MID-TERM EVALUATION

HEALTH SECTOR II PROJECT
(Project No. 522-0216)

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Preface

The mid-term evaluation of the Health Sector II Project (Project No. 522-0216), was carried out at the request of the Office of Human Resources Development, USAID/Honduras. The evaluation was conducted during the period April 26, 1995 through June 4, 1995 in Honduras by a team of multidisciplinary professionals.

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Acronyms

AED	Academy for Educational Development
AECEI	Spanish Agency for International Cooperation
AIDS	Acquired Immune Deficiency Syndrome
AIDSCAP	AIDS Control and Prevention Project
APS	Potable Water and Sanitation
ARI	Acute Respiratory Infection
ASHONPLAFA	Honduran Family Planning Agency
BASICS	Basic Support for Institutionalizing Child Survival
BC	Breastfeeding Counselors
BCG	Bacillus Calmette-Guerin
CARE	Cooperative for American Relief Everywhere
CCC	Central Account Fund
CTT	Cold Chain Technician
CDC	Centers for Disease Control
CDD	Control of Diarrheal Diseases
CEDEN	Evangelical Development Committee
CEE	Community of European States
CELADE	Latin America Center for Demography
CESAMO	Health Center with Physician
CESAR	Rural Health Center
CHW	Community Health Worker
CLAP	Latin American Center of Perinatology
COHDEFOR	Honduran Forest Development Corporation
CONSUPLANE	High Council for Economic Planning
ColVol	Community Volunteer
CRS	Catholic Relief Services
CS	Child Survival
CWB	Community Water Board
DDM	Data for Decision Making Project
DESAPER	Perinatal Health Development Project
DHE	Division of Health Education
DOFUPS	Organizational and Functional Development of the UPS
DPT	Diphtheria, Pertussis, Tetanus Toxoid
DSA	Division of Environmental Health
EFHS	Epidemiology and Family Health Survey
EHT	Environmental Health Technician
EPI	Expanded Program of Immunizations
FEDECOH	Honduran Federation for Community Development
FES	Focused Ethnographic Survey
FSN	Foreign Service National
GOH	Government of Honduras

HEALTHCOM	Communication for Child Survival Project
HIS	Health Information System
HIV	Human Immune Deficiency Virus
H/MIS	Health, Management Information System
HRD	Human Resources Development
HSI	Health Sector I Project
HSII	Health Sector II Project
ICC	Integrated Child Care
IDB	Inter-American Development Bank
IEC	Information, Education, Communication
IHSS	Honduran Social Security Institute
IMR	Infant Mortality Rate
INCAP	Institute of Nutrition for Central America and Panama
IUD	Intrauterine Device
JAICA	Japanese Agency for International Cooperation
LAC	Latin America/Caribbean Bureau, USAID/Washington
LINVI	Integrated Nutrition Surveillance List
LIVACS	Vaccination Lists
LLMH	La Leche League International, Honduras
LOE	Level of Effort
Ls.	Lempira (local Honduran currency)
MCH	Maternal and Child Health
MCHD	Maternal/Child Health Division
M&E	Monitoring and Evaluation
MIS	Management Information System
MMHP	Mass Media and Health Practices Project
MMR	Maternal Mortality Rate
MOF	Ministry of Finance
MOH/DE	Ministry of Health, Directorate for the Environment
MOH/DHE	Ministry of Health, Division of Health Education
MOH	Ministry of Health
MOU	Memorandum of Understanding
MPH	Master of Public Health
MSH	Management Sciences for Health
NCARIP	National Control of Acute Respiratory Infections Program
NGO	Non-governmental Organization
NNT	Neonatal Tetanus
NPA	National Plan of Action
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PAHO	Pan American Health Organization
PCU	Project Coordination Unit (HSII)
PDO	Private Development Organization

PHCS	Primary Health Care Systems
PIL	Project Implementation Letter
PINNCA	Protocol for Investigation of Inadequate Growth in Children
PIO/T	Project Implementation Order/Technical
PNUD	United Nations Development Programme
POSAIN	Process for Organizing and Systematizing Integrated Child Health Care
POSI	Organizational and Simplification Process of the Information System
POSMAB	Organizational and Simplification Process for Basic Maintenance Systems
POSSEM	Organizational and Simplification Process of the Evaluation and Monitoring System
POSSS	Organizational and Simplification Process of the Supply System
PRITECH	Primary Technologies for Health Care
PROAG	Project Agreement
PROALMA	Programa para la Alimentacion Materna (Maternal Breastfeeding Program)
PVO	Private Voluntary Organization
RW&S	Rural Water and Sanitation
SANAA	National Autonomous Water and Sewage Services
SECPLAN	Planning Secretariat
SOW	Scope of Work
SPSS	Statistical Package for Social Sciences (software)
STD	Sexually Transmitted Disease
TA	Technical Assistance
TAACS	Technical Advisor in AIDS and Child Survival
TAS	Environmental Health Technicians
TBA	Traditional Birth Attendant
TOM	Operation and Maintenance Technician
TFR	Total Fertility Rate
TT	Tetanus Toxoid
UNAH	The National Autonomous University of Honduras
UNICEF	United Nations Children's Fund
UPS	Service Production Unit = CESAR and CESAMO (health centers)
UROC	Community Oral Rehydration Unit
USAID/H	United States Agency for International Development, Honduras
USAID/W	United States Agency for International Development, Washington
USG	United States Government
WFA	Women of Fertile Age
WHO	World Health Organization
WRA	Women of Reproductive Age
W&S	Water and Sanitation

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Executive Summary

I. OVERVIEW: BACKGROUND AND GENERAL CONCLUSIONS

This is the second midterm evaluation of the Health Sector II Project (HSII). The purpose of the evaluation is to:

- Assess how the project is contributing to USAID/Honduras' strategic objective of "Improved Family Health."
- Identify implementation constraints in those selected areas and propose recommendations for the remainder of the life of the project in terms of priorities, strategies, and definition of outputs and targets.
- Assess the implementation of previous evaluation findings and recommendations.
- Make recommendations for activities to be implemented under the planned HSII Project Extension.

The multidisciplinary evaluation team was composed of five members with professional skills in program design and evaluation; management, administration, and finance; child survival health technologies and nutrition; reproductive health and family planning; water and sanitation; and communication. The team's five-week consultation was conducted in Honduras. The evaluation was conducted between April 27 and June 4, 1995. Evaluation methods included document review, key informant interviews, site visits and observations, reanalysis of existing data, and a brief survey of users.

A. HEALTH SECTOR II CONTRIBUTIONS TO "IMPROVED FAMILY HEALTH"

Over the past fifteen years, Honduras has had the most rapid decline in infant mortality in Latin America (Latin America Center of Demography, CELADE). During this time the Government of Honduras (GOH) and the Government of the United States of America (USG), through the United States Agency for International Development, Honduras (USAID/H), have collaborated in an unprecedented series of health projects. The Health Sector Projects I and II have assisted the

Ministry of Health (MOH) in identifying significant primary health technologies such as oral rehydration therapy (ORT) and childhood immunization, collaborated with the Ministry in organizing services and improving their efficiency, and provided needed assistance so that the Ministry could deliver these services. Although identified as "projects," the close and long-term working relationship of USAID, Health Sector contractors, and the MOH is better characterized by "program" assistance. This close working relationship has permitted a high level of collaboration between the MOH and USAID in internal reform of administrative and financial management procedures.

Overwhelmingly, the Evaluation Team felt that **the HSII Project is extremely successful in achieving its goals and contributing to continuing health improvements in Honduras.** Furthermore, many of the elements of administrative reform have been successful. **Recommendations of the previous mid-term evaluation have all been accomplished or are being implemented.**

This reform includes a program of decentralization to move decision making about services closer to users. HSII assisted the MOH to decentralize many of its functions to the regional level. This evaluation argues that this process needs to continue and that **the extension of the project should focus on continuing this process of decentralization to the level of health area and community.**

However, there are a few areas in which HSII will not achieve its goals. Although fertility appears to be declining, it is unclear if the project's target of 4.6 total fertility rate (TFR) will be achieved, or if this target is sufficient to address the over-rapid population growth in Honduras. Maternal mortality remains high and is not yet adequately addressed in the project. Malnutrition also continues to be a major problem. Many elements of administrative reform, such as new financial tracking and management systems, or development of a health information system are either incompletely implemented or not yet fully developed. **The maximum benefit of the investment made in the health sector to date will not be realized unless these reforms are implemented in the extension of the project.**

Linking these global indicators with the project are project outputs. As measured in outputs the project is very successful. **Water system and latrine** construction goals are all either met or exceeded, and the **diarrheal disease control program (CDD)**, with high rates of oral rehydration solution (ORS) use, continues to be a great success. Water quality laboratories have been completed, and the National Autonomous Water and Sewage Services (SANAA) has decentralized its services. SANAA's warehousing system is computerized and is a model for Central America. New facilities have been constructed in the regions and health center repair goals have been exceeded. The **Expanded Program of Immunizations (EPI)** is one of Latin America's star programs, having reached ambitious coverage goals of more than 90 percent. Although 108 cases of polio were reported during the Health Sector I (HSI) project, no case of polio has been reported since 1990, and the country has been officially declared polio free.

Although the **prenatal visit** indicator cannot be measured, the proportion of women seeking visits, and the number of visits have climbed. **Family planning** commodities are available in clinics with doctors. The **DOFUPS**[1], an administrative system developed by the Health Sector projects, has been implemented throughout the country, and decentralization is a reality in the MOH. **Cost recovery** is now in place in over 70 percent of facilities, and there appears to be a growing willingness to consider cost recovery as a means of meeting needs. The MOH has maintained a **Division of Health Education (DHE)** and has met goals for improving the Division's production capabilities. **Short-term training** goals for the project have been met and exceeded.

The sustainability of many of these interventions is excellent. The successful programs are completely institutionalized. The use of ORT is so widespread that a commercial market has been created for **ORS**, and most Hondurans know how to mix and use it. Population expectations for services are so high that health and health care are now essential elements of national politics. The proportion of external donor support provided by the U.S. government has shrunk, and many programs will continue even if funding is withdrawn. However, USAID is the only donor which emphasizes administrative and management reform, has a close working relationship with the MOH, and has local expert staff that can assist the Ministry in achieving these reforms. **The ongoing role of HSII in administrative and management reform is essential for the long-term sustainability of the health sector, and needs to continue in the Health Sector II Project extension.**

B. CONSTRAINTS TO HEALTH SECTOR II IMPLEMENTATION

Several programs have not reached their intended goals. **The Reproductive Risk Strategy,** designed to address family planning and obstetrical risk goals, and in development since 1992, is only now being implemented at the local level. However, problems remain with the conceptualization and implementation of this strategy. It is unclear if the strategy, as currently conceived, can identify high-risk pregnancies prior to the discovery of an obstetrical emergency. The strategy appears neither sensitive nor specific. In practical terms, high-risk pregnant women are not being detected or given special care, and the referral system to higher level health centers does not appear to be working. The further development, implementation, and testing of this strategy will require operational research.

A community-based acute respiratory infection **(ARI)** treatment program, which is required to address the single greatest cause of early infant death in Honduras, exists only in pilot and is only now being initiated. Community-based treatment of pneumonias remains an implementation

[1]Organizational and Functional Development of the UPS--Service Producing Units.

challenge and will require continued project presence. The **POSAIN**[2] system of integrated care for children, including nutrition, is also an experimental intervention and remains to be fully implemented. Malnutrition appears to be increasing in children, providing a warning that the mortality goals achieved may not be sustainable.

Although many elements of DOFUPS have been implemented, several weaknesses can be noted. Primary among them is both the quantity and the quality of **supervision**. Effective supervision is tied to timely information about the performance of the health sector. There is a general need in the system for an effective health/management information system (H/MIS) that would take advantage of local-level planning to meet supply, training, and supervision needs. Supervision has also become problematic due to increases in per diem rates with no attendant increase in the budget, and the lack of functioning vehicles. Community participation in **Service Producing Units** (UPS)[3] is weak, and integration of services at the level of the community is not yet a reality. Long-term training goals for the project have not been met, but the new Master of Public Health (MPH) program at the National Autonomous University of Honduras (UNAH) is a promising example of local solutions.

Many of these problems need to be addressed at the level of implementation. Some of the programs that are deficient or have not met goals are those that do not have proven or feasible technologies or adequate local models to emulate. A model health information system for the MOH, for example, does not exist, let alone one that can be computerized.

What is required, in the extension of HSII, is to join the effort to sustain project success stories such as water and sanitation, EPI, and administrative reform at the central and regional levels, with an effort to address those areas of the project's goals that have been underdeveloped. This can be achieved through a two-pronged approach: 1) continuing the process of administrative and management reform, i.e., developing systems of supervision, health information, and financial management, including cost recovery; and 2) tackling these implementation issues at the level of the health area, CESAR, CESAMO, and the community, completing the path started with HSI. By focusing the project on developing sentinel demonstration sites--linked through regions to the central level--interventions such as the supervision system, cost recovery, H/MIS, reproductive risk strategy, and community-level ARI care, can be effectively operationalized, implemented, evaluated, and modified.

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[2]Process for Organizing and Systematizing Child Health Care.

[3]Service Producing Units are the health centers (CESARs and CESAMOs).

C. RECOMMENDATIONS FOR THE FUTURE

Detailed recommendations that follow from this evaluation are included in Annex 8. Two major priority recommendations are included here.

1. USAID, PAHO, and the MOH have successfully developed and implemented diarrheal disease control and immunization programs in Honduras. In the proposed extension, the project needs to **address the relatively less-well-developed health technologies** such as: reproductive health, including maternal and perinatal mortality and family planning; community-based treatment of pneumonias; and nutrition interventions such as breastfeeding. In addition, the quality of the provision of services, supervision, health information systems, and area-level planning and community participation need to be developed. **This can best be achieved through the development of demonstration health areas** where project components can be systematically integrated, implemented, and evaluated.

2. Nationwide and central-level support need to focus on maintaining national-level systems that Health Sector II helped to put in place. These are **continuing the administrative and policy reforms initiated under Health Sector II**, such as DOFUPS, health/management information systems, family planning, water and sanitation, expanded program of immunizations (EPI), information, education and communication (IEC), and human resources development (HRD). Three administrative and management high-priority areas that need attention are:

    1. Financial management and cost recovery.

    2. Supervision to improve the quality of services.

    3. Health/management information systems.

    To bring about needed reforms in these three areas the Ministry should establish three task forces during the first year of the extension, and with the collaboration of regional-, area-, and local-level staff and community members, develop concrete plans for implementing these systems. Systems need to be functioning within the first year of the extension.

The project also needs to **continue to provide limited support for the implementation of certain health programs at the national level**. These programs are:

- Reproductive health/family planning
- EPI
- Information, education, and communication (IEC)
- Human resources development (HRD)
- Water and sanitation (W&S).

I. INTRODUCTION

A. PURPOSE OF THE EVALUATION

This evaluation will assist USAID/Honduras and the Government of Honduras in the design of a funded extension to the Health Sector II Project, through a Project Agreement Amendment. The evaluation:

- Assesses how the project is contributing to USAID/Honduras' strategic objective of "Improved Family Health."
- Identifies implementation constraints in those selected areas and proposes recommendations for the remainder of the life of the project in terms of priorities, strategies, and definition of outputs and targets.
- Assesses the implementation of previous evaluation findings and recommendations.
- Makes recommendations for activities to be implemented under the planned HSII Project Extension.

The findings of this evaluation are to be used by USAID/Honduras and the Ministry of Health to address implementation bottlenecks and to design a further extension of health sector support activities through 1998 by means of a funded Project Agreement Amendment. It is important to note that

Project Identification Data

Project Title: Health Sector II
Project No.: 522-0216
Country of Implementation: Honduras

Critical Project Dates:
Project Authorized: 5/25/88
PROAG with GOH and USAID: 6/30/88
Amendments: 19 (No. 19 signed 8/26/94)

Project Funding:
Original:
USAID bilateral grant funds: $57,253,200
GOH: $26,016,400
Amended:
USAID bilateral grant funds: $54,159,000

Modes of Implementation:
Bilateral grant agreement
USAID direct procurement
Contract with MSH(contract terminated 1992)
Buy-ins to centrally funded projects

Project Designers:
USAID staff, MSH, MOH

Previous Evaluations:
Mid-Term Evaluation conducted by Research Triangle Institute, March 1992 (PD-BE-338)

Responsible Officers, USAID/Honduras:
Mission Director: Marshall Brown
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during the period of the planned extension, the project will be implemented at a reduced level, in terms of annual resources available. USAID/Honduras does not expect to have sufficient funding to enable it to continue to support all current project interventions. USAID/Honduras anticipates that this evaluation will make recommendations as to how it and the MOH can focus the project for maximum impact within the expected funding constraint.

B. EVALUATION DESIGN

1. Design

This second midterm evaluation[4] was designed primarily as a participatory review of project documents and other archival resources with limited opportunities for site visits. Despite the limitations caused by time and planned activities, extensive interviews were conducted with health personnel and users in a limited number of field sites (see Annex 4).

Health outcomes have been measured in repeated Epidemiology and Family Health Surveys (EFHS) but none are current. An EFHS is planned to begin this summer (June 1995 through December 1995) to provide data concerning several outcomes for 1993. Many of the project inputs (see Annex 2: Logframe), however, concern complex management and administrative processes that are both slow to change and difficult to measure. In order to address this difficulty USAID/Honduras prepared a detailed scope of work for the HSII Evaluation, including more than 100 specific questions. These questions were designed to provide necessary information for decisions about the management of the project and the design of the extension. This "archival review" and interview design is appropriate, since it would be extremely difficult to conduct and interpret an impact survey. The project has provided a wide range of assistance in multiple programs to the Ministry in which project funds are commingled in Ministry activities with GOH and other donor support, but the Ministry has not completely implemented a management/health information system (MIS/HIS) that would permit inputs and outcomes to be linked.

2. Methods

The Team Leader and Project Coordinator visited Honduras on April 19 prior to the Team's arrival on April 26 to meet with the MOH and USAID/Honduras. The visit permitted questions to be clarified, logistical issues resolved, field work planned, and milestones to be established for report preparation. USAID and MOH provided substantial documentation for the evaluation (126 documents), and the Ministry named counterparts for the evaluation activity. Counterparts participated in planning and accompanied the team members on site visits. Counterparts made themselves available for extensive interviewing and review of draft sections of the report.

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[4]The first midterm evaluation was conducted in late 1991.

A planning workshop, involving the MOH, USAID, and the evaluation team, was held April 27-29. The workshop reviewed the scope of work, discussed project elements, and designed site visit activities. Since one of the regular project evaluation and monitoring site visits conducted by USAID and the Project Coordination Unit (PCU) was planned for the week of May 8-12 in Region 6, the team was invited to participate. In all, the team visited Health Regions 1, 2, 5, and 6. Sites were selected for their comparability; Regions 1 and 5 were considered to be well implemented sites, and Regions 2 and 6 less well implemented. The questions developed from the scope of work are included in Annex 1 and the site visit plans are included in Annex 4.

The project has had several extensive and recent reviews of relevance to this evaluation. These include:

Mid-term Evaluation, March 1992. *(4)*
MSH Final Report, Contract No. 522-0216-C-00-9036-13, January 30, 1994. (9)
Draft Honduras Country Activity Plan, BASICS Project No. 000-HN-01-005. (30)
Propuesta parra la Revisión y Ajuste del Sistema de Información en Salud. Michael D. Malison, Maureen Blyer, Novembre, 1993. (123)
Information Technology Assessment: Ministry of Health. Pedro C. Herrera. USAID Office of Information Resources Management, May 1993. (115)
Assessment of the Impact of an Intervention to Promote Exclusive Breastfeeding in Honduras. Orlando Hernandez, Lani Marquez, AED, November 1994 (PIO/T No. 522-0216-3-10129). (24)
Asesoría para el fortalecimiento institucional de la unidad. Fernández, Fortín, Bográn y Asociados, 1995.
Area Administrativo Financiera: Diagnostico tecnico organización y Diagnóstico de los procedimientos operacionales. EA Associates, Marzo 1995. (124)

This evaluation draws heavily on these documents and on interviews to answer the questions detailed in the scope of work. In order to provide additional information for this evaluation a brief survey instrument was developed which was applied to a convenience sample of 42 households adjoining the health facilities in Regions 1, 5, and 6. Additionally, the monitoring and evaluation data collected by the PCU was analyzed for the years 1993 and 1994.

3. Evaluation Team

The multidisciplinary evaluation team was composed of five members with professional skills in program design and evaluation; management, administration, and finance; child survival health technologies and nutrition; reproductive health and family planning; water and sanitation; and communication. The team's five-week consultation was exclusively conducted in Honduras.

C. PLANNED PROJECT EXTENSION

Reduced levels of funding have forced a rethinking of project priorities and intervention areas. An objective tree, which describes the Mission's current conceptual framework for HSII, is included as Annex 3. This objective tree illustrates all HSII activities that USAID believes are essential to achievement of the Mission Strategic Objective of, "Improved Family Health." As USAID conceived the extended project, reproductive health, including maternity care, family planning, and sexually transmitted disease (STD) prevention, would be a major focus. Another focus would be integrated child health care with special emphasis on acute respiratory infections, malnutrition, and breastfeeding. Further assistance in administrative systems would focus on consolidating previous gains in cost recovery and financial management, and providing logistical support for project-supported primary health care (PHC) interventions. Water and sanitation efforts would focus on the construction of a small number of rural water systems and the promotion of innovative technologies for the installation, management, and maintenance of these systems. USAID/Honduras and SANAA expect that funding for the bulk of rural water systems, to be constructed in the remainder of this decade, will come from other donors.

II. BACKGROUND

Honduras is classified by the World Bank as one of the world's poorest countries, sharing that distinction with only three other countries in Latin America. Basic indicators are listed in Appendix 11. In 1992, GNP per capita was estimated by the World Bank to be $580. CIENS94, a recently conducted national household consumption, income, and expenditure study, calculated an average per capita annual real income of $298. Honduras has had a negative annual growth rate of 0.3% over the period 1980-1992, and inflation has been calculated at 7.6 percent per year.

Historically, Honduras is the least densely populated country in Central America. It has been overwhelmingly rural with a dispersed population, making the distribution of services and construction of infrastructure difficult. Recent growth, however, in major cities such as Tegucigalpa, San Pedro Sula, and La Ceiba, is changing this pattern and Honduras is now 47 percent urban. Honduras also now has one of the largest basic education deficits of any country in Latin America. Yet, over the last fifteen years, Honduras has experienced the most rapid decline in infant mortality of any Latin American country (CELADE), due to a combination of factors: government commitment, investment in the health sector, adoption of successful health technologies, and multilateral donor commitment. USAID's funding, technical assistance, and policy dialogue have played an important role in these improvements.

A. ACHIEVEMENTS IN HEALTH

The 1989 infant mortality rate (IMR) was estimated at 50 deaths per 1000 live births (50/1000) using direct methods, and 40/1000 using indirect methods. The child mortality rate is 65/1000 (mortality rate for one- to four-years-of-age is around 16/1000). Half of infant mortality occurs in the first month of life and almost one-quarter in the first 24 hours. In the post-neonatal period, pneumonia and dehydration are the leading causes of death in the first year of life. These continue to be the leading causes of death in children from one- to four-years-of-age, with diarrhea being slightly more important as a cause of mortality in that age group, and pneumonia in the infant age group. This reflects a sharp decline in reported infant mortality that has been continuing since the 1960's.

This reduction in infant mortality has been documented in numerous publications (1,2,3,4,12, 13,30) and is an impressive outcome of a series of decisions by the GOH, MOH, and USAID over a two-decade period. Although a causal link between program inputs and this outcome cannot be

made, the logical trail from inputs, through service data and changing patterns of morbidity and the mortality decline, is persuasive. The 1991 HSII Midterm Evaluation noted these changes, as well as noting that they substantially satisfy the indicators identified in the project's logframe. However, it needs to be noted that these figures reflect either census data from 1988 or survey data from 1991/1992 that report deaths for 1989. To report mortality impact for HSII more current data will be required. This will be collected in the upcoming EFHS (June-December 1995).

