suggesting needed health services, and so on. The *compromesas* will send monthly reports to the central SBS office where they will be reviewed and used to identify problems. Summary data will then be sent to the Statistics Division of SESPAS.

Planning

There is a national-level planning body in the Dominican Government. Below this level, the team was told that planning often takes place on an ad-hoc, basis. As mentioned previously, the SBS system is on its way to establishing a data system covering a wide range of health statistics. This information system may prove to be an important source of planning data once the SBS program is incorporated into the health system.

Logistics

The Dominican Republic's health system in general has not been immune to logistical problems typically found in developing country health systems. Logistical difficulties include all the common effects of frequent electrical shortages, supply distribution problems (especially following destruction caused by Hurricane David), breaks in the cold-chain for medicines, and so on. In contrast to this general situation, the SBS program has been relatively successful in securing, storing, and distributing supplies and materials, including vaccines, family planning materials (condoms, pills, foam), aspirin, and so on.

Availability of printed material has been a problem. Promotoras often do not have sufficient quantities of visual aids to use in instructing mothers on nutrition, prenatal care, and family planning. The series of pamphlets, "folletas populares" is widely used when available.

These general statements summarizing aspects of the managerial situation provide a perspective on the evaluation processes that were designed by the AUPHA Team. A productive evaluation effort must consider the managerial and political context of the programs being evaluated (Ugalde and Emrey). Insofar as possible, the following chapters provide self-contained scopes of work for the evaluation efforts which are planned.

SCOPE OF WORK - BASIC HEALTH SERVICES (SBS)

3.1 The Adequacy of the Problem Definition

The question to be addressed in this section is whether the goals stated in the logical framework for the SBS program are consistent with priority needs. The goals are:

To effect a reduction in the rate of population growth in the Dominican Republic as a consequence of improved and more widely available health services.

To improve the health and well-being of poor Dominicans, particularly infants and children under five of families not presently having access to health services.

The question of priority is, of course, one of values. It can be assessed sufficiently by estimates of the magnitude of the need for improved health and health services in underserved areas and by the gap between these rates and those of other areas of the country that are better served. Questions to be asked in an evaluation include:

- o What are the relative needs by type of area?
(rural-urban, national, regional, local)
- o What is the severity of the problem? (mortality, morbidity, disability, impaired growth and development)
- o What is the frequency? (occasionally, often, permanent)
- o What are related implications? (economic, political, social-demographic, others)

This area need not be developed in great detail but should be assessed. Information sources include the Health Sector Assessment for the Dominican Republic and observations (not scientific studies) made by the evaluators in the course of their review.

As a result of the evaluation carried out in this section, the question of whether the definition of the problem was

consistent with the need, will be answered. A program deficiency exists if the problem statement used to set the goals in the program is not supported.

3.2 The Relevance of the SBS Project

The issue in this section is one of approach; whether or not the SBS project is consistent with the program goals. Evaluation questions to be asked here include:

- o Is the project logically consistent?
- o Are the services provided (e.g. vaccinations, family planning, and health education) and institutions concerned (e.g. promoters, community representatives, rural clinics) clearly related to the attainment of national health goals? Are they relevant to implementation of programs of accepted health priority?

With respect to these questions a number of criteria are implicit, and should be considered in the evaluation process. The criteria concern social relevance, alternatives, and feasibility as follows:

3.2.1 Social relevance:

This section can be logically determined.

- o Is SBS directed toward (SESPAS) defined national health goals?
- o Does SBS contribute directly and significantly to the improvement of the health of the relevant population?
- o Does SBS employ methods, procedures, techniques, etc. that can be applied and afforded now by the Dominican Republic?
- o Is SBS limited within the community to define needs, perceptions, etc.?

3.2.2 Alternatives to SBS.

- o What are alternatives to SBS, (e.g. extension of SESPAS clinics, doctors and nurses)?

This section can be assessed by looking at the costs of an SESPAS extension, the history of SESPAS with regard to

setting priorities consistent with the goal, etc. The Health Sector Assessment will be useful in this regard.

3.2.3 Feasibility.

Is the SBS feasible? Assumptions to test are:

- o Are there sufficient members of trainable personnel willing to become promoters? (ref., Log-Frame)
- o Are the rural and urban poor willing to accept treatment and advice from promoters? (ref., Logical Framework). Will they bypass the system where alternatives (e.g. clinics) exist?
- o Can the SBS be implemented and maintained as a direct national campaign?
- o What is the experience with other national campaigns?
- o What will be the future of the promotoras after the SESPAS has extended rural clinics and doctors to underserved areas?
- o Will promotoras remain the same, cease to be relevant, or will they expand their training and roles?
- o Is the organizational framework of the SBS compatible with the SESPAS system?
- o Will SBS eventually be integrated with SESPAS?

These assessments can be made by looking at experiences in other countries, e.g. Colombia and Costa Rica, and any relevant experiences in the Dominican Republic (see for example, the Colombian Health Sector Assessment). The feasibility of the organizational structure can be assessed using models developed and tested (and reported in the literature) in other countries and other sectors.

If the evaluation of the relevance of the SBS project indicates that it is inconsistent with program goals, or if there are other more desirable options, or if the SBS is not feasible, a deficiency in programming exists.

3.3 SBS Project Formulation and Level of Output

3.3.1 Review the adequacy of SBS program formulation

Addressed here is the adequacy/existence of SBS (long-term, medium-term, and/or short-term) objectives and targets. Related to this is the adequacy/ specificity of organization and administration approaches and activities designed to affect these objectives. For example, with the goal of improving "child health," has adequate attention been given to appropriate aspects of nutrition, immunization, control of infections, and treatment of diseases and injuries?

The following criteria should be considered in assessing adequacy/clarity of SBS objectives, targets, approaches, indicators, and implementation schedules:

- o Has adequate provision has been made for the planning, management, and evaluation of SBS?
- o Have all objectives been clearly stated and stated in measurable terms?
- o Are project objectives realistic?
- o Is there a detailed plan of action, with a specific time schedule (e.g. PERT or GANTT chart) for the attainment of these objectives?
- o (if appropriate) Were alternative approaches and methods considered?
- o Were indicators and criteria selected (or at least identified) for subsequent evaluations?

Information for answering these questions can be obtained from Loan I, CAP, Loan II and from interviews with Dr. Daniel Guzman, Dr. Herrera, and Dr. Rivera. Information includes the existence and quality of plans, forecasts, indicators of performance, administrative procedures, data collection forms and routines, program leadership, and evaluation and reporting procedures.

