

MID-PROJECT EVALUATION
EL SALVADOR HEALTH AND NUTRITION
PROJECT NO. 519-0253

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EXECUTIVE SUMMARY

A mid-project evaluation was conducted of the El Salvador Urban Health and Rural Nutrition Project 519-0253 in April and May 1983. The project was designed to support basic medical, education, and sanitation activities in 150 marginal urban tugurios and to establish 70 rural nutrition centers through which supplementary feed, early childhood stimulation, and primary health care activities would be provided for children two to five years of age. A small amount of assistance was also provided to increase the logistic capability of the GOES Community Development Agency, which is responsible for managing the PL480 Title II Emergency Feeding Program.

The project was precipitated by the political disturbances and change of government in 1979; and implementation has been affected to varying degrees within the five Health Regions by the unresolved political situation. In general, project achievements have not measured up to initial expectations, particularly in the rural sector. The project has produced some significant benefits, however, most notably in urban sanitation activities and has considerable potential under the right circumstances.

Eighty-three urban slum areas, or tugurios, in which approximately 107,000 people reside, have been attended on a regular basis by the regional personnel charged with implementing the project. This represents 55.3 percent of the 150 tugurios planned to be reached during the first two years. The overall benefits of clinical services, provided twice weekly, would appear to be limited given the proximity of other urban health facilities. The organization and response of community residents around environmental sanitation activities has been impressive -- particularly, the elimination of mosquito breeding sites, community cleanup campaigns, and the installation of water sources and, in some cases, latrines.

The development of the rural nutrition component was disrupted for more than a year. Eventually, 25 of the proposed 70 centers were established, but only nine were functioning at the time of the evaluation. The number of centers could increase again to 25 with adequate resources and planning. While these centers operated at about 70-percent capacity, total coverage of target population within the communities attended was probably less than 20 percent. The centers have basically provided day care activities and supplementary food, with little nutrition surveillance and education of mothers.

The relatively low levels of coverage achieved by the project to date have been due less to the political situation of the country than to inadequate management practices and support for field activities within the Ministry of Health, and the lack of flexibility and insufficient resources given to the Regional Health Offices to plan and execute their programs. Politically motivated determinations by USAID and the GOES hindered the selection of appropriate rural communities and did not allow sufficient time or opportunity for an effective process of community organization to take place.

In spite of numerous difficulties, the project has a definite potential to improve the health and nutrition status of the target populations. The activities and services provided deal with problems felt by the residents. With an adequate process of community analysis and organization, the residents have shown that they will respond and participate in the program. Regional health personnel and field workers are capable and motivated to work with communities and as a team; but they need more flexibility, adequate resources, reliable supplies and more support from the central MOH to be effective. Health workers are accepted in the marginal urban and rural areas where other government workers often are not.

More than \$400,000 (one-third of the project budget) of the AID grant funds remain to be spent. Recommendations at this point, however, are tenuous because only seven months remain until the current project assistance completion date (PACD). There is no indication that USAID might agree to extend this particular project or that the MOH will in fact meet its obligations in counterpart funding and in absorbing project sanitation workers into its regular budget. To realize their full potential, project activities, especially in the rural areas, need redirection and time to develop. Nevertheless, it is much more difficult to recommend that any should be suspended.

Environmental sanitation and education activities should be strengthened in the tugurios. In rural areas, an appropriate process of community organization and leadership training could be developed and implemented to deal with current and future needs; there is adequate time to conduct one more six-month program for up to 750 or more rural children. A portion of the remaining resources should be channeled directly to the regions, and the MOH in-service training unit should be given resources to design and conduct needed continuing education activities. The hiring of a local management specialist to coordinate data collection and utilization within the project would be necessary for improved monitoring, support, and the final evaluation of project activities.

The extending of these activities in coordination with those proposed under the new management vitalization project would be mutually beneficial. The health and nutrition project would receive the benefits of improved management systems, while providing an operational base on which to develop and test those systems. Both are needed to reinforce a decentralized administration at the regional level and assure integration in the field.

For social and technical reasons, it is not recommended that the remaining resources and project activities be incorporated within a joint military-civilian assistance strategy. Community health activities require active community participation at all stages, nurtured through a patient process of analysis and community organization. Also, the sensitive role of the community health worker must not be jeopardized by an association with political operations.

ABBREVIATIONS

AID	Agency for International Development
CHA	Community Health Aide
DIDECO	Community Development Agency (GOES)
ECS	School of Health Training (MOH)*
GOES	Government of El Salvador
ISTA	Agrarian Reform Institute
MOH	Ministry of Health (GOES)
OCOPAN	Office of Nutrition Coordination and Planning (GOES)
OSB	Operative Services Bureau (MOH)
RHA	Rural Health Aide
RNC	Rural Nutrition Center
USAID/ES	AID Mission to El Salvador

* Throughout the report, reference is made to an "in-service training unit" of the Ministry of Health, located within the Human Resources Bureau; this unit is literally named the School of Health Training.

I. INTRODUCTION and BACKGROUND

INTRODUCTION AND BACKGROUND

Scope of Work

Purpose of the Assignment

The proposed objective of this consultancy, as expressed in the contract's Statement of Work (Appendix A), was to provide the Government of El Salvador and AID with a mid-project evaluation of the management and effectiveness of the urban health and rural nutrition components of the subject project. The project in fact was begun in early 1980 and AID's involvement is due to end in December 1983. Neither of the scheduled evaluations (PESS) have been realized (June 1981 and June 1982), although the Ministry of Health Operative Services Bureau produced summary reports in March and December 1981 and received internal evaluative reports from the Health Regions on the status of the rural nutrition centers.

In September 1982, the Project Coordinator submitted to USAID/ES a proposal to reprogram the balance of project funds (AID source only) in accordance with current priorities. Prior to such a determination, USAID felt that an independent evaluation was necessary. The consultant's scope of work essentially called for a quantitative assessment of accomplishments and recommendations for modifications to the project where appropriate. The consultant was contracted by AID to produce a report in English for USAID/ES.

Simultaneously the MOH Operative Services Bureau began its own evaluation of the project. This was to cover three basic aspects: technical or programmatic accomplishments, social impact, and budget or resource utilization. The MOH was to have hired two local sociologists to carry out the social impact analysis, one for each component. The consultant responsible for the rural nutrition component was eventually unavailable and that analysis was not undertaken.

Shortly before the consultant's arrival in El Salvador, the MOH Project Coordinator requested to USAID that the consultant devote part of his time to working with the urban health sociologist on the design and analysis of the social impact study. This was agreed as being mutually beneficial, particularly since the Project Coordinator had formerly been a long-term adviser to the project. In subsequent discussions with the Project Coordinator to clarify responsibilities and coordinate activities, it was determined that the Ministry of Health had, for its part, three specific purposes in carrying out the present evaluation: to facilitate the reprogramming of

the remaining funds, to establish the basis (criteria and indicators) for a subsequent end-of-project evaluation and to provide a justification for obtaining more resources to continue the project as of January 1984. These three objectives as well as the above technical assistance were taken into consideration in determining the evaluation methodology and subsequent conclusions and recommendations.

Consultant Qualifications

James N. Becht is a private health systems consultant with more than 13 years of experience in Latin America and several more in the United States. He has worked at local, national, and international levels and is fluent in Spanish. Becht holds a Master's degree in public health administration and is currently completing his dissertation for a Dr.P.H. in international health planning and evaluation.

Itinerary

The present assignment began upon arrival in El Salvador on April 11, 1983. Fifteen of the subsequent 18 working days were spent in San Salvador, primarily at the Ministry of Health and USAID offices. Two full days were needed to visit the administrative offices, two tugurios, and two rural health centers in the Metropolitan, Central, and Western Health Regions (see Appendix B for sites). One day was spent in visits to two MOH warehouses and two DIDECO warehouses, all in or near San Salvador. In addition, informal visits were made with MOH personnel to the coastal region of La Libertad Department and to several areas around San Salvador on weekends. The consultant left El Salvador May 3 and spent an additional 15 days writing the report.

Methodology

A systems approach was used to establish an overall framework and analytic guide for the evaluation of the project. The major areas of concern--which are reflected in the organization of this report--were: The objectives of the project, the activity components, project resources, the external context or environment, and project management. The consultant's scope of work and the MOH's specific concerns were incorporated into this framework.

An extensive review of project documents and interviews with individuals who were involved with the project during its early stages were used to establish and clarify the initial design and intent, in practice, of the project. Subsequent in-depth interviews (see Appendix B), review of reports and

internal communications, and site visits provided the information to determine the extent of activities realized, the utilization of resources, and the effects of external factors and management practices on project implementation.

Approximately 25 percent of the consultant's time in-country was used to provide technical assistance regarding the urban health social impact study of the MOH. This included collaborating with the sociologist in defining operational objectives; identifying evaluation criteria, information needs, and sources; designing survey methods and instruments; and selecting the sample tugurios.

Within the first months of the project, an evaluation process was briefly described and formally presented by the MOH in compliance with the special covenants of the Project Agreement. This process was to have provided and utilized relevant evaluation information periodically during the life of the project. The plan, however, was never implemented: an interagency evaluation committee was not formed, the process was not fleshed out or operationalized, and a supporting information system was never developed. As a result, most of the consultant's time in-country was needed to search, cross-check, and tabulate basic operational data.

The Regional Health Offices were very helpful and patient in providing current information on services rendered and supplies received. In more than a few instances, however, there were discrepancies between regional reports, central reports, and personal interviews that had to be reconciled by the consultant. This was one of the reasons for conducting a larger number of interviews. A second reason was to ascertain the attitudes and opinions of health workers and decision-makers at different levels to confirm the validity of conclusions and the feasibility of recommendations.

A draft of tentative conclusions and recommendations, along with many of the tables found in Appendix C, was left with USAID/ES prior to departure. Debriefings were also held with the Mission Director (briefly) and the Chief of the Health Office. Unfortunately, the MOH Project Coordinator and the USAID Project Manager were both out of the country during the final week of the assignment and could not be consulted at that time.

Project Setting

Country Profile

El Salvador is a small, Spanish-speaking country, roughly

250 km (east to west) by 100 km, wedged between Guatemala and Honduras on the Pacific coast of Central America. Unlike its neighbors, El Salvador is burdened by a high population density, with more than 200 of its 4.6 million inhabitants (1982) crowded, on the average, into each square kilometer (556/sq. mi.). Sixty percent of the population resides in rural areas and subsists off an agricultural economy, but most of the arable land remains in the hands of a few.

El Salvador does have government health facilities, providing at least basic curative services, throughout the country--reportedly 90 percent of the population is no more than one-half hour from care. A predominantly mountainous terrain, precarious secondary roads and means of transportation, and the rains and heat of a tropical climate significantly limit permanent access.

Economics and politics combine with high illiteracy to perpetuate low levels of health and well being for the majority of Salvadorans. The population is relatively young, with 45 percent of the people under 15 years of age; and diarrheal and respiratory diseases are major causes of morbidity and mortality. The infant mortality rate is 53 per 1,000 live births; reportedly, 75 percent of rural preschool children are malnourished. Malaria--normally a mild form--is endemic and with a subresistant population takes a heavy toll. In recent years, accidents and acts of violence have become a principal cause of mortality and injury (for statistical details, see tables 1 and 2 and Appendix D).

Since 1979, El Salvador has suffered severe political and social disturbances. This situation has aggravated economic conditions, disrupted (to a considerable degree in some regions) the provision of basic health services, and increased the problems associated with internal migrations and displaced families. It was generally acknowledged that the present health and nutrition project was politically motivated and hurriedly developed in response to mass demonstrations in the urban tugurios and the necessity to support the agrarian reform process in the countryside. The socio-epidemiologic need for providing such services has not been disputed by health personnel; the manner in which the project was planned, implemented, and in some instances designed, however, has caused considerable concern.

Project Description

The El Salvador Health and Nutrition Project was initiated in 1980 by the Ministry of Public Health and Social Assistance. The U.S. Agency for International Development

committed a grant of \$1.275 million and the Government of El Salvador's contribution was estimated at \$1.45 million. Subsequent to the compliance of conditions precedent (see tables 3 and 4), AID funds were made available in September 1980. The current project completion date for AID participation is December 1983.

The purpose of the project, as stated in the Project Agreement, is to support activities facilitating the extension of health, nutrition, and sanitation services to low-income Salvadorans in marginal urban and rural areas. The goal, in turn, is to improve the health and nutrition status of the subject population. The project has two major and one minor component.

The urban health component was designed to alleviate health problems in 150 (of an estimated 500) marginal slum areas, locally referred to as tugurios. The services to be offered were based on the experience of the Metropolitan Health Region, which had been attending 11 such areas with mobile health teams since 1973.

Modest store-front clinics would be established and equipped in each tugurio through which a team of one part-time physician, an auxiliary nurse, a sanitation inspector, three sanitation workers and a volunteer community health aide (CHA) would provide daily primary health care services, health and sanitation education, and conduct community self-help sanitation campaigns. This team would be supported from the regional offices by a graduate nurse, a nutritionist, and a health educator. Extensive training and continuing education of all personnel were contemplated. Community participation and involvement were also highly emphasized.

Almost \$1 million (76.4 percent) of AID's total commitment was designated for the urban health component. Sixty percent of this was allocated for the purchase of medicines and another 24 percent to pay the salaries of the sanitation workers, health educators, and a local project consultant for the duration of the project. The GOES committed \$1.4 million (97 percent of its total) to the urban health effort, with 63 percent allocated to salaries and 36 percent for medicines.

The rural nutrition component of the project ambitiously called for establishing 300 community MCH/Nutrition Centers over a period of three years. The centers, based on an earlier UNICEF experience in Morazan Department, would offer supplementary feeding, primary health care, and nursery school activities (including psychomotor stimulation) to an average of 50 two-to-five-years olds in each center for six-month

periods. Other activities would include nutrition surveillance, health and nutrition education to mothers, referrals, and vaccinations.

The centers would be staffed by three to five volunteers from the communities and supervised by the MOH's salaried rural health aides (RHAs) with regular visits by regional professional staff. Community cooperation was believed to be very important, and the component anticipated a high degree of coordination with other agencies, particularly the agrarian reform institute (ISTA) and the GOES Community Development Agency (DIDECO). It was hoped that the centers would serve as a focus for other health and development activities in the communities.