It is the belief of this evaluation team that the EFHS study will confirm the remarkable achievements of the Health Sector Projects, and USAID's contribution to health in Honduras. The fifteen-year long involvement and follow through of effective preventive and primary health care strategies, and the long partnership between the GOH and USAID have produced a remarkable result. To understand this success, three factors are identified: 1) a commitment on the part of the GOH to democratic development and extension of coverage; 2) the application of effective intervention strategies; and 3) the improvement of health sector operation.

During the 1970's the GOH seriously addressed rural development and implemented a primary health care strategy. One of the strategy decisions was to apply powerful child survival interventions, including ORT and immunizations. The current child survival program began in the late 1970's with the initiation of the World Health Organization (WHO) and Pan American Health Organization's (PAHO) Expanded Program of Immunizations (EPI). In 1980, ORT was introduced through the communication efforts of the USAID-funded Mass Media and Health Practices Project (MMHP). At the time, Honduras was one of the only countries in Latin America interested in ORT and community-based distribution of ORS. With the introduction of Litrosol and the support of a sophisticated communication/education strategy, Honduras became a pioneer in the mass promotion of oral rehydration therapy. Honduras was the first application of new communication strategies to primary health care, and its example through MMHP, Healthcom[5], and others, led to an explosion of projects utilizing contemporary behavioral science, mass media, and social marketing methods throughout the world.

In 1982 Honduras began a successful experience in breastfeeding promotion with the PROALMA[6] project. The PROALMA project attempted to change hospital birthing practices by training health personnel in appropriate breastfeeding practices and promotion, substituting the bottles of formula that had been given to new mothers by nurses and ladies auxiliary groups. Over a period of two years, PROALMA was able to demonstrate a measurable impact on the initiation and duration of breastfeeding. Although national interest in breastfeeding as a child survival strategy waxed and waned over the subsequent years, it is now a firmly entrenched part of the GOH and USAID's child survival strategy.

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[5]Communication for Child Survival Projects (Healthcom I and II).

[6]Programa para la Alimentacion Materna (Maternal Breastfeeding Program).

The MOH has had a National Control of Acute Respiratory Infections Program (NCARIP) since 1986. In 1987 Honduras was once again in the forefront in conducting one of the first focused ethnographic surveys (FES/WHO) for the development of an acute respiratory disease communication program.

In 1986 the MCH Division was charged with the management and coordination of the child survival project and began to take on its current structure, including Women's Health Care and Child Health Care Departments and a Department of Monitoring, Evaluation and Community Participation.

In 1990, with the assistance of the Latin American Center for Perinatology (CLAP), Management Sciences for Health (MSH), Honduras, and USAID support, experimentation began with methodologies for reducing early childhood malnutrition. This led to the development of POSAIN. Known as the Process for Organizing and Systematizing Integrated Child Health Care, POSAIN was the final piece of the current child survival strategy.

Government commitment to rural and democratic development dates from the Rural Penetration Program in the mid-1970's. The reformist government of 1972-1975 targeted efforts on the rural population and encouraged community participation and cooperative activities. The Ministry was transformed from a curative hospital focus to preventive primary health care, drawing on the medical school's division of preventive medicine. This brought a major shift, emphasizing basic primary care services in rural areas.

With a significant increase in its budget and additional technical and financial support from PAHO, the United Nations Children's Fund (UNICEF), and the Inter-American Development Bank (IDB), the MOH set out to extend its coverage in rural areas with the construction of a network of CESAMOs staffed by physicians and CESARs staffed by auxiliary nurses. These were to be assisted by three types of community level volunteers: trained empirical midwives (parteras), primary health care workers (guardianes), and trained community leaders (representantes). The role of organizing community health committees and training community-level personnel was assigned to the promoter. The promoter's principal institutional responsibilities had been related to latrine and water projects which were generally seen as having been successful.

USAID was not a significant player in the early stages of the Rural Penetration Program, but did play an important role in the later stages, and in carrying some important elements forward after 1978. USAID designed the curriculum and financed the training of auxiliary nurses for CESARs. These were the first auxiliaries trained to work in a rural rather than a hospital setting. USAID also provided funds for the training of parteras, guardianes, and representantes, first under the Integrated Rural Health/Family Planning Project, and later under Health Sector I and II (HSI and HSII).

The HSI Project (522-0153), which ran from 1980 to 1988, was designed to provide administrative and logistic support to the MOH, primarily at the central level. It was designed in tandem with the Rural Water and Sanitation Project (522-0166), which also ran from 1980-88. HSI specifically supported the primary health care strategies identified above, but also identified a range of internal Ministry administrative and management goals. HSI specifically focused on the development of management systems in such areas as logistics and procurement. The project was designed less to help deliver services than to support the Ministry to rationalize its organization and function. The project was able to assist the Ministry to design these management systems.

The HSII Project was conceived as the second of three projects designed to assist the Ministry in achieving the ambitious goals set for the health sector, and built upon HSI.

One important element of HSI and HSII was the provision of long-term technical assistance (TA). At the apex of this assistance in 1992, there were two long-term advisors in health education/ communication, six advisors working in the health regions, and central-level advisors dedicated to information systems, financial analysis, human resource development, logistics and supply, and maternal and child health. Many of these advisors had been with the project since its inception, and provided institutional memory and continuity for project activities.

One major change in project implementation, which occurred at the end of 1993, was the expiration of contracts with institutional contractors to provide long-term, in-country TA to the project. Since their departure, a short-term TA plan has been developed and several consultancies have been conducted. However, it does not appear that this TA has filled the gap left by the departure of this substantial resource. In the extension of the project TA will be provided through USAID Global Bureau central projects. More subtle effects of the departure, such as the impact on continuity, are more difficult to measure. Several of the key advisors and USAID personnel remain in positions of influence and provide remarkable continuity.

One theme, decentralization, was noted early in HSI activities. The impact on service delivery was felt to be greatest where the advisors worked directly with regional counterparts (Region 6), and in an effort to enhance service delivery, HSII was designed to continue this level of regional support. HSII was designed to support decentralization of these health systems, especially to the regional level. Now, in the project extension, this decentralization process can continue, extending below the regional level.

B. DEMOGRAPHIC CONCERNS

While infant mortality rate (IMR) and other health indicators have improved rapidly, demographic indicators have lagged considerably. The recent *Final Evaluation of the Private Sector Population II Project* cites SECPLAN projections of a crude birth rate of 34/1000 and a growth rate of 2.7 percent (official). Contraceptive prevalence reported in the 1991 EFHS was 47

percent, including 11.7 percent utilizing traditional methods. Growth in modern methods from the 1987 EFHS was only 1.8 percent per year. These data need to be adjusted since they report only "women in union." The EFHS also reports that 50 percent of women did not desire their last child. Sixty percent of family planning services are provided through the ASHONPLAFA, a private sector family planning organization. An initiative to develop a strong national population policy led to strong local opposition. Through the colonial and post-independence period, Honduras, one of the largest countries in Central America, had a small population in comparison to its neighbors, and its borders have been shrunk repeatedly. Historically a predominantly rural country of minifundistas, patterns of early marriage and large family size, which characterize many agricultural small-holder populations, persist. In one sense, perhaps due to combined effects of health programs, Honduras has nearly transited the mortality and epidemiological transition while lagging on the demographic, social, and economic transitions that would normally accompany those changes.

C. HEALTH SECTOR II PROJECT

The purpose of HSII is to support, strengthen, and continue the process of extending efficient, sustainable, and effective PHC and sanitation services, with an emphasis on child survival interventions. The Project emphasizes the decentralization of the planning, management, and financing of health services to the regional level. Project components include:

1. Child Survival Activities

Sustainable Support Systems

- Local Programming
- Logistical/Administration
- Maintenance Systems
- Management and Health Information Systems
- Human Resource Development
- Health Financing
- Educational/Promotional Systems (Mass Media)

Health Technologies

- Diarrheal Disease and Oral Rehydration Therapy
- Immunopreventible Diseases
- Acute Respiratory Infections
- Birth Spacing
- Breastfeeding, Growth Monitoring, and Nutrition

Other Programs

- Vector Control
- Tuberculosis
- AIDS
- Private and Voluntary Organizations

2. Rural Water and Sanitation

Key implementation agencies include the MOH and SANAA. Additionally, 16 private voluntary organizations (PVOs) have participated in extending coverage of water and sanitation (six PVOs) and child survival (ten PVOs) interventions to remote areas.

Thus, HSII has contributed to the achievement of certain indicators of success by the implementing agencies. Some of these indicators, which are cited in the evaluation scope of work (SOW), are the following:

Health Indicators

- Infant mortality dropped from 85/1000 live births in 1979 to 50/1000 live births in 1989.
- Percent of outpatient visits among children less than five-years-old due to diarrheal disease dropped from 17.6% in 1988 to 12.7% in 1993.
- Use of oral rehydration salts (ORS) among children less than five-years-old with diarrhea in the last three days increased by 69% from 1987 (17.5%) to 1991 (29.5%).
- Across the board improvement in immunization coverage in children less than one-year-old with over 94% coverage for all Immunopreventible diseases (measles, polio, DPT, and BCG) by 1993.
- No cases of polio (clinically compatible or by lab confirmation) since 1989.
- Only six cases of measles registered in 1994 (through October) with no deaths.
- Prevalence of children with some degree of acute malnutrition (less than one standard deviation below the mean weight-for-height) dropped from 17.5% to 13.1% between 1987 and 1991.
- Increase of institutional births from 40.5% in 1987 to 45.4% in 1991.
- Increase in percentage of rural health posts (CESARs) charging fee-for-services from 13% in 1989 to 77% in 1994.
- Continued strengthening of the Organizational and Functional Development of the UPS--Rural Health Centers--(DOFUPS) including: 1) the supplies and medicines component (POSSES) from 19% of the total number of health centers participating in 1989 to 90% in 1994; 2) the supervision component

(POSSEM) from 0% in 1989 to 81% in 1994; 3) the information filing system component (POSI) from 0% in 1989 to 26% in 1994.

- Increase in the percentage of CESARs which provided postpartum checkups in the past month from 69% in 1989 to 91% in 1994.

- Increase in the percentage of CESARs which participated in high-risk pregnancy referrals during the previous month: from the traditional birth attendant to the CESAR from 35% in 1989 to 53% in 1994, and from the CESAR to the hospital level from 22% in 1989 to 60% in 1994.

Water and Sanitation Indicators

- SANAA and the MOH have completed 563 rural water systems, with an additional 150 under construction and 150 in the design stage. They have also constructed over 78,200 latrines. Approximately 277,000 residents in rural areas have benefitted from these services.

3. HIV/AIDS Activities

A major change in the health situation in Honduras since the HSII Project Paper was developed in 1987 is the rapid increase in HIV/AIDS. Honduras has approximately 57 percent of all the reported cases for Central America, Panama, and Belize. A recent socioeconomic impact study projects that the continued rise in HIV infections, if unchecked, could reverse past gains in infant mortality and life expectancy, swamp already over burdened health facilities, and impact negatively on economic growth. In 1992, the Latin America/Carribean Bureau of USAID/Washington, named Honduras an AIDS emphasis country. After negotiations with USAID/W and the AIDS Control and Prevention (AIDSCAP) Project, Honduras became an AIDSCAP priority country and a project has just been initiated. This has occasioned a considerable increase in the amount of resources dedicated to this area from that originally planned.

III. FINDINGS

A. SUSTAINABLE SUPPORT SYSTEMS

1. Local Programming

Local programming is the means through which decentralized management, decision making, and budgetary administration are to be accomplished at the operational level (i.e., at the level of the UPS). Essentially it refers to each UPS planning its goals and activities based on the size, distribution, and priorities of its target population; taking into account local health problems and needs; and considering available local resources. A basic premise is that programming will be determined by local UPS staff with support from the area and regional levels. Community participation is important to the local programming process.

DOFUPS was developed to assist in establishing local programming by improving the managerial capacity of the UPS. DOFUPS is a collection of administrative and supervisory systems which are directed at strengthening the administrative effectiveness and efficiency of the health centers or UPS, and at enhancing the sustainability of these activities. DOFUPS means "Organizational and Functional Development of the UPS--Service Producing Units".

DOFUPS is present in some form in virtually all UPS, and it is credited with improving local management and health care services. Though its components are not fully applied or implemented at the present time, the recognition of the need to organize some response to the needs addressed by DOFUPS does seem to be widespread. DOFUPS is widely credited with being a good system especially for organizing the UPS and serving as a basis for developing management skills. DOFUPS needs to be complemented by training, both in the form of facilitative supervision, which can provide in-service training (if supervisors know how to do this and understand the system themselves), as well as other forms of training.

The most serious problem with the implementation of DOFUPS appears to be the lack of training in how and why to use its component parts, i.e., POSI, POSSEM, POSSS, POSMAB[7], especially at the area and local levels. Neither long-term nor recently-hired local health care personnel had

[7]The Organizational and Simplification Process for Information Systems, Evaluation and Monitoring, the Supply System, and Basic Maintenance Systems.

received consistent training in the DOFUPS and related administrative functions. Personnel that had been trained previously may not be currently working in the positions they had occupied, and new, untrained staff may be performing those jobs.

Most planning and programming appears to be conducted by the sector or area nurses with the assistance of the local staff, usually nurse auxiliaries. At the sites visited, it appeared to be a relatively mechanical procedure of updating the goals of the previous year's plan. There was little to no investigation of the actual state of health indicators, and needs assessments were not being performed. The local family census in some sites has not been conducted since 1988 or 1989; population data is generally based on estimates calculated from those surveys. There is little analysis of the current health situation by the local health care staff in their community.

Generally, community participation is rudimentary to non-existent. There appears to be little local community participation in the analysis of the local health situation or in the identification of community needs, expectations, and associated decision making.

Supportive supervision is essential to developing skills necessary for local programming and administration. There are four levels of supervision. At the sites visited, the health care personnel had not been taught management or administrative skills in their professional education programs. During the past year, there had been no training activities to train health care staff in these areas, and there had been no attempts to develop planning or programming capabilities within the community.

2. Supervision

The emphasis in HSII on supportive supervision as a primary strategy for implementing both technical and management components has stimulated and improved supervision. The use of DOFUPS has promoted and improved continuous supervision at the local level.

There are four levels of supervision: 1) the national or central level supervising the region; 2) the regional level supervising the areas; 3) the area level supervising sectors and the local level; and 4) the local level supervising community personnel, who are mostly voluntary.

The continuity and frequency of supervision at all levels is varied and inconsistent. The principal supervisory activity at the national level is monthly meetings with all the regional directors, the vice-ministers, and other MOH staff members. Only the Maternal/Child Health Division (MCHD) schedules regular monitoring/supervision visits to the regions, dedicating a one-week visit to a specific region each month to supervise the implementation of MCH programs at all levels. Other technical divisions visit the regions sporadically.

Supervision of the areas and UPS by the regions is varied. Region 1 staff program at least four supervisory visits per year to each level (including hospitals, CESAMOs, and CESARs) approximately every four months, in addition to monthly meetings with area chiefs. Geographic limitations sometimes permit only two to three supervisory visits to some localities. Region 6 personnel do not schedule supervisory visits to their areas, but rely on monthly evaluation meetings with area chiefs. Area staff should visit each locality at least once a year in both regions. The area and sector nurses generally do visit each locality once a month.

The supervisory visits at the local level still tend to be more "fault-finding" rather than supportive. Supportive supervision provides education, assistance in problem identification and problem solving, counseling, and other elements. Area chiefs (physicians) and area and sector nurses indicated that they knew that supportive supervision was better and that it was the policy of the MOH to use it. They also said that they did not yet do it well, adducing this to several factors, including lack of time, established habits, and insufficient knowledge of the process.

Local personnel stated that they knew they should receive supportive supervision, but that they rarely did, receiving instead the traditional list of deficiencies. Their faults would be written down in a notebook for reference. All of the auxiliary nurses we visited had these notebooks, and often the same entry would be repeated time-after-time. Even though they received negatively-oriented supervision, all local staff said that they would like to receive more supervisory visits, because that was the way they could improve their services. They also said that they would like the supervisory visits to be announced beforehand, so that they could program their time to be with the supervisors and avoid conflicting activities.

Regional and area personnel indicated that the frequency of supervisory visits would unfortunately decrease more due to the constraints described below. One of the problem areas in the MOH is the relative lack of positive and reinforcing incentives for doing a good job. This would be particularly advantageous as a supplement to supportive supervision.

One constraint concerns training. Personnel at all levels require continuous training and upgrading, first to establish and then to reinforce and refine the appropriate values, attitudes, and skills to be able to implement supportive supervision. A second constraint relates to financing. The recent increase by 300 percent of the levels of authorized per diem payments, without a corresponding increase in regional budgets, effectively means that there are less funds available for supervisory visits. A third constraint is transportation. The widespread lack of reliable transportation in the regions severely hampers supervisory activities.

3. Human Resources Development

The goal of the human resource development component of HSII is to maintain an adequate supply of updated, trained personnel for the MOH, and by inference, assure that MOH staff are sufficiently trained to be able to implement HSII elements. Major project objectives have been fulfilled. Twelve self-instructional manuals have been prepared and distributed. A staff resource register has been completed. At least 26 MOH personnel have been sent to foreign public health programs and at least 15 have received MPH degrees. Short-term training goals for community volunteers and refresher courses for MOH staff have been surpassed. Nevertheless, in general, human resource development in the MOH is inconsistent and unsystematic. It satisfies neither the multiple needs of the MOH nor of HSII.

For example, self-instruction modules were designed, produced, and distributed, but an effective and consistent methodology for using the modules was not recalled by personnel at the sites we visited. Staff at every UPS we visited showed us copies of some of the self-instruction modules and told us that they had read parts of the manual. No one had read an entire module. No one could explain how to use the modules effectively.

Workshops are also not systematically planned. Technical divisions and departments of the MOH organize regional and national workshops concerned with their areas of responsibility seemingly without any coordination between events. This tends to be disruptive to the practical work of regional and area personnel. There is an overemphasis on technical training for medical service delivery, and lack of emphasis on management training at all levels.

There are very few training events organized for local and community personnel, beyond initial training programs. The "cascade" method for multiplication of training efforts, focusing on key regional and area supervisors and presuming a top-down diffusion of critical knowledge and skills, has proved to be inoperative and ineffectual. This has resulted in an excess of training opportunities for a few, and virtually no training for most staff.

There is no systematic evaluation of the results and impact of training, other than casual and anecdotal observation of performance. Organizers equate the conduct of training events with the fulfillment of educational objectives. Instructional techniques tend to emphasize information transfer rather than learning specific skills. There is very little follow-up or reinforcement training. Most events do not have clear learning objectives focused on the needs of health care personnel, but instead tend to reflect the needs of event organizers.

Definite improvements in the technical quality and appropriateness of rural health care and in the management of rural health interventions have been achieved by HSII interventions. Greater strides have been made in enhancing technical quality and service appropriateness. More personnel have been trained in the implementation of technical programs, and current MOH standards and practices concur with the HSII interventions. The success of technical programs is

reflected in the objective improvement of basic health indicators, such as the reduction in the rate of infant mortality.

But continued success will depend on several issues. One issue is the consistency and follow-through in the implementation of human resource development methodologies. A second issue is the need for evaluation and monitoring of training and educational activities. A third issue concerns the need for clear expectations in relation to training. Current human resource development does not consistently take into account differing levels of educational needs. A fourth issue is that there are few incentives for training and acquiring new knowledge and skills.

Training in management for senior-level staff is currently neither consistent nor systematic. Much of this was previously provided by long-term resident advisors assigned to regions and central MOH departments. This was successful in some regions, but not in all. A new program has not yet been designed to provide management training.

The National Autonomous University of Honduras' (UNAH) new MPH program appears to be successful, and responds to identified needs of the MOH. The program uses modern and effective instructional methodologies and students are enthusiastic. However, there are concerns about the curriculum, both in terms of technical areas not covered (e.g., communication, behavioral science) and the content of the areas that are covered. Faculty are excellent, though none are trained at the doctoral level (all have masters degrees and most are physicians or nurses). The possibility of obtaining a master's degree is a concrete and compelling incentive to health professionals. Models exist for support of the local program, such as establishing bilateral agreements with U.S. universities. Support of the UNAH-MOH program could replace scholarships to foreign MPH programs.

The University's MPH program offers a number of advantages for the training needs of HSII and the MOH. The MPH curriculum was formulated in coordination with the MOH, and based on studies of needs and problems encountered in the health regions. Consequently, the goals and objectives, instructional methodologies, on-the-job training strategy, and course content are designed to prepare health professionals to better respond to the specific needs of Honduras. Students maintain their jobs while they study, which provides professional security, and assures that the new knowledge and skills they learn will be applied to those job areas.

In addition to the MPH program, the University's MPH department could organize specialized seminars and workshops for the MOH, and could organize and conduct operational research. For example, the UNAH-MPH Department could organize precisely-defined training events that respond to specific needs of the MOH at all levels (national, regional, area, sector, local, community). These would have the advantage of being enhanced by the credibility of the university, which would be an important incentive for participants. The UNAH-MPH program could involve its staff and students in operational research for the MOH. This would contribute to keeping the MPH Department up-to-date with regard to MOH needs, give staff and students

practical experience in operational research and in areas that are priorities for the MOH, and facilitate the incorporation of research results into the MPH curriculum (and perhaps into the medical and nursing school curricula), etc.

In addition to the UNAH program, there is a need for a greater variety of effective training programs. Supportive supervision and on-the-job training are excellent strategies, but they are not enough. They need to be complemented by other activities. Workshops are a good training methodology which have not been used well in Honduras. There have been too many poor quality workshops held too often. Currently there is widespread disillusionment with workshops and training in general. Nevertheless, training is fundamental to the success of the HSII interventions. Strategies which could make training more effective and viable include: 1) formulating clear learning objectives that contribute to the implementation of HSII technical and management components; 2) using more efficient instructional methodologies, including models and practice in desired behavior; 3) using computer-level instruction; and 4) rationalizing training activity scheduling.

Supervisory personnel need more and better training to be able to perform supportive supervision more effectively. They also need "how-to" support materials to guide the process and help them enhance the results of supportive supervision. There is a need to emphasize and develop follow-up procedures and feedback in relation to follow-up.

4. MOH Commodities/Logistics Systems/Administration

The goals of the logistics administration system are to provide for more rapid and rational purchases of commodities and supplies and improve the distribution, storage, and use of commodities through the use of inventory control systems and better storage facilities.

There have been significant improvements in the system although deficiencies are still notable. The most salient problem is the reported lack of supplies at UPS. Health centers that were visited reported that medicines are available only about 50 percent of the time that they attend patients. This appears to be the major complaint the population has against the UPS.

On the positive side, there seems to be better systematization at the local, area, and regional levels of the procurement process, and in the storage and disbursement of supplies received. On the negative side, the MOH central warehouse still does not fulfill orders from the regions completely or in a timely fashion. Because the UPS do not expect the procurement system to work, few take the proceedings seriously and do not base their requests on actual needs.

Transportation continues to be a headache for the MOH. A relatively large proportion of the MOH vehicular fleet is nonfunctional. Due to the unavailability of parts in Honduras and the high cost of purchasing imported parts, they have not yet been repaired. Some of these have been

waiting for more than a year for required parts. These problems have not affected the vehicles purchased by HSII directly, but have impacted the practical use of these vehicles in the regions.

A major factor of the problem of transportation is the small amount of funds budgeted for vehicular maintenance and repairs. Regional administrators prefer to invest what little they have on the maintenance of functioning vehicles that can be used immediately. Maintenance is at relatively low cost and is a sure thing: it keeps functioning vehicles functional.

Briefly, the principal continuing problems in logistics include: inadequate procurement budgets; bureaucratic and torturous procurement processes; inability to satisfy requests/orders for medicines and other supplies; and orders not determined by patient flow or use of supplies, but rather by predetermined basic supply lists at the local, area, and regional levels.

The major problem in the logistics system is the procurement of pharmaceuticals, or rather, the lack of continuous procurement to assure an adequate supply. All personnel at all levels complained about the scarcity of pharmaceuticals, which began in the central warehouse, and progressively affected descending levels from region to area to UPS (CESAMO or CESAR). All of the UPS we visited stated that they usually had medicines only at the beginning of trimesters. This is because they never receive all of what they requested (even though the quantities ordered were within the parameters of the preapproved annual supply request). Many said that what they usually received generally only lasted for about one-half of a trimester.