If the results of this evaluation indicate that SBS has not been well formulated, recommendations as to specific changes in planning or management should be made.

3.3.2 Assessment of How Effectively the Loan was Managed

This section deals with how the loan was managed in the area of the SBS project. Criteria include:

1. Budgets - This information is available from the CAP and project reports.

- o Were the budgets and percentage of matching (AID - GODR) funds specified and realistic?
- o What problems were encountered with level of funds? Should they have been anticipated?
- o Were budgeted funds allocated in a timely manner?
- o Were actual project management costs in line with projected costs? Were they excessive?

2. Approvals and Staffing

- o Were approvals made in a timely manner? If delays were encountered should they have been anticipated?
- o Was AID-DR and GODR staffing timely and of a quality to manage the program?
- o Did AID/DR and GODR maintain interest in the project?

3. Reporting - Sources of information on reporting are the status reports on the project.

- o Were reports on the loan submitted in a timely manner?
- o Were they complete and did they contain relevant information?
- o Were they read and did they result in management decisions in AID/DR and AID/Washington?

If there were major deficiencies or delays in the activities of this section, two points can be made:

1. Changes should be made on project planning and management.
2. Failures in project output and impact might be the result of project management (i.e. implementation) and not design. Consider indicators of output and impact with caution.

3.3.3 Project Accomplishments (Outputs)

1. Appropriateness of the activity targets (output indicators)

- o Are the activity targets (output indicators) in the logical framework realistic?
- o How were the targets determined? By whom?
- o Are they based on estimates in the (pilot) regions or are they estimates for the nation as a whole?
- o Are there gaps in the targets, i.e. are there planned project activities that do not have corresponding targets?
- o Should targets be refined to detect more subtle changes in output? Are some inappropriate?

In the following section we have recommended some additional output indicators. This assessment can be made by looking at other related projects in other sectors as well as health. What has been their experience? The logic of the estimates can be gotten from Drs. Rivera and Herrera.

2. Review of Progress. This is essentially a summative evaluation in which the degree to which actual implementation agrees with planned implementation is determined. In general, only significant exceptions to planned progress should be noted, and if possible, reasons given for significant deviations from planned activities.

Criteria for this evaluation will be the (revised) targets from the logical framework. In general, we will use those set forth in the logical framework, but these might be revised based on the analysis in Section III, 2, a. In some instances, we have recommended additional indicators.

a. Inputs

1) Indicators of Performance

- o health promoters selected, trained, and providing basic health, nutrition, and family planning information

- o auxiliary nurses trained and providing basic medical services on referrals from promoters. (We are not sure this criteria is appropriate given that there were no planned programs to train nurses.)
- o training programs for promotora supervisors by number trained. (We have added this indicator to get a more sensitive measure of supervisor output.)

2) Sources of Information

Information on number of promotoras and their location can be gotten from Drs. Guzman and Herrera. They have reported data by area. Training programs for promoter supervisors by region are recorded on forms and available from Lic. Carmen Linares who is the coordinator for promoter supervisor education in SBS at the national level.

3) Level of Performance - Inputs

Efficiency

- o What is the cost of the training programs?
- o Do they appear to be efficiently carried out in terms of courses provided, attendance, payment for instruction, cost of time allowed for preparation and participation? Allowance should be made here for the developmental nature of some of these activities.

Effectiveness

- o Did the training programs prepare the individuals adequately for the job they are to do?
- o How were they evaluated?
- o Were course outlines prepared?
- o Were they complete?
- o Were instructors qualified?

- o Were they prepared?
- o Did promoters attend most of the sessions?

Information source

Courses and course outlines for promoter supervisors training are available from Dr. Guzman and a document entitled, Programa de Ensenanza de Nutricion Para Promotoras de SBS y Madres by SESPAS, Division of Nutrition. Discussions with Dr. Guzman will give some insight on the quality of the course. Discussions with promoters will give additional information.

Attendance at a training session would be useful in the course of the evaluation.

b. Outputs

1) Indicators of Performance - Outputs

- o pregnant women visited
- o children vaccinated against DPT, measles
- o children immunized against polio (we have added this one)
- o women of reproductive age innoculated against tetanus
- o children dehydrated from diarrhea treated by promoter or refered
- o patients with respiratory infection treated by promotoras
- o women of reproductive age supplied with contraceptives or referred to health facility for IUDs or steralization. (also, men practicing family planning).
- o promotora visits made to families (we have added this indicator)

These indicators appear to be adequate but need to be determined on an area by area basis.

2) Sources of Information

Information on activity outputs is collected at the national level by type of activity, region,

area, months etc. (see SESPAS form SBS#2). We have made numerous inquiries about the quality of this data and generally it is considered to be very marginal. The sources of information (the Ficha Familiar) are the individual family records maintained by the promotoras. These data are considered good and in our review of a number of them, they appear to be useable, although some errors do exist.

We suggest a three part approach. First, systematically review the completeness and quality of a number of promotoras' forms (Ficha Familiar) and make observations about the quality of the data. This could be accomplished by visits with promotoras to families in the community. Second, carry out a survey of a number of promotora forms by selecting a sample of promotoras. A repeat of the studies conducted in 1977 and 1978 in Region I, II, and IV would give some time-series data on activity accomplishment (see Guzman, MacCorquodale, Meyer and Rivera, 1977; MacCorquodale & Rivera, 1977; and MacCorquodale, 1978). Such a study could be the size of the 1978 study. It will provide time series data but not baseline data on the need prior to initiating the SBS in these regions or in other regions, or on services received by patients outside SBS. This type of baseline data might be gotten from information collected while working with the promotoras in their field visits. In the future, it might be useful to have the promotora systematically collect data on 1) visits to doctors or clinics, 2) type of family planning practiced, including IUD or sterilization, 3) vaccinations received from clinics or otherwise from doctors or nurses.

From this baseline data and from the time-series data, estimates can be made with regard to activities accomplished. Using this data a final step in the evaluation is recommended, to test the quality of the national SBS data (ref. SBS Form #2).

3) Level of Performance - Outputs

Efficiency

- o Does it appear that the number and mix of manpower used to provide care (promotoras) and supervize performance (supervisors) is appropriate?
- o Is there an optimum number of families to be served per promotora?
- o What is the cost per visit or cost per family per yeat of the care given by promotoras?
- o Will costs change per unit?
- o What is the adequacy of financial resources for extending and maintaining the program at its current cost level?

Information sources

The most complete study of costs of the SBS program is by Robertson and Anderson. Caution should be exercised in using this data because much of it is national, summary data.