Approximately 10 percent of the total project budget was committed to the rural nutrition component--\$251,000 by AID and \$35,000 by GOES. Major anticipated expenditures included equipment, materials and remodeling (42 percent), bonuses for the volunteers (25 percent), and training and technical assistance (12 percent). Food support was provided under the P.L. 480 Title II Emergency Feeding Program.

The project also provided minor support (\$65,000) to the Community Development Agency (DIDECO) for its role in managing the food distribution system and the purchase of vehicles, tools, and construction materials. In addition to feeding the children at the rural MCH/N centers, food incentives were provided for the urban community health aides (CHAs) and their families as well as for the MCH/N center volunteer staff and their families. The total value of food committed was estimated at \$493,000, including transportation and storage.

In July 1981 an amendment was made to the Project Agreement which affected very little the urban health and feeding support components and the size of the overall budget. Clinics were not found to be required in all tugurios (due to proximity with other facilities) and the health teams were assigned to rotate among two to three tugurios. Three significant changes, however, were made regarding the rural nutrition component. First, the number of centers to be established was reduced from 300 to 70. Second, it was decided that the community volunteers would receive a monthly cash bonus in addition to their food incentives. And third, whereas an initial criterion for the location of the centers was communities within areas currently served by an RHA, the revised policy was to favor the haciendas that had been intervened or appropriated by the agrarian reform program and to coordinate with the field workers of the politicized ISTA.

II. FINDINGS: PROJECT PERFORMANCE

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Project Components: Outputs and Constraints

Marginal Urban Health Care

Preliminary activities involving the selection of tugurios to be served and the initiation of supplies procurement began during the first half of 1980. AID project funds were made available in late September and, subsequent to the training of regional personnel, the selection of local workers and the availability of medicines and supplies, the first 20 clinics were officially opened in December 1980--six months behind schedule. Eleven of the clinics, however, had been functioning in the Metropolitan Region since 1973.

Table 5 (Appendix C) compares the proposed with actual time schedule. Statistical data describing the service areas and activities accomplished are presented in tables 7 through 12. A total of 49 tugurios, in which an estimated 82,000 people resided, were incorporated into the project during the first year (1981). During the second phase (1982), 34 tugurios and 25,000 people were added. These figures were not consistent within the project documents, in part because some tugurios were composed of up to five sections, each with its respective committee. Also, the political situation caused activities to stop and restart from time to time in some areas and there was some faulty reporting. Preference in this report is generally given to the information (reports and interviews) obtained at the regional level.

Overall the project has achieved 55.3 percent of its goal of 150 tugurios during the first two years. The geographic distribution of the service centers has been roughly equitable in terms of the proportionate population of the regions and considering that a disproportionate amount of urban slums are found in and around San Salvador. Thirty-five of the 83 tugurios (42.2 percent) were served through their own local clinics; in 44 of the tugurios (53.0 percent), the clinic was located in a nearby tugurio or health center; 4 of the tugurios (4.8 percent) were served only by the sanitation workers.

In comparing the levels of services provided during the first and second years, the total number of person/years was calculated based on the number of months each tugurio had participated. In 1981, the project covered 75,298 person/years and in 1982 the total increased to 107,243 person/years. Thus, the project provided 0.8 consultations per person/year in 1981 and 0.6 consultations per person/year in 1982. Of the total

121,143 consultations recorded, 83.7 percent were done by a physician in 1981, while 63.9 percent were done by a physician in 1982. Approximately one of every 19 patients was referred to another medical facility; only 55 percent of these people complied, however. Over 60,000 contraceptive packages were distributed during the two years. If these are monthly supplies, then based on the above calculations of person/years of service for men and women between the ages of 15 and 64 (51.9 percent of total population) only about 2 percent of the total female need and 20 percent of the total male need was satisfied through the project.

Community level environmental sanitation and health education activities appear to have achieved a higher coverage than the clinical services provided. Using a figure of six persons per household, the sanitation workers visited each household on an average of one time in 1981; the rate dropped to 2 visits per three households in 1982. A major and significant activity of the sanitation workers has been the treatment or elimination of mosquito breeding sites: in 1981, 93 such activities per tugurio were realized; in 1982, the rate was 42 per tugurio. In 1982 there may have been a concentration of visits on the 4,200 households incorporated into the project that year, thus explaining the decline in overall rates. For the same reason, latrine construction and improvement dropped from one per 12 households in 1981 to one per 29 households in 1982.

On the other hand, community cleanup campaigns were organized in virtually all of the tugurios each year, and an average of three rubbish sites were treated or eliminated per tugurio during the first two years. Nearly five community water sources per tugurio have been either installed or improved to date. As mentioned previously, these statistics probably reflect the fact that a number of tugurios are subdivided into sections.

Nearly 9,000 group educational presentations and 44,000 individual consultations have been realized thus far. The majority of these (72 percent and 95 percent, respectively) were conducted primarily by auxiliary nurses. Group presentations covered such topics as environmental sanitation (21 percent), maternal and child health (21 percent), and family planning (19 percent). The most common reason for individual counseling was specific illness related (49 percent). Overall, there was an average of six group presentations per month in each tugurio. These were generally held on the days of the twice weekly medical clinics. The volunteer community health aides conducted an average of one educational presentation every two months and attended four intersectoral or community meetings per year.

In the Project Paper, nine accomplishments were expected to be achieved in the target urban communities by the end of the project. Some of these are concerned with curriculum and management development and will be discussed in the following sections. The other expectations included:

1. "Broad utilization of the health clinics by residents of the tugurios, which would imply an acceptance of the clinics and providers." The rates of clinical services do not suggest "broad utilization." The proximity of other health facilities in urban areas undoubtedly satisfies part of the tugurio demand. Political unrest in some areas also has affected clinic utilization. Acceptance of the clinics and providers, particularly paraprofessional workers, was quite evident in a recent survey conducted by the Operative Service Bureau. Some of the results are discussed below.
2. "Satisfactory working relationships between community health and sanitation workers, and the health clinic (teams)." No indication was found regarding the existence of any unsatisfactory relationships in general. While isolated cases to the contrary undoubtedly exist, the work of the CHAs and sanitation workers is apparently valued and supported by the physicians, auxiliary nurses, and sanitation inspectors.
3. "Community organizations in each tugurio established to support the health team." Some form of supportive community organization was found to be functioning in nearly 80 percent of the tugurios. In many cases, however, community meetings and other organizational activities have been suppressed because of the political situation.
4. "Trash and garbage system for disposal/storage and transportation to designated pickup locations initiated and coordinated with municipality for regular collection." General cleanup campaigns and the elimination of rubbish dumps within the tugurios has been relatively successful and widespread. It was not determined to what extent regular collection systems have been coordinated with municipal governments.
5. "Health education campaigns planned, developed, and implemented in community hygiene, nutrition, and in public health and sanitation." A considerable number

of health education activities have been carried out in the tugurios. The number of people reached and ultimately affected is difficult to ascertain. Regional personnel want to do more in this area but are limited by insufficient materials and orientation to methods.

Some of the principal concerns of the implementing health personnel were expressed in the evaluation survey conducted by the Operative Services Bureau in April 1983 and in earlier summary reports and interviews from the regions. There is general consensus that the tugurio program only partially satisfies current MOH policies, and that these policies only partially satisfy the basic needs of the people. Insufficient resources (particularly medicines, materials, and operating funds and programming flexibility) were felt to be major limiting factors at the regional level.

Support from the regional level to field activities, considering the limitations, has been generally good. While decision-making and resource control is highly centralized, program support from the central level is felt to be minimal and slow. An insufficient number of health educators, a higher turnover of CHAs and other medical personnel, and inadequate replacement training and continuing education were also cited as major problems. Finally, there was an indication, strongly felt in some quarters, that an emphasis on physician-run clinics actually limited the project's impact on health status by detracting the community and paraprofessional staff from organizational, promotional, and preventive activities.

Rural Maternal-Child Health/Nutrition Centers

The initial developmental activities for the rural nutrition component began simultaneously with the urban health component in early 1980. Regional health personnel started a community analysis and selection process in February. Central level nutritionists, then located in the Bureau of Technical and Normative Services, began work on an operational manual for the center staff and a technical administrative procedures manual.

By January 1981, the first manual had been completed, the second was in its final revision, and the staff of the MOH in-service training unit had begun to define functional responsibilities and design appropriate training curricula. Equipment and materials for 50 centers had been purchased and arrangements had been made with DIDECO for the provision of food commodities. (See table 6 for more details regarding the implementation calendar).

Field implementation however, was disrupted and delayed by several factors. The regional personnel charged with developing this component--particularly the health educator, nutritionist, sanitation inspector, and graduate nurse--had major responsibilities regarding the urban health component in addition to their regular supervisory and technical backstopping activities. Also, in support of the agrarian reform process promulgated in April 1980, many of the originally designated centers were substituted in accordance with ISTA priorities. Political-social disturbances erupted intermittently in many departments, contributing adversely to the developmental and promotional activities.

The original goal of 300 centers was reduced to 150 by March 1981 and again to 70 by July. Twenty-five centers were eventually opened between December 1981 and April 1982--18 months later than anticipated. By April 1983, only nine were still functioning (see table 13). The potential exists, however, for 16 former and/or new centers to be opened in the coming months, given sufficient and timely resources.

Table 14 estimates the performance to date of the rural nutrition centers in terms of their capacity for minimum number of child-months of service provided and total number of children attended. In both cases, the centers have functioned at about 70 percent of their capacity, considering a minimum norm of 30 children per center. The project has achieved only 12 percent capacity in terms of its goal of 70 centers with 50 children per center, for which resources were allocated.

The average period of care provided ranged from 4.5 to 8.2 months among the regions. Data on the total target population, two to five years of age, is deficient. It seems highly unlikely, however, that a total coverage of even 20 percent was attained in the 25 communities served. Even at full capacity these centers would only have reached less than 40 percent of the malnourished children two to five years old during the past 18 months.

No systematic collection and periodic reporting of service or other management data was found to exist. The Regional Health Offices have submitted on several occasions special reports to the Operative Services Bureau on request. Performance indicators, however, have not been defined or standardized. Tables 15 and 16 present some information on selected services provided to children and communities. It was not clear who provided the medical attention, if referrals were given by nonmedical personnel, or what type and does of vaccination was given. Thus, rates have not been calculated. Given an estimated total of 7,566 child-months of service

(table 14), however, these rates would appear to be rather low. Approximately 10 latrines per village were constructed in the three reporting regions; more than half the centers attempted to plant a garden; and an average of at least one village meeting and one educational session were held per month of operation at each center. Variance was considerable from region to region.

The Project Paper anticipated that "70 percent of the malnourished entrants to the centers" would improve "as a result of feeding and health measures as well as mother education." The regional nutritionists concurred that, due to irregular child attendance and center operations, effective nutrition surveillance was not possible. Any improvement in nutrition status would be minimal because of inadequate food supplies (local and imported) and the precarious conditions of poverty within the communities. Regular and sustained participation of mothers was rare.

A second end-of-project expectation concerned the average three to five volunteers per center who would be "trained by the MOH in ten-day to two-week courses emphasizing food handling, health referral indices, first aid and techniques for stimulating the development of post-toddler pre-schoolers and supervision." An initial group of 111 volunteers was formally trained by the regional supervisory staffs. By September 1982, only 54 (48.6 percent) were still working. The turnover of volunteer staff varied from 50 to 72 percent in the regions; replacements were given a four-hour orientation to their functions at their respective centers.

Third, "a total of 30,000 children will have participated in center activities for a six-month period and received rations meeting at least 60 percent of the protein requirements and 45 percent of the calorie requirements." As shown in table 14, 1,323 children have participated in the program to date for an average period of 5.7 months. No adequate records have been kept on the amount and kind of food actually provided to the children. Food distribution to the centers have been irregular and uncontrolled.

Finally, this component was expected to benefit from "close coordination with GOES Office of Nutrition Planning and Coordination (OCOPAN)" in the areas of community health nutrition planning and the regular assessment and evaluation of project activities. The consultant found little evidence that OCOPAN had been involved to any significant degree regarding field level planning and evaluation.

The rural nutrition component has been plagued by a series of problems, many of which could have been avoided or at least minimized through better planning and management. Regional and local health personnel, through reports and interviews, have expressed a number of reasons why the rural nutrition centers have been relatively ineffective.

As with the urban health component, they felt that the program only partially satisfies rural health policy, primarily because of the allocation of insufficient resources and the lack of appropriate and timely support. Similarly, current policies only partially satisfy rural health needs. Field personnel are acutely aware that a sectoral, nonintegrated approach has minimum impact on complex socioeconomic problems.

Regional personnel participated very little in the initial planning and design of the rural nutrition component. Inadequate attention was given to the time and process needed for effective analysis and selection of community sites and the promotion and organization of community involvement. The imposition of a predetermined package with political priorities as to site location left the regions with little flexibility to adapt resources and strategies to community needs and potential for involvement. Coordination with ISTA and hacienda cooperatives has been minimal and ineffective, in spite of efforts by MOH personnel.

Field personnel lamented the lack of technical and administrative support, particularly from the central level. The distribution of food supplies has been irregular and late. Materials and funds for ongoing community education, psychomotor stimulation, and staff training are insufficient. Continuing education on a regular basis and concerning a range of technical, administrative, and rural development issues is a widespread need noted by regional health personnel.

There is a general consensus that the volunteer staff, under current conditions, is not particularly suited or prepared to effectively manage and promote the multiple activities of the centers. The initial criteria for the selection of volunteers--14 to 20 years of age, nomination by the directorate of the cooperative, etc.--often produced instability, conflict, and a lack of confidence within the program and particularly target mothers. Present incentives of (irregular) food commodities and token cash bonuses have been insufficient to recruit and hold qualified individuals who would devote the necessary time and energy to the project. Staff training, particularly regarding continuing education and the training of replacements, has been inadequate. Some regional supervisors have suggested that, given the level of

services expected, the centers should be staffed by individuals with a preparation similar to that of an auxiliary nurse or RHA.

Regional personnel have also cited community migrations as a significant and unavoidable detriment to center operations. From October through April, it is not uncommon for entire communities in the central highlands of most regions to leave for the coffee harvest. This is the only income many families earn during the year, which underlines the critical economic situation of the rural communities. Political disturbances have prohibited the development of rural centers and have forced the temporary closing of several, in some areas of the country. Overall, this was not felt to be as significant as the migration issue and could be adequately managed at the regional level.