According to regional and area supervisors, constraints to the correct use of the POSSS include: lack of training, reinforcement, and follow-up to training; lack of follow-up to supervisory observations; and, as alluded to previously, orders not filled with regard to quantities and items requested, or with regard to patient flow.

The obstacles to the sustainability of the POSSS include: insufficient training; lack of emphasis on the POSSS during supervision, and little follow-up of supervisory observations; and the absence of concrete incentives for correct performance. A significant disincentive is the current procurement process, which is based on preestablished quantities and not on patient flow, consumption patterns, or actual stock-on-hand.

5. MOH Financial Management System

HSII focuses on assisting the MOH to improve its financial management and cost recovery programs. Regional directors report that they perceive an improvement in financial management at all levels. On the other hand, they report that the political appointment of the regional administrators is disruptive. It would be more efficient to have the regional administrators' post created and competed as with other positions, and therefore responsible to them.

Recent studies of the organization, procedures, and functioning of the financial administrative area by E.A. Associates, were published in March 1995. Together with MOH counterparts, they described a number of deficiencies and recommendations to improve this area. The recommendations are excellent and the HSII project should encourage and support the MOH in operationalizing them.

Cost recovery holds great promise, especially with regard to contributing to the improvement of local health care services. Cost recovery in CESARs increased significantly between 1989 and 1994, jumping from 13 percent to 77 percent of establishments monitored by the PCU. Recovery in hospitals and CESAMOs also increased. The concept seems to be well accepted by the beneficiary population. One of the CESARs we visited informed us that they had routinely collected Ls.5.00 per consult while it was administered by an NGO[8]. We were informed by staff at a CESAMO that patients often paid Ls.30.00 to a health center run by an NGO.

The current policy concerning cost recovery by CESARs is that the local community health committee should fix the price to be charged for consultation, and the committee should collect payments, and decide how to spend the money. Collected funds should be used to purchase more medicines, make repairs and improvements in CESARs, etc. One of the CESARs we visited did not charge a fixed amount, but rather left it up to people's conscience to pay whatever they decided was fair. That CESAR did not recover much.

The CESAMOs collect Ls.1.00 for consultations and for medical care. Of this, 75 percent is to remain with the CESAMO to cover local expenses and should be spent at the discretion of the local staff. A total of 25 percent is to be sent to the region. Currently, both of the CESAMOs we visited sent all of the funds they recovered to the region, and then solicited funds as they needed them to make repairs in the health center or to buy something for the CESAR. This practice appears to be contrary to MOH policies.

6. MOH Maintenance Systems

The maintenance system has three priorities in HSII: 1) to maintain and sustain the cold chain; 2) to maintain and repair vehicles and motorcycles; and 3) to maintain local health establishments through active community participation.

In general, maintenance is barely adequate to inadequate. Vehicular maintenance is grossly deficient at the central level and in the regions (see the previous discussion of transportation issues, III.A.4.). Non-functioning, non-repairable vehicles and refrigerators are maintained as a part of the inventory. The maintenance of physical facilities is doing well in some areas and not in others. The principal difference is community participation. In some communities, community

[8]The NGO administered the CESAR as part of a community development project, and when the project terminated, administrative responsibility was transferred to the MOH.

participation is helping considerably in the maintenance of facilities. This is particularly true where there are active health committees.

Cold chains are relatively well maintained for the present. The principal impediments are the lack of parts, repair facilities, and funds. We were informed that while the cold chain is adequately maintained for the present, there may be some problems in the near future as refrigerators outlive their functional life span.

Obstacles to the sustainability of maintenance include the following: the lack of focus on the importance of maintenance; the lack of funding and resources; and the general lack of training in maintenance methods and procedures. There is also the danger of a possible lack of personnel capable of maintaining the cold chain, as the persons who had been trained to do so are gradually being replaced. The relative rarity of the practice of preventive maintenance is also an obstacle and indicates a lack of appreciation of its importance.

7. MOH Management/Health Information Systems (M/HIS)

The goal of HSII for the M/HIS was to maintain the systems and procedures designed and implemented during HSI. In general, the current HIS does not function well. Two reviews have been completed which reinforce this conclusion. The HIS data is mainly used as indicators of health status and not systematically collected, reported, or appreciated for its use in planning, evaluation, and decision making.

Part of the problem is caused by the more than 70 forms used to collect information, many of which are simultaneously sent to the regions and Tegucigalpa for repetitive data entry. The management of this tremendous flow of paper is somewhat daunting. The central and regional statistical personnel are all using very old and inadequate computers for this task, with a lot of duplication of effort. In all, it takes one to two years for information to surface in the Ministry's *Boletin Estadistico* (statistical bulletin). This system needs to be overhauled.

The HIS as it exists now is of minimal use for local programming. Local staff and community members need to be trained in the use of information, especially for local programming.

An MOH commission, with technical assistance from the recommendations of a report, offers suggested solutions to many of these problems, including: revising, simplifying, and focusing the health information system; using data more effectively for decision making, including planning and evaluation; creating a capability and attitude for the analysis and application of information at all levels; and training and supervising personnel to facilitate these ends. It would be advantageous to initiate this proposal as soon as possible.

8. Health Education and Communication

Health education and communication is implemented deficiently throughout the country. Technically appropriate, state-of-the-art communication plans have been developed by the Division of Health Education (DHE). These plans were only partially implemented a couple of years ago. Since then there have been very few and sporadic health education activities. Currently, there are virtually no health education materials in the UPS. We only observed materials for cholera and AIDS education, and very few of these.

One of the major problems seems to be a lack of appreciation by MOH leadership of: 1) the importance of health education and communication programs to improving health, and the potential contribution to increasing the effects and reach of the service delivery programs; and 2) new communication techniques that replace the lecture and flip chart mentality of the 50s. This probably reflects the general clinical orientation of most MOH staff, and their lack of knowledge regarding public health and health education. The health education/communication campaigns are probably more responsible for high rates of ORS use than all of the expenditures on service delivery combined.

A major reason why the MOH is not taking advantage of health education/communication is the lack of a clear national policy. This could be resolved by the MOH adopting the policy recommended in the proposal entitled: *Politica Nacional de Educación para la Salud* (National Policy for Health Education), which was prepared by the DHE with the technical assistance of Dr. Reynaldo Pareja of the Academy for Educational Development (AED). The HSII Project should encourage the MOH to consider enacting this policy statement.

Health education/communication measures are technical public health services, which complement medical interventions to improve the health of populations. The DHE is currently in the Subsecretariat of Sectoral Policy. If the DHE were integrated into the organizational structure of the MOH with the other technical divisions (such as the MCH, STD-AIDS, Epidemiology, Mental Health, and Dental Health), these divisions could make better use of DHE services and expertise, and the DHE could better contribute to enhancing the effectiveness of their activities.

Another problem of the DHE is organizational. Because funding for implementation is not provided directly to the Division, it must depend on other divisions for its operational budget. Consequently, program directors sometimes hire external health educators, bypassing the DHE. Not only does this decrease the control of the DHE over educational/communication components, but it also results in inconsistencies in content and format. A practical solution to this problem would be to transfer all funds for health education/communication to the DHE. If the DHE lacks sufficient staff to respond to MOH needs at a given time, the DHE should be the agency to contract and supervise external education or communication personnel.

The Basic Support for Institutionalizing Child Survival (BASICS) Project has presented a well thought out proposal to work with the MOH in three content areas, with two fundamental objectives. The content areas are: 1) maternal/neonatal health; 2) ARI/CDD; and 3) integrated child care. The two objectives are: 1) improved caretaker behavior at the household level; and 2) improved access to quality care at the community level. These objectives will require considerable health education/communication involvement. The BASICS proposal should be promoted by HSII, and the DHE should be one of the principal counterparts and collaborators in carrying out the proposed activities.

B. HEALTH TECHNOLOGIES

1. Acute Respiratory Infections

The control of ARI is included in the child survival strategy of HSII due to the significant impact of pneumonia on infant mortality and morbidity. The EFHS of 1991-1992 reported ARI as the first cause of mortality and morbidity in children less than five-years-of-age. In 1991, the NCARIP introduced revised norms, training materials, and methodologies to treat ARI. The National Plan of Action (NPA) is geared toward the reduction of pneumonia-related mortality, the appropriate use of antibiotics, and appropriate management of ARI episodes at home.

Deaths from pneumonia in health institutions fall into two categories: 1) children who arrive on time and receive inadequate attention; and 2) children who arrive too late. During 1991-1992, the NCARIP conducted a massive effort to introduce standard case management in the health areas of the country. Training of trainers included health personnel from CESARs, CESAMOs, and area hospitals. By the end of 1992 most health units had at least one health provider trained in standard case management. This effort was not sustained and coverage has been reduced by the yearly rotation of physicians and nurses through social service duty.

Preliminary analysis of pre- and post-test data demonstrates an overall gain in knowledge of 23 percent, as the national average, with wide variations in different components of the test, such as the use of antibiotics and the recognition of danger signs (see Annex 9: Table 1 and graphs). The shortage of materials, incomplete health records, and inappropriate use of antibiotics were reported in the hospital survey of 1991 (MOH/NCARIP). According to the NCARIP Director, the current needs are: oxygen tents, aspirator, and in particular, training in standardized case management.

The management of ARI at home was documented by anthropological and ethnographic studies (MOH/Division de Educación para la Salud, 1987). It was found that mothers used a broad range of traditional therapies at home before seeking care at a clinic. Only 15 percent of estimated ARI cases ever arrived at CESARs and CESAMOs (PAHO/MOH, 1994). Some of the reasons why

CESARs and CESAMOs were not used include: distance to the center; difficulties with transportation; the possibility of finding the health center closed; and the lack of medicines.

A pilot program for the community management of ARI, developed in 1993, was to focus on the improved health-seeking behavior of the caretaker, and improved access to community-level treatment of pneumonia including initial antibiotic treatment administered by health promoters, health education, and referrals to health centers or hospitals. This program was not carried out due to lack of personnel and funds, and is only now being implemented in Region 1. The NCARIP has decided, without waiting for the results of Region 1 implementation, to transform the pilot project into a national program, and has initiated activities to train 530 ARI volunteers in all seven regions of the country.

A problem yet to be resolved is the evidence presented in a recent study (*Strategias para el Control de las Infecciones Agudas*, Barriga, P.), which suggests that many health workers, even those trained, often fail to abide by the ARI norms. The same report suggests inappropriate use of antibiotics.

As part of earlier child survival efforts, community health volunteers had been trained to identify simple respiratory infections, provide very basic ameliorative care (to prevent overtaxing the UPS), as well as to recognize the danger signs of pneumonia, and when to refer to a health center or hospital. What has not happened yet is training to appropriately treat pneumonias ir. the community. Efforts have just begun to address this issue through the pilot and nationwide ARI programs. Proper case management by trained health workers in the community could help keep children alive until they can get to the next level of care. Most importantly, the referral system starts with health-seeking behaviors in the home, and parents and caretakers need to learn the seriousness of early symptoms and the need to respond.

2. Diarrheal Disease/Cholera Control

The Control of Diarrheal Disease Program (CDD) was created in 1982 by Presidential Decree. The CDD was structured around the promotion of health behavior change, prevention and treatment of dehydration, use of ORS, and community participation.

Mass media and communication campaigns have been very effective. ORS packets--known locally as Litrosol--are recognized, used, and distributed in most towns and villages throughout the country. In 1994, the rate of access to ORS was 65 percent and the rate of ORS use was 40 percent (MOH/ DDCP, 1994).

Between 1988 and 1992 the number of diarrhea cases reported decreased considerably. The EFHS in 1991 reported a substantial reduction in the prevalence of diarrhea, from 20 percent in 1984 to 12 percent in 1987. Purgatives, as a treatment of diarrhea, were reported to have declined, from 50 percent in 1983 to 23 percent in 1987. Ninety-six percent of mothers continued

to breastfeed during diarrhea, up from 72 percent in 1983. It is probably overly optimistic to assume that this reported reduction is real. One reason may be due to the fact that the two surveys were conducted at different times of the year; i.e., the rainy season and the dry season.

Acute diarrheal disease is still one of the leading causes of disease and death, and a principal reason for consultation in the health system. The environmental conditions and the accessibility to water seem to have improved in the country, but there continues to be a need for more latrines and proper management of sewage. Also, failure to breastfeed exclusively from zero to six months, poor economic and environmental conditions, and deficient hygiene practices are reasons for the continued high prevalence.

When the cholera epidemic began in the country in 1991, the MOH initiated several activities with the assistance of PAHO. One of these was the creation of Community Oral Rehydration Units (UROC) based on the existing experience with community distributors of ORS. The UROCs never functioned as rehydrating units for cholera, but had a role in educating the community, rehydrating children, and referring cholera cases to the UPS. However, these same functions could be accomplished through other mechanisms.

The DDCP reports an increase in the case fatality rate due to diarrhea in clinics and hospitals. This could be expected if milder cases are being appropriately treated in the community, and only severe or advanced cases arrive at these facilities. The CDD has developed National Plans of Action for the management of the problem in the country. Also, a proposal for the improvement of the epidemiologic study of the disease and the creation and maintenance of sentinel sites with a system of information similar to cholera, has been developed.

3. Immunizations

The EPI objective to reach 95 percent compliance in children less than one-year-of-age has been accomplished. The objective to vaccinate women of fertile age with two doses of tetanus toxoid, has reached 87 percent of the women of fertile age in the country. In 1995 Honduras was certified as having eradicated polio, and at the same time, international donor agencies pledged to maintain their support for EPI until the year 2000.

The year 2000 goals include elimination of measles, tetanus, and whooping cough. Eighty percent of the budget for EPI is provided by the GOH. The rest is contributed by a group of donor agencies that comprise the Interagency Committee for EPI.

USAID contributes to EPI by supporting the cold chain with facilities, vehicles, equipment, training, and monitoring. The logistics of the cold chain include procurement, storage, tracking of supplies, transportation, and support services. The system is centralized and runs from the "Centro de Biologicos" in the Capital, to the regions and areas.

Problems which affect the sustainability of the cold chain are the need for transportation, fuel, and trained maintenance personnel. Nine hundred and ninety-six (996) refrigerators are distributed in the nine health regions in the MOH system. Of these, 30 percent or 298 are reaching the end of their useful life and need repairs and parts. Eighty are about 25 years old. Approximately 100 UPS do not have refrigerators; 80 are new facilities. Sixty percent or 328 of the refrigerators do not work effectively because of lack of fuel. This fuel could be purchased locally, but centers are not permitted to do so. Lack of transportation affects active supervision as well (*Situación Actual de la Cadena del Frio en Honduras.* Dra. I.B. Molina/1995. Annex 10, Table 2).

Horizontal EPI, or daily vaccination on demand, is the norm in all health centers. Vaccination campaigns have been reduced to a once-a-year activity. The "Listado de Niños a Vacunar" (LINVAC), is maintained as a tracking and monitoring instrument for children under the age of five years.

An extension of LINVAC is the "Listado para la Nutrición y Vigilancia Integral"--"Nutrition and Integral Surveillance List"-- (LINVI), which monitors children's growth and identifies children at high risk for malnutrition. The LINVAC assist health personnel in the UPS to accomplish their goals. Community health volunteers also use the LINVAC to track children in their area of responsibility.

4. Growth Monitoring/Breastfeeding

The promotion of breastfeeding has been supported by USAID for almost two decades. Efforts include PROALMA ("Programa de Alimentación Materna"), activities implemented by "La Liga de la Lactancia Materna de Honduras" (LLMH), and the breastfeeding communication/health education plan, developed by the MOH/DES and AED. The program for elimination of artificial milk and the initiation of rooming-in in hospitals was successful in 100 percent of cases. The community side of promotion was based on breastfeeding counselors (BC) to promote breastfeeding with mothers in their communities (peer counseling). The influence of 438 counselors and 61 promoters trained in Region 3 and Metropolitan Region by LLMH have reached a great number of mothers. It appears that average months of breastfeeding in the target areas have increased.

Since 1992, the MOH has been implementing the POSAIN in two health regions and in 16 UPS. The objective of POSAIN is to secure community participation to monitor children's growth, promote early identification of problems, and foster community involvement in the solution of problems, thereby effectively integrating the two systems: health providers and the community. POSAIN also integrates prenatal care, using the high-risk approach.

The extension of POSAIN to the community is accomplished through a network of volunteers who follow the Protocol for Investigating Inadequate Growth in Children (PINNCA). This training document is designed to help volunteers to recognize nutritional problems early and

initiate a series of interventions to correct and treat the problems and educate the mother. The health worker is supposed to maintain a census of his/her area of work with information on nutrition and immunization status, and child development milestones.

One of the program's merits is its integration of the community and the health system. Also the inclusion of prenatal care gives greater emphasis on the mother in the essential health care of mother and child. The information collected by volunteers and validated in the UPS could be used as a reference for future studies on mothers' health, morbidity, and mortality.

5. Role of PVOs in Child Survival Activities

Private voluntary organizations in Honduras were contracted by HSII to implement child survival activities, and to cover remote rural areas not covered by the MOH system. HSII provides supervision, monitoring, and general support for the ten PVOs who implement child survival activities. PVOs serve 245 communities with a population of over 130,000 children less than five-years-of-age. Sixteen health centers have been built.

The managerial capacity and technical ability of the PVOs, to carry out their work, varies. Current PVO sustainability depends on the support of donor agencies and on the strength of their own collaborative support. The PVOs in general have poor potential for financial sustainability. Some larger or more established PVOs are certain to continue their activities. Smaller or newer PVOs require a great deal of project support to achieve sustainability.

BASICS can be an important resource to strengthen PVOs, as well as to reinforce and improve MOH child survival services. The BASICS proposal should be implemented and expanded to include PVOs.

C. REPRODUCTIVE HEALTH

1. History

USAID has been supporting the MOH in family planning efforts since 1965. However, the impact of these early projects is less than optimal and engendered active resistance from some conservative groups. By the late 1970s, the GOH approved a strategy that avoided confrontation with conservative social forces. This strategy treated family planning as a health issue, avoiding considerations of religiously and politically charged demographic issues. In 1985, the Health Sector I project was modified to reflect the GOH emphasis on family planning as a reproductive risk strategy. Health Sector II, which began in 1988, was consistent with this GOH strategy. The HSII project expanded the reproductive health activities and continued support for the public sector.

A separate Department was set up in the MOH (about four years ago) specifically to address women and their health care needs. Family planning and reproductive health became an integral part of women's health, including prenatal, delivery, and postpartum services as well as breastfeeding promotion and cancer detection. This Department is part of the Division of Maternal/Child Health.

2. Maternal Mortality and Reproductive Risk Factors

The maternal mortality rate (MMR) of 221/100,000 live births was calculated in a study completed in 1990 (22) through the combined efforts of UNAH, MOH, PAHO, MSH, and USAID. It was one of the first scientifically-designed estimates of maternal deaths in Honduran history. The study determined that the MMR was much higher than previously estimated. It also showed that women 35-years-of-age or older, and 18-years-of-age or younger were at a higher risk for maternal mortality. Nulliparity, greater than four births, and birth intervals less than 24 months also produce a higher-than-average risk. The study cutoff was 15-years-of-age, although there are a number of births to younger women. Social factors studied showed the relationship between education of the mother, condition of the home (dirt floor), and limited access to health services and maternal mortality. Biological risk factors included age and parity and preexisting diseases, such as diabetes, heart disease, and others.

This study stimulated the MOH to place more emphasis on women's health issues, and also provided the MOH with a strong incentive to initiate plans for a reproductive risk approach, which is now being implemented. Certain difficulties have been encountered with the implementation of this approach. Training of health personnel, especially in family planning, has been slow at best. Developed norms and procedures were not published for three years, awaiting the signature of a Ministerial Resolution. Other means of teaching health care workers, such as guides, protocols, and aids have not been developed as yet. In the *Manual de Normas y Procedimientos de Atención Integral a la Mujer*, many of the activities have protocols attached. However, simplified protocols and guides would certainly increase the speed with which the norms could be implemented. It was obvious during field visits that personnel on the level of CESAMO or CESAR had difficulty with implementing the reproductive risk strategy and needed some simplified tools to make the strategy real for them.

3. Reproductive Risk Strategy

The reproductive risk strategy of the MOH consists of two basic goals: 1) reducing reproductive risk through birth spacing and reducing the total number of pregnancies; and 2) identifying risky pregnancies and providing enhanced services. The strategy identifies all women of fertile age, defined in Honduras as women between 12- and 50-years-of-age, and divides these into two risk groups: non-obstetrical and obstetrical. Family planning is used in both groups.

The **non-obstetrical risk approach** encourages family planning to postpone pregnancy, especially in women who may have unfortunate outcomes.

The **obstetrical risk approach** identifies women who are pregnant and demonstrate risk factors for maternal mortality and poor birth outcomes. When risk factors are identified, the woman is referred to a higher level of care or specialization.

The reproductive risk strategy requires systems of monitoring, referral and prompt treatment of situations as they arise, whether predictable or not. Implementation also requires education of health providers, and IEC for health providers and communities.

The MOH with the collaboration of MSH published a document, *Sugergencias para la Implementacion de Estrategia de Riesgo Reproductivo* (27), three years after the strategy was introduced. Many good ideas were expressed, but few have been put into practice. The first suggestion was to revise norms and this has been accomplished. The *Manual de Normas y Procedimientos de Atención Integral a la Mujer* was published this year (84) and should assist the MOH enormously in educating health care providers in the practice of reproductive risk monitoring and activities. Training is being implemented slowly, and has not yet reached the UPS.

IEC materials on the reproductive risk strategy have not been developed for health care providers, communities, or community health workers such as TBAs, guardianes, promoters, and community leaders. An enormous communication effort will be required to alert the population to risk factors and what to do about them, as well as to promote family planning services in general.

Another part of the reproductive risk strategy is the prompt treatment of situations as they arise, whether predicted or not. This in general means an **obstetrical emergency**--either during pregnancy or during delivery--such as an undetected malposition of the fetus, hemorrhage, retained placenta, premature rupture of the membranes, or premature initiation of labor. These emergencies require referral to a higher level of care where prompt treatment can be offered.

One system being implemented in a few areas in Region 5 is the use of a community roster of women, containing information concerning age, parity, reproductive history, and family planning use and method, as a means of detecting women at risk, obstetrical or non-obstetrical.

This women's roster is a useful instrument for risk detection and referral and should be implemented more widely. If used appropriately, it could permit health care providers and community health workers to better implement the reproductive risk strategy.

4. Referral System

Risk screening can be useful when based on systems of monitoring, referral, and prompt treatment of situations as they arise, whether predicted or not (23). Community personnel, such as TBAs, guardianes, promoters, and family members are taught signs of reproductive risk and obstetrical emergency that require referral to the next level of care. Referrals are made on an individual basis according to the seriousness or immediacy of the problem. On field visits we found some hospitals (regional and area) poorly equipped to handle either emergencies or high-risk pregnant women.

A referral system is established in the Norms for Women's Health Care published by the Ministry. Referral systems have always been a priority for the MOH and are well described in these norms. Referral systems in rural areas are more difficult to put into practice because of lack of transportation, great distances to travel to the next level of care, the cost to the patient of getting to the referral site, and the overall lack of information at the community level, on the part of the mothers and the community health workers. As an example, in one community visited, a woman in labor at home who required referral to a hospital, had been unattended for 12 hours.

The MOH is making efforts to change this situation. They are supporting training for community health workers to become acquainted with referral institutions and their services. This is evidenced by the development of a new TBA training model (86). This training allows the TBA to actually visit the referral institution and become acquainted with the services that are provided, leaving her with a clear understanding of what her patient will encounter when she reaches this level of care. The MOH is also working with communities where birth centers are attended by TBAs, to get the community to provide transportation in cases of obstetrical emergency. At the university level, the MOH has designed and implemented a reproductive health curriculum in the University's Nursing School. Also, at the Nursing School a Master's degree program in Maternal/Perinatal/Child and Family Health has been designed and is being implemented. The Medical School has also designed a specific reproductive health curriculum, which will not begin until next year. All of these efforts will make a positive contribution to solving the problem of untrained personnel in the rural areas as well as at the hospital level in the management of obstetrical emergencies. These actions will only serve to strengthen the referral system.