Effectiveness

To be determined in the section on project impact.

c. Process

1) Indicators of performance - Process

(These have all been added as usable indicators of performance)

- o Have manuals and course materials for training promotoras and supervisors been prepared?
- o Have promotora handbooks been prepared and appear to be usable? (See the Promoter Handbook)

- o Have data collection forms been prepared and are they used by promotoras?
- o Have they been evaluated?
- o Have the forms been revised?
- o Are supplies getting to supervisors and from supervisors to promotoras?
- o Do supervisors make their prescribed visits to promotoras?
- o Are they assessed on whether or not they make visits?
- o Have community committees been organized?
- o Do they meet?
- o How do they perform?
- o Have changes been made in their role as organization?

2) Source of Information

Information on training and course materials are available from SESPAS. Information on supervisor visits can be obtained from promotora records. Community committees should be explored during visits to the community with promotoras.

3.4 The Impact of the SBS Project

The impact of the SBS project is defined in terms of the degree to which the program goals were met. Program goals are defined in terms of population growth rate, mortality rate for children 1-4, and infant mortality, as discussed in the first section of the evaluation.

3.4.1 Appropriateness of the goal targets

Are the following targets realistic for the areas in which the project has been introduced?

1. population growth rate reduced from the 1976 level (3%) to 2% by 1983.
2. infant mortality rate to be reduced from 104/1000 in 1973-4 to 88/1000 in 1978.

3. mortality rate in children of ages 1 through 4 to decline from 17 per 1000 in 1973-74 to 15.3 per 1000 in 1978.

When considering the appropriateness of these targets one must take into account the year the project was initiated in the area and when it was fully implemented in the area. Secondly, what was the projected coverage of families with the vaccination and health education program? Given this coverage, is the initial (baseline) general mortality and infant mortality rate reducable by the targeted amount if the planned vaccination program is carried out? In other words, what is the rate of mortality from diseases against which the population is being vaccinated? Some additional increment can be allowed for the estimated reduction in mortality rate due to health education and other health services provided by the promotora.

Source of Information - We recommend that this information be obtained from the promotora forms (ficha familiar) with regard to population size, births, deaths, and selected diseases, e.g. polio. We recommend adding polio, measles, diphtheria, pertussis, and tetanus as indicators of goal achievement. Their use will depend on the quality of the data taken from the promotora forms. This will result in a regional analysis because this data does not exist throughout the nation.

3.4.2 Program Impact

What was the actual effect on birth rates, infant mortality rates, mortality rates of children from 1-4 and of disease specific (on related diseases) morbidity rates? These rates must be calculated by area. Cross comparisons can be made across areas at different stages of implementation.

Do the particular methods and services of SBS, at least at face validity, appear to be useful and supportive in the solution of the overall problem?

SCOPE OF WORK - NUTRITION

4.1 Adequacy of the Problem Definition

4.1.1 Status of the Problem

The objective of the nutrition component of the SBS program was to provide a basis for long-term improvement in nutrition status. The idea that nutrition contributes to the overall program goal of health improvement is accepted, obvious, and need not be explored further. More specific indicators than the one used in the logframe (infant mortality) should be used. These would include:

1. decreased incidence of diseases directly related to malnutrition such as beri-beri and pelegria. Source of information: Sebrell 1972 study (for baseline data) and data to be collected by promotoras beginning in 1980, on nutritional status.
2. increased intake of required calories, proteins, etc. Source: nutritional status data collected by promotoras in 1980; no prior data available.
3. Changes in dietary habits. Source: "Situacion Alimentaria y Nutricional en la Republica Dominicana".

The evaluator might also want to question the validity of the original assumption that the GODR would support development of the nutrition program in light of its past indifference in this area. The work scope team learned that, along with other components of the program, nutrition often suffered from lack of top-level support. The question to be asked here is whether nutrition received proper priority. This could be examined in terms of consumer needs by retrospectively looking at nutrition status (source: Sebrell, et al., 1972).

Another area to explore would be the assumption that management reform would lead to improved provision of

health services and ultimately to better health (i.e. nutrition, among other things). Could the nutrition program have developed without management reform and SBS? (This would probably not have been cost-effective because it would have required operation of at least 2 separate programs).

4.1.2 Appropriateness of Targets

The only end of project status indicator listed in the logical framework was to "increase GODR capacity to deal effectively with malnutrition." Given the stated goals, purpose (nutrition improvement), and environment (institutional management weakness in SESPAS), the indicator is appropriate because no other existing agency or office was capable of implementing a national nutrition program.

Other indicators that could have been included in the logical framework and ought to be included in the evaluation of whether GODR capacity to deal with malnutrition increased include:

- o evidence of coordination with other sectors (agriculture, education). Source: Dra. Rondon and the "Informe Annual de la Division de Nutricion."
- o development of a strategy and plan. Source: No national strategy has been developed to date. A nutrition statement does exist and is available from AID/DR or Dra. Rondon.
- o impact of seminars and training activities; have new programs been developed; are participants better informed and more supportive of the nutrition program? Source: Dra. Rondon; Dr. Riviera; "Informe Anual".
- o impact of program at community level; have home gardens been used to supply food deficits; is there interest and knowledge of need for potable water and better hygiene? Source: Alvarez, R., "Encuesta Nacional de Nutricion en la D.R., 1969" (for some baseline data) and interviews with promotoras and their supervisors.

4.1.3 Need for Project

The stated indicator ("increase GODR capacity to deal effectively with malnutrition") should be compared to the stated objective of "developing a nutrition program able to provide long-term nutrition improvement." Given the fact that GODR had no formal nutrition program, structure, or policy prior to H.L. #1, the objective to indicator congruence is probably a good one. The evaluator could explore this relationship further by looking at accomplishment of output indicators. That is, the GODR's capacity to deal with malnutrition could be determined in terms of output indicators such as number of nutrition services provided; number of promotoras and supervisors trained in nutrition, etc. (see output indicators in logframe).

4.2 Relevance of the Nutrition Project Approach

The question to be answered here is whether the approach used in implementing the nutrition component of SBS is consistent with the objective. The approach was to develop a nutrition program through 4 activities:

1. establish an Office of Nutrition Coordination
2. carry out a mass media education and promotion program
3. undertake research
4. develop a food supplement program

Some general questions to ask about these activities are: how were they arrived at; do they meet the objective? Information on the mass media program can be found in "Encuesta de Informacion Para La Evaluacion del Programa de Comunicacion de Masa" by ONC, 1977. Secondly, was baseline nutrition status data collected and used to determine needs activities, and approach? (see: Sebrell, 1972. "Situacion Alimentaria y Nutricional en DR" by the Autonomous Uni. of the Dominican Republic.). Thirdly, are the stated objectives inclusive and sufficient to meet the objective? Would a nutrition surveillance program have contributed to accomplishment of objectives and should one be included in the future?