Emergency Feeding Support

P.L. 480, Title II food commodities--consisting of rice, powdered milk, vegetable oil, and corn flour (including some CSM)--were made available to support the urban health and rural nutrition components. The tugurio-based community health aides (CHAs) and the rural MCH/N center volunteers received food rations for themselves and their families. Supplementary feeding was provided to the children attending the rural centers.

DIDECO, the Community Development Agency within the Ministry of Interior, has responsibility for administering the GOES Emergency Feeding Program. It was initially planned that DIDECO would distribute the necessary food commodities from its regular stocks to the Regional Health Offices. In practice, the MOH arranged to pick up the food at the DIDECO central warehouses. Adequate supplies have been available from DIDECO, but distribution to the field has been reportedly irregular, often very late, and in insufficient quantities. It was found, in a partial audit conducted by the consultant, that less than 60 percent (57.8 percent) of the total food commodities requested by the MOH eventually reached the Regional Health offices (see table 20).

The Project Paper also anticipated that DIDECO personnel would work "in close coordination with the Ministry of Health" to "promote the project in (rural) communities" and assist in community organization activities associated with operation and administration of the rural nutrition centers. No evidence was found to indicate that such coordination and support took place. Project funding was made available for the purchase of vehicles, materials, and equipment to "increase logistic capacity of the Food Support Division of DIDECO." The agency

acknowledged that none of these resources were used in direct support of project activities.

Available Resources: Inputs

Financial Budget

AID committed a total of \$1.275 million to support and facilitate the proposed project activities. As of March 31, 1983, over \$850,000 had been expended by the executing agencies; in other words, 67 percent of AID resources were used during 80 percent of the project life (May 1980 through December 1983), though funds were not made available until month six. The estimated GOES contribution to the project was \$1.45 million. MOH accounting and reporting practices do not permit the isolation of project-related expenses from regular government funds. Determination of counterpart budget inputs to date, therefore, has not been possible.

Table 17 itemizes the utilization of AID grant funds by project component. Three quarters of the urban health funds have been spent, including almost all of funds allocated for the salaries of the sanitation workers and health educators. Only 41 percent of the training monies have been used and no technical assistance has been acquired. In relation to service delivery, AID has spent approximately \$3.47 per tugurio resident per year and \$426.46 per tugurio per month of participation, through March 1983.

Less than one-third of the rural nutrition component funds has been expended to date. This obviously reflects the late start of component activities (with the first centers being opened in month 17) and the limited number and irregular operation of the centers. Initial startup activities for training and the purchase of materials and equipment (for 50 centers) have utilized proportionately more funds (64 and 56 percent respectively). Virtually no expenditures have been made for technical assistance, observation trips, and the mass media campaign. Through March 1983, AID has spent approximately \$292.30 per center per month of operation and \$61.20 per participating child per six-month period. These estimates do not include donated food commodities.

Staffing Patterns

At the local level, the project utilized six types of personnel in the urban health component and two types in the rural nutrition component. Backstopping at the regional level was realized by seven individuals and at the central level by essentially one person. Table 18 provides a very rough

indication of the average amount of time devoted to the project by these individuals. One-half of the personnel at the local level are working on a temporary basis. Nobody, with the exception of the regional health educator and possibly nutritionist, at the regional or central levels devotes more than 50 percent of his or her time to the project. While statisticians, warehouse managers, accounting personnel, and others have performed project-related tasks during the course of their normal duties, no administrative personnel have been assigned specifically to this multimillion-dollar project.

No systematic records have been kept by the project regarding human resource utilization. Without basic data on each individual's length of service, employment status, and job description, for example, it is very difficult to determine staffing patterns, turnover rates, and actual project costs. Regional reports and interviews have indicated high desertion rates among urban CHAs and rural nutrition center collaborators; sanitation workers have reportedly been a much more stable group. Indications are that the Ministry of Health will be hard pressed and highly unlikely to incorporate the key but temporary sanitation workers and educator promoters into its regular 1984 budget.

Training

The Project Agreement called for specific amounts of initial training and continuing education for the tugurio health teams (see table 4, compliance with special covenants). Although four times as much money (\$28,000) was provided for training within the rural nutrition component, training expectations were far less detailed.

The in-service training unit of the MOH (literally the School of Health Training or ECS) designed and conducted the initial training of regional personnel under the project. From October 6 to 24, 1980, a course was provided for five individuals from the central level and five from each Health Region (nurse supervisor, auxiliary nurse, sanitation supervisor, health educator, and primary care physician) in San Salvador. The main topic concerned community analysis and development. Also discussed were the training needs and curricula of the sanitation workers and community health aides, which would be conducted at the regional level.

In January 1981, a meeting was held between ECS and project officials to analyze the rural nutrition center manual, the training requirements, and corresponding responsibilities for training in this component. Task-oriented curricula were then developed for (1) training the rural nutrition center volunteer

staff, and (2) the regional personnel who would train them. A two-day session was eventually held at the school in mid-August 1981 to orient and motivate regional personnel concerning the proposed rural nutrition activities. In attendance were the nurse supervisor, health educator, nutritionist, sanitation supervisor, RHA supervisor, and statistician from each region as well as several people from the central level. This was followed by a two-week course to prepare the regional health educators, nutritionists, sanitation supervisors, and RHA supervisors to organize and conduct the training of the volunteers who would staff the centers.

The prescribed 10-day course for community health aides was conducted by the supervisors in each region for the initial group of 49 CHAs in November and December 1980. The CHAs serving the 34 tugurios incorporated into the project in late 1981 received no formal 10-day course. On-the-job training (OJT) only was given to the 33 initial and 30 phase II sanitation workers. In September and October 1981, the first 111 rural nutrition center volunteers were given 10-day courses by the regional staffs.

In spite of high turnover rates, no formal training of CHA or RNC volunteer replacements was planned or undertaken. Continuing education of field personnel has been informal through regular visits by regional supervisors. In some regions, two to three hour sessions were periodically held with the sanitation workers. Continuing education has not been provided for the regional staff, and the required annual retraining of all personnel has not been planned or realized. Inexplicably, the MOH in-service training unit, with its capable and willing instructors, has not been requested or given the resources to participate in any subsequent training activities. To date, only 60 percent of the training budget has been spent.

Supplies and Equipment

The availability of adequate pharmaceutical and medical supplies and equipment has not been a major complaint of the regional and field personnel. Most procurement was done during the first year and from local sources. Seventy-four percent of the funds for medicines and 60 percent of the funds for equipment and materials have been expended; largely in anticipation of a considerably larger number of urban and rural centers than is currently being attended.

A sizable amount of project materials and equipment, particularly for additional rural nutrition centers, remains in storage at the central warehouses. Current inventory reports,

requested by this consultant, were received for all central and regional warehouses and are on file at the USAID/HPN and MOH project offices. Leakage appears to be a serious problem with pharmaceutical supplies. Of the 15 medicines purchased in the United States, a quantity equal to 20 percent of their value is unaccounted for (see table 19).

Technical Assistance

The principal technical assistance to the project has been provided by the resident project adviser. Two local sociologists have filled this position from January to November 1981 and from February to September 1982. Their responsibilities were focused on community analysis and participation in both the urban and rural components. Two-thirds of the funds allocated for this position have been utilized.

None of the specified technical assistance funds have been spent as of March 1983. The proposed technical assistance for training and teaching manuals was provided by the MOH in-service training unit. RNC procedures manuals were developed by the Bureau of Technical Normative Services. It was reported that local teachers were briefly enlisted in the regions to assist in the development and use of materials for the psychomotor stimulation activities. Technical assistance in the form of anticipated coordination with the field agents of ISTA, DIDECO, the Ministry of Agriculture, and OCOPAN had reportedly been negligible.

Project Management

Direction, Coordination and Supervision

Overall responsibility for field implementation of the project is assigned to the Operative Service Bureau (OSB) of the Ministry of Health. The Regional Health Offices also report to and are supervised by this bureau. A project coordinator is named by the MOH to manage the project components and coordinate activities with the Human Resources, Technical Normative Services, and Administrative Services Bureaus of the MOH as well as with other GOES agencies participating in the project.

Administrative practices and decision-making within the Ministry of Health are highly centralized, and recent changeovers of key officials have affected the continuity of project implementation and management styles. Since the project was initiated, there have been at least four ministers of health, four directors of the Operative Services Bureau, and

four project coordinators. The directorship of several regional offices has similarly changed hands.

At the central level, a Project Committee was established to facilitate interbureau coordination. The committee, however, ceased to function in mid-1981. The nutritionists located within the MCH/FP/N Department of the Technical Normative Services Bureau played an early role in the design and development of the rural nutrition component. In October 1982, this nutrition section was transferred to the Operative Services Bureau. Except for the Project Coordinator, nobody has been assigned specific, continuing responsibilities with the project. The Project Coordinator has been assigned multiple (at least six) functions within the OSB and devotes less than 50 percent of his time to the project. No organized working group has been formed to effectively utilize the OSB technical manpower and support field activities.

Project support relating to procurement, supplies, personnel, and financial management is provided by the Administrative Services Bureau. The OSB has no administrative personnel or functions assigned to it. (Within the past several months, an office assistant has been assigned to reconcile the payroll sheets for sanitation workers with the records of the Personnel Division.) Overall project direction, coordination, support, and liaison between the field and the central level for both administrative and technical matters is essentially a one-half person operation. Supervision of field activities by the central office has been sporadic and, according to regional personnel, inadequate in light of the centralized decision-making practices.

Major responsibilities for ensuring effective interagency coordination and liaison with participating communities is assigned to the respective Regional Offices. Initial meetings were reportedly held with officials of ISTA and other agencies regarding the selection of rural nutrition center sites and participation in project activities. Effective or sustained coordination, however, did not filter down to the field level. The political situation did not permit open community involvement, through active committees, in many urban areas. Regional personnel, however, maintained constant though informal ties with community representatives. In rural areas the process of community analysis and organization was not planned or implemented well enough to promote effective community involvement.

At the regional level, project coordination and executive was primarily managed by the health educator, nutritionist, sanitation inspector, primary care physician, and the RHA

supervisor. Communications and relationships at this level have been generally good and effective. Supervision of subordinate personnel and field activities has been regular and beneficial, particularly concerning technical matters. The principal limitation to project support in the regions has been an inadequate and irregular provision of resources--operating funds, educational materials, food supplies, etc.--from the central MOH.

Management Information

An effective management information system for the project has not been developed. Information needs--to control resources, monitor activities, and evaluate performance--have not been defined. Data that is being collected at various levels is dispersed and not systematically channeled on a regular basis to project decision-makers for analysis and feedback.

Project activities and resources are being managed through a number of MOH technical and administrative offices within each of the four major bureaus. Each of these offices collects, or should collect, data essential to effective project coordination and support. Field activities are partially recorded on monthly summary reports, which are forwarded to the regional statistician and subsequently centralized together with other regional data in the MOH's Health Statistics Division. Special reports, often months in arrears, have been prepared for the Project Coordinator on request. Early in the project, the urban health reporting forms were reported to be ill adapted to program needs; the rural reporting forms were found to be too sophisticated for the RNC staff. Neither form was apparently modified. In the reports reviewed by this consultant, problems were encountered regarding operational definitions.

No reports that summarized project activities, personnel status, financial movement, supplies distribution, community involvement, or any other aspect of project operations is systematically and regularly received or analyzed by the Project Coordinator. When information is required for a specific purpose, common practice is to request a special report from the respective office. Project documentation in the OSB--correspondence, field reports, purchase orders, directives, activity plans, etc.--is filed collectively and chronologically in three large looseleaf notebooks: one for urban health, one for rural nutrition, and one general.

Financial Administration

The Ministry of Health was advanced \$200,000--in local currency--of AID grant funds in September 1980. These and subsequent disbursements to the MOH have been deposited in a bank account together with funds for two other foreign donor projects: the World Food Program and a human relations training project. The account is managed by the Administrative Director of the MOH. Use of project funds requires the approval of the Project Coordinator and follows normal procurement and payment practices of the GOES, with the exception that USAID must approve all contracts in excess of \$25,000 (\$US 10,000).

Trimester budgets are prepared by the Project Coordinator and approved by USAID. Vouchers, with corresponding receipts, are submitted monthly to USAID for reimbursement. The initial advance has been reduced to approximately \$45,000 at present. Accounting of AID grant funds is handled by a special bookkeeper within the Financial Accounting Division, who is responsible for all foreign donor projects. Financial status reports--including expenditures to date and balance available--are submitted with each voucher according to Project Agreement line items by component. Direct expenditures are also made by USAID/CON using Letters of Commitment (LCOM) and Project Implementation Orders (PIO).

GOES counterpart funds committed to the project are included in and managed in the same manner as the regular MOH operating budget. Project-related expenditures are not isolated or accounted for separately from the regular MOH objects of expenditure. No financial status reports of counterpart funding have been submitted to date to USAID or to the Project Coordinator.

Financial administration within the MOH is highly centralized, with all accounting and most procurement being done in San Salvador. Regional offices are given a small petty cash fund of about US \$1,000. Advances for special events, e.g., local training, are sometimes managed at the regional level. In anticipation of an administrative decentralization project--which has not been implemented--experienced administrators have been hired at each Regional Health Office. The MOH does have a base for decentralization, in that hospitals manage and account for their own funds, including fees for services.

Supplies and Equipment Management

Basic steps in the local procurement, storage, and distribution of medicines, equipment, and materials for the Health and Nutrition Project include:

1. The Project Coordinator sends a list of items to be purchased to the MOH Procurement Department.
2. The Procurement Department obtains bids, selects suppliers (together with the project coordinator), and places orders. A file is kept on each request.
3. The supplier(s) delivers merchandise to the designated warehouse (often a point of mixups), where the manager signs and seals the supplier's invoice as evidence of receipt of goods. No report of the quantity and condition of goods received is made. Three separate warehouses--Central, Candelaria (family planning) and Matazano--are used by this project. Each has its own card system for inventory control which appears in order. Very few, if any, physical checks are made by anybody to corroborate inventories and control cards, however.
4. The supplier's invoice is subsequently and routinely signed and sealed by the procurement officer--apparently a check against what was ordered--and the project coordinator--apparently a check against what was requested--before being sent to the MOH Financial Accounting Division where payment is made. At no point is a consolidated record kept comparing goods requested, ordered, and received. The only way to find out what has actually been purchased is to review one-by-one the invoices at the Accounting Division. The only way to know what was actually received is to review each warehouse's inventory cards. Fortunately, these are grouped according to project.
5. The Project Coordinator sends a list to the warehouse manager of quantities of goods to be distributed to each Health Region. These are then transported with shipping orders by the MOH.
6. Goods are received and entered on individual cards by regional warehouse managers. The shipping orders are signed and sealed for verification. No separate report of quantities and condition of goods received is made. Distribution to clinics and rural centers is

made by the regional project supervisor and proceeds in similar fashion. Very few, if any, physical checks are made to corroborate inventories and control cards.