In terms of training it is important to consider other resources as well. ASHONPLAFA has been training physicians and nurses for the MOH for some time. This is an ongoing program. However, in Tegucigalpa the size of the clinic is not adequate to train more than two at a time. These physicians and nurses are trained prior to completing their year of social service, and are generally assigned to CESAMOs, the referral center for family planning services (especially intrauterine device (IUD) insertions) from the CESAR and community. ASHONPLAFA has been able to pay per diems for this training. To make this training plan more effective, it is suggested that the Honduran Social Security Institute (IHSS) be used as a center for training personnel. However, neither the MOH or the IHSS have funds for paying per diem for these nurses and

physicians. USAID might consider providing funds to pay these per diems as a means of extending family planning services, thereby making a combined public and private sector effort to implement the reproductive risk strategy.

Development of hospital services should be parallel to that of primary level health center services. USAID policy concerns itself with primary health care and not hospitals, but the poor functioning of the referral system is often due to a hospital's inability, for lack of equipment or supplies, to provide care to women at risk or with obstetrical emergencies. Alternatives need to be explored for providing the needed equipment and supplies in the referral hospitals.

5. Supervision of Reproductive Health and Family Planning

A more detailed report of supervision systems overall can be found in Sustainable Support Systems, Section III.A. The MCH Division of the central-level MOH is the only division which regularly plans supervisory visits to regions, areas, and lower-level personnel. In the area of reproductive health and family planning, the supervisor must be trained not only in supportive supervision, but also in technical skills and in the health, social and demographic benefits of family planning. This is the only way that supervision can become facilitative and supportive.

6. Contraceptives Distribution and Availability

From 1989 to 1996 USAID has provided a total of 4,483,000 cycles of Lo-Femenal, 31,008,000 condoms, and 192,800 Copper T IUDs to the MOH and IHSS. Although the system of distribution of contraceptives has improved, there is still no mechanism to assure that each center has the contraceptives that they need. Contraceptives have been added to the essential medicine list and distributed accordingly. The distribution system is described in Sustainable Support Systems, Section III.A. It is estimated by USAID and the MOH that close to half a million women in Honduras are using some method of family planning. On field visits, some health centers had few or no contraceptives, while others had an oversupply. We were told that this situation is the result of not receiving the amount of contraceptives ordered and programmed.

Continuity of family planning services depends on availability of the methods mix used by clients. A client in Santa Cruz told us that she used to get her contraceptives (pills) at the CESAR (which on our visit was closed), but because of inconsistent availability, she now buys her monthly supply of pills at the pharmacy in the center of the village. She has been using oral contraceptives for three-and one-half years. In another field visit to the hospital at Danlí, the family planning clinic was observed to be very crowded. This is a regular phenomenon, apparently due to the regular supply available at the clinic or from the ASHONPLAFA clinic only a half block away.

7. Traditional Birth Attendants (TBAs)

Tradtional birth attendants in Honduras have attended births long before the TBA became of any concern or interest to the MOH. During the 1960s the College of Physicians recognized the TBA as a part of the health system and training was developed to involve TBAs in Ministry programs, albeit a nonparticipatory lecture training format. Considered a resource in lowering maternal and perinatal mortality, the training of TBAs did not produce the intended outcome. The MOH established two reasons for this poor outcome: 1) the inappropriateness of the training methodology; and 2) the lack of supervision and follow-up (86).

A new methodology, based on the reproductive risk strategy, was designed in the early 1990s and tested in some four regions in the country. With some modification, this became the training modality for the entire country. In 1993-94, some 4,126 TBAs were trained using this new method by the MOH in collaboration with several NGOs who took responsibility for assisting in the training and the supervision and post-training follow-up (122). The training was implemented in seven regions involving ten departments. Eleven NGOs participated, and all the training was accomplished between January 1993 and April 1994. About 28 percent of the trained TBAs received follow-up and supervision. Some 154 TBAs were lost to the system during this time. The evaluation is not yet complete, but evaluators from the MOH have reported that more TBAs are referring women with risk factors than before.

It is well documented in many countries that maintaining TBAs in the health care system will have a positive impact in lowering maternal and perinatal mortality rates (23), especially when there is an appropriate training methodology, supervision, and follow-up. Bringing TBAs into the reproductive risk strategy will probably be effective. Further evaluations will be needed to show the impact of doing so.

D. WATER AND SANITATION

1. Objectives

Project Agreement Amendment No. 19 to HSII, establishes the purpose of the water and sanitation component: to support, strengthen, and continue the process of extending the coverage of efficient, sustainable, and effective rural water and sanitation (RW&S) services. A strategy to help achieve the project purpose is the decentralization of management, decision making, and budgeting authority, both within the national health system and within SANAA. The focus of the project is nationwide, with RW&S activities concentrated in Health Regions 3, 5, and 6, where the rates of malnutrition and child mortality are particularly high.

The amendment identifies 550,000 rural beneficiaries living in communities with less then 2,000 inhabitants. These communities organize water boards (CWB) with SANAA's assistance in

planning. This model moves SANAA from delivering services as a utility, and focuses on SANAA's planning function, a transition supported by other donors as well. Services are provided through SANAA, the Directorate of the Environment of the Ministry of Health (MOH/DE), and, to a lesser degree, PVOs. Another objective of the project is to transfer the constructed systems to the community water boards (CWBs), who will be in charge of the operation, maintenance, and administration of the systems.

2. Achievements

The RW&S aspects of the HSII Project have been very successful. These include the construction of water systems and latrines; organizing the communities to ensure maintenance of the water systems; and health education for the maintenance of systems, water storage, and hygiene. The GOH provides counterpart funding. Beneficiary communities provide labor and some local materials for construction. They also make a commitment to operate and maintain the system through the payment of monthly fees to the local CWB (Junta de Agua). PVOs have successfully fulfilled project objectives in inaccessible areas. Field visit observations have demonstrated that the RW&S infrastructure is well constructed, CWBs are functioning, and health education is good and meets the needs of the beneficiary communities. Coverage in the rural areas was 48 percent at the beginning of HSII, and is expected to reach 65 percent by the project's end.

Project expectations and results achieved at the time of this second midterm evaluation are summarized in Table 1. A remarkable achievement is the continuous maintenance of constructed systems. This is due to the project's insistence on the organization and training of local water boards, and health education.

3. Implementing Agencies

The Environmental Health Division in the Ministry of Health, SANAA, and six PVOs are responsible for implementing the water and sanitation component of HSII. The PVOs include: 1) Save the Children, 2) Catholic Relief Services, 3) Water for the People, 4) FEDECOH, 5) APRODIB, and 6) CEDEN). Together they have completed 172 of 257 (67%) RW&S systems planned. The PVOs work for the integrated development of their target communities and have a dedicated and well-trained network of promoters, which has contributed to their success in the establishment of CWBs, and health and sanitation education.

The PVOs are widely recognized for the high quality and low cost of their work, as well as their ability to serve remote, dispersed, and difficult-to-reach communities. The capacity and success shown by the PVOs presents a model for reducing costs for extending rural water and sanitation services and should be explored as USAID faces reduced funds under the HSII Project extension.

Table 1. Health Sector II Rural Water and Sanitation Objectives and Results, Honduras, 4/95.

OBJECTIVES FROM AMENDMENT No. 19	RESULTS AS OF APRIL 1995
550,000 inhabitants of villages with populations less than 2,000 in Regions 3, 5, and 6 will have access to potable water and latrines.	485,500 persons have benefitted. **Percent target reached: 88%**
700 aqueducts will be constructed by SANAA and 80 by the MOH.	659 aqueducts constructed, 570 by SANAA, and 89 by the MOH. **Percent target reached: 90.3%**
1,000 wells equipped with hand-pumps constructed and improved by the MOH.	876 wells with hand-pumps constructed and 237 improved by MOH. **Percent target reached: 59.3%**
57,000 water seal latrines to be built, 37,000 by SANAA and 20,000 by the MOH.	70,249 water seal latrines built, 33,488 by SANAA and 36,761 by the MOH. **Percent target reached: 91.2%**
20,000 pit latrines to be built by the MOH.	13,324 pit latrines installed by the MOH. **Percent target reached: 66.6%**
73 septic tanks to be installed, 50 by SANAA and 23 by the MOH.	72 septic tanks installed, 15 by SANAA and 57 by the MOH. **Percent target reached: 98.6%**
Six TOMs working for SANAA.	Six TOMs working for SANAA. **Target reached**
36 additional promoters trained by SANAA.	107 technicians and promoters trained. More than 30 professionals trained in different areas, including six trained in sanitary engineering. **Percent target reached: 297.2%**
A water quality control laboratory established.	A water quality laboratory has been installed in El Progreso. **Target reached**
Each water system will have a chlorine residual testing kit.	All water systems have a testing kit. **Percent target reached: 100.0%**
Six PVOs working with SANAA.	Six PVOs working with SANAA. **Percent target reached: 100.0%**

4. Beneficiary Communities and the Community Water Boards

Beneficiary communities are organized to provide labor and local materials. They also make a commitment to finance operation and maintenance costs through payment of monthly fees to the local CWB (Junta de Agua), elected by the residents themselves.

Each CWB contains three to five community members. The CWBs have been trained by SANAA and the MOH/DE in system administration, system operation and maintenance, and the determination and adjustment of fees. Neither SANAA nor the MOH/DE distinguish between preventive and corrective maintenance, and only concentrate on the latter.

The CWBs observed during field site visits were conscientious. With their own resources, they purchased required parts and contracted repairmen to fix their water system. The members of the CWBs were highly motivated by the benefits they obtained from the water systems. To maintain their active participation and interest, periodic promotion and technical assistance should be offered.

Periodic supervision/training visits from a specialist can help to motivate the CWBs to maintain the systems and inspect the watersheds. While this would involve a certain cost, it is far less costly and of greater benefit to sustain a functioning CWB and water system, than to have to reestablish one that has ceased to function. It would also be of benefit to create simple, low-cost incentives for the CWB, such as certificates or letters of commendation for well-functioning systems, or for maintaining their watershed or water system in good condition.

Another important element is the legal incorporation of the CWBs, which SANAA provided at the finalization of the water system construction phase. Through this the CWB could establish bank accounts, own property, and apply for credit, all of which increase the possibilities that systems will be maintained and improved.

5. Community Hygiene Education

Community education is of great importance, as it helps to establish good hygiene practices and educate the population in the proper use and maintenance of water and sanitation systems. Without this important adjunct to the construction of water and sanitation systems, potential benefits are limited. Initially, sanitation educators and health promoters implemented community health education programs with very good results. Unfortunately, this good beginning has not continued. Health, sanitation, and personal and environmental hygiene education is deteriorating for lack of refresher training, as well as for a lack of new training activities and techniques, especially for children. If hygiene and sanitation practices are not reinforced and renewed, they tend to disappear.

This area requires sustained support and promotion from HSII. Previous health education programs should be reviewed, revised, and repeated. This could be carried out by the MOH/DHE in collaboration with the MOH/DE and SANAA. The environmental health technicians could assist in implementing the health education, along with local health personnel.

6. Protection of Watersheds

Some efforts have been made to coordinate institutional actions to protect watersheds, especially for rural water systems. These efforts have not been successful as there is no clear policy yet. CWBs are aware of this problem, but have been reluctant to take specific actions due to lack of knowledge of the legal issues and of the institutions that could assist them. It is important to define a clear policy and a practical strategy which would guarantee protection of the watersheds. One suggestion is to establish regional nurseries with carefully selected, resistant species which could be planted in the watersheds by the communities and maintained by the CWBs.

7. Participation of Women

Women have gradually become more active participants in the CWB. Originally, CWB membership was predominantly male. Now most of the CWBs have female participation, where women serve as members and officers. In some communities, especially in Miskito and Garífuna areas, the CWBs are predominantly women.

8. Water and Sanitation Technicians

a. Technicians in Operations and Maintenance (TOMs)

This is one of SANAA's innovations that has produced excellent results in the improvement of old water systems, by providing adequate technical supervision that guarantees the system's sustainability. There are six TOMs in SANAA's regional office in La Ceiba, and plans are underway to train new TOMs for the rest of Honduras.

b. Water Sanitation Technicians (TAS)

The water and sanitation technicians work for SANAA and perform some of the same tasks as the MOH health promoters. The original goal was to train 36 technicians, yet 107 have been trained as of March 31, 1995, which is 297% of the original objective.

c. Environmental Health Technicians (EHTs)

To provide better coverage in environmental health, the MOH created the Environmental Health Division and a new cadre of multi-purpose community workers known as EHTs. The EHT is envisioned as a highly-trained employee who can assume responsibility for all areas of environmental health.

E. PROJECT MANAGEMENT/IMPLEMENTATION

Since the departure of the contractor, Management Sciences for Health (MSH), project management has consisted of two components: 1) a Project Coordination Unit headed by Dr. Gustavo Bardales and located outside the premises of the Ministry in downtown Tegucigalpa in Edificio Alonso; and 2) a Mission-based staff.

The Project Cordination Unit consists of 16 employees: a Coordinator and Deputy, overseeing Program, Finance and Purchasing Officers; a Comptroller; Financial Administrator and Property Manager; and accountants and secretaries. The office has two vehicles and a number of outdated computers. The PCU manages the project through two instrumentalities: 1) financial/ administrative; and 2) monitoring and evaluation (M&E). The PCU tracks expenditures and prepares reports on such items as central and regional revolving funds, per diem payments, and facility repairs. Regional expenses are reviewed. These reports are submitted to the MOH Administrative Unit before being forwarded to the Ministry of Finance (MOF). Routine evaluation and monitoring visits are made to each region.

The USAID Mission project staff includes: a Health and Population Officer, Dr. David Losk; an Administrative Officer, Mr. Ross Hicks; a TAACS Advisor, Dr. Stanley Terrell; a Water and Sanitation Advisor, Mr. Herb Caudill; a Monitoring Officer, Dr. Antonio Pinto; and a Public Sector Population Advisor, Dr. Angel Coca. The team brings substantial longevity to the project. Dr. Pinto has been an FSN with USAID for more than ten years, and was formally Director General of the Ministry of Health. Dr. Coca was also with the Ministry before joining the project.

The Administrative Officer in USAID/H monitors and projects expenditures and submits financial reports to the Health and Population Officer and the PCU. The USAID/H Financial Development Office reviews accruals and acts as liaison to the Ministry of Finance (MOF). The PCU is provided a revolving fund for expenditures to the regions. These expenditures are reviewed by the PCU, and sent through the MOH to the MOF. If deemed legitimate, the expenditures are reimbursed to the Central Account Fund (CCC) by USAID/H. Project expenditures are authorized through a series of PILs that obligate USG funds and authorize the MOF to disburse local Lempira funds to the MOH.

The Ministry, through the PCU, receives an annual budget for commodities and local cost project activities. USAID retains non-local technical assistance (TA) funding. The PCU serves both as a conduit for these funds and provides TA for the Ministry in satisfying project technical and administrative requirements. The process of making funds available for a project activity can take as little as two months to as long as eight months from initial request. This has significance for the extension of the project, which will terminate in May 1998.

The PCU monitoring and evaluation site visits are conducted jointly with USAID staff. A standard protocol was developed early in the project and with minor modification has been used

throughout. Eleven CESARs are selected by a quasi-random method (with replacement for closed centers), visited, the auxiliary nurse interviewed and the facility observed. The instrument is quite lengthy and collects important information, some of which is used in this evaluation. It records supervisory visits, training, presence and absence of supplies, and other issues. However, the instrument collects relatively little information about the quality of the performance of any of these activities, or the quality of performance of specified tasks. Results of the one-week visits are tabulated and presented to the regional and area staff. These results are also collected in a project database saved in a Statistical Package for the Social Sciences (SPSS) system.

There has been a reluctance to change this system, both for comparability from year-to-year and because the PCU does not have the capability to program and analyze these data. In the one monitoring and evaluation visit, which the Midterm Evaluation team was able to attend in Region 6, the reports were read to the assembled staff, but discussion was desultory, and regional staff quite defensive. All problems were blamed on vehicles, the increase in per diem rates (even though 1994 was being discussed, before the new rates went into effect), and failures at the central level (receipt of funds and medicines), about which the region could do little. Few actionable responses were identified. There does not appear to be a formal follow-up mechanism to respond to issues identified in the site visit.

One essential element in management is the relation between USAID and the MOH. A close working relationship guarantees that the conditions specified in this question are met, i.e., that project management furthers the goals and objectives of the project. The relationship between USAID and the PCU is excellent, and there is an atmosphere of collaboration and support that is exemplary. However, at the level of the region, it is less clear how effective the project is at influencing events.

The first midterm evaluation was tasked with addressing difficulties in financial tracking and reports. These issues have been addressed subsequent to the evaluation. Financial management recommendations have been developed through local technical assistance and need to be implemented. Continuing issues include concerns about managing the project in a decentralized fashion. Currently, a carrot and stick approach is used. Local cost project funds are the carrot retained by the PCU so that its recommendations will be taken seriously at the regional level; the monitoring and evaluation visits are the stick. This relationship should probably be reversed, i.e., if the monitoring and evaluation function were transformed into a continuous management/health information system, and if this system provided necessary information for use at the level of the region, project staff could continuously interact with regional and area personnel to deal with problems. A regional or area revolving fund could be set up so that local staff would have greater authority, and regular financial reviews would provide the necessary stick. Site visits could be transformed into quality assurance visits: observations and reviews of performance, training, and problem solving. Each visit could include presentations by the area directors about specific programs, a small survey, outcomes of a training exercise, and/or demonstration of a new analytical tool or skill.

In brief, the project management team, including the PCU and USAID/H, has furthered the project goals, and work closely and effectively together. However, given the limited time for the extension, USAID's focus on results management, and the newly proposed goals of focusing the project on implementing projects in areas, current PCU functions should be transformed and enhanced.

Currently, the PCU channels funds to the regions. One overall recommendation of this project is to identify health areas in which the project will now focus. Should this recommendation be adopted, the following scenario is suggested. The PCU and area and regional authorities will draw up an annual workplan and budget for local costs in consultation with USAID. Separate revolving funds accounts will be drawn up for each health area. These funds would be added to the local cost budgets currently managed by the PCU. In order to assure a close working relationship with the Ministry, the PCU and the Division of Planning would jointly develop the H/MIS. This would require an increase in capacity of the PCU and the Division of Planning to provide reports, which would include new cost tracking and disbursement systems. The Ministry would also have to be strengthened to implement a H/MIS, a quality assurance approach to supervision and evaluation, and other systems. The Ministry/PCU collaboration, starting from a relatively small size, could become the model of a future central-level Ministry: focused on technical assistance, supervision and monitoring, health/management information systems, cost tracking, and relations with external donors.

The 1991 midterm evaluation identified a series of concerns about the PCU. Following up on the recommendations, the project supported an in-depth analysis of the functioning of the Unit and identified local technical assistance to prepare plans, activities, and manuals to address these problems. These reports (115,116,117,119) were submitted in March 1995 and the reform process has only just begun. The reports themselves are solid and well conducted and promise to greatly improve the accounting system of the PCU. These reforms might serve as the basis for reform throughout the Ministry as well. This is an example of how the PCU serves as a test bed for administrative and other reforms.

The PCU works directly with the regions to achieve project goals. However, when governments change and Ministry staff change, this relationship is impeded. It is critical that USAID explore mechanisms for guaranteeing continuity in administrative and financial management arrangements.

For the future, counterpart funding for salaries needs to be maintained at or above the current level (Ls.1,500,000/yr.). The new scope of work will call for an enhanced role for the PCU. A second concern is that PCU staff are not permanent employees of the Ministry, and investments in the PCU might not become institutionalized. It is necessary for the Ministry to consider how to incorporate the PCU or how to provide the PCU permanent staff to ensure institutionalization. The increase in per diems proclaimed by the Ministry will also greatly increase project costs. Per diems for Ministry personnel might also be requested through counterpart funds.

F. CROSS-CUTTING ISSUES

1. Decentralization

Decentralization concerns the devolution of Ministry functions to more distal units. Both a Ministry policy and Health Sector II priority, the project has focused on devolving management and administrative responsibility to the regions. HSI, focusing on central-level systems, and HSII, focusing on regional systems, lead inevitably to a focus on further decentralization beyond the regional level. The logic behind decentralization is persuasive. The primary function of delivering services to beneficiaries of the health system is best served by focusing resources closest to the level of care. Service is improved if outputs respond to beneficiary needs and concerns, rather than the needs of organizational entities distant from the service.

Both the Ministry and the HSII project staff are seriously committed to decentralization. Budgeting and personnel responsibilities have been assigned to the regional level. At the area level, DOFUPS is present in some form in virtually all UPS, and it is credited with improving local management and health care services. Table 2 in Annex 6, Sustainable Support Systems, demonstrates the success of the implementation of DOFUPS. The table reports evaluation and monitoring data collected by the PCU. The data are the number of CESARs reporting the implementation of any element of the DOFUPS system.

There have been difficulties with the implementation of this system that are not reflected in the table. This table reports any element of implementation, rather than complete implementation and use. The major difficulty appears to be training in the use of the system, which has not been fully applied at the area and sector levels. Inadequacies exist in supervision, training, and health information systems. Additionally, there is little communication across sites within the area. Mechanisms do not exist to evenly distribute resources, such as pharmaceuticals, across sites. At the central level there is still very little timely data available about management and administration at the regional and area levels.

Although budgeting and finance have been decentralized to the regions, many functions such as drug procurement, are still centralized. Section III.A.4. reports on MOH/Commodities/Logistics Systems/Administration and demonstrates these difficulties. UPS are out of medications more than one-half of the time. For example, in 1995, this procurement has been delayed and there appears to be many more stockouts and shortages than in 1994. In fact, site visit evaluation and monitoring data from 1995 collected so far, paints a different picture than 1994 data. Overall, the evaluation and monitoring data do not provide enough information about the quality of either the implementation of these components or services. This is a critical issue, since quality of services will determine efficiency, use, and success.

Ultimately decentralization should devolve many management responsibilities beyond the level of the region to the health areas and to the community. Community participation appears to be very

low. Only 13 of 42 households (31%) adjacent to the health center report any kind of participation in maintenance or support of health center activities. Empowering users of the services will ultimately assure sustainability, but there are serious administrative and management issues and concern about the quality of services that need to be addressed.

There are impediments to complete decentralization, many legitimate. Organizational issues within the Ministry may also impede this devolution. First, some functions or services need to be either centralized or retained at the central level. These include several financial functions, technical oversight, and activities involving high levels of training and technical skills, such as the design and implementation of mass media communication campaigns. Second, current MOH organization may create difficulties for decentralization of functions. The division of the MOH into three subsecretariats separates technical units such as the Division of Education (in the subsecretariat of Sector Policy) and Maternal and Child Health (in the subsecretariat of Population Risks) from regions and areas (in the subsecretariat of Service Networks). Lastly, true decentralization would mean relatively autonomous budgets in the region or area, linking the Ministry of Finance directly to regions or areas. If that were to be the case, there would be little reason for the regions or areas to respond to central-level requests or to respond to technical mandates.

These issues create substantial, but not intractable, concerns. It needs to be remembered that the ultimate goal of decentralization is to improve services and improve health, and this organizational refocus is only a means to achieve these goals. Process and organizational goals are likely to take substantially longer to implement than well-established project-based health technologies. Additionally, the ability to implement organizational or administrative changes is hampered by the lack of effective on-the-ground models. Many training, referral, and supervision needs, for example, cannot be met with current systems.. Additionally health components, such as ARI and the reproductive risk strategy, do not appear to be adequately operationalized or implemented at the local level.

Ultimately, decentralization promises local responsibility and control of health services, including enhanced participation, local financial support, and reduced burden at the central level. This should be the goal of decentralization, while retaining effective central systems for monitoring, research and evaluation, technical assistance, and training. Central to this effort to create effective decentralization, is the need for information systems that link central authorities with peripheral areas and permit the devolution of responsibility. This goal has not yet been achieved, but this evaluation suggests some of the mechanisms required. Elements of this decentralization plan could include:

- Sentinel area sites where project elements can be operationalized and implemented.
- Development of management/health information systems to monitor progress and to be used as a model for the Ministry.