Specific indicators and sources of information are:

1. Size of ONC staff. Source: "Informe Anual"
2. Qualifications of ONC staff (not included in logical framework). Source: Dra. Rondon
3. Job descriptions for staff (not included in logical framework). Source: Dra. Rondon
4. Food belief/behavior patterns study. Source: "Encuesta de Informacion Para La Evaluacion del Programa de Comunicacion de Masa": ONC, 1977
5. Spot announcements for radio campaign. Source: "Informe Anual de la Division de Nutricion, 1979-80"
6. Radio campaign reviewed. Source: Dra. Rondon
7. Officials receiving long-term training and employed by GODR. Source: if available, Dra. Rondon
8. National nutrition seminars held. Source: "Informe Anual"
9. Regional nutrition seminars held. Source: "Informe Anual"
10. Nutrition recuperation centers in operation. Source: "Informe Anual"
11. Health promotoras trained. Source: "Informe Anual"
12. Auxiliary nurses and supervisors trained at recuperation centers. Source: "Informe Anual"
13. Scope of work for food supplement feasibility study. Source: if available, Dra. Rondon
14. Food supplement feasibility study. Source: if available, Dra. Rondon
15. Are promotoras collecting appropriate nutrition data accurately? (Not included in logframe) Source: spot checks by supervisor
16. Is the lack of a university level nutrition program in the D.R. a significant problem and constraint to staffing needs? (currently, this level of education is only available in Puerto Rico or Guatemala) (not included in logical framework)

17. Sample check on promotoras' communication skills; just how well are they getting nutrition information across to the mothers?
18. Make checks to see that all promotoras are receiving their one week nutrition training. The work scope team discovered that several groups of promotoras they visited had not received nutrition training after 3 to 4 months on the job.

4.3 Project Formulation and Progress, and Impact

4.3.1 Formulation

One of the areas to be explored here is the amount of congruence between assumptions and indicators. In this case, the stated assumption appears to be limited; it only deals with one of the four nutrition activities (radio education). There is also a similar lack of congruence between the assumption and output indicators. The indicators cover many more areas than radio education.

When examining the success of meeting objectives, the evaluator should distinguish between the effects of project design and project management. Areas to investigate for each of these include:

1. Adequacy of design.

- o was a planning and evaluation system built into the program?
- o was the program designed with participation of local Dominicans?
- o were objectives realistic and clearly stated?
- o did the plan include a schedule for accomplishment of activities?
- o should other activities have been included? If so, what? Should any of these be included in the future?
- o were original cost estimates appropriate?

Information on these indicators can be obtained in the CAP for Loan #1 and from Dra. Rondon.

2. Project management.

- o was the budget allocation for nutrition adequate to perform planned activities?
- o were funds dispersed in a timely manner?
- o why did frequent changes occur in top-level administration of the program? What corrective actions can be made?
- o was ONC able to provide aid after Hurricane David in 1979?
- o because little nutrition data was collected by promotoras, how was information gathered for decision making?
- o has coordination with the agriculture and education secretariates occurred?

Sources of information for these areas include promotora records (Fichas Familiares), Dra. Rondon, Dr. Riviera, CAP for Health Loan #1 and "Informe Anual".

4.3.2 Progress and Impact

The question to be answered here is whether planned objectives were met, and if not, what were the significant shortcomings? The indicators listed in section II can be used as criteria to measure progress. Based on the work scope team's review, the following activities have been accomplished to date:

1. operation of 5 recuperation centers
2. creation of the Office of Nutrition Coordination
3. training programs for promotoras and nutrition and dietitian auxiliaries
4. development of a nutrition statement
5. nutrition seminars
6. mass media campaigns

What has been the impact of these accomplishments? In talks with AID/DR and GODR nutrition staff, the consensus is that consciousness raising has been the main impact of the program. Data to check this statement may be difficult to get because no baseline attitude data exists, except for the "Encuesta" study, and its data may be questionable.

Other measures of impact would include:

1. Measures of impact of services delivered on program goal of improved health (i.e. reduction of infant and child mortality rates). Source: sample survey of promotora records. SESPAS collects national population data whose reliability is questionable.
2. Measure of impact of establishment of office of Nutrition Coordination on project purpose. (i.e. development of a nutrition program) source: comparison of goals and objectives against progress to data. Best indicator is failure of ONC to develop a nutrition statement.

SCOPE OF WORK - ADMINISTRATIVE REFORM

5.1 The Adequacy of the Problem Definition

In order to improve the health and well-being of Dominicans, particularly women and children and those not currently having access to the health system, and to reduce the rate of population growth, the loan program proposed the extension of health services to meet these needs. In order to meet this goal, it proposed that a project be developed whose purpose is to improve performance of SESPAS in managing the public health system.

There are two important assumptions made in the Administrative Reform Project: 1) that the improved performance of SESPAS management is necessary in order that significant progress can be made to extend services to the designated groups, and 2) more specifically, that increased management performance is needed before there can be an extension of the health system into rural areas, e.g. an integration with the SBS program (basic health services) proposed for the future.

5.1.1 The Need for Administrative Reform

It is assumed that there exists a priority need for management improvement in the health system in the Dominican Republic. The general impression held by most individuals familiar with the system is that this assumption is true. We see no need for a great deal of analysis to demonstrate and verify this need. A question should be raised as to the specific nature of the need for improvement. Do priorities exist in all functional areas? At all levels? In all regions and areas? In all types of facilities? Some review of the indicators of this need

(end of project status) is necessary to assure that the indicators are a good reflection of the need and good measure of performance.

The following indicators are provided:

1. low levels of GODR expenditures in health
2. low levels of expenditures in public preventive programs
3. low access to SESPAS health services
4. high average length of stay in hospitals
5. high percentage of doctors assigned to SESPAS clinics but not working
6. too much time needed to repair equipment

These indicators are far ranging and a number of areas are not included, e.g. accounting, budgeting, auditing, purchasing, inventory, distribution, planning and so on. In addition, some indicators seem very specific to a very specific type of project, (e.g. average length of stay), and might not be appropriate for the more general management reform project. In the course of the evaluation, very close attention needs to be given to the appropriateness of these indicators as they relate to the Reform Project. They might be good indicators of specific types of needs in the system but they might not be good "end of project status indicators" unless a specific project in that area is carried out.