The 15 medicines purchased in the United States were requested by USAID/HR/HNP via two PIO/Cs. SER/COM in Washington placed the actual orders. Several problems were reported concerning these transactions, including (1) changes in substance and quantities without prior consultation with field; (2) over-and underorders; (3) changes in dosages and form of delivery; (4) very short expiration dates; and (5) inadequate communication regarding snipping means, destinations, and ETAs. Upon arrival, these medicines were retrieved from customs by the MOH, entered into the MOH warehouses, and distributed according to the above procedures. Receipt of the initial shipments was duly acknowledged by the project coordinator. No record was found of subsequent goods received.

The following are observations resulting from an audit this consultant undertook of the medicines purchased in the U.S. (table 19 provides statistical details). Vouchers were reviewed at USAID/CON to ascertain quantities and costs of purchases. Special reports were requested and received from all regional warehouses regarding all medicines (as well as equipment, materials, and foodstuffs) received for the project. Reports of goods received and dispatched from the central warehouse were also requested; two of the three complied. Site visits were made to two central and two regional warehouses.

1. Less than 55 percent of the following medicines have reached the Regional Health Offices: ampicillin tablets, ampicillin liquid, injectable penicillin, chlorphenyramine tablets, phenobarbital-belladonna, and diazepam tablets.
2. Considerable amounts of ampicillin tablets and liquid, chlorphenyramine tablets, phenobarbital-belladonna liquid, and diazepam (Valium) tablets are unaccounted for according to the reports received.
3. The total value of the medicines unaccounted for--of those purchased in the U.S.--is at least \$51,890. This represents 19.4 percent of the total expended for these medicines.
4. The MOH has not formally acknowledged the receipt of all medicines. In one case--ampicillin tablets--it appears that part of the medicine distributed did not

pass through the family planning warehouse. It was reported that some initial shipments were received in the MOH's central warehouse, where they were entered in as regular MOH stock and not by project, and transferred later to the family planning warehouse. No records or reports were available as to quantities entered, dispatched, or presently in stock at the central warehouse.

5. Distribution of medicines to the region appeared to be somewhat arbitrary, perhaps due to disruption of transportation means. Nevertheless, the Para-Central Region reported receiving no penicillin G or chloromycetin ophthalmic ointment; the Central Regional Office reported receiving no chlorpheniramine syrup, phenobarbital-belladonna, or chloromycetin ophthalmic ointment (one pint bottle of phenobarbital-belladonna was observed on the warehouse shelf, however); and the Eastern Regional Office reported receiving no phenobarbital-belladonna.
6. In three cases--erythromycin tablets, dimenhydrinate tablets, and chlorpheniramine syrup--the regional warehouses have reported receiving a combined amount greater than what was purchased.
7. Dimenhydrinate was listed by the central warehouses and all Regions in units of 100s, whereas purchase and delivery was made in bottles of 1,000. This was confirmed by observation in one warehouse. However, this would mean that partially filled, opened bottles were received in all regions.
8. Phenobarbital-belladonna was listed only as "elixir antiespasmodico, fco. de 1 pinta" on regional inventory reports. There was often another entry of "elixir antiespasmodico" in gallons, which was presumed to have been purchased locally. No similar entry, however, was contained in the family planning warehouse report.
9. Diazepam was listed by all regions in units of 100s, whereas purchase and delivery was made in bottles of 500. This indicates that the Para-Central Region received at least one opened, partially filled bottle.

Food Distribution

The P.L. 480 Title II Emergency Food Program (519-0609/2610) is managed by the GOES Community Development

Agency (DIDECO), a dependency of the Ministry of Interior. Shipments are received at the port of Acajutla and are transferred to either the central warehouse facilities at Zapotitan, west of Santa Tecla, or the San Bartolo warehouse, in the outskirts of San Salvador. The latter warehouse will be closed within several months when expansion of the Zapotitan facilities is completed.

According to the Project Paper, DIDECO was to transport sufficient quantities of food--based on standard rations--to the MOH distribution points, serving both the rural and urban centers, within each region. From these points--often the nearest MOH health facility--the rural communities would be responsible for transporting the food to their respective centers. No precise arrangements were indicated for the urban CHAs who were to receive food incentives. In practice, the procedure developed as follows:

1. The Project Coordinator prepares and sends a commodities request to the Food Division of DIDECO. Requests are prepared on a trimester basis but have often been submitted during the first month of the period in question. The requests break quantities down by region and project component and provide estimates of the number of children or adults to be served.
2. The DIDECO Food Division then prepares five dispatch orders--one for each Health Region--drawn on one of the two warehouses depending on available stocks. These orders are returned to the Project Coordinator, reportedly within five to 10 days.
3. The MOH arranges for pickup and transportation of the food from the DIDECO warehouses to the distribution points. Contrary to the responsibilities cited in the Project Paper, this was the arrangement reached between DIDECO and the former project officials. No supporting documentation or decision was found in the project records. DIDECO officials indicated that the agency did not have the means to transport these commodities.

Tables 20 and 21 present the quantities of food commodities requested by the MOH, released by DIDECO, and received by the Health Regions. According to available records, the amount of food released or dispatched by DIDECO has been only 54.3 percent of that requested by the Project Coordinator. DIDECO officials indicated that the MOH requests were often

miscalculated and had to be changed. No record of these changes were found in the project documents.

4. Most commodities were transferred to the regional warehouses of the MOH; for convenience and to save costs, were delivered directly to the field distribution points. All such pickups and deliveries were recorded on the inventory cards of the regional warehouses. Special reports prepared by the Health Regions indicated that the regional warehouses have received a combined total of more food (106.5 percent) than what was dispatched by the DIDECO warehouses. This total, however, was less than 60 percent (57.8 percent) of what was initially requested.
5. Food commodities were delivered to the field distribution as transportation became available. Reportedly, this was usually accomplished within two weeks. From there, delivery to the rural centers was handled by the cooperative of the hacienda, MOH field supervisors, or local transportation as the specific situation permitted. No records are kept centrally or regionally on the quantities received and dispatched at the intermediate distribution points or eventually received by the rural nutrition centers or urban clinics.

Total food commodities available from DIDECO were reported to be more than adequate to meet the demands of the project. Inventory control and administrative procedures within DIDECO, as they affect this project, appear to be adequate. Irregular and inadequate supplies of food commodities, however, were reported by regional personnel to be among the major factors hindering project implementation, not only for the supplementary feeding of children but as necessary incentives for the RNC collaborators and urban CHAS.

The central MOH has not been able to provide adequate logistics support to the project in terms of food supplies. Also, an information system has not been devised to effectively monitor the supply and distribution of food commodities. Other than the project coordinator, no person has been assigned the responsibility of monitoring and controlling project supplies of food, medicines, equipment, or materials from acquisition through field distribution.

Project Goal and Purpose

Initial Situation

The goal and purpose of the project, as expressed in the Project Paper and subsequent Project Agreement, point a direction but do not explicitly identify tangible indicators that might be measured. They refer to developing and supporting primary health care and self-help activities that would improve access to health, nutrition, and sanitation services for low-income Salvadorans in marginal urban and rural areas, thus improving health and nutrition status.

No initial study was undertaken to establish baseline indicators of health status or the level of services available at the onset of the project. Nor was it determined how and to what degree this limited project was to significantly affect low-income Salvadorans in general. As originally proposed, the project was to reach 150 of an estimated 500 tugurios nationwide and approximately 4.6 percent of rural children, two to five years old. Also there were no management systems improvement or specific replicability objectives to the project that would conceivably contribute to achieving the broad goal.

The Project Paper described tugurio conditions as overcrowded and rapidly worsening. Housing was insubstantial and tenure nonexistent; water and sanitation capabilities were inadequate. The political and social upheaval of the past several years has contributed to an increase in the number of displaced persons and this was an acknowledged motivation behind the project. The tugurios, however, have for decades been a dubious outlet for the economic plight of the predominant rural population, where an estimated 75 percent of the children, two to five years old, are malnourished and a third or less of the people have access to adequate water supplies.

Current Status

In a parallel evaluation report, the MOH Operative Services Bureau, with technical assistance from this consultant, has attempted to approximate the social impact the project has had on the target population. Apart from the specific services provided during the past two years, an effort was made to assess the attitudes and opinions of tugurio residents towards project activities. (A similar assessment of impact in rural areas was not done due to the lack of sufficient time). Given the lack of baseline data and an adequate control group, an assessment of impact on health status was not possible. The survey did, however, explore such areas as community

organization and nonhealth activities which were promoted by the health personnel and could conceivably contributed to eventual community improvements.

A sample of 24 tugurios was selected with characteristics similar to the total number of tugurios served by the project (see Appendix F). Interviews were conducted with members and/or former members of the local health committees or knowledgeable residents. It was found that nearly 80 percent (79.2 percent) of the sampled tugurios had some form of organized and representative group that collaborated with health workers. For the most part these groups were promoted or revitalized by the regional health personnel. Almost two-thirds (63.2 percent) of the organized groups raised and managed money and other community resources.

In more than 90 percent (91.7 percent) of the tugurios visited, relationships with health workers were considered by the residents to be good. The workers having most impact on the residents were the sanitation inspectors (cited in 62.5 percent of the tugurios), auxiliary nurses, and education promoters (54.2 percent each), more than 80 percent (83.3%) of the groups interviewed felt that health problems in the community had diminished as a result of the program. While aware of changes in morbidity (seasonal variations in diarrheas, colds, and malaria, for example), this judgment was probably based more on a satisfaction with services provided--sanitation and education activities were often cited as being beneficial. Asked to name the most positive aspects of the program, the residents indicated sanitation (54.2 percent), medical attention (41.7 percent), and vaccinations (33.3 percent). The most negative aspects of the program were considered to be insufficient technical assistance (29.2 percent), lack of medical attention (20.8 percent), and lack of medicines (16.7 percent).

One of the most significant benefits or outcomes of the project, perhaps, is the impact the health workers have had in terms of organizing and uniting community residents for various kinds of self-help projects. In more than 90 percent (91.7 percent) of the tugurios the residents felt that the community relationships and activities had improved due to the health program. Eighty-three percent of the tugurios had become involved in three or more of the following activities: recreation, improvement of streets, treatment or elimination of rubbish, construction and use of latrines, and improvements in housing.

Finally, it should be noted that political unrest in San Salvador, San Vicente, and the Eastern Health Region have made

overt efforts at community organization inadvisable for the present. However, community health workers, for the most part, have been able to gain the trust and support of community residents in both urban and rural areas, where workers from other government agencies have often been suspect.

III. CONCLUSIONS

CONCLUSIONS

Urban

The urban health component has, under the circumstances, been relatively successful. The activities for improving environmental sanitation within the tugurios have been beneficial, well received, and have stimulated community involvement. The overall value of the clinical services is less because they were provided only two half-days per week and because of the proximity of other urban health facilities. The communities have valued the efforts of the auxiliary nurses, sanitation workers and health educators. The volunteer status of the community health aides (CHAs) has caused high turnover and limited their participation. The political situation has denied covert efforts at community organizing, particularly in the Eastern, Para-Central and Metropolitan Regions. With adequate resources for sanitation and education personnel, sanitation equipment, and education materials, these activities could effectively be expanded to additional marginal areas.

Rural Nutrition Centers

The development of the rural nutrition component has been hampered by centralized, politically motivated planning, an inadequate process of community organization, and deficient administrative support. Seasonal migrations and political disturbances have caused limited and irregular operations in some regions. The overall level of services--number of centers established and types of services provided--has been considerably less than anticipated. Nevertheless, the nutrition center concept has good potential if the above constraints are reduced and adequate resources are committed. The types of services to be offered--nutrition surveillance, supplementary feeding, psychomotor stimulation, primary care and referrals, community organization, etc.--require a corresponding level of technical and administrative skills of the people responsible. The young, minimally trained and essentially volunteer staff has not provided the stability or capabilities or inspired the confidence of the community (mothers) to the degree necessary for sustained effectiveness.

Emergency Feeding Support

DIDECO appears to be well-organized and efficient in managing the Emergency Feeding Program (P.L. 480 Title II commodities). The food support system has been weak in terms of MOH/OSB distribution and control of food supplies. Shipments reaching the field have been irregular and

insufficient. No information system has been established to monitor food movement and utilization. None of the funds provided to DIDECO under this project have been used in direct support of project activities.

Project Management

The basic design and organizational setting of the project within the Ministry of Health structure is adequate and logical; however, current management practices are overcentralized, inadequately controlled, and have significantly decreased effective implementation. Responsibility for the execution of both the urban health and rural nutrition center components of the project lies with the Regional Health Offices; administrative support functions have been assigned to the respective, but dispersed, MOH units; initial training was designed and executed by the Human Resources Bureau; overall direction and coordination was assigned to the Operative Services Bureau (OSB).

In practice, project decision-making affecting many routine as well as strategic matters, has been concentrated in the person of the Project Coordinator, who is also charged with managing at least six other permanent projects or functions within the OSB. There is no functional supervisory group within OSB or delegation of responsibilities. Regional staff are competent and motivated but have participated minimally in planning project activities and are hampered by inadequate and irregular supplies--despite the availability of resources--and the lack of timely clearances from the central ministry.

Management information needs have not been defined and data which is collected is dispersed throughout the Ministry. There are no regular control mechanisms by which the coordinator can efficiently and in a timely manner track the utilization of project resources and the advancement of project activities. Supervision of field activities by the central level was found to be minimal; supervision by regional personnel has been good and on a regular basis.

Training

The existence of demonstrated training needs in both the urban and rural components, together with a significant balance of unused funds for training, is cause for concern. Regional Health personnel have indicated a need for periodic continuing education in technical, administrative, and community organization matters. High turnover rates among CHAs and rural MCH/N center collaborators have occurred without benefit of a program of replacement training. The continuing education for

all personnel, which was called for in the Project Agreement, has not taken place. The in-service training unit of the MOH has a very capable and motivated staff but lacks the resources to accomplish its mission.