- Exploration of other training and supervision models, such as horizontal training and supervision.
- Ways to explore and promote effective community participation in planning and paying for services and drugs established.
- Communication plans and normative programs implemented.

2. Sustainability

The sustainability of components of the Health Sector projects has been a concern since HSI was initiated more than a decade ago. The development of sustainable and replicable programs has been an explicit goal of the project. The question has a heightened significance here, since it may be likely that support to the health sector will cease upon completion of HSII.

Sustainability can be conventionally divided into three components:

1. Institutionalization of project programs, processes, and values.
2. Sustainability of program effects.
3. Ability and willingness to finance the programs.

Institutionalization of project programs, processes, and values.

Institutionalization refers to the incorporation of project objectives and goals, technologies, and management and administrative processes, into routine and non-project Ministry activities. In this sense, the project is institutionalized. The Ministry is the implementing agency for the project, and central and regional staff execute the programs as part of their routine work. HSI and HSII initiatives in health technologies were either jointly developed or adopted in the areas of diarrheal disease control, ARI, water and sanitation, breastfeeding, and immunizations. However, reproductive health and birth spacing initiatives, which have just gotten off the ground have been less well institutionalized. Although the Ministry has the capability to design and implement effective health communication campaigns, this capacity has diminished from the 1980's. It is not clear if initiatives in the area of management and administrative reform or in reproductive health will be sustained without continued project presence. Ministry personnel identify project resources as their resources, and programs will be sustained with or without U.S. government funding. Project-recommended procedures have been adopted in management and administration, procurement, and other areas, although this process is not complete.

Sustainability of program effects.

It is likely that some health technologies associated with the project, such as oral rehydration therapy, immunizations, and the continued spread of water systems will continue either because of population expectations or other donor support. Litrosol, the name of the oral rehydration packet introduced by the Mass Media and Health Practices Project is now the brand name of all forms of rehydration solution. Many other brands and varieties are available in the private sector. Hondurans have come to expect improving health conditions and access to health care, and much like Costa Rica in the 1940's, health has become an important political issue played out in newspapers and political campaigns.

The project has taken steps to identify local technical assistance, which furthers capacity building and the ability of the MOH to sustain program elements after project completion. Overall, however, there has been a paucity of documentation of the implementation of programs. Little internal evaluation and analysis of programs are conducted.

Ability and willingness to finance the program.

USAID support for the Honduran health sector, which was the single largest external funding source in 1980 by an overwhelming margin, has now shrunk to 22.7 percent of overall grant funding for the health sector (see Annex 7)[9]. If loan funds are included, only 15 percent of external health sector funding is provided by USAID. Other donors are, and will continue to invest in the health sector, for both humanitarian and practical reasons. Even though U.S. Government funding is shrinking, USAID, because of its long history of involvement with the Ministry and close working relationship, continues to enjoy influence in policy and program in excess of its investment.

At the same time, the Government of Honduras invests 15 percent of its national budget in the health sector, the highest proportion in Central America, and appears to be willing to continue to do so. It does appear that many elements of the program, such as decentralization, diarrheal disease control, and EPI, will be sustained even if USG funding is reduced or terminated. However, it is less clear if emphasis will be maintained in areas that are central to USAID's family health strategy: reproductive and maternal health, administrative reform, and sustainable development.

An example is provided by the recommendations in Section III.D. Water and Sanitation. The best way to maximize the yield on the investment made in the water and sanitation sector is to continue to participate, even at a reduced level, in the sector. As new donor funds are identified,

[9] This calculation is based on an incomplete listing of both completed and ongoing foreign donor support from 1988-1993 provided by the Division of Planning, MOH.

the proven and effective strategies promoted can influence the design and implementation of programs.

3. Gender Issues

Exploration of gender issues in HSII raises more questions than can be answered in the current scope of work. Health projects which focus on child survival and reproductive health identify women as primary beneficiaries of services. Such projects certainly appear gender supportive in identifying these issues. However, these projects can also be gender insensitive. For example, the 1991 Midterm Evaluation noted gender inequity at senior management levels in Ministry and project staff and made recommendations to address this issue. Other gender concerns can be identified. Even though women are the beneficiaries of services, the gender questions that need to be asked are, "Who makes decisions about what is delivered and how it is delivered?" and "Who has access to resources and what are the costs associated with their use?"

Child survival services, and most first contact services in the Ministry system, are provided by women, and this is appropriate given the gender balance of users of these services. Women are the primary child caretakers and bring their children for care. However, her own health problems and routine preventive health services are often not addressed in that same clinic visit because services are not integrated. This raises the opportunity and other indirect costs to women for using the services. Recommendations that women bring children for care for colds, diarrheal disease episodes, immunizations, well-baby clinics, nutritional assessments and training, lectures and presentations on malaria, dengue, and other diseases, as well as her own family planning and reproductive health needs, would wear a deep rut in the route between house and clinic.

Furthermore, although women deliver the majority of these child survival services, the auxiliary nurses have little control in the organization and planning of these services and in controlling the resources needed. At the community level, because the role of the local health committees is so limited and local volunteer personnel so little supported, there is not much opportunity for women's active involvement in planning, delivering, and evaluating services, or for developing community support for the costs of services that will be so important for sustaining the services in the future. Where committees have been effective, such as the Juntas de Agua, they are almost exclusively male.

Another issue at the community level is intra-household decision making about health-seeking behavior. Do women have the ability and resources to seek care for themselves or their children? What role do men play in restricting access to services? How can men be more actively involved?

Child survival interventions have been the focus of the project since the early 1980's. However the reproductive health component and maternal mortality components have only recently been developed and are not yet well implemented. Quality of services provided in this area are not

high, and this reflects an important gender issue. No special programs have been developed to deal with women's own health problems outside the reproductive risk area.

To address these concerns and to achieve gender goals for the project, efforts need to be made to:

- Use communication and social mobilization methods to involve beneficiaries directly in the planning, organization, delivery, and evaluation of services.
- Empower local-level health personnel to respond to these needs in delivering services and reduce the opportunity and other costs of use of services for women.
- Explore household-based decision making to enhance women's ability to seek care.
- Encourage gender balance in activities such as the health committee.

4. Human Resources Development

Human resources development and the Human Resources Division are reviewed in Section III.A.3. There are two major issues discussed in this section. The first is the need to provide training for Ministry staff and to develop an effective training plan. The second deals with careers and career paths established in the MOH.

There is currently a crisis in training at many levels of the MOH. Many new programs and processes have been introduced but have not been implemented because peripheral staff have not received effective training and supervision. A systematic training plan has not been developed and is a daunting task. Efforts to include training with supervision site visits are hampered by transportation and per diem budget difficulties. The trickle-down training model appears ineffective. Yet training needs are so great they could potentially swamp budgets.

The Center for Disease Control/Data for Decision Making (CDC/DDM) model provides an important example that can be applied to other training areas. A country assessment helped define the scope of the problem and suggested interventions. Ministry staff were sent to the CDC for short- and long-term training courses in management and health information systems. The goal of training was to create a cadre of in-country trainers that could serve to train other Ministry staff. Eventually, resources would be provided to develop and apply a Honduran "model health management information system." The CDC/DDM country assessment itself, however, requires modification. The assessment proposes four goals:

1. Establish an epidemiologic investigation unit within the MOH.
2. Revise the health information system.

3. Establish a management development unit within the MOH.

4. Create a national epidemiology bulletin and a national epidemiology conference.

These goals require modification. Although the evaluation team is sympathetic to the need to provide adequate epidemiological data and to base decision making on epidemiologically-defined needs, the Ministry currently has epidemiological research capabilities. The primary goals for the HSII project are management oriented, and the primary issues are cost and management. In this context it may be important to de-emphasize goals 1 and 4 and focus on the development of a health and management information system (goals 2 and 3). This should include the ability to conduct cost-effectiveness analysis. Training needs to be broader and include in-country workshops as called for in the proposal. The project should be linked with the area focus proposed by the Ministry. In selected areas a H/MIS could be developed, implemented, and articulated with the regions and central level. The areas could serve as sentinel sites for AIDS, vector-borne disease, maternal mortality, and child survival diseases. Sentinel sites could receive additional resources, and would receive additional supervision and training. Once details of implementation are resolved, elements of the system could be disseminated to other sites.

However, at the same time many systems are working, and this evaluation demonstrates the success the MOH has had in a number of areas. How is this possible?

One reason is that there is remarkable continuity in Ministry personnel. Many senior-level staff in the MOH have been there for more than fifteen years, and many capable personnel recruited to the Ministry have spent their professional lives there. Even when an election brings dismissals and political appointments of personnel, many qualified staff have found a way to either stay in the Ministry, stay with MSH (an inadvertent but important effect of the project) or another project, or be available when the next election comes. During the period of the MSH contract, it could actually be seen as a shadow secretariat, providing continuity, as a civil service should, across governments. This remarkable continuity has meant that many of the training inputs of the past are available for the Ministry.

The reasons for this continuity include the high level GOH commitment to health, donor commitment to the health sector which provides additional resources and international contacts, dedication on the part of many public health professionals, but perhaps also the dismal state of the economy and the development of the private health sector. The relatively low salaries offered personnel in the health sector can only be a small component of this continuity. Whatever the reasons, it does not appear that current HRD plans could fill the gap if this senior-level staff were to depart. How are new MOH professional staff recruited and trained? What career ladder expectations are there? Can senior-level staff continue to survive the routine upheavals following the elections and the politicization of posts?

Additional responses to this issue include:

- Policy initiatives to enforce civil service legislation and protect technical positions from politicization.
- The development of a personnel plan for recruitment, development, and retention.
- The development of advanced technical criteria for post recruitment and the linkage of these criteria to the content of the MPH program at UNAH.
- The use of external sources for training and professional development and training.
- Establishing and reinforcing international linkages (Central America and the U.S.) to Ministries, the CDC, and other centers of excellence.
- Developing new ways to train peripheral personnel, such as the development of sentinel posts and horizontal training models.

5. Health Communication/IEC[10]

Health communications[11] in Honduras was pioneering and ground breaking long before HSI. Honduras was the first country in the world to adopt new development communication approaches to public health. These approaches included extensive needs assessments and formative research in the development of communication plans, the appropriate use of social and behavioral sciences, including anthropology and psychology, social marketing, and the adoption of private sector advertising approaches including style and format. Furthermore these interventions were successful and well evaluated.

Long-term advisors were provided through the AED, and much thought was given, even in MMHP (1980-1983) to institutionalizing the health communication approach. A substantial

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[10]IE&C is also discussed in Section III.A.8.

[11]Some confusion exists as to terminology and its use. Health education is often used to describe the field. Departments of Health Education are found in Schools of Public Health and certificates are awarded in health education. This model historically reflected an information-based approach to behavior change, and community-based and face-to-face-channels of communication. In an effort to differentiate the approach, USAID adopted the term Public Health Communication to describe a new approach involving audience research, pretesting, monitoring, feedback approaches, and mass media as well as traditional channels. Finally, rather than participate in a futile debate about disciplinary titles, IEC--information, education, and communication--has been used to describe the whole field. However, health communication is used here to mean the approach that has been most successful in bringing about widespread use of ORS and other health technologies.

communication presence was established in the MOH in the HEALTHCOM project, and there have been times when the DHE was considered one of the finest in Latin America. However, the Division currently is facing a crisis. The evaluation section on health communication outlines these difficulties. Many of its best staff have been recruited away by other donors, it has no funds to implement plans, and many other divisions of the Ministry develop their own IEC materials without consultation with the DHE; they even hire their own consultants. Moreover, the materials emanating from these other divisions are not of high quality or developed in any systematic fashion.

Additionally several communication campaigns, such as those for breastfeeding and acute respiratory infections, were not well developed and added to the reluctance of some divisions within the Ministry to use the service.

To repeat the analysis provided in Section III.A.8., this problem is due to several factors. One is that the DHE has no oversight function within the MOH. A "matrix" organization, to enable relevant functional units to review activities as they are being developed, is not yet in place for the DHE. Secondly, the Division has no budget of its own to implement programs and recruit consultants, and is therefore dependent on other units of the MOH.

Directors of the functional units may or may not be cognizant of contemporary models of health communication. Although the importance of the role of health communication in bringing about change is recognized, there is little understanding of the communication process itself. The research and development that goes into a campaign, and the evaluation of the campaign are not well understood within the Ministry. Little long-term training has been provided, and there are no Ph.D. health communication specialists available, or research and publications available locally. No course on health education is offered in the MPH program at UNAH, for example, and although there are a small number of experienced Ph.D.-level Honduran health communication specialists, they are not working with the MOH or in Honduras for that matter.

The traditional style of health education is transparent: experts on a given health problem decide upon a series of messages to be promoted, and health educators develop attractive materials to be used in community lectures. The job of the health educators is to find appropriate language and concepts to transmit those ideas. This probably is still the paramount paradigm for most. New health communication technologies have produced powerful and documented effects in Honduras, but as documented in all of the findings, there is currently an absence of effective health communication in areas of health technologies and reproductive health, and no focused health education efforts directed at the community. In a finding that has relevance for other areas of this evaluation, the provision of long-term advisors is clearly not the solution to the problem. The recommendations then spell out a number of individual steps to be taken. Overall:

- Institutionalization of health communication requires training for all public health personnel in modern methods of health communication.

- Health communication needs to be institutionalized within the curriculum of the MPH program and all professional health schools.

- Honduras needs a larger cohort of professionally-trained health communication specialists at all levels of formation, including at the Ph.D. level.

Although long-term training can clearly not be contemplated through this extension, it might be possible, in collaboration with the MPH program, to develop an attractive environment to recruit specialists or to collaborate with other centers of excellence to reinforce this program in Honduras.

IV. CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

Health conditions in Honduras, as measured by global outcome indicators, have improved dramatically since the inception of the Health Sector Projects. Although there is no current national-level mortality data available, there is no reason to assume that infant and child mortality during the project period did not continue to decline. Numerous reviews have documented this project success. However, there are also areas in which the project will not achieve its goals. Although fertility appears to be declining, it is unclear if the project's target of 4.6 total fertility rate will be achieved, or if this established target is sufficient to address the rapid population growth in Honduras. Maternal mortality cannot be measured with current data. However, there is no reason to assume that this statistic has decreased. Malnutrition also continues to be a major problem.

Linking these global indicators with the project are project outputs. As measured in outputs the project is very successful. Many of the targets and goals were close to being satisfied at the time of the first Midterm Evaluation, and issues and recommendations raised in the Midterm Evaluation have all been addressed.

Water system and latrine construction goals are all either met or exceeded, and the diarrheal disease control program, with the exception of high case-fatality rates in the relatively small number of cases, continues to be a great success. Water quality laboratories have been completed, and SANAA has decentralized its services. SANAA's warehousing system is computerized and is a model for Central America. New facilities have been constructed in the regions and health center repair goals have been exceeded. The EPI program is one of Latin America's stars, having reached ambitious coverage goals of more than 90 percent. Although 108 cases of polio were reported during the Health Sector I project, no case of polio has been reported since 1990. The country has been officially declared polio free and is close to eliminating measles. Although the prenatal visit indicator cannot be measured, the proportion of women seeking visits and the number of visits have climbed. Family planning commodities are available in clinics with doctors. The DOFUPS, including the local programming model, have been implemented throughout the country, and decentralization is a reality in the Ministry of Health. Cost recovery is now in place in over 70 percent of facilities, and there appears to be a

growing willingness to consider cost recovery as a means of meeting needs. The Ministry has maintained a successful Division of Education and has met goals for improving the Division's production capabilities. Short-term training goals for the project have been met and exceeded.

The sustainability of many of these interventions is excellent. The successful programs are completely institutionalized. The use of oral rehydration therapy is so widespread that a commercial market has been created for ORS, and most Hondurans know how to mix and use it. Population expectations for services are so high that health and health care are now essential elements of national politics. The proportion of external donor support provided by the U.S. Government has shrunk, and many programs will continue even if funding is withdrawn.

However, other programs have not reached their intended goals. The reproductive risk strategy, designed to address family planning and obstetrical risk goals, is only now being practically implemented at the local level. Some problems remain with the implementation of this strategy, however. High-risk pregnant women are not being detected or given special care, and the referral system to higher level health centers does not appear to be working. Cytology goals will also not be met. The implementation and testing of this strategy will require operational research. It is unlikely that these areas would develop quickly without continued project support. The ARI program in the community, which is required to initiate early treatment, exists only in pilot and is only now being initiated. This single greatest cause of infant death is a challenge to implement and will require continued project presence. The POSAIN system of integrated care for children, including nutrition, is also an experimental intervention and remains to be fully implemented. Malnutrition appears to be increasing in children, providing a warning that the mortality goals achieved may not be sustainable.

Although many elements of DOFUPS have been implemented the quality of supervision and use of these systems has not been studied, and appears to be weak. This is part of a general need in the system for an effective health/management information system that would take advantage of local-level planning to meet supply, training, and supervision needs. Supervision has become problematic due to increases in per diem rates with no attendant increases in the budget, and the lack of functioning vehicles. Community participation in the UPS is weak, and integration of services at the level of the community is not yet a reality. Long-term training goals for the project have not been met, but the new Master of Public Health Program in the National Autonomous University of Honduras is a promising example of local solutions.

Many of these problems need to be addressed at the level of implementation. Some of the programs that are deficient or have not met goals are those that do not have proven or feasible technologies or adequate local models to emulate. A model health information system for the MOH, for example, does not exist, let alone one that can be computerized.

What is required in the extension of the Health Sector II Project, is to join the effort to sustain project success stories such as water and sanitation, EPI, and administrative reform at the central

level, with an effort to address those areas of the project's goals that have been underdeveloped. This can be achieved by tackling the implementation issues generated at the level of the health area, CESAR and CESAMO, and the community, completing the path started with Health Sector I. By focusing the project on developing sentinel demonstration sites--linked through regions to the central level--interventions such as the H/MIS, the reproductive risk strategy, and community-level ARI care, can be effectively operationalized, implemented, evaluated, and modified.

B. LESSONS

1. GOH, Honduran Public Support

The GOH had initiated primary health care and rural penetration projects before the Health Sector Projects began. Their development represented the active collaboration and match of health policy on the part of the U.S. Government and the Honduran government. Those components of the project which have had the most success are, in effect, the ones in which there has been the greatest congruence in both policy, professional community attitudes, and popular support. The success of components in these areas has permitted dialogue to take place in areas of less congruence, serving both nations' national interests.

2. Duration of the Project

Undoubtedly a key ingredient in the success of the project is its long duration, from 1980 until the present. This has permitted a close working relationship to be established, long-term goals set and achieved, and has provided continuity.

3. Commitment to Core Project Goals

In addition to the length of the project, there has been amazing continuity in project goals, both in terms of primary health care, child survival, and administrative reform. This has added to project success.

4. Continuity in Staffing

Lessons 1, 2, and 3 have produced an environment in which key players in the MOH and in USAID have persisted. Even when elections disrupted the Ministry, key personnel were able to transfer to USAID-funded projects and maintain linkages, sharing their experience and training and waiting to return with the next change of government. Projects need to give considerable thought to career issues when working in the health sector. This appears to be an inadvertent benefit of USAID's involvement.

C. RECOMMENDATIONS

Detailed recommendations that follow from this evaluation are included in Annex 8. Two major priority recommendations are included here.

1. USAID, PAHO, and the MOH have successfully developed and implemented diarrheal disease control and immunization programs in Honduras. In the proposed extension, the project needs to **address the relatively less-well-developed health technologies** such as: reproductive health, including maternal and perinatal mortality and family planning; community-based treatment of pneumonias; and nutrition interventions such as breastfeeding. In addition, the quality of the provision of services, supervision, health information systems, and area-level planning and community participation need to be developed. **This can best be achieved through the development of demonstration health areas** where project components can be systematically integrated, implemented, and evaluated.

2. Nationwide and central-level support need to focus on maintaining national-level systems that Health Sector II helped to put in place. These are **continuing the administrative and policy reforms initiated under Health Sector II**, such as DOFUPS, health/management information systems, family planning, water and sanitation, expanded program of immunizations (EPI), information, education and communication (IEC), and human resources development (HRD). Three administrative and management high-priority areas that need attention are:

    1. Financial management and cost recovery.

    2. Supervision to improve the quality of services.

    3. Health/management information systems.

To bring about needed reforms in these three areas the Ministry should establish three Task Forces during the first year of the extension, and with the collaboration of regional-, area-, and local-level staff and community members, develop concrete plans for implementing these systems. Systems need to be functioning within the first year of the extension.

The project also needs to continue to **provide limited support for the implementation of certain health programs at the national level**. These programs are:

- Reproductive health/family planning
- EPI
- Information, education, and communication (IEC)
- Human resources development (HRD)
- Water and sanitation (W&S).