Questions to be addressed include:

- o How were the indicators generated? By whom?
- o Are they appropriate? adequate?
- o Are they realistic?

After the indicators of need and performance have been assessed, two questions must be addressed with regard to the nature of the need for the Administrative Reform Project.

1. What are the existing (in 1976) levels of administrative performance? Information to answer this question is not readily available. Budget levels are reported but are generally not considered too accurate due to problems of

not using budgeted funds for budgeted activities. (see Secretariate of Health Budget) Average length of stay can be determined from reported SESPAS data (data not tabulated or analyzed). Data for 1978 are analyzed and appear to be usable (SESPAS). Data on equipment repair and utilization of physician's time are not available. We recommend that the evaluation team systematically (not scientifically) make these observations and determinations as they carry out their evaluation. In general, it will be clear that the levels are not high and no detailed study is needed.

2. Are these levels excessive? We feel this area will be apparent (logically developed) and will not require considerable investigation. Performance in other countries or in other systems can be used as a measure. Some comparison might be developed using other AID Sector Assessments or Pan American Health Organization data.

5.1.2 Will Administrative Reform Improve Services in the Priority Areas of Health Services Needs

The assumption in this area is that the administrative reform will result in improvements in the priority health service areas, e.g. underserved areas, rural areas, health of women and children, etc. This assumption will be very difficult to test but needs to be thought through in a logical manner. It can most clearly be thought of in terms of the need for management reform as support for the extension of health services into underserved areas, e.g. the SBS project. In other words, can projects such as SBS be maintained through the existing SESPAS system or does the management of SESPAS have to be improved as a precondition to such developments.

The desire to develop an integrated system (e.g. SBS and health clinics and hospitals) seems obvious (in the long run) given the alternative of developing a dual system for delivering and managing health services. This assumption need not be tested. What should be tested is the ability

to develop an integrated system, including SBS and other outreach programs, under the existing SESPAS health system. If difficulties or constraints exist, this could support the assumption that improved management performance is needed. Areas to investigate include:

- o The fact that the SBS system was originally planned to start under the malaria eradication program (SNM), and later became a separate national campaign supports the argument for the need for administrative reform. (Health Sector I, CAP)
- o What difficulties have been encountered in attempts to integrate services, e.g. the SBS system (developed under Loan II) and rural clinics and area hospitals? (To be determined from interviews with Dr. Jose Herrera and Dr. Oscar Rivera)
- o What are estimates of poor management that would constrain the extension of the system into underserved areas? For example, poor financial management, personnel management, logistical support and failure to plan for underserved regions. This information does not seem to be readily available in any reported form and no major effort is recommended to establish this condition. It is recommended that evaluators systematically (not scientifically) make these observations and determinations as they carry out their evaluation. Other documents include Monteith and Hudgins.

The logical framework is deficient in the area of identifying end of project status criteria for evaluating whether increased management performance will result in improved system integration (B.2). One measure is identified, the low number of units between promotora supervisors (and presumably promotoras) and nurses and doctors. If needed, other indicators will be developed. Again, an indication of performance in this area will have to be gotten from visits during the evaluation process.

5.2 The Relevance of the Management Reform Project

In order to achieve the state purpose of the program of improving the performance of SESPAS in managing the public health system and fulfilling the health policy and planning role, there was proposed a management reform project, extending throughout SESPAS and dealing with all management functions.

5.2.1 The Approach Taken to Carry Out Management Reform

What alternative approaches to carrying out management improvement exist? Which are consistent with the needs identified in Section I of this evaluation? Is a total reform of the SESPAS administrative structure indicated?

The approach to carrying out management reform was through a contract with Arthur Young and Co., an international management consulting firm. Their contract called for providing advice to the Secretary of Health, on-the-job training for local management staff, and arranging for training in the U.S. and elsewhere for selected individuals. (see CAP, p. 48) Why was a major management consultant firm (Arthur Young) chosen? What approaches other than the above activities were considered? Was, for example, a pilot test in one area, with emphasis on the hospitals and clinics considered? The approach taken was significant in terms of an intervention strategy and needs to be evaluated.

Information to support the above assessment will be difficult to determine. We can find little evidence of alternative approaches being considered, although another approach seems to be suggested in the Health Sector Assessment (p. 172). There is little information readily available on what transpired during this decision. We do not feel it can be determined in the correspondence file although some internal memos might be helpful. We suggest that structured interviews be held with Dr. Oscar Rivera and Dr. Jose Herrera and Dra. Ada de Bodden. These would be revealing and easy to complete. Most attention should be given to the effectiveness of the approach taken.

5.2.2 How Realistic is the Goal of Achieving Reform?

An assumption of the program is that the GODR and AID will support management reform in SESPAS. What has been the level of interest and support? Indicators of support include the timeliness of various approaches, the nature and timeliness of GODR and AID financial support, the timeliness of the assignment of project staff and counterparts from various SESPAS offices, the quality of the staff and staff turnover. What was the level of support from the Secretary of Health and the various Division Directors, e.g. Human Resources, Personnel, etc.? What was their level of acceptance of the project and its recommendations? Information sources here include loan budgets and AID progress reports. Interviews with administrators should also be revealing.

What has been the experience in other countries and sectors with reform conducted in this magnitude and in this way? What alternative approaches have been used? How successful has each approach been? What level of interest in a project of this magnitude was exhibited by the respective governments? The AUPHA Source Book on status of management assesement and change will be a useful source of information in this regard (New Methods for Assessing Developing Country Health Management Needs).

5.2.3 Changes Occuring in Project

What changes in AID, SESPAS, GODR or in the country occurred to change the approach or support of the project, e.g. new President, three Secrataries of Health, new AID program officer, etc.?

5.3 Project Formulation and Level of Output

5.3.1 The Adequacy of the Program Formulation

This section deals with the design of the reform project. Were objectives clearly specified and evaluation criteria identified? Was the project well organized and managed within SESPAS and within the project itself? For

example, was adequate consideration given to the political nature and sensitivity of the project?

The following criteria should be considered in assessing the adequacy of the project formulation.

- o adequate provision for planning, management, and ongoing evaluation of the project
- o objectives clearly stated and in measurable terms
- o a detailed plan of action formulated with a specific time table established
- o adequate indicators of performance identified

Information for these areas can be obtained from the CAP, the Arthur Young contract, and from interviews with administrative personnel, e.g. Dra. Bodden and Dr. Herrera.