Community Participation

Active community participation is essential to a lasting and effective primary health care program. Tugurio residents have definitely accepted and been involved in various phases of the urban health and sanitation activities; community involvement in the rural areas has been minimal and inadequately promoted. Political unrest and tension has limited an open process of community organization and public meetings in the majority of tugurios. The decision to work with the agrarian reform program (ISTA) and hacienda cooperatives has hindered the development and implementation of an effective process of organization and leadership training in rural communities.

Community participation does not just happen. It requires a patient but planned process--with adequate staff training and coordination--to identify and analyze community needs and arrive at mutually accepted expectations and activities. The opportunity currently exists in many urban and rural areas to develop and implement such a process, which would benefit this particular project and future health and development activities.

Politics and Health Programming

The current political disturbances--including constraints on free association and geographic mobility and unpredictable acts of violence--were not found to be sufficient cause for discontinuing any of the project's activities; nor would it be advisable to use this or other health projects for political purposes, i.e., "winning the minds" of the people. The political situation, as it is referred to locally, is a fact of daily life with which health officials and field personnel have learned to deal. Regional field staff, while vulnerable to both sides in the conflict, have demonstrated that they are capable of working effectively--perhaps more than any other GOES agency--under these conditions and gaining the confidence of the people they serve.

The key to successful program implementation is that the regions be given the flexibility--resources and authority--to adjust in a timely manner as they arise. Centralized administration and political interference are not conducive to effective and efficient project implementation under these constantly changing and often delicate circumstances. The

issue is not only when to hold back, but being able to adapt and move forward when an opportunity is present. This can only be determined in the field. The association of health personnel with political or military activities would seriously jeopardize their safety and effectiveness, and undermine any process of community organization.

IV. RECOMMENDATIONS

RECOMMENDATIONS

The following recommendations are based on several fundamental criteria:

1. In the eight remaining months, project resources should be directed towards activities that respond to priority health needs, are politically and technically feasible, and contribute to long-term sector strategies.
2. Project success is considerably enhanced if those charged with its implementation are directly involved in the programming and administration of project resources.
3. Community organization for health is not only essential, but requires a systematic and patient process built on mutual respect.

General Recommendations

Urban Health

Health promotion and disease prevention activities, particularly concerning environmental sanitation, should be strengthened. Primary care through current clinics should be maintained but not emphasized. Sanitation and education activities could be expanded to new urban areas (tugurios) if supported by adequate resources. Systematic and direct involvement in community organization should be promoted in the Western and Central Regions.

Rural MCH and Nutrition Centers

The opportunity should be seized to make a concerted effort at developing a thorough but pragmatic strategy and methodology for facilitating community organization and active participation in rural areas. The nine currently functioning rural MCH/N centers--to the extent that political unrest permits (particularly in the Eastern Region)--plus 16 reincorporated centers should receive increased material, technical, and financial support in their efforts to improve health and nutrition levels, stimulate early childhood development, and promote effective development practices in general.

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Regional Decision-Making

Commensurate with their responsibility to implement project activities, the Regional Health Offices should be given the authority to program and administer related project resources. Funds made available for projects that support the community organization and development process should be programmed jointly with community leadership.

Information Management

The collection and recording of essential management information should be consolidated to facilitate more effective and timely monitoring of project activities, control of resources and ultimately the evaluation of project achievements. Program data should be readily available for analysis at both the regional and central levels. Due to the limited time remaining in the project, current information systems should not be redesigned, but flows should be altered to accommodate consolidated tabulation and efficient retrieval.

Project Coordination

The Ministry of Health should seriously consider reducing the number of responsibilities currently assigned to the Project Coordinator. Under present conditions he is overextended and has too little contact with field activities to be an effective manager. More time and attention is needed to control and maximize project resources for supervision and for internal and external coordination.

Central Support

It is strongly felt that improved management and effective backstopping of project activities would be enhanced by forming an active and functional support team within the Operative Services Bureau. Sharing the overall responsibility for project support would help to alleviate the overburdening of one individual and take advantage of the knowledge and capabilities of others. Specific responsibilities should be defined for the nutritionists, graduate nurse, social worker, and administrative specialist in regard to the decentralized nature of project programming and execution. Adequate resources, opportunities, and procedures should be available for supervision, consultation, monitoring, and evaluation of field activities. Team meetings, chaired by the Project Coordinator, need to be held on a regular (at least biweekly) basis.

Management Training

To improve management practices in general, it is recommended that the Ministry of Health, through its in-service training unit, design and conduct a series of continuing management seminars for all senior unit, project, and regional directors. Such seminars should include practical management techniques and procedures and the design and use of appropriate information systems. For increased participation and applicability they should be conducted at the regional as well as central MOH offices.

Continuing Education

It is strongly recommended that in the remaining months of the project a specific program of continuing education be designed and executed by the MOH in-service training unit for regional and field personnel. Topics should cover technical, administrative, and community involvement aspects of both components and should be defined with full participation of the regional staff. These seminars and workshops should be conducted primarily at the regional level.

Specific Recommendations

1. Funds should be provided to continue the employment of the 63 sanitation workers through December 1983.
2. The sum of \$500 per tugurio should be allotted as matching support funds for community sanitation projects including the replacement of equipment.
3. An amount equal to \$100 per tugurio attended should be made available to each Health Region to support community education activities.
4. Additional funds for medicines and supplies should be allotted for each of the current clinics. These funds should become available once the MOH conducts an audit of previous medicines, equipment, and food acquired and distributed and has accounted for losses.
5. A full-time adviser should be hired for the remainder of the project to work closely with regional health staff in designing, testing and documenting a community organization process appropriate for the rural MCH/N centers. He or she should also be involved in designing and conducting related staff and community leadership training.
6. A three-day workshop, conducted by two specialists in community organization and leadership training for health, is recommended to initiate and orient local personnel in developing a systematic community organization process.
7. The five regional education promoters currently working in the tugurios should be reassigned to the rural MCH/N centers to promote and implement the community organization process. Five additional promoters should be hired to facilitate the process in the 16 additional centers.
8. It is recommended that an incentive bonus be paid to the collaborators of each center: \$100 per month to the principal and \$75 per month to each assistant to promote quality and stability.
9. Funds should be made available for continued training, community education, and basic medicines and supplies in support of the rural MCH/N activities.
10. Matching funds up to \$500 per center should be made available to support the community organization and development process. These should be programmed and

administered jointly between regional project staff and community leadership.

11. A full-time management specialist should be hired to coordinate data collection, tabulation, and analysis at the central level and advise Regional Offices on information management as it pertains to this project. In addition to conducting the retrospective audit of medicines, equipment, and food supplies, he or she would consolidate past and future information regarding project activities, personnel, counterpart expenses, logistics control, and other management needs.

SUGGESTED REVISED BUDGET (AID)
APRIL - DECEMBER 1983 (US\$)

Urban Health Component

Project management consultant, 50% at 1,000/mon. x 7 mon.	\$ 3,500
Sanitation workers, 63 at 100/mon. x 9 mon.	\$ 56,700
Continuing training (Sanitation, CHA's and regional personnel)	\$ 10,000
Sanitation project support, 83 tugurios at 500	\$ 41,500 #
Community education support, 83 tugurios at 100	\$ 8,300 #
Medicines and supplies, 31 clinics at 400/mon. x 7 mon.	\$ 86,800 *
Contingency (approx. 3%)	\$ 6,200
Total component	<u>\$213,000</u>
Unprogrammed	<u>\$ 33,878</u>
Component balance as of 31 Mar/83	\$246,878

* To be made available when MOH conducts an audit of medicines, equipment materials and food, and accounts for losses.

Rural MCH and Nutrition Centers (RNC)

Community Organization consultant, 1000/mon. x 7 mon.	\$ 7,000
Project Management consultant, 50% at 1000/mon. x 7 mon.	\$ 3,500
Technical Assistance in community organization and training	\$ 4,000 **
Education promoters, 5 at 260/mon. x 9 mon.	\$ 11,700
Education promoters, 5 at 260/mon. x 7 mon.	\$ 9,100
Community RNC collaborators, 9 centers at 160/mon. x 9 mon.	\$ 12,960
Community RNC collaborators, 16 centers at 160/mon. x 9 mon.	\$ 17,920
Training (regional personnel, collaborators, and community leaders)	\$ 15,000
Education materials, and manual development	\$ 6,000 #
Matching funds for community projects, 25 RNC at 500	\$ 12,500
Medicines and supplies, 25 RNC at 300	\$ 7,500 #
Contingency (approx. 3%)	<u>\$ 3,820</u>
Total component	\$111,000
Unprogrammed	<u>\$ 62,833</u>
Component balance as of 31 Mar/83	\$173,833

** Three-day workshop by 2 specialists in community organization process and leadership training for health.

These funds to be programmed and administered at the regional level. Funds for community projects in support of the community organization process should be programmed jointly with community leadership.

Project balance as of 31 March 1983	\$420,711
Revised project budget (AID grant funds)	<u>\$324,000</u>
Unprogrammed balance	\$ 96,711

APPENDICES

APPENDIX A

STATEMENT OF WORK

Objective

The objective of the proposed contract is to provide the Government of El Salvador and A.I.D. with a mid-project evaluation of the management and effectiveness of the Urban Health and Rural Nutrition components of the Health and Nutrition Project 519-0253.

Scope of Work

Working under the guidance of the USAID Human Resources and Humanitarian Affairs office and the Ministry of Health, the contractor will undertake the activities described below and prepare a final evaluation report which assesses project performance to date and recommends modifications to the project, including termination of certain activities if appropriate.

A. Urban Health

Compare accomplishments with proposed activities in the areas described below:

1. Mobile Health Teams
 - Location and frequency of visits,
 - Type and volume of services provided,
 - Type and volume of medicines provided.
2. Environmental Sanitation
 - Type of equipment provided,
 - Type and volume of completed and
 - Frequency of inspections.
3. Administration
 - Type and amount of equipment and medicine purchased and its distribution
 - Budget preparation and execution.

B. Rural Nutrition Component

Compare accomplishments with proposed activities in the areas indicated below:

- number and location of centers,
- volume and types of beneficiaries and methods of selection,
- amount and nature of compensation given to rural nutrition center collaborators,
- frequency and nature of coordination between ISTA and the MOH
- volume and nature of assistance received by beneficiaries,
- impact of program on beneficiaries' nutritional status

Methodology

The evaluation methodology will include, but not be limited to:

- A. Review of official project documentation and correspondence.
- B. Critical review of periodic reports prepared by the MOH
- C. In-depth interviews of central, regional and local project implementation staff.
- D. Sufficient site visits to gather adequate information for assessing project implementation.
- E. Review of the project audit report to be available on or about March 25, 1983.

Reporting Requirements

- A. Within three days of arrival in El Salvador the contractor will present to USAID and the MOH for review and approval a draft outline of the final report.
- B. The contractor will present to A.I.D. and the MOH three copies of the draft final report in English three days prior to completion of services.
- C. The contractor will present to A.I.D. 10 copies of the final report in English within two weeks of completion of services.

Qualifications

The consultant shall be fluent in Spanish and experienced in evaluation of health programs in Latin America.

Level of Effort

The consultant shall spend 19 consecutive days in El Salvador. A six day work week is authorized. Service should begin on or about April 11, 1983.

APPENDIX B: LIST OF PRINCIPAL PERSONS CONTACTED

MINISTRY OF PUBLIC HEALTH - Operative Services Bureau

Dr. José Antonio Pereira	- Coordinator, Health and Nutritional Project
Dr. Roberto Rivera	- Medical Collaborator
Sra. Maribel de Tobar	- Nutritionist
Sra. Rosa Emilia de Ceballos	- Nutritionist
Sra. María del Carmen Perez	- Social Worker

Administrative Services Bureau (MOH)

Sra. Dina Marta de Leiva	- Chief, Financial Accounting Department
Sra. Belardina de Henriquez	- Control, Donated Funds
Sr. Orlando Rubio Rodriguez	- Chief, Procurement Department
Sr. Luis Alonso Palacios G.	- Manager, Family Planning Warehouse
Sr. Amilcar Guardado	- Manager, Central Warehouse

In-Service Training Unit (MOH)

Srta. Ely Lopez	- Instructor, Teacher Training for Rural MCH/N Center Supervisors
Sr. José Antonio Rodriguez	- Instructor, Community Development for Urban Health Supervisors.

PARA CENTRAL HEALTH REGION

Sr. Ramón Zaldivar	- Health Educator
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METROPOLITAN HEALTH REGION

Dr. Luis Ochoa Gómez	- Regional Sub-Director
Sr. Cecilio Andrade	- Supervisor, Sanitation Inspectors
Lic. Fernando Kreitz	- Health Educator
Srta. María Mercedes Castillo	- Education Promotor
Lic. Concepción de Flores	- Nutritionist
Sr. Samuel Zelaya	- Warehouse Manager

CENTRAL HEALTH REGION

Dr. Juan José Contreras	- Regional Director
Dr. Mauricio Durán	- Medical Supervisor
Sra. América Ramirez de Duarte	- Health Educator
Sr. Gustavo Padilla Vela	- Nutritionist
Srta. Cándida Rosa Regalado	- Auxiliary Nurse
Sr. Luis Antonio Morataya	- Warehouse Manager
Sr. José René Dominguez	- Supervisor, Rural Health Aides
Sra. Elena Vega de Ayala	- Auxiliary Nurse

APPENDIX B (continued)

Hacienda San Lorenzo (Rural MCH/N Center)

Sr. Saúl Menjivar - Rural Health Aide
Coordinator, 4 collaborators, several mothers, three members of
the Directorate of the Coopeative.

Hacienda Chanmico (Rural MCH/N Center)

Srta. Rosa Esperanza Pineda - Rural Health Aide
One member of the Directorate of the Cooperative.