Annex 1

Scopes of Work

HEALTH SECTOR II EVALUATION

SCOPES OF WORK

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Local programming	1.1. What is the current state of DOFUPS, supervision, & local programming?	Have staff turnovers affected these project activities? How many regional directors & administrators worked with MSH?	Dir. MOH Personal Dr. Sergio Carias		
	1.2. Has continuous supervision improved as a result of project interventions?	Training for key personnel? Who does it?	Dr. Sergio Carias Dr. Antonio Pinto Dr. Alvaro Gonzales Regional, area, local staff		
	1.3. What are the constraints to implementing an effective and sustainable supervision system?	Internal & external factors	Dr. Sergio Carias Dr. Antonio Pinto Dr. Alvaro Gonzales Regional, area, local staff		
	1.3. Should the MOH policy level be involved more actively in supervision?		Dr. Sergio Carias Dr. Antonio Pinto Dr. Alvaro Gonzales Regional, area, local staff		
	1.4. If so, how?				
	1.5. Is there an on-going role for the project in this area?	How can/should HSII assist?	Dr. Sergio Carias Dr. Antonio Pinto Dr. Alvaro Gonzales Regional, area, local staff		
	1.6. How can the quality of supervision be enhanced?	Incentives? OR? Supportive supervision/continuous education? Effective team leadership/team building?	Dr. Sergio Carias Dr. Antonio Pinto Dr. Alvaro Gonzales Regional, area, local staff		
	1.7 Can the regional administrator be named by "concurso"?	MOH views legal/labor union constraints?	Dr. Sergio Carias Regional directors		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Human resource development	2.1 Has human resources development improved as a result of project interventions?	Short- & long-term programs have different goals. Have not taken political changes into account.	Dr. Jorge Medina Dr. Sergio Carias Dr. Alvaro Gonzales Regional, area & local staff	MSH documents	
	2.2 What is the intention of the MOH in terms of developing local and area human resources?	How can service be balanced with training?	Dr. Jorge Medina Dr. Sergio Carias Regional, area & local staff		
	2.3 Is there an on-going role for the project in this area?		Dr. Jorge Medina Dr. Sergio Carias Dr. G. Bardales Dr. A. Pinto		
	2.4 To what degree did the project achieve these two objectives?	Two of the objectives of the long-term TA and scholarships for MPH study abroad were: 1) Sustainable improvements of the technical quality and appropriateness of rural health interventions. 2) Sustainable improvement in the management of rural health interventions. But not building capacity to train.	Dr. Jorge Medina Dr. Sergio Carias Dr. G. Bardales Dr. A. Pinto		
	2.5 What were the constraints to success?	Internal & external factors	Dr. Jorge Medina Dr. Sergio Carias Dr. G. Bardales Dr. A. Pinto		
	2.6 Is there a solution to the problem of the continuous turnover of key staff?	Probably not, except to name as project staff	Dr. Jorge Medina Dr. Sergio Carias Dr. G. Bardales Dr. A. Pinto		
	2.7 Is the management training for these positions sustainable, and could it be a prerequisite to assuming a management position?	Legal issues? Union problems?	Dr. Jorge Medina Dr. Sergio Carias Dr. G. Bardales Dr. A. Pinto		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	2.8 Does the National University's MPH program have a training role in the solution of this issue?	Depends on design, curriculum, students, teaching staff, purposes and goals of the program. Probably needs links to stronger external programs.	Dr. Manual Leiva Dr. Jorge Medina Dr. Sergio Carias Regional, area & local staff		
	2.9 Are there viable alternatives to training as carried out so far by the project?	New training technologies? Short- & long-term programs? Routinization of tasks, more skills required of holders?	Dr. Jorge Medina Dra. Fanny Mejia Regional, area & local staff		
	2.10 What about "supportive supervision"?	Who supervises who? Is supervision consistent in all of the regions? Do all the regions use the same system?	Dr. Jorge Medina Dr. Sergio Carias Regional, area & local staff		
	2.11 How can the impact of training be monitored on a regular basis?	Short- & long-term programs Technical & management training	Dr. Jorge Medina Dra. Fanny Mejia Regional, area & local staff		
	2.12 Should the project take a different approach to training?	New technology Self-study modules Workshops and Conferences MPH study HRD needs and priorities	Dr. Jorge Medina Dra. Fanny Mejia Dr. Enrique Zelaya Dr. Sergio Carias Regional, area & local personnel		
	2.13 Should the project continue to provide training at all?	Expensive and difficult.	Drs. G. Bardales & A. Pinto Regional, area & local personnel		
	2.14 Is there a role for the USAID/W Quality Assurance project?	Identify components and purposes	USAID staff		
Commodities/ logistics systems/ administration	3.1 Have the warehousing/distribution of commodities improved as a result of project interventions?	Comparison to previous conditions MOH view	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.2 What are the continuing problems in transportation?	Vehicles are not available	Hector Andrade		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	3.3 What are the continuing problems in logistics?	Internal MOH problems External factors Pharmaceutical supplies Other supplies	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.4 What are the constraints that keep the POSSS system from being a fully effective pharmaceuticals and supplies inventory/purchasing/supply systems?	Local programming? Procurement-central vs. local? Service contracts with private sector?	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.5 How can the system be strengthened?	Internal & external factors	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.6 What are the constraints to the implementation of an effective system?	Internal & external factors	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.7 What about building delivery of pharmaceuticals and supplies into procurement contract(s) with the private sector?		Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.8 What are the obstacles to the sustainability of these systems?	Internal & external factors	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	3.9 What is an appropriate on-going role for HSII?	MOH & USAID views	Lic. Roberto Palma Drs. G. Bardales & Antonio Pinto		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Financial management system	4.1 Has financial management improved as a result of project interventions?	MOH view Regional view PCU view	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators Dr. Gustavo Bardales		
	4.2 What further project assistance is needed in this area?	Technical assistance; organizational or management assistance; training needs	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	4.3 What effort has the MOH made to recoup expenses?	Hospitals, CESAMOs, CESARs Fees for services Others	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	4.4 What donor agencies have provided/are providing assistance in this area?	International agencies Other governments' assistance NGOs Private sector sources	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	4.5 What are the legal issues of retained revenues and how might the MOH surmount them?		Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez		
	4.6 How effective is the management of revenues at the local level?	Regional view Local view (MOH & public)	Dir. Dir. Administration, Lic. Roberto Palma Lic. Juan Pablo Ramirez Regional directors/ administrators		
	4.7 Is there a continued role for the project in this area?	MOH view USAID view	Dr. Gustavo Bardeles Dr. Antonio Pinto Lic. Roberto Palma		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Maintenance systems	5.1 Are the MOH's maintenance systems for rural health centers and vehicles providing adequate support for rural health care delivery, or are they impediments to improving the quality of rural health care services?	Continuous problem Cold chain. Vehicles: Cars, trucks & motorcycles Buildings and facilities	Lic. Roberto Palma Regional directors and administratos		
	5.2 How effective has decentralization been?	MOH view Regional view Area & local view	Dr. Sergio Carias Regional, area & local personnel		
	5.3 What alternatives are available to the MOH?	MOH staff or private providers. New ways of managing vehicles (i.e. assigning drivers).	Dr. Sergio Carias Regional, area & local personnel		
	5.4 What are the obstacles to the sustainability of this function?	Interanl MOH barriers, or externel socio-economic factors	Dr. Sergio Carias Regional, area & local personnel		
	5.5 Is there a role for future project interventions?	Unclear	Dr. Gustavo Bardales Dr. Antonio Pinto Dr. Sergio Pinto USAID staff		
Management and health information systems	6.1 How reliable & effective is the MOH HIS system?	60 forms!! Do all regions comply? Is there feedback to reporting sites?	Dr. Fidel Barahona Dr. Enrique Zelaya Regional directors/ administrators		
	6.2 Are supervision objectives being met?	How is supervision at all levels: National--regional--area--local--volunteers	Dr. Fidel Barahona Dr. Enrique Zelaya Regional directors/ administrators	Drs. G. Bardales & A. Pinto	
	6.3 How effective is MIS for local programming?		Dr. Fidel Barahona Dr. Enrique Zelaya Regional directors/ administrators	Drs. G. Bardales & A. Pinto	

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	6.4 How are M/HIS data used?		Dr. Fidel Barahona Dr. Enrique Zelaya Regional directors/ administrators	Drs. G. Bardales & A. Pinto	
7. Educational/ promotional systems (mass media)	7.1 What can be done to bridge the breach between the DES and the other MOH technical divisions?	Why doesn't communication count for more? How is the breach manifested? When was the breach noted (has it always existed?	Dra. Fanny Mejia Dr. Alvaro Gonzales Dr. Enrique Zelaya Other senior staff	District directors, Regions 1 & 6 Staff: DES, DMI	
	7.2 Should HSII assist in this area, and if so, how?	MOH has received support for 15 years in this are. Still not professionalized. How do health/communication/mass media programs support other programs?	Dra. Fanny Mejia Dr. Alvaro Gonzales Dr. Enrique Zelaya	District directors, Regions 1 & 6 Staff: DES, DMI	
8. MOH Support systems	8.1 What are the most critical issues for the development, implementation, and sustainability of MOH support systems?	MOH views District director views	Dr. Sergio Carias District directors	Documents: Hond: Sit. de Salud y Prior. 94-97; MSH final report.	
	8.2 List the recommended and essential project support interventions required to address these issues and prioritize them.	MOH views District director views	Dr. Sergio Carias District directors	Documents: Hond: Sit. de Salud y Prior. 94-97; MSH final report.	

SCOPES OF WORK

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Water and Sanitation	To what extent have Juntas de Agua been successful in O&M? What are possible obstacles to sustainability? How can de Project address them? Relative participation of women and men in Juntas?	Juntas working. Tariff collected. Operator trained. Insufficient tariff and supervision. Providing TA and continuous training. As president, members and/or staff.	MOH, SANAA, ONGs	Grupo Colaborativo FHIS	Oscar Roberto Francisco
	How can SANAA coordinate efforts to protect watersheds?	Identification of watersheds of interest AP rural. Study deforestation by county or region. Interinstitutional coordination. Participation of Juntas, promoters and community in environmental surveillance.	SANAA-SEDA-Recursos Naturales-COHDEFOR-Fiscalia del Ambiente	Oscar Francisco	
	How effective health education ben success in changing health related behavior of male and female beneficiaries? How sustainable is the program? Continuing role for HSII?	Identify social changes and benefits for men and women. H.E. is essential for sustainability. There is continuous role for HSII.	Health Education Division. Reports, Interviews of users.		Oscar Roberto

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
W&S	How can Project assist SANAA on policy considerations, re-estructuring & re-engineering of operations, decentralization and cost-efficiency?	Present status of consideration Sector policy?	SANAA		Oscar Francisco Roberto
	How innovations enhanced project implementation? Regionalization Decentralization Use of TOMs New water quality laboratory Introduction of TASes Redefining Eng. SOW Water Boards autonomy. Which areas might merit continued support?	Innovations responsibilities and results. Future plans. Areas for continuous support.	SANAA resports and interviews MOH Promoters		Oscar Francisco
	Other donors investing plans? USAID's future role to assist SANAA. Appropriate and sustainable relationship between SANAA and FHIS, municipalities and NGOs?	Other donors assisting plans. Interagency coordination. Interinstitutional coordination.	Interviews with other agencies, FHIS, NGOs, Reports.		Oscar Francisco
	How effective are the six PVOs? In community organization and H.E.?Further role.	Play in RW/S services. Quality of services Cost- efficiency	SANAA reports Interviews with NGOs and communities.		Oscar Francisco

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	What is the appropriate role of multi-purpose environmental health technicians? What are MOH intentions to consolidate health component? What is appropriate role for project?	Identy role of proposed EHTs. MOH need for consolidation of environmental health components. Appropriate role of project in this area.	Interviews and reports MOH/SANAA		Oscar Roberto Francisco

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Reproductive Health	What would be an acceptable family planning/maternal child health strategy?	The MOH has not issued a policy on FP and its role in improving reproductive/infant health. Is a policy necessary if services are integrated? The necessity of birth-spacing is well known, by whatever method, to protect health of both women and children.	Interview with MOH and IHSS personnel to obtain the public perspective on the issue.	Mothercare/World Bank Discussion Paper	

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	Do problems of training exist in clinical and counselling skills? Should the project work on changing the curricula in training institutions? Could ASHONPLAFA collaborate to provide training to Auxiliary Nurses, especially in counseling skills?	Clinical knowledge and practice are deficient in family planning; counselling services very limited. In many countries thr private sector colaborates with the public sector, especially in training both for family planning methodology and clinical skills as well as counselling skills for MOH personnel. This apears to function better on a local level (POP Council, Bolivia; APROFAM, Guatemala. Is the MOH actively trying to decentralize?	Norms and Policies of MOH for decentralization. Blbliography: Plan de Desarrllo Local, y Plan Detallado de Implementacion para Fuentes Alternativas de Financiamiento a Nivel Local. Propuesta: Incorporacion de Espaciamiento....en la curricula de escuelas formadoras.	Observation visits and interviews.	Rita Peter Elba
	What are the issues and obstacles for providing male reproductive health concerns and education on human sexuality directed at adolescents? What is the appropriate role for a focused HSII Project?	Little attention has been given to this issue. Although the methodology is unknown, or uncited, attitudes were studied by personal interviews with men and women and adolescents in Hondutas by MOH. There is no in-depth analysis of attitudes or practices of men and adolescents when human sexuality is discussed. Unless the MOH wants to touch this issue in a specific way, there seems to be little hope that it will be addressed in the next part of HSII.	Look for documentation. Interviews with MOH and USAID personnel.	Experiences from other LA countries.	Rita
	How well has the process of community-level rosters of WRA functioned (especially in Region 5)? How should HSII assist in this area?	There are six donor agencies involved in this project - each with a different section of the country or Area within Regions. Apparently, the end of 1993 many were functioning, but recent information is strictly anecdotal.	Visits to Areas where implementation has been carried out.	Interviews with persons actively involved in the process.	Team on visits to Regions and Areas.
	How could Project indicators be improved?	Not all indicators are realistic	Project Agreement Amendment 19. Mid-Term Evaluation. Observations of how far some indicators have reached goals.	Interviews, USAID personnel.	All team members.

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	How could MOH supervision for FP/RH be improved? What project assitance could be provided for this? (my question) has a viable supervision system been implemented in any component of the project? If so, could it not be modified for the FP/RH cmponent?	Supervision requires personnel, plans, guides and funds. It also requires transportation, no matter at what level. The HSII wants most activities to be sustainable. No provisions have been made for quality, only quantity.	Look for documentation of systems design for supervision, and interview MOH personnel as to whether or not supervision is a priority for the project.	Team members who have the opportunity to observe a supervision visit	Rita.
	Does the IEC cmponent of the plan on Reproductive Risk stress the importance of preventive practices, adequate prenatal care and birthspacing?	Does not stress prenatal care, but does stress birthspacing as preventive practices.			

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Reproductive Health	Does it emphasize how to respond to obstetric emergencies that require rapid treatment?	Referrals to adequate services is mentioned, but not stressed,. What is completely absent is historyof previous pregnancy complications as a risk factor. If an Auxiliary Nurse can detect risk by 1) age of woman; 2) number of previous births; 3) interval between births; and 4) socio-economic factors, s/he can certainly question (history) previous obstetrical complications. It also emphasizes the need to train personnel in the management of any obstetrical risk factor.			
	What can be done to strengthen the counseling skills of health providers? See above the possibility of ASHONPLAFA training Aux.	Bibliography reviewed.			Rita.
	To what extent has the project addressed RH/FP and maternal mortality problems in rural areas? What are the constraints? What actions need to be taken to strengthen RH interventions in the rural areas? Are there gender considerations when developing training programs in rural areas?	Rural ares in Honduras in general have little access to health services due to distance from, poor or no transportation, bad road conditions, fewer educated people and certain beliefs that do not coincide with utilization o formal health care services.	Direct experience.	Bibliography review, especially of OR and private sector programs.	Rita.
	How can focused projct assistance assure maintenance of progress to date in Child Survival?	The HSII has been designed to meet a sustainable goal. One must ask if this is realistic or not in order to answer the above question.	Interviews with MOH personnel as to their perception.	Evaluation findings and recommendations for sustainability.	All of the team, but in particular Rita, Elba, Peter.

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	What can be done to establish more effective referral systems in the rural area? What services are performed during prenatal and post natal checks at health centers? How is the quality of care? Why do women not get to health centers or hospital inlife-threatening situations? What could communities do to organize, provie transportation? Are there innovative approaches that could be used such as birthing homes near health facility, or use of two way radios?	Each of the above mentioned interventions have been tried with degrees of success in various parts of the world. The birthing home is now in a pilot phase in Honduras, but success or failure has not been documented. Each intervention is costly in its own way and cost effectiveness would have to be studies.	Observation of pilot in Honduras.	Through documentation call on experience from other countries.	Rita and possibly Elba
	How effective are TBAs? Prenatal care, screening, safe deliveries and referals when signs of danger? What have been the results of TBA training? Do TBAs have basic equipment; how can their needs for other supplies be met? Do they use what they have? What are the attitudes of MOH personnel towards TBAs? How can their training and supervision be improved?	Worldwide there has been an effort for many years to train TBAs in order to bring down maternal and perinatal mortality rates. Unfortunately, in most countries (Honduras being no exception) the follow-up and supervision has been lacking, so that we don't really know, in most cases, if TBAs are contributing to lower maternal and pernatal mortality rates.	Dra. Mirtha Ponce, MOH who just finished managing an evaluation of TBAs.	Literature which may or may not be available.	Rita
	Is the support plan for the national HIV/AIDS program consistent with the overall context of project assistance for RH? Look at possible alternative and sustainable sources of condoms.	Honduras claims 57% of all HIV/AIDS cases in C.A. Heterosexual transmission accounts for a large percentage as well as transmission from pregnant mothr to child. Therefore, it becomes a maternal-child health problem, and a reproductive health problem. The condom issue is the insecurity of USAID that they will be able to provide condoms after 1996. The MOH has begun to address the problem of alternative providers. This is directly concerned with use of condoms to prevent pregnancy or STDs.	Socioeconomico Impacto del VIH/SIDA en Tegucigalpa y San Pedro Sula, Hondruas, 1995 (which also contains the above issues).	Interview with the Director of the HIV/AIDS national program.	Rita.

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	In light of the teams findings of all of the above questions, what is the most effective approach for project supported RH interventions?		Interviews, observations, visits to regions, bibliography, all of which will be the methodology of he team to arrive at the answers to the questions proposed.	Interviews, observations, visits to regions, bibliography, all of which will be the methodology of he team to arrive at the answers to the questions proposed.	All members of th team.

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
Acute Respiratory Infections	What actions need to be taken to increase communiy involvement in the identification/treatment of pneumonia?	Delays in taking child to HC Health behaviour of mother Self-medication Distance from HC	Dr. J. Melendez MOH/MCH Site visits	Dr. Justo Baradales Dr. Fanny Mejia	
	What kind of promotional and training activities are required in this area?	Community organization Community health workers Technical assistance on local training Locally made materials Illiteracy of case taken	Dr. Melendez Region area staff		
	What needs to be done to reduce the number of institutional pneumonia related deaths in children under 5 years old?	High hospital deaths Standardized methods for treatment Train personnel			
	How should he project support the area level hospitals in the treatment of pneumnia as the first line of referral in the PHC system?	Standardized treatment Training Continued education Equipment	Dr. Jorge Melendez Region area staff		
	How could the communities support the referral system?	Strengthening human resources at local level.			
	What efforts, if any, should the project continue to support?	How can the project assist? a. Community development b. Support community health workers c. Support "Comite de Salud"	USAID MOH		
	What efforts, if any, should it launch?	Training of ira volunteers in 630 communities.	USAID MOH		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
ARI	What are the problems with the pilot program?	Why is there a problem? When did the problem start?	Dr. Jorge Melendez Dr. Jorge Ochoa		
	With analyzing and publizicing the results?	When did it end?	Dr. Jorge Melendez		
	With community case management	Is there an evaluation?	Dr. Jorge Melendez		
	With clinical-based response?		Dr. Jorge Melendez		
	With logistic system?	Internal MOH problems External factors Supplies	Dr. Jorge Melendez		
	How should HSII assist in this area?	MOH/HSII proposals, budget			
DIARRHEA DISEASE	How effective are the Community Oral Rehydration Centers (UROCs) in reducing diarrhea disease morbidity and mortality?	Identify evaluation reports Indicators of effectiveness Number of functioning UROCs.	Dr. Gustavo Flores Dr. Jorge Guillen Dr. Jorge Ochoa	BASICS evaluation of UROCs.	
	What further support should the project provide in this area?	MOH view Regional, area/community personnel	Dr. Gustavo Flores		
	How effective has the IEC campaign been in reducing DD/cholera mortality?	Are there pre-post statistics? What is the IEC plan?			
	How effective is community response to diarrheal disease/cholera?	Community organizations UROCs Cholera/diarrheal cases treated in the community Effective referral	Regional staff Community staff Dr. Gustavo Flores		
	What are the obstacles to effective supervision, IEC, logistics?	MOH view/who supervises? Procedures established Availability of goods and services.	Dr. G. Flores Dr. J. Guillen		
	What efforts, if any, should the project continue to support?	MOH needs Training? Nurses?	Dr. Gustavo Flores		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
IMMUNIZA-TIONS	Logistics, maintenance, sustainability problems in the cold chain?	Procurement Storage Tracking Transportation Personnel Equipment	Dra. Ada de Molina Regional, area CESAR, CESAMO's staff Cold chain technicians.		
	What is the appropriate strategy for reducing and finally terminating HSII support of the cold chain?	MOH capacity to absorb costs USAID view	MOH Dra. Ada B. Molina		
	How should monitoring of the cold chain be part of the overall MOH strategy of supervision?	EPI/MOH views Unidad de Monitoreo del Proyecto	Dra. Ada B. Molina Dr. Bardales Dr. Peter Boddy		
	How can gains achieved in developing cold chains and the horizontal EPI program be sustained?	Personnel Equipment Transportation	Region staff MOH PAHO		
GROWTH MONI-TORING/ BREAST FEEDING	Has the POSAIN been sufficiently validated (in terms of applicability of the methodology and results in the community) sot that it merits further support?	Indicators of objectives have been specified? What is the community involvement?	Dr. Alfonso Gonzales Region 5 staff Dr. Villalobos	Dr. Barry Smith	
	Who provides household care of children and what is the quality of care?	Results of research done, when? Is there any research on quality of care at home?	Dr. A. Gonzales USAID Dr. Barry Smith		
	How effective is the current network of CBF Counselors?	Areas of influence Participation in community health pact? Basic data.	CCC Wellstart AHLACMA PROALMA		
	Is this intervention replicable and sustainable at the national level?	Costs of training/number of volunteers, monitoring, health system responsibility	LLLH USAID		
	How should the project continue to assist?	USAID view Experience	USAID CCCH		
	What is the relationship between POSAIN and the work done by the CBF?	Is there a relation? Is there an evaluation?	Dr. Barry Smith		

Question Area	Questions	Issues	Primary Data Source	Secondary Data Source	Responsible Individual
	What potential exists for combining the two strategies?	Excellent idea			
	What support, if any, should be provided by the project?	Strengthen the development of a unique "health promoter" with training in all the different components of community health.			
PVOs IN CHILD SURVIVAL ACTIVITIES	How can PVOs working on CS contribute to the achievement of the project purpose and output indicators (immediate services and product provided).	Population served Other alternatives?	Ing. H. Caudill Site visits to PVOs, Regions 1, 5 and 6		
	How successful were PVOs in expanding coverage and testing innovative ideas?	Areas not covered by MOH but serviced by PVOs.			
	How sustainable are the efforts of the PVOs?	How strong are they? What is the community participation in decision making?			
	Is there an organizing role for PVOs in CS activities under the PDA?	PVOs administrative capacity History of success Years in existence Permanent personnel	PVOs documentation USAID views		

Annex 2
Logframe

ANNEX B

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 96
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
GOAL:			
A. Improve the health status of the Honduran people, especially children under the age of five years and women, 15-45 years of age.	1.1 Reduction of the infant mortality rate from 70/1000 live births to 60/100 in 1990 and 47/1000 in 1993.	1.1.1 Surveys, Reports	1. Continuation of current health policies of future governments.
	1.2 Increase life expectancy from 62 to 67 years.	1.2.1 Annual Statistical Reports	2. Continuation of external cooperation to M.O.H.
	1.3 Decrease the maternal mortality rate from 200/100,000 live births to 70/100,000	1.3.1 Population Census	3. A better national budget allotment for M.O.H.
			4. Favorable measures from the Executive Branch for the Ministry of Health Budget.
PROJECT PURPOSE:			
B. To consolidate and continue the process of extending coverage of efficient, sustainable and effective primary health care services with primary emphasis on child survival interventions and secondary emphasis on rural water and sanitation.	1.1 40% reduction of the child mortality rate (1-4 years) from 4.3/1000 to 2.6/1000.	1.1.1 Epidemiology Supervision Report	1. The M.O.H. budget will remain at 8-12% of GDP.
	1.2 Polio eradication.	1.2.1 Evaluation of five year plan for immunizations	2. The primary health care portion of the M.O.H. budget will not decrease over life of project.
	1.3 An 80% decrease in the morbidity rate of the following diseases: Measles (13.4 cases/100,000), Whooping cough (7.4/100,000), Tetanus (1.6/100,000), maintain Diptheria at 0.	1.3.1 Epidemiology Supervision Report	3. Child survival interventions will remain a GOH priority.
		1.3.2 Surveys	
		1.3.3 Operations Research	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	1.4 Decrease acute respiratory infections as the principal cause of mortality in the country's hospitals from 18.2 to 8.0% of cases.	1.4.1 M.O.H. Statistical Annual Reports	
	1.5 40% of mothers breastfeed exclusively up to 4 months (current 24%).	1.5.1 Growth Monitoring Charts 1.5.2 Project's monitory reports	
	1.6 Decrease in the percentage of births with intervals less than 2 years from 30% to 15%.	1.6.1 Surveys 1.6.2 Operations Research	
	1.7 Increase in contraceptive use prevalence nationwide from 35% (1984) to 45% in 1990 and 50% in 1993.	1.7.1 National Epidemiology (MCH/FP) Surveys	
	1.8 Reduction of annual new cases of malaria from 29,000 (1986) to 8,500 (1993). (Incidence decrease from 7/1000 to 1.5/1000).	1.8.1 Epidemiology surveillance Reports	
	1.9 Decrease in the cases of infections by chages.	1.9.1 Surveys	
	1.10 Reduction in the tuberculosis morbidity rate from 77/100,000 to 30/100,000 (slight apparent drop due to improved case finding).	1.10.1 Epidemiology Supervision Reports	
	1.11 Local programming model fully operational in 3 regions and partially implemented in 5 others.		