If results from this part of the evaluation indicate that the project was not well formulated, this will provide some indication of a failure to implement the project adequately. This should be considered when interpreting the results of the project output.

5.3.2 Project Accomplishments

1. Appropriateness of the Activity Targets (Output Indicators)

Are the targets appropriate and realistic? Are there gaps in the targets, i.e. no appropriate targets in areas where there are project activities? (see the CAP, pp. 104-107) How were the targets determined? Are they based on accomplishments of similar projects in other sectors or other countries?

If the targets are unrealistic or inappropriate they need to be carefully interpreted when using them as indicators of performance.

2. Review of Progress

Of the range of activity targets specified, we see little merit in addressing each one in terms of appropriate indicators and source of information. In general, few of the activities seem to have been completed and our information is currently inadequate

to indicate which were actually implemented and which just received recommendations. Some seem not to have been addressed at all. Many of the activity targets seem to be unrealistic given the approach and time frame.

We recommend a careful review of the adequacy of the indicators and a description of what actions have taken place with regard to each management area. In general, only information systems and personnel administration have been selected (by the Secretary of Health) to be implemented. These projects (areas) should be carefully reviewed with regard to recommendations made and approaches taken. Other areas can be assessed in terms of appropriateness of recommendations made and of activities implemented. Interviews should be held with the Directors of the various Divisions in SESPAS to determine what recommendations they received and which have been implemented. Additional information to be gathered from them includes their interest and support of the reform project.

a. Personnel Administration

A current plan of action for improving this management area is described for a three-year-period and budget for one year. (see SESPAS, "Asesoria a la Funcion de Personal") This plan includes the implementation of a number of recommendations made in the "diagnosis" of SESPAS management. Currently, a census of all full-time (16,000 people) employees of SESPAS is taking place. A series of questionnaires for gathering and classifying information describes the nature of this activity (Asesoria de Personal, CR-01, CR-02, CR-03, CR-05 and RC-01) Additional information can be gotten from Lic. Milton Rodriguiz, the head of the Evaluation Office of the Division of Personnel in the Health Secretariate.

b. Information Systems

There is a current plan of action for developing a management information system that presumably follows recommendations made by the Administrative Reform "diagnosis" of the problems. These recommendations do not closely follow the targets outlined in the CAP and will need new targets and criteria for assessment. Steps to be taken in the coming one and one-half years include:

- 1) SESPAS to acquire computer hardware and software;
- 2) all data collection forms will be reviewed and where necessary revised to simplify them and to eliminate redundancy;
- 3) the information collecting system will be restructured to eliminate sub-processing routines (i.e. at lower levels) so as to reduce copy and computing errors;
- 4) training of SESPAS field personnel in the new information collection system; and
- 5) revise output formats and centralize the information distribution process.

Additional information on information systems can be obtained from Enrique R. Cortinas, an evaluator in the Division of Statistics of SESPAS

5.4 The Impact of the Administrative Reform Project

There will be little impact in terms of the "end of project status indicators" given the fact that the full project has not yet been implemented and the entire project was delayed. These indicators will thus reflect no change in performance. There should be included in this section, however, estimate of changes that have occurred in the understanding of the problem of administrative inefficiency, in values toward initiating management improvement, and in priorities with regard to management improvement. These might be regarded as indirect

effects but are sometimes important in the process of program development, particularly in areas of great political sensitivity such as management reform.

SCOPE OF WORK FOR HEALTH LOAN II

6.1 Adequacy of the Problem Definition

The assessment of this area in Loan II will follow the same approach as that in Loan I. This section deals with the definition of the problem, the statement of the goals, and the indicators of goal accomplishment.

- o What is the level of health care need of the rural population?
- o What are the indicators of need? Are they realistic as measures of goal achievement?
- o Are goals clearly stated and relevant to the need?
- o Are the needs most effectively addressed by the proposed projects to provide potable water and basic health services?

6.2 Project Approach and Formulation

This section should consist of an assessment of how well the proposed projects fit the needs identified and how feasible the projects are in terms of meeting the proposed targets (output). These areas will be explored for each of the proposed projects.

6.2.1 Upgrade the Low Cost Health Delivery System (SBS)

The SBS project is a continuation and an expansion of activities carried out under Loan I and its potential for meeting the needs of underserved populations will be assessed as part of the evaluation of Loan I. Most baseline data for assessing need and for evaluating performance will also come from the Loan I evaluation. An additional activity under Loan II will be efforts to increase integration of SBS into the rural clinics and hospitals of SESPAS. The desirability of this integration

is apparent given the alternative of maintaining separate systems for providing and administering health services (discussed in the evaluation of Loan I). The major question that needs to be raised is the feasibility of maintaining the system at its potential level of effectiveness. In other words, can SBS be maintained in terms of logistical needs; budgets; accounting and auditing needs; personnel needs; and information needs? The question here is not merely one of survival but whether or not it can achieve its full potential as an integrated system.

Loan II proposed a number of activities to assist in integrating the medical-health services between promotoras and their supervisors, and doctors and nurses in clinics and hospitals. These activities consist primarily of training programs to provide information (on each others' abilities and responsibilities) and to change values. Criteria and information necessary for evaluating performance will be assessed and recommendations made.

Loan II makes the assumption that the integration of administrative functions between SBS and clinics and hospitals will evolve over the period in which the project is implemented. We recommend that this assumption be carefully assessed, because it is critical to the success of the project (along with the assumption that medical services can be integrated). Baseline data need to be developed on the capacity and compatibility of the administration of rural clinics and hospitals, to interface with and support the SBS system. We recommend that an evaluation of the level of management performance and capacity be carried out in a limited area to include at least two hospitals and three or four clinics. If there are inclinations of great variability among hospitals and clinics, this sample might have to be increased.

In conducting this evaluation we propose adapting and utilizing instruments that the contractor (AUPHA) has

developed under a centrally-funded AID contract, that will result in management self-assessment instruments being prepared for further use by the GODR. This evaluation will thus produce:

- o baseline data on which an assessment will be made of the feasibility of the integrated system to be effectively managed
- o management self-assessment instruments adapted to rural clinics and hospitals that can be used by administrative staff of clinics and hospitals throughout the country to evaluate their performance and to provide direction for administrative improvement.

