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Evaluation of the Health Sector Loan Program for the Dominican Republic (AID 517-U-028)

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1. Summary

The Health Sector Loan Program consists of three elements: nutrition activities; administrative reform of the Secretariat of Public Health (SESPAS); and the Basic Health Services Program (SBS), a low-cost health care delivery system. Until recently, the latter has been implemented in a timely fashion, however there have been repeated, prolonged delays in the implementation of nutrition activities and administrative reform. The timely implementation of this program required that the GODR substantially increase its monthly financial contribution to the Health Sector Loan Program. The monthly contribution of the GODR barely met the need for supporting the Basic Health Services Program. As soon as the contract for technical assistance in administrative reform was signed by SESPAS, the need for a substantial increase in the GODR contribution was communicated to different levels of the GODR. The failure to obtain this increase has made it impossible to expand the Basic Health Services Program as contemplated in the implementation plan. The program is currently confined to Health Regions I and IV, a part of Region III, and the Herrera zone of Santo Domingo.

It will be impossible to achieve project purpose if the GODR does not fulfill its financial commitment to the loan. Obviously, if the GODR does increase its monthly allotment, this will not assure achieving project purpose. Should it do so, however,

the prospects for achieving project purpose would be good in the judgement of this Mission.

Certainly, the major problem encountered has been the failure of the GODR to increase its monthly contribution to the program as contemplated in the loan agreement. There have been others. There have been three changes in the Director of the Office of Nutrition Coordination. The competence of some of the previous directors of that office is open to question. Supervision of the village level health workers in the SBS program has been inadequate by any reasonable standards. The Technical Office of Administrative Reform of the Secretariat of Public Health has consumed considerable financial resources since it was created, but tangible improvement in administrative practices are not as yet clearly apparent.

2. Evaluation methodology

This was a regular evaluation. A special evaluation of the SBS program was undertaken in March 1977, about one year after implementation of the program was instituted. This regular evaluation was about seven months late in being undertaken. The Mission felt there was little point in carrying out an evaluation earlier in view of the delays in implementing the nutrition and administrative reform programs.

Unfortunately, the methodology employed in evaluating the nutrition and administrative reform programs was necessarily largely

descriptive and one based on subjective judgements. This was not the case in evaluating the SBS program. In August 1977, 78 health promoters, village level health workers, were selected by use of a table of random numbers from the 824 who were working in Regions I and IV at that time. The household records of every family under the care of each of the promoters in the sample were examined, and the following data collected: the number of births and deaths, the number of children under five years of age who had received two doses of D.P.T., the number of children under ten years of age who had received one dose of measles vaccine, the number of women of fertile age (15 to 49 years) who had received two doses of tetanus toxoid, the number of women of fertile age using a family planning method provided by the promoters, and the total population served by each promoter as well as its distribution by age and sex. Dr. Oscar Rivera Rivera, USAID, and Dr. José M. Herrera Cabral selected the sample, and the data were collected by Dr. Rivera, Dr. Herrera, and other employees of SESPAS. The data were analyzed by the Chief of the Health and Nutrition Division, USAID.

3. External factors

The most important major change is the failure of the GODR to increase its monthly allotment to the program. Although not stated explicitly in the Logical Framework, it was assumed that the GODR would honor its commitment in this regard. The failure of the GODR to do so casts grave doubt on this assumption.

4. Project goal

The goal of the program is stated as follows:

"To affect 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."

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

The National Fertility Survey of 1975 suggests that there has been a striking decline in fertility in the Dominican Republic over the past decade. If so, it is clear that the Health Sector Loan Program played no role in this decline. Indeed, it is clearly too early in the course of program implementation for the program to have had any measurable impact on fertility.

On the other hand, the findings of this evaluation make it quite clear that the health and well-being of many poor Dominicans has been improved as a result of this program. Approximately 19,800 children under five years in Regions I and IV (41 percent of the target group) have been protected with two doses of DPT. About 16,800 children under ten years in the same areas (25 percent of the target group) have been immunized against measles. Approximately 22,700 women of reproductive age in these two regions (34 percent of the target group) have received two doses of tetanus toxoid, and 3,900 of these women

(6 percent of the target group) are current acceptors of family planning.

5. Purpose

The project purpose is stated as follows:

"1. To reduce infant and pre-school child mortality rates and the crude birth rate in the geographic areas subject to program intervention."