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PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	1.12 70% of the rural population in Health Regions 3, 5 and 6 in communities with 2,000 or fewer people have access to potable water and latrines.	1.12.1 MOH and SANAA Reports 1.12.2 Sample Surveys	
I CHILD SURVIVAL: SUSTAINABLE SUPPORT SYSTEMS			
OUTPUTS:			
1. Local programming model implemented.	1.1 Three regions have fully implemented the model, having done an inventory of personnel and financial resources, conducted a family census and prepared annual plans, including drug and medical supply needs; the other 3 regions have partially implemented the model.	1.1.1 Project's Monitoring Reports	
	1.2 In three regions, the supervision system is fully implemented, with:		
	1.2.1 80% of Nurse Aides from CESARs and CESAMOs supervise the health volunteers under their program responsibility four times a year.	1.2.1 Monitoring Reports of Local Programming	
	1.2.2 80% of CESARs and CESAMOs receive area supervision visits three times a year. (30% in 1987)	1.2.2 Area Supervision Reports	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	1.2.3 80% of area level establishments receive supervision visits by regional staff three times a year. (30% in 1987)	1.2.3 Region' Supervision Reports	
	1.2.4 80% of region level establishments receive supervision visits from central staff three times a year. (40% in 1987)	1.2.4 Supervision Reports on Central Level	
1.3	All (8) regions have in operation computerised Management Information Systems (MIS) and have increased discretionary expenditure authority to 25% of their operating (non-personnel budgets (from a current maximum of about 10%).	1.3.1 Analysis or MOH Budget	
1.4	426 CESARS (90% of total) are renovated and have implemented local programming supply system.	1.4.1 Project's Monitoring 1.4.2 MOH's Supervision and Evaluation Reports	
1.5	All regions have staff with on-the-job training in problem solving, supervision, administration and use of information systems	1.5.1 MOH Reports 1.5.2 Project's Monitoring Reports 1.5.3 Contractors' Reports	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS		MEANS OF VERIFICATION		IMPORTANT ASSUMPTIONS
	1.6	Operations research studies done on assigning of two auxiliary nurses per CESAR, variations of referral systems, and cost effectiveness of personnel mixes at area level.	1.6.1	Studies completed and results applied to regions, as appropriate	
2. Improved logistics system in place	2.1	Special procurement office is established within MOH.	2.1.1	Project Reports	
	2.2	Simplified inventory control systems for medical equipment, supplies, and pharmaceuticals are in use at regional, area and local levels.	2.2.1 2.2.2	Monitoring Reports Administration Division Records.	
	2.3	Computerized inventory controls are operating in central and regional warehouses.	2.3.1 2.3.2	Monitoring Reports Contractor Reports.	
	2.4	34 area level storage facilities are established.	2.4.1	Monitoring Reports	
	2.5	Three integrated centers for regional staff with training and laboratory facilities are established.	2.5.1	Engineering Inspector's Reports.	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
3. Maintenance systems strengthened	3.1 80% of cold chain system is adequately working. (65% in 1987)	3.1.1 Maintenance Reports. 3.1.2 Immunization Reports.	
	3.2 90% of health areas have trained maintenance personnel, basic tools and access to a vehicle. (50% in 1987)	3.2.1 Maintenance Reports. 3.2.2 Project Monitoring Reports.	
4. Management and health information systems being used	4.1 Computerized systems for tuberculosis, immunizations and diarrhea disease control information are fully operational at central and regional levels.	4.1.1 Contractor Reports	
	4.2 Data processing is decentralized to regional levels.	4.2.1 Monitoring Visits	
5. Training capability strengthened	5.1 Eleven self-instruction modules on TB, EPI, control of diarrhea disease, ARI, cold chain, MCH and others are being used.	5.1.1 Monitoring Reports	
	5.2 Staff Resource Register is fully operational and being used to program training.	5.2.1 Human Resources Development Division Reports	
	5.3 50 MOH professionals have received Master's degrees.	5.3.1 AID Records (PIO/Ps)	
	5.4 3855 person/weeks for professional staff and 6800 p/w for community volunteers of refresher training being given each year.	5.4.1 MOH Human Resources Development Division Records	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

ject Title & Number: Health Sector II 522-0216

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

NARRATIVE SUMMARY	OBJECTIVELY VERIFYABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Health financing analysis d planning capability in place central level and supporting gional levels.	6.1 MOH Planning Division doing expenditure analyses and budget preparations.	6.1.1 Planning Division Records	
	6.2 Operations research study done on feasibility of drug sale rotating funds at community levels.	6.2.1 Study available and pilot begun, if feasible	
	6.3 Cost recovery by hospitals at 25% of non-personnel operational costs (current: 12%).	6.3.1 Hospital financial records	
Educational/promotional tivities being supported through ss media and community efforts.	7.1 A radio and T.V. stations contract system in operation, which includes audience research, setting up of selection criteria and broadcast monitoring	7.1.1 Copy of contracts signed	
	7.2 80% of radio and all T.V. stations broadcasting messages are monitored on monthly basis	7.2.1 Monthly monitoring reports, one per health region 7.2.2 Monthly broadcasting programming schedules provided by stations	
	7.3 Four child survival manuals for health personnel at regional, area, and local levels produced and distributed.	7.3.1 Pre-test and distribution reports	
	7.4 70% of educational material designed, pre-tested and produced at the central level and distributed to regions	7.4.1 Comunication plans and implementation programming 7.4.2 Formative evaluation reports 7.4.3 Production reports, including listing of programs produced 7.4.4 Station monitoring reports and broadcast	
	7.5 One MOH radio production studio in full operation	7.5.1 200 radio programs and spots produced yearly	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	7.6 A systematic and permanent communications planning system being directed by the Division of Health Education.	7.6.1 Written plans for each MCH program or major child survival activity approved and funded at the beginning of each calendar year	
I. CHILD SURVIVAL HEALTH TECHNOLOGIES			
OUTPUTS			
1. Activities expanded for treatment against childhood dehydration caused by diarrheal diseases.	1.1 45% of cases of diarrhea at national level are treated with ORS. (Current level: 20%)	1.1.1 Research Studies 1.1.2 Surveys	
	1.2 90% of children with diarrhea who are attended at the Health Centers (CESARs, CESAMOS) receive ORS.	1.2.1 Direct Supervision Reports 1.2.2 Operational Investigations 1.2.3 Surveys	
	1.3 90% of the Health Centers have adequate supplies of ORS in stock.	1.3.1 Project's monitoring reports	
2. Polio vaccination coverage increased.	2.1 90% of children of 1 year vaccinated with 3rd dose of polio vaccination. (Benchmark: 64%)	2.1.1 M.O.H. Statistical Reports 2.1.2 Evaluations of the Five Year Immunization Plan	
	2.2 No cases of polio reported for 3 consecutive years.		

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
3. Immunization coverage of basic vaccines increased.	3.1 80% of children 1 year old vaccinated with D.P.T., measles and B.C.G. in accordance with immunization standards. (Benchmarks: DPT = 63%; Measles = 60%; BCG = 75%)	3.1.1 Statistical Reports of MOH 3.1.2 Serum-epidemiology Surveys	
4. Home treatment of mild ARI being done correctly, according to program standards.	4.1 40% of families adequately treat mild ARI in households. (Benchmark: 10%)	4.1.1 Surveys 4.1.2 Operations Research	
5. Technical capability of health services in treating moderate to severe ARI, strengthened.	5.1 90% of CESAMOs and 50% of CESARs have veporizer/ humidifiers. (None presently)	5.1.1 Surveys 5.1.2 Investigations 5.1.3 Reports	
6. Prenatal care, childbirth, and postnatal care, activities expanded.	6.1 70% of pregnant women that visit health centers (CESAR and CESAMO) will receive attention in compliance with program norms. (Benchmark: 12%)	6.1.1 Statistical Reports 6.1.2 Surveys	
	6.2 90% of pregnant women detected in the high risk group are attended to by health system. (40% in 1986)	6.2.1 Reference reports	
	6.3 60% of beneficiaries of the maternal care programs will have vaginal cytologies performed at intervals prescribed by MOH norms.		

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Project Title & Number: Health Sector II 522-0216

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
7. Child spacing - family planning practices expanded.	7.1 90% of CESAR's will be distributing temporary contraceptive methods. (40% in 1986)	7.1 Surveys	
	7.2 60% of the voluntary personnel (Traditional Midwives and Health Guardians) will be distributing oral contraceptives and condoms. (None presently)	7.2 Surveys	
	7.3 50% of women of fertile age are aware of health risks of short intervals (under 2 years) between pregnancies.	7.3 KAP Surveys	
8. Promotion of breastfeeding increased.	8.1 50% of the mothers continue interval breastfeeding for up to 12 months. (current 24%)	8.1.1 Surveys 8.1.2 Field investigation	
9. Growth monitoring activities for children under five years to detect and treat malnutrition expanded health system.	9.1 80% of children under five years (at CESAR, CESAMO, CHA levels) have growth monitoring charts being appropriately used (baseline: 13.4% - 1987).	9.1.1 Program report on Monitoring and supervision 9.1.2 Surveys	
	9.2 80% of CESARES, CESAMOS, CHA have anthropometric equipment. (40% in 1986)	9.2.1 Program reports on Monitory and supervision	

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PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Project Title & Number: Health Sector II 522-0216

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS		MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
	9.3	80% of mothers with children under 1 year know appropriate feeding practices. (20% in 1986)	9.3.1 Surveys	
10. Malaria and chagas control activities maintained and more targeted.	11.0	90% of areas indicated for spraying are covered. (90% in 1986)	10.1.1 Program Evaluation Report 10.1.2 Project monitory reports	
	10.2	90% of activities planned for larval control will be accomplished. (90% in 1986)	10.2.1 Program Evaluation Report	
	10.3	Refresher training in case detection and treatment given to 5,000 volunteer collaborators	10.3.1 MOH Reports 10.3.2 Monitoring Reports	
	10.4	Household infestation rate for chagas vectors in targeted susceptible areas will be reduced by 50%		
11. Tuberculosis detection and control activities made more efficient.	11.1	90% of diagnosed cases being treated. (80% in 1986)	11.1.1 Program Evaluation Report 11.1.2 Statistical Reports of MOH	
	11.2	A reduction in rate of abandonment of treatment to 10%. (20% in 1986)		

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Project Title & Number: Health Sector II 522-0216

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

PAGE

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
III. RURAL WATER AND SANITATION			
OUTPUTS			
1. Expanded access to and use of safe water systems and human waste disposal systems in rural Honduras	1.1 500,000 more rural people have access to safe water in target regions.	1.1.1 Population Census and Surveys	
	1.2 530 aqueducts constructed by SANAA and 30 by MOH in project area and supported by PVO's	1.2.1 Field Visits 1.2.2 SANAA and MOH Reports	
	1.3 1600 wells with handpumps built and 400 wells improved by MOH		
	1.4 37,000 water seal latrines built (37,000 SANAA and 20,000 MOH)		
	1.5 20,000 pit latrines built by MOH		
	1.6 73 septic tanks installed (50 SANAA and 23 MOH)		
2. SANAA's maintenance capability for rural areas upgraded and further institutionalized.	2.1 TECHAR maintenance technicians functioning and supported by SANAA field office.	2.2.1 Project Data and Field verification	
3. SANAA's promotional/educational capability for rural areas is upgraded and further institutionalized.	3.1 36 additional promoters are hired, trained and placed by SANAA.	3.1.1 Project Data and Field Verification 3.1.2 Evaluation of impact of health education component.	
	3.2 6 personnel of SANAA trained in sanitary engineering	3.2.1 Project Data	
4. Water quality practices institutionalized.	4.1 Water sources for systems exceeding safe bacteriological standards and equipped with water	4.1.1 Field visits, surveys [illegible] SANAA and [illegible] approved by MOH.	

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PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 95
Total U.S. Funding $

Project Title & Number: Health Sector II 522-0216

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
IV. PRIVATE SECTOR			
OUTPUTS			
1. Participation by PVOs in supporting Child Survival and Rural Water and Sanitation activities	1.1 A minimum of 5 and a maximum of 12 Private Voluntary Organizations will be receiving OPG support from the Project for Child Survival and RWSS activities.	1.1.1 PVO progress reports	
2. Packaging and distribution capacity for commercialization of oral rehydration salts established.	2.1 Local private company has included ORS in its retail product line.	2.1.1 Survey of Commercial outlets	
3. Studies conducted on feasibility of establishing child survival health programs with (a) workers' unions and cooperatives, (b) private physicians and insurance companies (HMOs)	3.1 Interest expressed by various medical services/investor groups as result of study.	3.1.1 Studies available	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK

Life of Project:
From FY 88 to FY 99
Total U.S. Funding $

PAGE

Project Title & Number: Health Sector II 522-0216

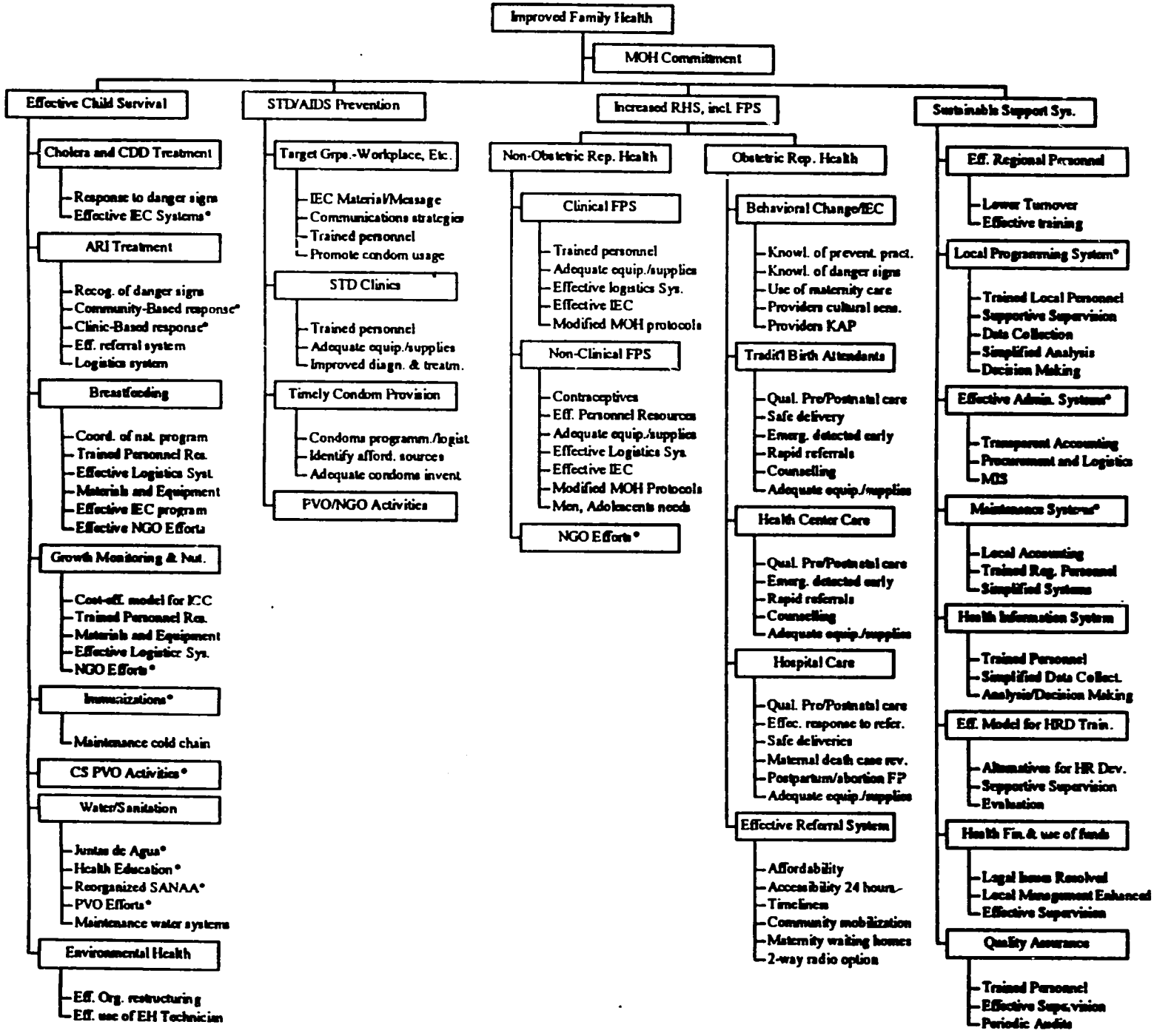
NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS

INPUTS	AID FUNDS FX	AID FUNDS LC	GOH FUNDS FX	GOH FUNDS LC	PROJECT TOTAL FX	PROJECT TOTAL LC	GRAND TOTAL
Commodities	6881.3	0.0	4415.3	1500.0	11296.6	1500.0	12796.6
Vehicles	3394.5	0.0	0.0	0.0	3394.5	0.0	3394.5
Construction	4776.2	6485.4	0.0	284.0	4776.2	6769.4	11545.6
Training	750.0	2256.0	0.0	1003.1	750.0	2359.1	4009.1
Supervision/Other Local Costs	0.0	3728.0	0.0	17414.7	0.0	21142.7	21142.7
Technical Assistance	11890.0	0.0	0.0	0.0	11890.0	0.0	11890.0
Evaluations/Audits/ Studies	972.5	1311.0	0.0	200.0	972.5	1550.0	2522.5
Private Sector	6392.0	0.0	0.0	478.1	6392.0	478.1	6870.1
Administration/Infla./ Contingency(10%)	7186.8	1190.5	360.6	360.6	7547.4	1551.1	9098.5
Total	42243.2	15009.9	4775.9	21240.5	47019.2	36250.4	83269.6

Continued availability of A.I.D. funding.

Annex 3

Objective Tree


Improved Family Health
MOH Commitment
Effective Child Survival
Cholera and CDD Treatment
Response to danger signs
Effective IEC Systems*
ARI Treatment
Recog. of danger signs
Community-Based response*
Clinic-Based response*
Eff. referral system
Logistics system
Breastfeeding
Coord. of nat. program
Trained Personnel Res.
Effective Logistics Syst.
Materials and Equipment
Effective IEC program
Effective NGO Efforts
Growth Monitoring & Nut.
Cost-eff. model for ICC
Trained Personnel Res.
Materials and Equipment
Effective Logistics Sys.
NGO Efforts*
Immunizations*
Maintenance cold chain
CS PVO Activities*
Water/Sanitation
Juntas de Agua*
Health Education*
Reorganized SANAA*
PVO Efforts*
Maintenance water systems
Environmental Health
Eff. Org. restructuring
Eff. use of EH Technician
STD/AIDS Prevention
Target Grps.-Workplace, Etc.
IEC Material/Message
Communications strategies
Trained personnel
Promote condom usage
STD Clinics
Trained personnel
Adequate equip./supplies
Improved diagn. & treatm.
Timely Condom Provision
Condoms programm./logist.
Identify afford. sources
Adequate condoms invent.
PVO/NGO Activities
Increased RHS, incl. FPS
Non-Obstetric Rep. Health
Clinical FPS
Trained personnel
Adequate equip./supplies
Effective logistics Sys.
Effective IEC
Modified MOH protocols
Non-Clinical FPS
Contraceptives
Eff. Personnel Resources
Adequate equip./supplies
Effective Logistics Sys.
Effective IEC
Modified MOH Protocols
Men, Adolescents needs
NGO Efforts*
Obstetric Rep. Health
Behavioral Change/IEC
Knowl. of prevent. pract.
Knowl. of danger signs
Use of maternity care
Providers cultural sens.
Providers KAP
Tradit'l Birth Attendants
Qual. Pre/Postnatal care
Safe delivery
Emerg. detected early
Rapid referrals
Counselling
Adequate equip./supplies
Health Center Care
Qual. Pre/Postnatal care
Emerg. detected early
Rapid referrals
Counselling
Adequate equip./supplies
Hospital Care
Qual. Pre/Postnatal care
Effec. response to refer.
Safe deliveries
Maternal death case rev.
Postpartum/abortion FP
Adequate equip./supplies
Effective Referral System
Affordability
Accessibility 24 hours
Timeliness
Community mobilization
Maternity waiting homes
2-way radio option
Sustainable Support Sys.
Eff. Regional Personnel
Lower Turnover
Effective training
Local Programming System*
Trained Local Personnel
Supportive Supervision
Data Collection
Simplified Analysis
Decision Making
Effective Admin. Systems*
Transparent Accounting
Procurement and Logistics
MIS
Maintenance Systems*
Local Accounting
Trained Reg. Personnel
Simplified Systems
Health Information System
Trained Personnel
Simplified Data Collect.
Analysis/Decision Making
Eff. Model for HRD Train.
Alternatives for HR Dev.
Supportive Supervision
Evaluation
Health Fin.& use of funds
Legal Issues Resolved
Local Management Enhanced
Effective Supervision
Quality Assurance
Trained Personnel
Effective Supervision
Periodic Audits

Annex 4
Work Plans

Plan de Visitas: Dr. Peter Boddy

FECHA	LUGAR Y HORA	NOMBRE	OBJETIVO
2 Mayo 95 Martes	Tegucigalpa 10:30 am	Dr. Sergio Carias, Director de la Dirección de Planificación	Coordinación de contrapartes, y formulación del plan de trabajo
	Tegucigalpa 2:00 pm	Dr. Juan de Dios Paredes y Lic. Luis Alonzo Lopéz, Vice-Ministros del MSP; Drs. David Losk, Stanley Terrell y Gustavo Bardales de USAID; Drs. Sergio Carias, Gustavo Flores, Roberto Valladares y Fanny Mejia, los contrapartes nacionales; y, Drs. Carl Kendall, Elba Velasco y Peter Boddy, Lic. Rita Fairbanks, y Ing. Oscar Larrea, del equipo de evaluación.	Reunión de coordinación de la evaluación.
3 Mayo 95 Miercoles	Tegucigalpa 8:00 am	Dr. Julio Arrita, Director, Región 1	Coordinar visitas de evaluación en la Región 1, y entrevistar al Director Regional en relación a los sistemas de apoyo sostenibles, y en particular en cuanto a la programación local.
		Admnistrador Regional, Región 1	Entrevistarle en cuanto al sistema de manejo financiero, sistema de suministros y logístico, y sistema de mantenimiento.

FECHA	LUGAR Y HORA	NOMBRE	OBJETIVO
		Epidemiólogo Regional, Región 1	Entrevistarle en relación al sistema de información gerencial y de salud, y como se utiliza los datos e información en la Región.
		Estadigráfo Regional, Región 1	Entrevistarle en relación al sistema de información gerencial y de salud, y como se aplica a los datos e información en la Región.
3 Mayo 95 Miercoles		Encargado de Educación	Entrevistarle en cuanto al desarrollo de recursos humanos y los programas de educación y comunicación para la salud.
		Encargados de supervisión y monitoreo	Entrevistarles en cuanto al sistema de supervisión y monitoreo utilizado en la Región 1.
4 Mayo 95 Jueves	Tegucigalpa	Dr. Jorge Medina, Jefe de la División de Recursos Humanos	Entrevistarle en cuanto al desarrollo de recursos humanos.
	Tegucigalpa	Dra. Rivas, Asesor	Entrevistarle en relación al desarrollo de recursos humanos.
	Tegucigalpa	Dra. Georgina Diaz, Jefe de la Oficina de Estadística	Entrevistarle en relación al sistema de información gerencial/de salud, incluyendo la recolección de datos, datos gerenciales, retroalimentación descendente, etc.
	Tegucigalpa	Dr. Marco Tulio Carranza, Jefe de la División de Epidemiología	Entrevistarle en relación al sistema de información gerencial/de salud, incluyendo la recolección de datos, datos gerenciales, retroalimentación descendente, etc.

FECHA	LUGAR Y HORA	NOMBRE	OBJETIVO
5 Mayo 95 Viernes	Región 1	Jefe de Area y la Enfermera de Area	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
	Región 1	Personal de un CESAMO de la Area anterior	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
	Región 1	El personal de un CESAR de la Area anterior	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
6 Mayo 95 Sabado	Tegucigalpa 9:00 am	Dr. Alvaro Gonzales	Entrevistarle en relación a los sistemas de apoyo sostenibles, y en particular en cuanto a la programación local.
8 Mayo 95 Lunes	Tegucigalpa	Dra. Fanny Mejia, Jefe de la División de Educación para la Salud	Entrevistarle en relación a los programas de educación y comunicación para la salud, las relaciones con las otras divisiones técnicas, y con las Regiones.
	Tegucigalpa	Dr. Manuel Leiva, Director del Programa de Maestría en Salud Pública, UNAH	Entrevistarle en cuanto al programa de maestría, contenido curricular, aplicación al problemático nacional, y la contribución al desarrollo de recursos humanos.
	Tegucigalpa	Dra. Janet Aguilar, Desarrollo de Sistemas	Entrevistarle en cuanto al DOFUPS.
	Tegucigalpa	Lic. María Sandoval, Unidad de Programación y Presupuesto	Entrevistarle en cuanto al sistema de manejo de recursos financieros.