Colonia Santa Eduvigis (Tugurio)

Sr. Doroteo Arnulfo Gonzalez - Resident, Sanitation Worker

WESTERN HEALTH REGION

Dr. Federico Hernandez Pimentel - Coordinator, Primary Health Care
Lic. Daniel Mendez - Nutritionist
Sr. Manuel de Jesús Aquino - Education Promotor
Sr. Juan Antonio de León - Supervisor, Rural Health Aides

Colonia La Fortaleza, First Section (Tugurio)

President, Treasurer, and Community Health Aide

COMMUNITY DEVELOPMENT AGENCY (DIDECO)

Ing. José Rodolfo Montufar - Director General
Sr. Arnulfo Sandoval - Manager, Food Division
Sr. José Antonio Ayala Guevara - Manager, Zapotitán Warehouse
Sr. Juan Gerónimo Anaya - Manager, San Bartolo Warehouse

USAID/EL SALVADOR

Mr. Martin Dagata - Mission Director
Dr. John Massey - Acting Chief, HR/HA
Dr. Guillermo Toledo S. - HNP Officer, HR/HA
Srta. Ingrid Serrano - CON
Ms. Lorraine Simard - Acting DPPO (MEO)
Sr. Horacio Rodriguez M. - Acting FFP Officer

Related Contacts

Lic. Alberto Salzar - Former Project Advisor
Dr. José Raúl Moran - Former Director, Operative
Services Division
Sra. Yolanda de Herrera - Former Project Manager, USAID/ES
Sr. Edgar Ramón Santos - Auditor, Castellanos Cea Campos
y Cia.

Appendix C

Table 1: Selected health and related indicators

Total Population (000's):	4,540 (1980); 4,617 (1982) #
Population (1981) in Age Group:	(0-14) 45.1%; (15-64) 51.9%; (65+) 3.0% #
Population in Urban Areas:	(1969) 39%; (1978) 40% #
Total Land Area:	21,400 sq. km. (8,300 sq. mi.)
Population (1982) Density:	216/sq. km. (556/sq. mi.)
Population Density/Agriculture Land:	356/sq/ km. (919/sq. mi.) #
Life Expectancy at Birth (1981):	Total 63.9; Male 62.1; Female 65.8 #
Crude Death Rate (1979):	7.4 per 1,000 population *
Infant Mortality Rate (1979):	53 per 1,000 live births *
Maternal Mortality Rate (1977):	8.6 per 10,000 live births *
Crude Birth Rate (1979):	39.2 per 1,000 population *
Population Growth Rate:	(1975) 2.8%; (1982) 1.6% #
Principal Causes of Mortality (1974):	Enteritis, Diarrheal Diseases 13.3% * Accidents, Acts of Violence 10.2% *
Principal Causes of Reported Morbidity:	Enteritis, Diarrheal Diseases 53.9% Respiratory Illness 18.4% Malaria 18.0%
Principal Causes of Hospitalization:	Deliveries and Complications 20.6% Enteritis, Diarrheal Diseases 7.5%
Proportion of Populaton (1979) with Easy Access of Water Supply Services:	Total 48%; Urban 67%; Rural 34% *
Number of Physicians (1979):	2.9 per 10,000 population *
Number of Nurses (1980):	3.8 per 10,000 population *
Number of Nurse Auxiliaries (1980):	7.7 per 10,000 population *
Adult Literacy Rate:	Total 61%; Urban 77%; Rural 47%
Total School Enrollment as % of Population (1979) in Age Group:	Primary 82%; Secondary 26% #
Per Capita GNP (1981):	US \$640 #
National Income Received by Low 20% of Population:	5.8% (1977) #
Proportion of Labor Force in Agriculture	50% (1980) #

Sources: USAID/El Salvador/HR

Agency for International Development, "FY84 CP Economic and Social Data"

* Pan American Health Organization, Health Conditions in the Americas, 1977-1980, Scientific Publication No. 427 (1982).

Table 2: Distribution of population and health establishments
by Departments and Health Regions, 1980

Department Health Region	Population (000's)	MOH Health Establishments*	Population per Establishment
Ahuachapán	224.9	14	16,064
Santa Ana	405.1	24	16,879
Sonsonate	305.2	12	25,433
Western Region	(935.2)	(50)	(18,704)
Chalatenango	204.5	30	6,817
La Libertad	371.4	24	15,475
Central Region	575.9	(54)	(10,665)
San Salvador	1,050.3	26	40,396
Metropolitan Region	(1,050.3)	(26)	(40,396)
Cuscatlán	182.3	12	15,192
La Paz	227.5	18	12,639
Cabañas	154.3	8	19,288
San Vicente	186.0	11	16,909
Para Central Region	(750.1)	(49)	(15,308)
Usulután	358.6	20	17,930
San Miguel	406.7	26	15,642
Morazán	181.6	21	8,648
La Unión	281.1	22	12,777
Eastern Region	(1,228.0)	(89)	(13,798)
Totals	4,539.5	268	16,938

* Includes: Health posts, health units, health centers, and hospitals.

Sources: Ministry of Health, 1980 (establishment data)
Ministry of Planning, December 1979 (population data)

Table 3: Compliance with conditions precedent

Pro-AG Requirement	Observations
Opinion of counsel certifying the validity and legality of Pro/Ag (prior to first disbursement).	Certified by MOH on June 6, 1980; approved per LOI #2 of July 2, 1980.
Certification of person acting in the office of GOES (prior to first disbursement)	LOI #2 of July 2, 1980 names Minister of Health. Four Ministers have held office during project (thru April 1983).
Appointment of Project Coordinator within Ministry of Health (prior to first disbursement).	Ministerial Resolution #84 of March 20, 1980; approved per LOI #2 of July 2, 1980, Project Coordinator has been changed four times, and presently devotes 50% of his time to the project.
Establishment of Project Committee within Ministry of Health (prior to first disbursement).	Ministerial Resolution #84 of March 20, 1980; approved per LOI #2 of July 2, 1980, Project Committee met sporadically during first year then ceased to function; no minutes of meetings were found.
Agreement between Ministries of Health and Interior setting forth intended use of funds and an illustrative budget (prior to disbursement of Emergency Feeding Support funds).	Agreement signed on June 11, 1980; approved per LOI #3 of July 24, 1980. These funds have been used to support the activities of AID/DIDECO project 519-0609/2610, Marginal Urban Communities, and have provided no direct benefit to the Health and Nutritional Project.
Provision of list of 65 communities for rural MCH/N centers and name of collaborator by DIDECO and CENTA (prior to disbursement of MCH/N centers component funds)	Provided by MOH on June 6, 1980 (CENTA = 37, ISTA = 28); approved per LOI #2 of July 2, 1980. Of the 24 centers eventually opened (after December 1981), only three appeared on the original list.

Table 4: Compliance with special covenants

Pro-AG Requirement	Observations
Establishment of evaluation program for project, including: - attainment of objectives - identification of problem areas - utilization of evaluation information - overall development impact.	Detailed plan presented by MOH on June 6, 1980; approved per LOI #2 of July 2, 1980. The plan, however, was never implemented and no supporting information system was developed. Project reporting has been sporadic.
Provision of 10 hours training in urban health problems and community development for: - physician - auxiliary nurse - sanitation inspector	Reconfirmed by MOH per LOI #2 of July 2, 1980. Training in community development given October 6-24, 1980 for physician, nurse, auxiliary nurse, sanitation inspector, and health educator from each of five regions.
Provision of two weeks training for sanitation workers	Reconfirmed by MOH per LOI #2 of July 2, 1980. Orientation and in-service training by supervisors in each region; no formal initial training.
Provision of two weeks training for community health aides.	Reconfirmed by MOH per LOI #2 of July 2, 1980. Ten days initial training for first group of CHA's only; orientation but no formal initial training for replacements.
Continuing education for sanitation and urban health workers, one day per month.	Reconfirmed by MOH per LOI #2 of July 2, 1980. Continuous in-service training through supervision; no formal schedule of classes.
Retraining of all personnel after one year.	Reconfirmed by MOH per LOI #2 of July 2, 1980. No retraining of regional staff; no formal retraining of field workers, though continuous supervision by regional staff and training of field replacements did occur.

(continued)

Pro-AG Requirement	Observations
MOH to pay salaries and training of physicians, auxiliary nurses and sanitation inspectors during life of project.	Reconfirmed by MOH per LOI #2 of July 2, 1980. MOH has complied; these positions are incorporated into regular MOH budget.
MOH to absorb salaries of sanitation workers at conclusion of project.	Reconfirmed by MOH per LOI #2 of July 2, 1980. Present indications are that MOH will be unable to comply, due to budgetary constraints, unless it becomes politically advantageous.
MOH to instruct Regional Offices as to functions and percentage of time Rural Health Aides will dedicate to supervising MCH/N centers.	MOH Circular NO. 30 of June 9, 1980 established functions and set 20% of time. Field observations confirmed active involvement by Rural Health Aides, where they existed, as well as regional RHA supervisors.
MOH will accelerate phase-in of World Food Program support for MCH feeding program.	Not clearly defined what this entailed. Project will not utilize all of Title II foodstuffs authorized. Availability of food does not appear to be a limiting factor for increase in centers or extension of project.
Agreements signed between MOH and participating communities for MCH/N center, including transport, storage and management of food.	Verbal agreements have been the rule, with varying degrees of compliance on both sides. No formal written documents were prepared or signed.

Table 5: Implementation calendar - urban health component

Scheduled Events	Agency	Scheduled Date	Actual Date	Remarks
<u>Selection of 75 tugurios</u>	MOH	1 Mar 80	Feb - Oct 1980	
Project Agreement signed	MOH USAID	10 Apr 80	24 Apr 80	
Funds available for project	AID/W	21 Apr 80	29 Sep 80	1st trimester budget submitted 29 Jul 80.
Selection of 75 health teams	MOH	5-16 May 80	Oct 80	Regional teams visited clinics twice per week
Beginning of procurement	MOH	5-9 May 80	24 Jun 80	PIO/C 519-0253-5-00038
Recruitment of project consultant	USAID	5 May 80 (est.)	Jul-Dec. 1980	
Community development training for regional teams	MOH	19-23 May 80	6-24 Oct 80	Scheduled for 7 July 80 by MOH, postponed for lack funds.
Project consultant hired	USAID	28 May 80 (est.)	16 Jan 81	Negotiations with several candidates began in Oct. 80.
Meetings with reps of <u>tugurios</u>	MOH	6 Jun 80 (est.)	Dec 80	Initial <u>tugurios</u>
Recruitment and selection of 75 health and 36 sanitation workers	MOH	18 Jun to 2 Jul 80 (est.)	Oct-Nov 80 (initial workers)	Phase I, Dec 80 - Sep 81, included 49 CHA's and 33 sanitation workers
Training for project consultant	USAID	21 Jun 80 (est.)	Jan 81	In-service orientation

Table 5: Implementation calendar - urban health component (continued)

Scheduled Events	Agency	Scheduled Date	Actual Date	Remarks
Sanitation workers deployed	MOH	19 Jul 80 (est.)	Dec 80 Jan 81	
Community aides deployed	MOH	26 Jul 80 (est.)	Dec 80 Sep 81	
Joint project review meeting	MOH USAID	1 Oct 80	n/a	No minutes available
First stage evaluation	MOH USAID	1 Nov 80	Dec 81	Report published
Joint project review and planning meeting	MOH USAID	2 Apr 81	n/a	No minutes available
Selection of 75 additional <u>tugurios</u> and health teams	MOH	s Apr 81	n/a	
Meetings with reps of <u>tugurios</u>	MOH	10 Apr 81	n/a	
Recruitment and selection of 75 health and 36 sanitation workers	MOH	15-30 Apr 81	n/a	
Opening of 75 new health clinics	MOH	1 May 81	Jan-Feb 1982	Phase II: 4 new clinics in 34 <u>tugurios</u>
Training begins for sanitation and health workers	MOH	4 May 81	n/a	In-service orientation only
Sanitation workers deployed	MOH	11 May 81	n/a	Phase II: 30 additional sanitation workers

Table 5: Implementation calendar - urban health component (continued)

Scheduled Events	Agency	Scheduled Date	Actual Date	Remarks
Community health aides deployed	MOH	18 May 81	Jan-Feb 1982	Phase II: 34 additional CHA's
Retraining for initial group of health and sanitation workers	MOH	25 Jul 81 (est.)		Not accomplished
Second stage evaluation	MOH USAID	1 Oct 81	Apr-May 1983	
Joint project review, evaluation and planning meeting	MOH USAID	30 Nov 81		Scheduled for June '83
Joint project review meeting	MOH USAID	15 Feb 82		Not as yet scheduled
End of project review meeting; report completed	MOH USAID	1 Jun 82		Schedule PACD December 1983

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Table 6: Implementation calendar - rural nutrition component

Scheduled Events	Agency	Scheduled Date	Actual Date	Remarks
Preparation of materials		Apr-May 1980	Oct 80	Operational manual completed
Conditions and covenants agreed; funds available	MOH USAID	21 Apr 80 (est.)	July 80 June 80 Sept 80	CP's satisfied; Covenants partially fulfilled; Funds available
Visits to Health Regions to present activity	MOH	On-going	13-14 Aug 81	Initial workshop with Regional personnel in San Salvador to discuss program
Prepare TA for food requirements; borrow initial stocks		Apr 80	Oct-Dec 1980	Discussions and agreement with DIDECO
Purchase equipment and materials	MOH	May 80	Jan-Mar 81	Purchases for initial 50 centers
Selection of communities by Regional intersectoral committees	MOH MAG DIDECO	Mar-May 1980	Feb-Sep 1980	Intersectoral committees never really functioned
TA available for training, manuals, community development, child development	USAID	May 80	Jan-Aug 1981 Oct 81	Training and community development TA by MOH in-service training unit; child development by local teachers.
Training of trainers and regional staff	MOH	May-Jun 1980	17-28 Aug 81	4 supervisors from each Region
Negotiations completed with communities; renovation locale	MOH Community	May-Jun 1980	n/a	No formal contracts made.

Table 6: Implementation calendar - rural nutrition component (continued)

Scheduled Events	Agency	Scheduled Date	Actual Date	Remarks
Children selected in 60 villages; 240 volunteers selected	MOH	15 Jun 80	Sep 81 Mar 82	25 initial villages with 125 volunteers and approx. 850 children
60 supervisors trained; 240 volunteers trained	MOH	15-20 June 80	Sep-Oct 1981	23 supervisors, 88 volunteers trained ten-day course
Equipment and food arrive from Region to community	MOH	Jun-Jul 1980	Jul-Dec 1981	
Nutrition surveillance data taken on children and siblings	MOH	Jun-Jul 1980	Oct 81 Apr 82	Partial initial data; very little periodic tracking
First centers begin to function	MOH Community	Jul 80	Oct 81 Apr 82	Of 25 selected, 9 were functioning as of Apr 83

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Table 7: Absolute and cumulative number of tugurios and population covered by month services initiated

Month Opened	Number Tugurios	Combined Population	Cumul. Tugurios		Cululative Population	
			Number	Percent	Inhabitants	Percent
December 1980	20	55,348	20	24.1	55,348	51.6
January 1981	4	7,966	24	28.9	63,314	59.0
March 1981	4	3,880	28	33.7	67,194	62.6
April 1981	2	805	30	36.1	67,999	63.3
May 1981	5	7,484	35	42.2	75,483	70.3
June 1981	3	2,098	38	45.8	77,581	72.3
July 1981	5	2,252	43	51.8	79,833	74.4
September 1981	6	2,422	49	59.0	82,255	76.6
January 1982	33	23,718	82	98.8	105,973	98.7
February 1982	1	1,385	83	100.0	107,358	100.0

Source: Special Regional reports, April 1983.