"2. To improve performance of SESPAS in managing public health system and fulfilling health policy and planning role."

"3. Develop a nutrition program which will provide the bases for a long-term improvement in the nutrition status of the country."

Data analysis regarding infant and pre-school child mortality has not been completed. Although each promoter reports deaths by age and sex on a monthly basis, the promoters began working in their respective communities at different points in time. Hence, analyzing the data is quite complex.

There is no evidence of improved performance of SESPAS as yet, nor could this be expected as of this moment. The contract for technical assistance in this area was signed four months ago.

The Mission feels that progress has been made in the field of nutrition. Several years ago there was little understanding on the

part of government officials or health personnel that malnutrition was a serious problem in this country. While no firm data is available it seems reasonably certain that a series of seminars on nutrition have increased public awareness of the problem and have offered new insights to health personnel with regard to the nature of the problem and some approaches to the solution.

Progress has clearly been most evident in the implementation of the SBS program. While the following observations are speculative to a considerable degree, three factors seem related to the achievements to date. One, the program has enjoyed active and dynamic leadership from its Director, Dr. Elías Dinzey. Two, the program was proposed by a Dominican, Dr. Amiro Pérez Mera, and the concept was enthusiastically accepted by the key leaders in SESPAS, including Lic. Luis González Fabra, Executive Director of the National Council on Population and Family, and the Secretary of Public Health at that time, Dr. Héctor Pereyra. Lastly, the promoters have shown remarkable devotion to their tasks.

Progress in terms of coverage of the target populations with immunizations and family planning should be greater. The Mission is strongly persuaded that more intensive coverage of the target groups has not been achieved because the logistic support provided the promoters by their supervisors, auxiliary nurses, has been inadequate. Six (8%) of the 78 promoters in the sample drawn from Regions I and IV

never received the vaccine for the first dose of DPT, and eight (10%) never received the vaccine for the first dose of tetanus toxoid.

The results regarding coverage with immunization and family planning in Regions I and IV are shown in Table 1.

As a result of the initial evaluation of Region IV in March 1977, efforts were made to improve coverage with immunizations and family planning in that Region. While there was marked improvement with regard to coverage with measles vaccine, the results were otherwise disappointing. The findings of the surveys of March 1977 and August 1977 are shown in Table 2.

6. Outputs and Inputs

The low-cost health care delivery system has been established. Difficulties in implemention have been noted earlier in this report.

The Office of Nutrition Coordination (ONC) has been established. The mass media education program has been delayed. This delay seems clearly to have occurred at least in part because the officials in SESPAS concerned with implementation were adamantly opposed to foreign technical assistance. The Dominicans felt that Dominican advertising firms were competent to design the educational messages for use on radio. They also regarded the cost of U.S. technical assistance as exorbitant. It was the Mission's best judgement that U.S. technical assistance was crucial to successful implementation, and the Mission's

Table I

Coverage of target population with immunizations and family planning, Regions I and IV, August 1977

Age Group and intervention	Sample size	Coverage Number	Coverage Percent	Goal, percent	95% Confidence interval
Children under five, two doses, D.P.T.	5,943	2,450	42.6	75	39.2 - 46.0
Children under 10 yrs., one dose of measles vaccine	9,914	2,471	24.9	75	20.4 - 30.4
Women, 15-49 years, two doses of tetanus toxoid	6,282	2,118	33.7	80	32.7 - 34.7
Women, 15-49 years, current users, family planning	6,282	367	5.8	4.8	4.7 - 6.9

Table 2

Coverage of target populations with immunizations and family planning, Region IV, March and August 1977

Age group and intervention	Coverage March 1977 p_1	Coverage August 1977 p_2	Difference $p_2 - p_1$	S.E., $p_2 - p_1$	t tests
Children under 5 yrs, two doses, D.P.T.	.505	.572	.067	.0547	1.22*
Children under 10 yrs., one dose measles vaccine	.159	.237	.078	.0707	1.10*
Women, 15-49 yrs., two doses of tetanus toxoid	.214	.471	.257	.0548	4.69**
Women, 15-49 yrs. current users, family planning	.082	.135	.053	.0332	1.60*

* p = n.s.

** p = 0.001

view prevailed at the price of creating bitterness and resentment on the part of Dominican colleagues.