A full description of the self-assessment approach is provided in, A Framework for Health Services Management Self-Assessment in Developing Countries, 1979 AUPHA,. The self-assessment approach is both a self-directed approach to diagnosing the status of administration (in areas such as personnel, financial management, information systems, patient and client management, and facilities and materials management) as well as a self-directed approach to intervening and improving areas of deficiency. An example of a self-assessment questionnaire in the area of strategic planning is by Brown and Feirman, Organization-Environmental Effectiveness, Management Self-Assessment Instrument, AUPHA, 1980.

If the management self-assessment instruments are perceived to be useful in improving management performance, we will make recommendations as to how they can be implemented in the Dominican Republic. Their application will be at low cost to the Dominican Government, given the self-directed nature of the assessment. The implementation of such a project would be through the development of short training programs (similar to those proposed in Loan II for integrating the promotoras, supervisors, nurses, and physicians) to instruct those having administrative responsibility in the use of self-assessment instruments, applied to various management areas. After some training programs of this nature, administrators would be

qualified to continue to carry out their own self-assessment and self-improvement. This process would be continuous and not just a one-time experience. As the administrator became more experienced in various management areas, they would also become more experienced in understanding approaches to improving their management performance.

6.2.2 Provision of Potable Water Systems and Sanitation Services

The work scope team recommends that certain specific types of baseline data be collected during the initial stages of Health Loan II. This data will be useful for end-of-project evaluations and as continuous sources of information on project progress during implementation. Three areas should be explored in order to determine baseline data needed for the potable water and latrine component of Health Loan II. First, an investigation of existing data on the present sanitation system should be made to identify what data exists, how it is collected and used, and what the accuracy level is. A similar investigation should be made regarding data available on the present health status in relation to water-borne diseases. For sources of information on the latter investigation, see the SBS section of this scope of work. Sources of information for the former investigation include the Project Paper, the SESPAS-PAHO pit latrine program, and the Instituto Nacional de Aguas Potables y Alcantarilladas (INAPA).

The other areas to be explored include evaluation of the feasibility of the proposed potable water and latrine system. Both the administrative and technical capability of the contractors and implementing agencies should be reviewed. Some information on this is available in the Project Paper. We suggest that a hydrogeologist review, and if necessary, elaborate on the initial geographical screening report. In addition, the consultant should review the plan for digging wells and the qualifications of contractors to dig the wells.

Besides the identification of baseline data, as described above, the evaluators should identify and detail an information system to be used to collect data on an ongoing basis for planning and evaluating program progress. The information should provide data for decision making and periodic evaluation of progress. We agree with the evaluation approach described in the Health Loan II Project Paper, that suggests periodic comparison for progress-to-target, management, and project purpose and goal level evaluation procedures. Such procedures will provide good "snap-shots" of project progress at a specific time period. We recommend, however, that a continuous data collection procedure be designed to provide data for evaluation on a continuous basis.

An information specialist, Sr. Cortinas, has recently joined the Secretariate and will work with the loan coordinator in development of information systems. We suggest that a management information specialist work with Sr. Cortinas on a short-term consultancy basis. The specialist would help to design and implement an information system and identify who makes decisions, what types of information are needed at each level, at what levels decisions are made, and so on.

The Project Paper also recommends that a research study be made to determine the state of the art on the relationship between diarrreal diseases and sanitation. Such a study is important, but if additional funds are needed to conduct it, we do not recommend using loan funds. Outside funds might be pursued for this purpose. Given the present state of the art, we assume that diarrreal diseases can safely be used as a measure of the disease/sanitation relationship. This project might be useful for doing some of the sample data collection that might be called for in such a research project.

EVALUATION METHODOLOGY

Method. The work scope team proposes a four person team to do the retrospective evaluation of Health Loan I and capacity assessment and implementation of an information system for Health Loan II. One of the four would be responsible for on-site management of the evaluation effort throughout the ten week period. The inclusion of a manager relieves AID Santo Domingo of any supervision burden. The other three consultants would be health management specialists with expertise in the areas of logistics, information systems, and finance. We recommend that the consultants be chosen from the Association of University Programs in Health Administration's (AUPHA) worldwide membership. The AUPHA has an index of health management specialists and can identify qualified evaluators. The three consultants will work a total of six weeks in-country, spread throughout the ten week evaluation period.

Finally, three Dominican counterparts should be available to work with the consultants. The work scope team suggests the following three people: Dra. Haydee Rondon, nutrition; Dra. Ada Bodden, management reform, and Dr. Daniel Guzman, SBS. Each of these people would be able to identify local participants for aid in data collection, surveys, interviews, etc.