Table 8: Size and distribution of urban health sites (tugurios)

Number of Inhabitants	Health Regions					Total	
	Western	Central	Metro-politan	Para Central	Eastern	Number	Percent
0 - 499	5	3	17	2	-	27	32
500 - 999	7	7	7	2	-	23	27
1000 - 1999	3	-	7	1	2	13	15
2000 - 3499	-	-	7	-	4	11	13
3500 +	1	-	5	1	2	9	10
Total Current	16	10	43	6	8	83	100
Total Planned	21	20	40	22	47	150	-
Percent Achieved	76.2	50.0	107.5	27.3	17.0	55.3	-
Population Served	13,641	5,840	57,253	8,878	21,746	107,358	
Percent of Total	12.7	5.4	53.3	8.3	20.3	100.0	
Average Size	853	584	1,331	1,480	2,718	1,293	
Total Population (000's) 1980	935.2	575.9	1,050.3	750.1	1,228	4,539.5	
Percent of Total	20.6	12.7	23.1	16.5	27.1	100.0	

Source: Special Regional reports, April 1983 (service data)
 Ministry of Planning, December 1979 (population data)

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Table 9: Level of services provided through
tugurio clinics, 1981 and 1982

Clinic Services	1981	1982	Total
Total consultations	59,507	61,636	121,143
Physician	(49,832)	(39,379)	(89,211)
Auxiliary Nurse	(9,675)	(22,257)	(31,932)
Prescriptions filled	180,796	168,015	348,811
Injections given	27,323	26,254	53,577
First aid treatments	2,343	2,888	5,231
Family Planning	31,893	28,975	60,868
Pill cycles	(1,888)	(3,009)	(4,897)
Condoms	(30,005)	(25,966)	(55,971)
Total referrals given	3,099	3,421	6,520
Referrals complied	(1,939)	(1,631)	(3,570)
Percent compliance	62.6%	47.7%	54.8%

Source: MOH Statistics Department

Note: In 1981 the project attended clinics in 31 tugurios. In 1982 the number of clinics increased to 35. Normally, clinics are held twice per week at each site.

Table 10: Environmental sanitation activities, 1981 and 1982

Environmental Sanitation	1981	1982	Total
Home Inspections	13,313	12,013	25,326
Other Establishments	1,632	2,189	3,821
Water testing	113	219	332
Water connections/improvements	305	75	380
Letrines constructed	1,152	566	1,718
Letrines improved	26	48	74
Sewerage connections/improvements	88	30	118
Rubbish sites treated/eliminated	52	170	222
Mosquito breeding sites treated/eliminated	4,562	3,449	8,011
Suspected cases animal rabies observed	206	295	501
Stray dogs eliminated	443	638	1,081
Community clean-up campaigns	66	88	154

Source: MOH Statistics Department

Note: In 1981, the project served 49 tugurios with 17 sanitation inspectors and 11 teams of 3 sanitation workers each. By the end of 1982 the number of tugurios reached 83, with 21 teams of sanitation workers.

Table 11: Health education activities by subject matter realized in tugurios, 1981 and 1982

Activities	1981	1982	Total
<u>Maternal and Child Health</u>			
Group presentations	899	943	1,842
Individual counseling	3,407	2,667	6,074
<u>Family Planning</u>			
Group presentations	520	611	1,131
Individual counseling	1,052	1,464	2,516
<u>Epidemiology</u>			
Group presentations	986	705	1,691
Individual counseling	11,942	9,631	21,573
<u>Tuberculosis Control</u>			
Group presentations	73	82	155
Individual counseling	24	175	199
<u>Mental Health</u>			
Group presentations	199	321	520
Individual counseling	13	364	377
<u>Environmental Sanitation</u>			
Group presentations	996	887	1,883
Individual counseling	318	1,034	1,352
<u>Dental Health</u>			
Group presentations	36	105	141
Individual counseling	169	291	460
<u>Other Subjects</u>			
Group presentations	800	775	1,575
Individual counseling	5,255	5,819	11,074
<u>Total Activities</u>			
Group presentations	4,509	4,429	8,938
Individual counseling	22,180	21,445	43,625
<u>Activities Realized by Nurse or Auxiliary Nurse</u>			
Group presentations	3,139	3,295	6,434
	69.6	74.4	72.0
Individual counseling	20,871	20,758	41,629
	94.1	96.8	95.4

Source: MOH Statistics Department

Table 12: Selected activities performed by
community health aides, 1981 and 1982

Activities	1981	1982	Total
Educational presentations	205	442	647
Intersectoral meetings	156	110	266
Community meetings	115	123	238

Source: MOH Statistics Department

Note: Number of person - months of service available.

Table 13: Rural nutrition centers planned, initiated, presently functioning and potential for immediate expansion by Region

Health Region	Planned	Initiated in 1982	Functioning as of Apr 83	Potential expansion
Western	12	6	0	4
Central	10	5	2	3
Metropolitan	6	3	2	3
Para Central	8	8	4	3
Eastern	2	3	1	3
Total	70*	25	9	16

Source: Special Regional reports, April 1983.

* Includes 32 centers that were not programmed by region. The original project agreement called for 300 rural centers; this was reduced to 70 in July 1981 by Amendment No. 1.

Table 14: Estimated performance of rural nutrition centers by Region, October 1981 - March 1983

Health Region	Number Centers Initiated	Average Length of Operation in Months (3 ÷ 1)	Combined Period of Operation in Months	Average Monthly Attendance per Center	Total Child-Months of Service (3 x 4)	Estimated Capacity of Service (a)	Percent Capacity Attained (5 ÷ 6 x 100)	Total Number Children Attended	Average Stay per Child in Months	Estimated Capacity of Service (b)	Percent Capacity Attained (8 ÷ 10 x 100)	Total Target Population 2 - 5 yrs.	Percent Coverage Attained (8 ÷ 12 x 100)
Western	6	6	36	20	720	3240	22.2	147	4.9	540	27.2	n/a	-
Central	5	15.6	78	35	2730	2700	101.1	333	8.2	450	74.0	1586	21.0%
Metropolitan	3	14.7	44	25	1100	1620	67.9	245	4.5	270	90.7	450	54.4%
Para Central	4*	18	72	23	1656	2160	76.7	297	5.6	360	82.5	4072	7.3%
Eastern	3	11.3	34	40	1360	1620	84.0	301	4.5	270	111.5	n/a	-
Total	21	12.6	264	28.7	7566	11,340	66.7	1323	5.7	1890	70.0	2 -	-

* Data unavailable on four additional centers.

(a) Number Centers (initiated) x 18 months (Oct 81 - Mar 83) x 30 children/center (PP minimum)

(b) Number Centers (initiated) x 3 sessions (18 months ÷ 6 months/session) x 30 children/center (PP minimum)

Sources: Ministry of Health, Operative Services Bureau, Special report, September 1982 (Col. 4)

Special Regional reports, April 1983 (Col. 1,3,12)

Ministry of Health, Operative Services Bureau, Evaluation survey, April 1983 (Col. 8)

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Table 15: Selected services provided to children at rural nutrition centers by Region

Health Region	Number Children in Centers	Medical First Aid Attentions	Medical Referrals Given	Children Vaccinated
Western	147	258	36	32
Central	333	n/a	n/a	n/a
Metropolitan	245	n/a	127	125
Para Central	297	168	672	180
Eastern	301	480	24	314
Total	1323	906*	859*	651*

Source: Ministry of Health, Operative Services Bureau, Evaluation survey, April 1983.

* Incomplete totals due to missing data.

Table 16: Selected services provided to communities in general through rural nutrition centers by Region

Health Region	Number Centers Initiated	Number Letrines Completed	Number Gardens Planted	Total Months in Operation	Village Meetings Held	Educational Sessions Held
Western	6	n/a	1	36	n/a	n/a
Central	5	82	2	78	89	0
Metropolitan	3	n/a	n/a	44	21	15
Para Central	8	52	6	72 #	108	218
Eastern	3	16	4	34	62	17
Total	25	150*	13*	264	280*	250*

Source: Ministry of Health, Operative Services Bureau, Evaluation survey, April 1983.

Special Regional reports, April 1983.

* Incomplete totals due to missing data.

* Data for four centers only.

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 Table 26: Utilization of A.I.D. Grant Funds through March 1983
 (in \$ US, rounded to nearest dollar)

Object of Expenditure by Component	Approved Budget (a)	Total Expendi- ture	Percent Expended	Balance (3/31/83)
<u>Urban Health (Tugurios)</u>				
1. Project Consultant	22,000	14,654	66.6	7,346
2. Training	7,000	2,866	40.9	4,134
3. Salaries	208,000	198,145	95.3	9,855
4. Technical Assistance	5,000	-0-	0	5,000
5. Medicines	589,000	436,166	74.1	152,834
6. Equipment and Materials	123,000	74,652	60.7	48,348
7. Contingencies	<u>20,000</u>	<u>639</u>	<u>3.2</u>	<u>19,361</u>
Sub-Total	974,000	727,122	74.7	246,878
<u>Rural MCH/Nutrition Centers</u>				
1. Technical Assistance	17,000	-0-	0	17,000
2. Training	28,000	17,899	63.9	10,101
3. Equipment and Materials	68,000	38,260	56.3	29,740
4. Observation Trips	10,000	-0-	0	10,000
5. Mass Media Campaign	19,000	160	0.8	18,840
6. Medicines	3,000	651	21.7	2,349
7. Remodelling of Buildings	21,000	4,459	21.2	16,541
8. Bonus for Collaborators	70,000	15,738	22.5	54,262
9. Contingencies	<u>15,000</u>	<u>-0-</u>	<u>0</u>	<u>15,000</u>
Sub-Total	251,000	77,167	30.7	173,833
<u>Emergency Feeding Support (b)</u>				
1. Vehicles	17,000	16,840	99.1	160
2. Transportation	10,368	10,368 (c)	100.0	-0-
3. Equipment and Materials	<u>22,632</u>	<u>22,632 (c)</u>	<u>100.0</u>	<u>-0-</u>
Sub-Total	50,000	49,840	99.7	160
<u>Grand Total</u>	1,275,000	854,129	67.0	420,871

Sources:

Ministry of Health reimbursement request #29 of March 31, 1983.
 USAID/CON for emergency feeding support component funds.

(a) As per Amendment # 1 of July 1, 1981.

(b) As per Implementation Letter # 3 of July 24, 1980.

(c) Outstanding advance charged to DIDECO.

Table 18: Types of personnel utilized by component, level, and status

Position	Project level	Employer	Status
<u>Urban Health</u>			
Community health aide	local	volunteer	temporary, 50%
Sanitation worker	local	MOH	temporary, 100%
Auxiliary nurse	local	MOH	permanent, 100%
Educator promotor	local	MOH	temporary, 100%
Sanitation inspector	local	MOH	permanent, 75%
Physician	local	MOH	permanent, 50%
Health educator	regional	MOH	permanent, 50%
Nutritionist	regional	MOH	permanent, 25%
Nurse supervisor	regional	MOH	permanent, 25%
Statistician	regional	MOH	permanent, 25%
Sanitation Inspection Supervisor	regional	MOH	permanent, 50%
Primary care physician	regional	MOH	permanent, 50%
<u>Rural Nutrition</u>			
Center collaborator	local	volunteer	temporary, 50%
Rural health aide	local	MOH	permanent, 25%
Nutritionist	regional	MOH	permanent, 50%
Health educator	regional	MOH	permanent, 50%
RHA supervisor	regional	MOH	permanent, 25%
<u>Project Support</u>			
Project coordinator	central	MOH	permanent, 50%
Administrative assistant*	central	MOH	permanent, 25%
Nutritionist	central	MOH	permanent, intermittent
Social Worker	central	MOH	permanent, intermittent

* Recently assigned project responsibilities.