Little research has been undertaken to date by the Office of Nutrition Coordination. (One study of nursing patterns has been done in Region IV.) This is certainly due in some measure to the repeated changes in the Director of the Office.

If indeed management reforms have been carried out in SESPAS, they have been minimal. It is clearly too early for technical assistance to have had any effect. The contract for such assistance with Arthur Young, Inc. was not signed until June 3, 1977. The delay in obtaining technical assistance was unquestionably due in no small measure to the fact that some officials of SESPAS favored technical assistance from the Pan American Health Organization (PAHO), rather than a private consulting firm. They preferred PAHO because the assistance would prove less costly and because PAHO technicians are invariably fluent in Spanish. The Mission felt that a management consulting firm was preferable. The issue was finally resolved when the PAHO representative pointed out that PAHO could not participate in competitive bidding due to its unique relationship to the host country government.

While it must be emphasized that what follows is speculation, it seems difficult to escape the conclusion that the idea of

administrative reform has never had any appreciable support within SESPAS. It seems likely that many officials in SESPAS found the entire concept threatening.

It should be noted that there has also been considerable misgivings on the part of some Mission personnel regarding the likelihood of appreciable improvement of administrative practices within SESPAS. In the judgement of those skeptics, the constraints on the system are little short of formidable.

7. Unplanned effects

It was not anticipated that the urban element of the Basic Health Services Program would duplicate providing health care in Herrera, the neighborhood in Santo Domingo currently served by the program. An earlier evaluation of this program revealed that the area is being served by special programs of several medical schools, a charitable organization, and a government family planning clinic as well as by several private physicians.

Similarly, it was not anticipated that attrition on the part of health promoters in the urban program would constitute such a problem. In excess of 30% of the health promoters originally trained in the area have since migrated to other parts of the city.

The two problems outlined above suggest that it may be adviseable to discontine the urban element of the program.

When the Basic Health Services Program was in the earliest stages of implementation, it was feared that the program well might be attacked by physicians, particularly organized medicine, because rural women were performing injections and offering the contraceptive pill without a presceiption. This has not occurred to date.

Lastly, and most importantly, it was certainly not anticipated that the system designed to provide continuous evaluation of the Basic Health Services Program would fail so completely to provide the information desired. The health promoters were asked to report on a monthly basis how many children under five years received the first or second dose of D.P.T., how many children under ten years received a dose of measles vaccine, etc. Yet, when the data was analyzed in the central offices of the Basic Health Services Program for the first time, it was apparent that the reported coverage of any given target group with any given immunization appreciably exceeded 100% in many villages! Hence, it became necessary to resort to sample surveys to estimate the degree of coverage achieved.

8. Lessons learned

a. In implementing health programs in rural areas, local inhabitants should be employed in the implementation of such programs to the fullest extent possible.

The Health and Nutrition Division is convinced that it made

a serious mistake in program design in planning to utilize auxiliary nurses as supervisors for the health promoters. The supervisors are responsible for providing the promoters with vaccines, medications, and contraceptives. As noted earlier, they have failed to do so. There is no apparent reason why local men and women could not be trained to supervise promoters. There is a striking contrast between the enthusiasm of the promoters for this program on the one hand and the general apathy on the part of their supervisors on the other.

b. Any rural health program that proposes to improve the nutritional status of preschool children should probably include the element of nutrition surveillance.

Nutrition surveillance is a relatively inexpensive, comparatively simple intervention. While the available evidence is limited, it suggests that nutrition surveillance does reduce the prevalence of preschool child malnutrition and may reduce infant mortality as well. The Mission feels it erred in failing to include nutrition surveillance as a feature of the Basic Health Services Program.

c. An efficient logistics system is essential for successful implementation of a low cost health care delivery system.

This Mission failed to make certain that adequate supplies of vaccines and contraceptives would be readily available at the village level when the program was instituted. The original plan

contemplated administering the Basic Health Services Program through the National Malaria Eradication Service (SNEM), although the Director of SNEM was reluctant to do so because of the extent of SNEM's other commitments. Hence, the Mission agreed to SESPAS' request to administer the program through a separate office responsible to the Secretary. SNEM has an excellent reputation for competence in the fields of supply and maintenance, and it seems quite likely that the program has suffered in these areas due to the necessary change in implementing agencies.

9. Acknowledgement

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