Timing. Ten weeks; beginning approximately in mid-May or early June

LOGICAL FRAMEWORK MATRIX -

CHART I

Summary	Objectively Verifiable Indicators	Important Assumptions																																																					
<p>A.1. Goal To effect a reduction in the rate of population growth in the Dominican Republic as a consequence of improved and more widely-available health services is the GODR long-term goal.</p> <p>To improve the health and well-being of poor Dominicans, particularly infants and children under five of families not presently having access to health services.</p>	<p>A.2. Measurement of Goal Achievement</p> <ol style="list-style-type: none"> Population growth rate reduced from current level of 3% to 2.7% in 1983. National infant mortality rate will decline from 104 per 1,000 live births in 1973-74 to 88 per 1,000 live births in 1978. Mortality rate for children of ages 1 through 4 will decline from 17 per 1,000 in 1973-74 to 15.3 per 1,000 in 1978. 	<p>A.3. (as related to goal)</p> <ol style="list-style-type: none"> Improved health is a requisite and a stimulus to reduced population growth rates. Reduced population growth leads to improved quality of life; it is a means of providing increased economic and social benefits to the least privileged members of the population. GODR will continue to favor reduction of its population growth rate and support family planning activities. 																																																					
<p>B.1. Purpose</p> <ol style="list-style-type: none"> To reduce infant and pre-school child mortality rates and the crude birth rate in the geographic areas subject to program intervention. To improve performance of SESPAS in managing public health system and fulfilling health policy and planning role. Develop a nutrition program which will provide the basis for a long-term improvement in the nutrition status of the country. 	<p>B.2. End of Project Status</p> <table border="1"> <thead> <tr> <th></th> <th>1976</th> <th>1977</th> <th>1978</th> </tr> </thead> <tbody> <tr> <td>1. Reduce infant mortality by 8% and pre-school child mortality by 5% after first year and each year thereafter for first three years in areas served by project. First measurement will record baseline data.</td> <td>--</td> <td>--</td> <td>--</td> </tr> <tr> <td>2.a. SESPAS share of GODR expenditures increased.</td> <td>5%</td> <td>6%</td> <td>7 1/2%</td> </tr> <tr> <td>b. SESPAS expenditures for preventive programs increased by 10% each year over 1975 level (to be determined). (See Cont. sheet)</td> <td>--</td> <td>--</td> <td>--</td> </tr> </tbody> </table>		1976	1977	1978	1. Reduce infant mortality by 8% and pre-school child mortality by 5% after first year and each year thereafter for first three years in areas served by project. First measurement will record baseline data.	--	--	--	2.a. SESPAS share of GODR expenditures increased.	5%	6%	7 1/2%	b. SESPAS expenditures for preventive programs increased by 10% each year over 1975 level (to be determined). (See Cont. sheet)	--	--	--	<p>B.3. (as related to purpose)</p> <ol style="list-style-type: none"> Institutional weakness of SESPAS is a critical constraint to any effort to improve public health. Management reforms will lead to improved health planning and provision of health services to Dominican public. 																																					
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<p>C.1. Outputs</p> <ol style="list-style-type: none"> Establish a low-cost health delivery system for the 1.8 million rural and urban poor not served by the existing public health system. Nutrition - a) Establish an Office of Nutrition Coordination, b) Carry out a mass media, education & promotion program, c) Undertake research, & d) Develop a food supplement program Carry out management reforms in SESPAS. 	<p>C.2. Output Indicators</p> <table border="1"> <thead> <tr> <th></th> <th>1976</th> <th>1977</th> <th>1978</th> </tr> </thead> <tbody> <tr> <td>1.a. Health promoters selected, trained and providing basic health, nutritional and family planning information (total at end of year).</td> <td>890</td> <td>3,080</td> <td>4,550</td> </tr> <tr> <td>b. Pregnant women visited (during year).</td> <td>16,990</td> <td>57,000</td> <td>84,680</td> </tr> <tr> <td>c. Children vaccinated against diphtheria-pertussis-tetanus (during year).</td> <td>40,380</td> <td>70,450</td> <td>105,430</td> </tr> <tr> <td>d. Children immunized against measles (during year).</td> <td>27,230</td> <td>49,380</td> <td>55,330</td> </tr> </tbody> </table> <p>(See Cont. sheet)</p>		1976	1977	1978	1.a. Health promoters selected, trained and providing basic health, nutritional and family planning information (total at end of year).	890	3,080	4,550	b. Pregnant women visited (during year).	16,990	57,000	84,680	c. Children vaccinated against diphtheria-pertussis-tetanus (during year).	40,380	70,450	105,430	d. Children immunized against measles (during year).	27,230	49,380	55,330	<p>C.3. (as related to outputs)</p> <ol style="list-style-type: none"> <ol style="list-style-type: none"> Sufficient trainable Dominican personnel willing to become promoters and remain in local villages with low salaries. Rural and urban poor willing to accept treatment and advice from promoters. SNEH is capable of rapid expansion in a new area of activity. Radio education programs in nutrition can affect dietary habits of rural and urban poor GODR will support SESPAS management reforms. 																																	
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LOGICAL FRAMEWORK MATRIX - PROP WORKSHEET

Summary	Objectively Verifiable Indicators	Important Assumptions																																																																														
<p>A.1. Goal</p> <p>To reduce the mortality of the rural poor target population.</p>	<p>A.2. Measurement of Goal Achievement</p> <ol style="list-style-type: none"> 1. Infant mortality will decline from 127 per 1,000 live births to 95. 2. Mortality for children in the 1-4 age group will decline from 20 per 1,000 to 15 per 1,000. 	<p>A.3. (as related to goal)</p> <p>The Dominican economy will continue to grow at historic rates.</p> <p>There will be no catastrophic natural disasters.</p> <p>The GODR will not reduce its present priorities in the health area.</p>																																																																														
<p>B.1. Purpose</p> <p>To provide potable water systems to residents of villages averaging 300 inhabitants.</p> <p>To upgrade the Low Cost Health Delivery System (SHS), including the rural hospital and clinics referral system.</p>	<p>B.2. End of Project Status</p> <p>Incidence of diarrhea (total population) and malnutrition (infants and pre-school children) for residents of target area reduced significantly.</p> <p>650 health promoters and 100 health educators performing assigned duties.</p> <p>100 rural clinics and 20 rural hospitals performing referral services.</p> <p>Community health committees functioning as necessary to support SHS and rural water/sanitation programs.</p> <p>SHS logistical system performing adequately to support SHS operations.</p>	<p>B.3. (as related to purpose)</p> <p>The GODR will not reduce its present priorities in the health area.</p> <p>Turnover rates for health personnel will remain at present levels.</p> <p>Health education will result in appropriate use of potable water and latrines.</p> <p>Pumps, wells and latrines will be adequately maintained.</p>																																																																														
<p>C.1. Outputs</p> <p>Water systems constructed</p> <p>Latrines constructed</p> <p>Additional health personnel trained</p> <p>Villagers instructed in appropriate use and maintenance of water systems and latrines.</p>	<p>C.2. Output Indicators</p> <p>2,750 community water system outlets</p> <p>22,500 latrines constructed</p> <p>350 health promoters trained</p> <p>100 health educators trained</p> <p>300,000 villagers trained.</p>	<p>C.3. (as related to outputs)</p> <p>Rural communities will accept and participate in a program of environmental sanitation.</p> <p>Personnel with appropriate background can be located for training.</p> <p>Domestic price increases will not be severe enough to reduce real value of peso inputs of program.</p>																																																																														
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APPENDIX B
NAMES OF PEOPLE CONTACTED

Agency for International Development Mission to the Dominican Republic

Dr. Oscar Rivera, Health Officer
Mr. Frank Miller, Loan Officer
Mr. Schwab, Mission Director
Mr. C. Braunstein, Evaluation Officer
Ramon Ruela, Technical Assistant in Health Office

Secretariate of Health (SESPAS)

Dr. Jose Herrera, Loan Coordinator and General Coordinator for Health and Nutrition
Lcdo. Luis Gonzalez-Fabra, Executive Secretary of National Council on Population and Family
Candido Rivera, Director Division of Statistics
Lcdo. Miguel Martinez, Administrative Assistant to Loan Coordinator
Dra. Ada de Bodden, Director of Administrative Reform
Dra. Huydee Rondon, Director Division of Nutrition
Dr. Elias Dinzey, Former Director of SBS
Lic. Milton Rodriguez, Director of evaluation office in Personnel Department
Dr. Enrique Cortinas Estrellas, Information/Statistics Assistant to Dr. Herrera
Sra. Patricia Alvarez de Guzman, Chief, Division of Community Integration

APPENDIX C

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