Table 19: Partial audit of medicines purchased in the United States

Request Data	Description	Quantity Purchased	Total Cost (incl. Trans) (\$US) (a)	Unit Cost (\$US)	Quantity Acknowledged by MOH (b)	Received in Family planning warehouse	Dispatched from family planning warehouse	Received by Regions	Percent Reaching Field	Balance Accounted for (c)	Balance Unaccounted for (d)
PIO/C	Ampicillin 250 mg, x 100 tabs.	10,360 Bot.	49,355.89	4.77	← 7,108	7,081	3,333	4,004	38.6	3,748 (h)	2,608
519-0253	Ampicillin 250 mg, x 100 ml.	28,040 Bot.	39,473.46	1.41	12,040	11,998	11,998	14,396	51.3	0	3,748 (h) 13,644
5-00038	Erythromycin 250 mg, x 100 tabs.	1,460 Bot.	8,985.56	6.16	1,460	1,432	1,432	1,720	117.8	0	260 (k)
6/24/80	Erythromycin 200 mg, x 16 Oz.	300 Bot.	3,978.44	13.27	← 2,380(d)	2,100	2,100	2,098	88.2	0	282
and	Penicillin G. 3,000.000 U. x 10 ml.	85,420 Bot.	65,150.68	0.77	← 35,418	35,404	35,404	35,164	41.2	47,014 (i)	3,242
PIO/C	Multivitamin syrup, pints	2,800 Bot.	22,411.53	8.01	2,800	2,798	2,798	2,471	88.3	0	329
519-0253	Multivitamin, x 100 tabs	7,000 Bot.	11,835.63	1.69	3,499	6,991	6,991	6,947	99.6	0	26
5-20009	Dimenhydrinate, 50 mg x 1,000 tabs	462 Bot.	3,374.93	7.31	4,620 (e)	4,620	4,620	507	101.4 (g)	4,120 (j)	7 (k)
12/28/81	Chlorphenyramine, x 1,000 tabs	230 Bot.	379.00(1)	1.65	2,300 (e)	2,290	2,290	1,260	54.8	0	1,040
	Chlorphenyramine, syrup, 4 oz	420 Bot.	438.78(1)	1.05	420	415	415	471	112.1	0	51 (k)
Urban	Nitrofurazone ointment, x lbs	1,680 Bot.	7,133.66(1)	4.25	1,680	1,648	1,648	1,648	98.1	0	32
Health	Phenobarbital & Belladonna, x pts.	6,012 Bot.	14,489.03	2.41	5,986	5,986	5,986	3,125	52.0	0	2,887
Item 5	Diazepam 5 mg, x 500 tabs	1,160 Bot.	29,041.99	25.04	5,355 (e)(f)	4,865(f)	4,865(f)	1,253	47.6(g)	3,170 (j)	1,377
	Mebendazole 100 mg	6,000 tabs.	4,553.92(1)	0.76	5,712	5,712	5,712	5,712	95.2	0	288
	Chloramycetin ophthalmic, 25 mg	1,680 Bot.	6,327.41	3.77	1,630	1,630	1,630	1,507	87.4	0	173

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- (a) Know cost as of April 20, 1983.
 - (b) Letter of Jan. 13, 1981 from Dr. Jose Rivera (MOH) to Peter W. Askin (USAID); letter of March 11, 1981 from Dr. Max Molina to Peter Askin; and MOH project files.
 - (c) In units as recorded by the MOH.
 - (d) Original purchase was of a form unusable by project. The MOH replaced the 300 16oz bottles of liquid with 2,380 60 ml bottles of powder.
 - (e) MOH records these items in units of 100 tablets.
 - (f) Does not include 580,000 tablets which were double-ordered, received and returned to the U.S.
 - (g) Percentage is based on the quantity purchased less the quantity transferred to the MOH regular stocks.
 - (h) In family planning warehouse (Candelaria)
 - (i) Reportedly 47,000 bottles in refrigeration at the "La Constancia" Brewery; 14 bottles arrived broken.
 - (j) Transferred to the regular stocks of the MOH (14 Nov. 80; 24 March 81)
 - (k) Number received in excess of quantity purchased.
 - (l) Transportation costs not yet paid or invoiced.

Table 20: Foodstuffs requested by MOH, released by DIDECO and received by regional MOH warehouses by food type and project phase

January 1981 - March 1983	Quantities in Kilograms				Total
	Rice	Powdered Milk	Vegetable Oil	Corn Meal (incl. CSM)	
<u>Requested by Project (a)</u>					
Phase I, 1981	12,765	6,355	4,018	29,319	52,457
Phase II, 1982-3	24,101	23,759 17,404	12,943 8,925	94,679 65,360	168,247 115,790
Total	36,866	23,759	12,943	94,679	168,247
<u>Released by DIDECO (b)</u>					
Jan. - Dec. 1981	9,369	4,147	3,396	16,759	33,671
Jan. 1982 - Mar. 1983	13,856	11,335	7,831	24,694	57,716
Total	23,225 23	15,482	11,227	41,453	91,387
<u>Received by Regions (c)</u>					
Jan. - Dec. 1981	5,187	1,867	1,803	12,087	20,944
Jan. 1982 - Mar. 1983	18,048	11,970	7,546	38,799	76,363
Total	23,235	13,837	9,349	50,886	97,307
<u>Differences Observed</u>					
Released: Requested, 1981	73.4	65.3	84.5	57.2	64.2
Released: Requested, 1982	57.5	65.1	87.7	37.8	49.8
Released: Requested, Total	63.0	65.2	86.7	43.8	54.3
Received: Released, 1981	55.4	45.0	53.1	72.1	62.2
Received: Released, 1982	130.3	105.6	96.4	157.1	132.3
Received: Released, Total	100.0	89.4	83.3	122.8	106.5
Received: Requested, 1981	40.6	29.4	44.9	41.2	39.9
Received: Requested, 1982	74.9	68.8	84.5	59.4	65.9
Received: Requested, Total	63.0	58.2	72.2	53.7	57.8

Sources:

- (a) MOH project correspondence (in pounds and gallons)
- (b) DIDECO monthly inventory reports (in kilograms)
- (c) Special reports from MOH regional warehouses, April 1983 (in pounds and gallons)

Conversion factors:

- 1 kilogram = 2.2046 pounds
- 1 gallon = 3.5 kilograms

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Table 21: Unaccounted for quantities of foodstuffs,
January 1981 through March 1983

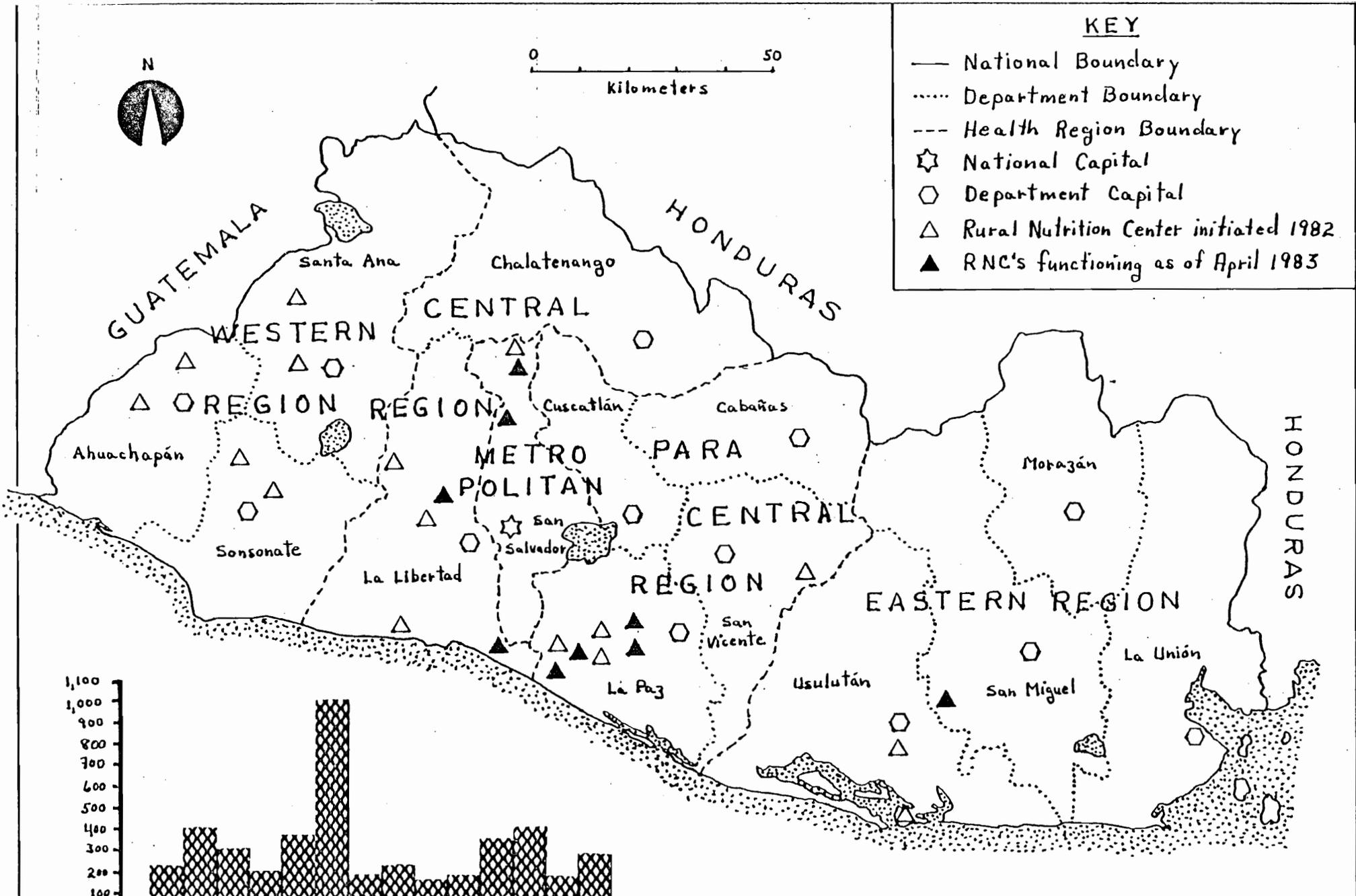
January 1981 - March 1983	Rice (pounds)	Powdered Milk (pounds)	Vegetable Oil (gallons)	Corn Meal (incl. CSM) (pounds)
Requested by Project (a)	81,274	52,378	3,698	208,730
Released by DIDECO (b)	51,202	34,132	3,208	91,387
Received by Regions (c)	51,223	30,506	2,671	112,184
Released - Requested	- 30,072	- 18,246	- 490	- 117,343
Received - Released	+ 21	- 3,626	- 537	+ 20,797
Received - Requested	- 30,051	- 21,872	- 1,027	- 96,546

Sources:

- (a) MOH project correspondence (in pounds and gallons)
- (b) DIDECO monthly inventory reports (in kilograms)
- (c) Special reports from MOH regional warehouses (in pounds and gallons)

Conversion Factors:

1 kilogram = 2.2946 pounds
1 gallon = 3.5 kilograms



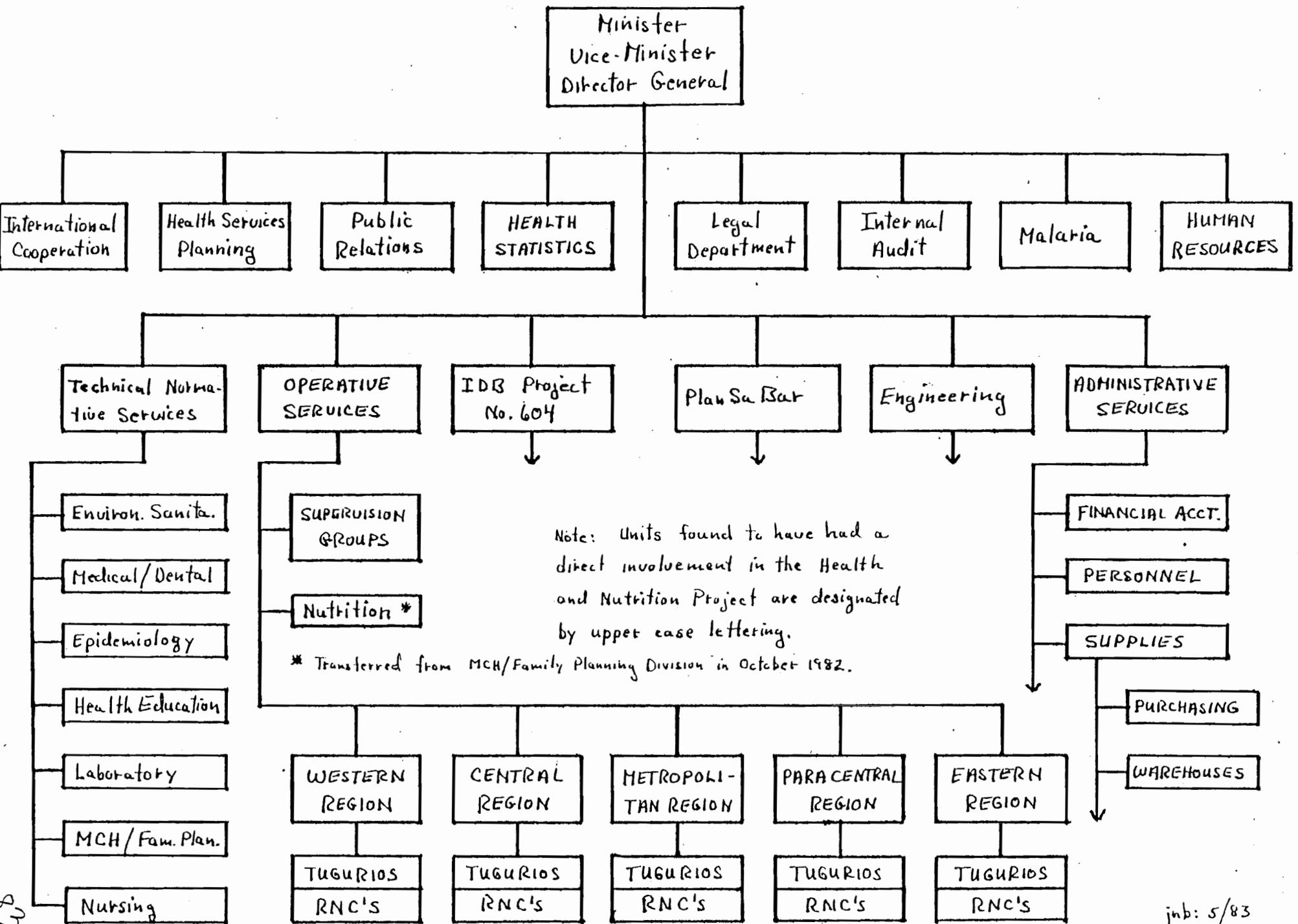
- KEY**
- National Boundary
 - Department Boundary
 - Health Region Boundary
 - ☆ National Capital
 - Department Capital
 - △ Rural Nutrition Center initiated 1982
 - ▲ RNC's functioning as of April 1983



EL SALVADOR, C.A.

APPENDIX D.

ORGANIZATION CHART (abbreviated) OF THE MINISTRY OF PUBLIC HEALTH



APPENDIX III

* Transferred from MCH/Family Planning Division in October 1982.

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APPENDIX F

Comparison of Characteristics of the Sample Tugurios
for the Assessment of the Social Impact of the Project

Characteristics	Total		Sample		
	Number	Percent	Number	Percent	
<u>Total Tugurios</u>	83	100.0	24	100.0	
<u>Size</u>					
0 - 499 habitantes	27	32.5	9	37.5	
500 - 999 habitantes	23	27.7	8	33.3	
1000 - 1999 habitantes	13	15.7	5 2	20.8	8.4%
2000 y mas habitantes	20	24.1	5	20.8	
<u>Period Initiated</u>					
1973, prior to project	11	13.3	2	8.4	
1980 - 81, Phase I	30	36.1	14	58.3	
1981 - 82, Phase II	42	50.6	8	33.3	
<u>Level of services provided</u>					
Local clinic and sanitation	35	42.2	9	37.5	
Nearby clinic and sanitation	44	53.0	12	50.0	
Sanitation services only	4	4.8	3	12.5	
<u>General appreciation of attention</u>					
Good	34	40.9	11	45.8	
Average	14	16.9	4	16.7	
Limited	35	42.2	9	37.5	

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