FECHA	LUGAR Y HORA	NOMBRE	OBJETIVO
9 Mayo 95 Martes	Tegucigalpa	Lic. Rafael Palma C., Director de la Dirección Administrativa	Entrevistarle en cuanto a los sistemas de logística y suministros, mantenimiento, transporte, y manejo financiero.
		Otros a programar	
10 Mayo 95 Miercoles	La Ceiba	Director de la Región 6	Coordinar visitas de evaluación en la Región 6, y entrevistar al Director Regional en relación a los sistemas de apoyo sostenibles, y en particular en cuanto a la programación local.
	La Ceiba	Admnistrador Regional, Región 6	Entrevistarle en cuanto al sistema de manejo financiero, sistema de suministros y logístico, y sistema de mantenimiento.
10 Mayo 95 Miercoles	La Ceiba	Epidemiólogo Regional, Región 6	Entrevistarle en relación al sistema de información gerencial y de salud, y como se utiliza los datos e información en la Región.
	La Ceiba	Estadigráfo Regional, Región 6	Entrevistarle en relación al sistema de información gerencial y de salud, y como se aplica a los datos e información en la Región.
11 May 95 Jueves	La Ceiba	Encargado de Educación, Región 6	Entrevistarle en cuanto al desarrollo de recursos humanos y los programas de educación y comunicación para la salud.
	La Ceiba	Encargados de supervisión y monitoreo, Región 6	Entrevistarles en cuanto al sistema de supervisión y monitoreo utilizado en la Región 1.

FECHA	LUGAR Y HORA	NOMBRE	OBJETIVO
	Región 6	Jefe de Area y la Enfermera de Area	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
	Región 6	Personal de un CESAMO de la Area anterior	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
	Región 6	El personal de un CESAR de la Area anterior	Entrevistarles en cuanto a los sistemas de apoyo sostenibles en su área, y en especial la programación local.
12 May 95 Viernes	La Ceiba	Informe de los Resultados del Monitoreo realizado por la Unidad de Coordinación del Proyecto Sector Salud II	Resultados del monitoreo de la Región 6.

Plan de Visitas, Ing. Oscar Larrea

Fecha	Lugar y Hora	Nombre	Objetivo
3 de mayo	Oficina DSA - Region 1 8:30 A.M. PRASAR SANAA 2:00 P.M.	Dr. Eladio Ucles Ing. Francisco Antunez	Reunion con DSA para recabar datos sobre cobertura, poblacion beneficiada y otros datos de las res regiones en que actua el Proyecto. Reunion con el Proyecto PRASAR/SANAA/USAID para conocer la marcha del proyecto, rendimientos, costos y todas las actividades relacionadas con el Convenio Sector Salud II en lo que relaciona con SANAA.
4 de mayo	MSP Region 1 8:30 A.M.	Jefe de Division Educacional	Reunion con la Division de Educacion para la Salud del MSP a fin de obtener informacion sobre mensajes y material de Ed. para la Salud en las comunidades del proyecto Sector Salud II, cursos de capacitacion para promotores y tecnicos de saneamiento y otros.
5 de mayo	Reuniones OPDs 8:30 A.M.	Por confirmar	Reuniones con OPDs, a confirmar posteriormente, que ahora estan trabajando para el proyecto.
6 de mayo	MSP 8:30 A.M.	Dr. Roberto Valladares	Analizar los resultados de la semana y hacer los ultimos arreglos de viaje a La Ceiba y El Progreso.
7 de mayo	Viaje a La Ceiba (Region 6)	Dr. Roberto Valladares	

8 de mayo	Region Salud 6 8:00 A.M.	Jefe de Region, Dr. Valladares	Analizar las actividades de instalacion de pozos con bomba manual y de letrinas, obtener datos estadisticos de cobertura, poblacion, participacion de la comunidad, funcionamiento de las Juntas de Agua, situacion de tarifas, supervisar el trabajo de los Tecnicos en Operacion y Mantenimiento (TOMs), observar las acciones de educacion y promocion y evaluar resultados. Visita de supervision a tres o cuatro comunidades rurales del proyecto. Visitar el taller de reparacion de bombas y la bodega de repuestos.
9 de mayo	8:00 A.M. 2:00 P.M.	A confirmar	Continuar el trabajo del dia anterior. Viaje a El Progreso. Visita al laboratorio de Control de Calidad de Agua. Visita al Almacen Regional.
10 de mayo	8:00 A.M.		Continuacion del trabajo anterior. Retorno a Tegucigalpa.

Plan deVisitas, Dra. Elba Velasco

Fecha	Lugar	Persona	Objectivo
Mayo/03	Region 1	Dr. Julio Arita, Director Regional	Presentar los objetivos de la evaluacion de las actividades del componente de Sobrevivencia Infantil, desarrollados bajo el auspicio del Proyecto de Salud II Solicitar asistencia para que facilite la entrevista con los miembros de su equipo tecnico a nivel de: Hospital Regional/Area, CESAR, CESAMO
Mayo/04	Region 1	Hospital Regional/Darli 1 CESAR 1 CESAMO	Entrevista programada a traves de un cuestionario para los componentes de IRA, Diarrea/Colera, Inmunizaciones, Monitoria del Crecimiento, Lactancia Materna.
Mayo/05	Region 1	1 CESAMO 1 CESAR Lic. Denis Juarez Director FUNHDENI	Idem Obtener informacion sobre las acciones de Sobrevivencia Infantil a nivel comunitario por una ONG
Mayo/07	Viaja a Ceiba		

Mayo/08	**Region 6**	**Dr. Marco Antonio Alvarenga** **Sr. Horacio Martinez** **Director OFRANEH**	**Presentacion de los objetivos de la evaluacion** **Solicitar asistencia para entrevistar su equipo tecnico** **Participar en la monitoria de HSII** **Obtener informacion sobre las actividades de Sobrevivencia Infantil, a nivel comunitario, por una ONG**
Mayo/09 **A.M.**	**Region 6**	**Visita CESAR** **CESAMO**	
P.M.	**Region 6**	**Visita componente de saneamiento con Sr. Oscar** **Larrea y Dr. Roberto Valladares** **Viaja hacia San Pedro Sula**	**Obtener informacion sobre mantenimiento de aguas y la educacion respecto a diarrea y colera**
Mayo/10	**Region 5**	**Entrevista Dr. Oscar Aguilar** **Director Regional y con su equipo tecnico**	**Los mismos objetivos anteriores**
Mayo/11		**Visitas Hospital de Area** **CESAMO** **CESAR** **Comunidades**	**Los mismos objetivos**
Mayo/12 **A.M.** **P.M.**	**Region 5**	**Visita FEDECOH** **ONG** **Regresa a Tegucigalpa**	**Idem**

Plan de Visitas, Lic. Rita Fairbanks

Fecha	Lugar y Hora	Nombre	Objetivo
3 de mayo miercoles	San Pedro Sula	Dra. Ada Josefina Rivera - IHSS Dra. Maria E. Reyes - Liga Lactancia Dr. Samara - Hospital MSP Lic. Maria de Mejia - ASHONPLAFA	

Annex 5
Contact Lists

HEALTH SECTOR II EVALUATION

INTERVIEW AND MEETING LOG

SUSTAINABLE SUPPORT SYSTEMS SPECIALIST
Dr. Peter Boddy

MEETINGS

1. **27-29 April 95. Hotel Plaza San Martin, Tegucigalpa:** Team planning meeting. Participants: Ms. Linda Sanei, Coordinator, HTS; Ms. Melanie Sanders Smith, Team Building Specialist; Dr. Elba Velasco, Child Survival Specialist; Lic. Rita Fairbanks, Reproductive Health Specialist; Eng. Oscar Larrea, Water and Sanitation Specialist; Dr. Carl Kendall, Team Leader; and, Dr. Peter Boddy, Sustainable Support Systems Specialist.

2. **28 April 95. Hotel Plaza San Martin, Tegucigalpa:** Meeting with USAID/Honduras staff. Participants: Eng. Herb Caudill, TAACS-water; Dr. David Losk, Health Officer, USAID; Dr. Stan Terrell, TAACS-Child Survival, AIDS/USAID; Eng. Francisco Antunez, SANAA-USAID. USAID. Dr. Roberto Valladares, MOH.

3. **28 April 95. Hotel Plaza San Martin, Tegucigalpa:** Meeting/Reception. Participants: Dr. Fanny Mejia. Director of the Division of Health Education, MOH; Dr. María del Carmen Miranda, Reproductive Health Officer, USAID/Honduras; Dr. Angel Coca, USAID; & Dr. Mary Ann Anderson, Chief of HRD, USAID/Honduras.

4. **29 April 95. Hotel Plaza San Martin, Tegucigalpa:** Meeting with USAID/Honduras staff. Participants: Mr. Ross Hicks, Health Sector II Project Administrator; Dr. Antonio Pinto, Health Officer; Dra. Ma. del Carmen Miranda, Reproductive Health Officer; Dr. Gustavo Bardeles, Health Sector II Project Coordinating Unit; Dr. Stan Terrell, TAACS Child Survival-AIDS Advisor; and, Dr. David Losk, Health Officer.

5. **02 May 95. MOH, Tegucigalpa:** MOH Counterpart Meeting. Participants: Dr. Sergio Carias, Head, Directorate of Planning, & Dr. Gustavo Flores, Head, Diarrhea & Cholera Control, Maternal-Child Health Division.

6. **02 May 95. MOH, Tegucigalpa:** MOH Counterpart Meeting. Participants: Dr. Juan de Dios Paredes & Lic. Luis Alonzo Lopéz, Vice-Ministers; Drs. David Losk, Stanley Terrell & Gustavo Bardales of USAID; Drs. Sergio Carias, Gustavo Flores, Roberto Valladares & Fanny Mejia, MOH counterparts; &, Drs. Carl Kendall, Elba Velasco & Peter Boddy, Lic. Rita Fairbanks, & Eng. Oscar Larrea, external evaluators.

7. **05 May 95. Region 1 Offices, Tegucigalpa:** Region 1 Debriefing. Participants: Dr. Julio Arrita, Director, Region 1; Dr. Jorge Sierra, Epidemiologist, Region1; Lic. Ermilina Amador, Educator, Region 1; Dr. Henry Murillo; Lic. Belinda Aguilar, Maternal-Child health technician; and Drs. Sergio Carias & Peter Boddy, Evaluation Team.

8. **06 May 95. Hotel Honduras Maya, Tegucigalpa:** Meeting with USAID: progress to date with HSII evaluation: Drs. David Losk & Stan Terrell, and Evaluation Team members.

9. **10 May 95. Region 6 Offices, La Ceiba:** Meeting with Region 6 personnel: Initiation of visit to Region 6. Region 6 participants: Dr. Luis Gustavo Amaya, Subdirector for Medical Care & Regional Epidemiologist; Dr. Rafael Mejia, Subdirector for Environmental Care, Region 6; Lic. María Teresa González, Assistant for Medical Care; Belisa R. Guillén, Regional Psychologist; Lic. Mayrn López, Hospital Supervisor; and, PM Miriam Yolanda Flores, Regional Administrator. Other participants: Dr. Sergio Carias, Director, Directorate of Planning, MOH; Lic. Ross Marvin Hicks, HSII Administrator, USAID; & Dr. Peter Boddy. Telephones: 411695, 411685, 411723, and 411697 (fax).

10. **10 May 95. San Juan Pueblo, Atlántida:** Meeting with personnel of the San Juan Pueblo CESAMO, Area 2 (Tela), Region 6 (Atlántida) concerning the sustainable support systems in their health center. Participants: Dr. Alexis Reyes, physician; Lic. María Elena Escobar, Sector Nurse; Lily Espinoza, Auxiliary Nurse; Isolina Ruiz, Auxiliary Nurse; Cecilia Ruismot, Auxiliary Nurse; Dr. Rafael Mejia, Subdirector, Region 6; Dr. Sergio Carias, Director, Directorate of Planning, MOH; Lic. Ross Marvin Hicks, HSII Administrator, USAID; & Dr. Peter Boddy.

11. **11 May 95. Region 6 Offices, La Ceiba:** Meeting with Area 1 (La Ceiba), Region 6, team members to discuss the sustainable support systems in their area. Participants: Dra. Gloria Padilla, Head, Area 1; Lic. Susana Berdona, Nurse Supervisor, Area 1; Ana Amaya, Education Specialist, Area 1; Dr. Sergio Carias, Director, Directorate of Planning, MOH, Lic. Ross Marvin Hicks, HSII Administrator, USAID; & Dr. Peter Boddy.

12. **12 May 95. Region 6 Offices, La Ceiba:** Meeting for Health Sector II MOH Project Coordinating Unit Monitoring Report, Region 6, 1995. Participants: Region 6 staff: Dr. Rafael Mejia, Subdirector for Environmental Care; Lic. María Teresa González, Assistant for Medical Care; PM Miriam Yolanda Flores, Administrator; PM Sandra Regina Moncada, Statistician; Lic. Belisa R. Guillén, Psychologist; Education Specialist. Region 6 Area Heads: Areas 1 (Dra. Gloria Padilla), 2 (Dr. País), 3, 4 & 5. Health Sector II MOH Project Coordinating Unit staff, Dr. Gustavo Bardales, & Dr. Trinidad ... USAID Honduras staff: Dr. Antonio Pinto, Health Officer; Lic. Ross Marvin Hicks, HSII Administrator; & Dr. Stanley Terrell, TAACS Advisor. Evaluation team members: Dr. Sergio Carias,

Director, Directorate of Planning, MOH; Dr. Carl Kendall, Evaluation Team Leader, & Dr. Peter Boddy, Support Systems Specialist.

13. **15 May 95. UNAH Medical School, Tegucigalpa:** Meeting with UNAH MPH program teaching staff: Dr. Manual Alfredo Leiva, Dra. Leda Bolaños de Llanos, Dra. Roebinda Nuñez, MSc. Rina Turcios de Oqueli, MSc. María Elena Cáceres, MSc. Ana María Dávila de Sánchez, and MSc. Wilfredo Dominguez. Tel. 391977.

14. **15 May 95. Hotel Plaza San Martin, Tegucigalpa:** Meeting with USAID/Honduras staff & evaluation team; progress to date with HSII evaluation. Participants: Drs. David Losk & Stan Terrell, and Evaluation Team members.

INTERVIEWS

1. 03 May 95. Region 1 offices, Tegucigalpa: Dr. Julio Arrita, Director, Region 1. Telephone (Tel.): 367157.
2. 03 May 95. Region 1 offices, Tegucigalpa: Ms. Ada Leticia Rodriguez, Regional Accountant, Region 1. Tel.: 367157.
3. 03 May 95. Region 1 offices, Tegucigalpa: Lic. Ermelina Amador Motiña, Regional Educator, Region 1. Tel.: 367157.
4. 03 May 95. Region 1 offices, Tegucigalpa: Lic. Gloria Soto de Gamboa, Monitoring Department, Region 1. Tel.: 367157.
5. 04 May 95. Region 1 offices, Tegucigalpa: Dr. Jorge Sierra, Regional Epidemiologist, Region 1. Tel.: 367157.
6. 04 May 95. Region 1 offices, Tegucigalpa: Lic. Lubi Carranza, Statistics Department, Region 1. Tel.: 367157.
7. 04 May 95. Region 1 offices, Tegucigalpa: Dra. Janet Varela, Chief, Area 2, Region 1. Tel.: 367157.
8. 04 May 95. La Ermita, Morazán: Mrs. Dililah Varela, Auxiliary Nurse, CESAR La Ermita, Area 4, Region 1.
9. 05 May 95. Valle de Angeles, Morazán: Dra. Ana Melinda Flores, CESAMO Valle de Angeles, Area 2, Region 1.
10. 05 May 95. Valle de Angeles, Morazán: Aux Ana Marta Elidia Diaz, CESAMO Valle de Angeles, Area 2, Region 1.
11. 05 May 95. Santa Lucia, Morazán: Aux. Rosalia Rodreiguez Godoy, Auxiliary Nurse, CESAR Santa Lucia, Area 2, Region 1.
12. 06 May 95. Hotel Plaza San Martin, Tegucigalpa: Dr. Alvaro Gonzales Marmol, Director, Maternal-Child Health Division, MOH.
13. 08 May 95. MOH, Tegucigalpa: Dra. María Elena Rivas, MOH Special Advisor to Vice-Minister Dr. Paredes.
14. 08 May 95. MOH, Tegucigalpa: Dra. Janet Aguilar, Development Unit Directorate of Planning.
15. 08 May 95. MOH, Tegucigalpa: Lic. María Sandoval, Budget Programming, Directorate of Planning.
16. 08 May 95. MOH, Tegucigalpa: Dra. Georgina Diaz, Head, Division of Statistics.

17. 08 May 95. MOH, Tegucigalpa: Lic. Carlos Nelson Peralta, Sub-director, Directorate of Administration.
18. 09 May 95. HED offices, Tegucigalpa: Dra. Fanny Mejia, Head, Health Education Division.
19. 10 May 95. Basics office, La Ceiba: Dr. Barry Smith, BASICS LAC Region Advisor, La Ceiba.
20. 10 May 95. Dr. Rafael Mejia, Subdirector, Region 6.
21. 10 May 95. Santa Ana, Atlántida: Aux. Nilda Claudina Meraz, CESAR Santa Ana, Area 2 (Tela), Region 6 (Atlántida).
22. 11 May 95. PM Miriam Yolanda Flores, Administrator, Region 6.
23. 11 May 95. PM Sandra Regina Moncada, Statistician, Region 6.
24. 11 May 95. PM Carlos Hernandez, Head, Regional Warehouse, Region 6.
25. 15 May 95. MOH, Tegucigalpa: Dr. Sergio Carías, Head, Directorate of Planning.
26. 15 May 95. HED offices, Tegucigalpa: Dra. Fanny Mejia, Head, HED.
27. 15 May 95. MOH, Tegucigalpa. Dr. Jorge Medina, Head, Human Resource Division.
28. 15 May 95. UNAH Medical School, Tegucigalpa: Dr. Manual Leiva, Head, Master of Public Health Program at the UNAH Medical School.
29. 18 May 95. MOH Central Warehouse, Tegucigalpa: Lic. Rigoberto Osorio R., SubDirector, and Dra. Maritza Solarzano, Technical Assistant.

HEALTH SECTOR EVALUATION

INTERVIEW AND MEETING LOG

REPRODUCTIVE HEALTH SPECIALIST
Rita M. Fairbanks

MEETINGS

1. **27-29 April 95 Hotel Plaza San Marin, Tegucigalpa:**
Team planning meeting. Participants:
Ms. Linda Sanei, Coordinator, HTS; Ms. Melanie Sanders Smith, Team building Specialist; Dr. Elba Velasco, Child Survival Specialist;
Dr. Peter Boddy, Sustainable Support Systems Specialist;
Dr. Carl Kendall, Team Leader; Eng.Oscar Larrea, Water and Sanitation Specialist; Rita Fairbanks, Reproductive Health Specialist.

2. **28 April 95 Hotel Plaza San Martin, Tegucigalpa:**
Meeting USAID/Honduras staff. Participants: Eng.Herb Caudill, TAACS-water; David Losk, Health Officer; Dr. Stan Terrell, TAACS-Child Survival/AIDS; Eng.Francisco Antunez, SANAA-USAID; Dr. Roberto Valladares, MOH.

3. **28 April 95 Hotel Plaza San Martin, Tegucigalpa** Meeting/reception.
Participants: Dr. Fannie Mejia, Director
Division of Health Education, MOH; Dr. María del Carmen Miranda, Population Officer, USAID; Dr. Angel Coca, Poplation Officer;
Dr. Mary Ann Anderson, Chief, HRD; Dr. José Lopez Canales, OB/GYN, IHSS.

4. **29 April 95 Hotel Plaza San Martin, Tegucigalpa**:Meeting with USAID staff.
Participants: Mr. Ross Hicks, HSII
Administrative Officer; Dr. Antonio Pinto, Health Officer
Dr. M. del Carmen Miranda, Population Officer; Dr.Gustavo Bardeles, HSII Coordinating Unit; Dr. Stan Terrell, TAACS Officer, and David Losk, Health Officer, Project Manager HSII.

5. **02 May 95 Ministry of Health (MOH)Tegucigalpa**:Counterpart Meeting.
Participants: Dr.Juan de Dios Paredes, VM, Lic. Luis Alonzo Lopez, VM.
Drs. David Losk, Stan Terrell and Gustavo Bardales, USAID;
Drs.Sergio Carias, Gustavo Flores, Fannie Mejia, Roberto Valladares, MOH Counterparts; Evaluation Team.

6. **03 May 95 Clinica de la Mujer, Hosp.Leonardo Martinez, San Pedro Sula:**
Participants: Dr. José Samara, Director, Hosp. Leonardo Martinez;
Dr.José Eduardo Bueso, OB/GYN, Clinica de la Mujer;
Alan David Aparecio, Health Ed., Dr. Ma. del Carmen Miranda, USAID.

7. **03 May 95 IHSS Hospital, San Pedro Sula:** Participants:
Dr. Ada Josefina Rivera, Jefe Dept. Med. Preventiva;
Enf. Amelia Motiño, Supervisor,Factory Clinics; María del Carmen Miranda, USAID.

8. **03 May 95, La Leche League, San Pedro Sula Participants**
Dr. María Elena Reyes, Director; Dr. Ingrid Carol Lopez, Education Director, M. del Carmen Miranda, USAID.

9. **03 May 95, ASHONPLAFA, San Pedro Sula Participants:**
Dr. María de Jesus de Mejia, Director Clinica ASHONPLAFA, Dr. M. del Carmen Miranda, USAID.

10. **04 May 95 Hotel Plaza San Martin, Tegucigalpa:**
Counterpart meeting with Dr. Georgina Diaz, Dir. Division of Statistics.

11. **05 May 95 MOH, Tegucigalpa:** Counterpart meeting with Dr. Georgina Diaz.

12. **06 May 95 Hotel Plaza San Martin, Tegucigalpa: Participants:**
Dr. Alvaro Gonzales, Director Division Maternal Child Health, MOH; Elba Velasco, Peter Broddy.

13. **06 May 95 Hotel Maya, Tegucigalpa:** Participants:
Dr.StanTerrell, David Losk, Peter Boddy, Elba Velasco, Oscar Larrea, Carl Kendall.

14. **06 May 95, Hotel Maya, Tegucigalpa:** Participants:
Julie Becker and Mariella Ureno, IPPF/Western Hemisphere.

15. **08 May 95 Clinica Santa Fe, Periferica, Tegucigalpa:**
Dr. José Lopez Canales, OB/GYN, IHSS, Dr. Angel Coca, USAID

16. **08 May 95 MOH, Tegucigalpa:** Counterpart Meeting with
Lic. Elida Aguilar, Assistant, Women's Health Care Department, MOH; Lic. Laura Martinez, Assistant.

17. **09 May 95 Hospital Gabriel Alvarado, Danlí:** Participants
Lic. Elida Aguilar, Dr.Ramon Perez, Hospital Director; Lic. Corali Beaumont, Chief Area Nurse.

18. **09 May 95 Maternal/Child Health Center, Paraíso:**
Physician Dir. of Center, Elida Aguilar.

19. **12 May 95 Hospital Escuela, Tegucigalpa:** Participants:
Dr. Zambrano, Director, Dr.Perez, Dir. OB/GYN; Lic. Elida Aguilar.

20. **15 May 95 Hotel Plaza San Martin, Tegucigalpa:** Meeting with USAID Staff and evaluation team - progress to date.

INTERVIEWS

April 27, 1995	USAID Laurie Loux, Angel Coca, M. del Carmen Miranda
May 01, 1995	USAID Mary Ann Anderson
May 10, 1995	Health Education Division, Dr. Fannie Mejia
May 10, 1995	University Nursing School, Lic.Cristina Buchanan
May 10, 1995	UNFPA Project, Lic. Carmen Lobo
May 11, 1995	Auxiliary Nurse,CESAR, Las Flores
May 11, 1995	MCH Center Chief Nurse, Siguatepeque
May 12, 1995	Women's Health, MOH, Dr. Mirta Ponce
May 12, 1995	USAID, Laurie Loux
May 18, 1995	Women's Health, MOH, Lic. Laura Martinez
May 20, 1995	Population Council/INOPAL III, Rebecca Loundry
May 24, 1995	PAHO, Dr. José Cipriano Ochoa, Adviser MCH
May 26, 1995	INCAP/PAHO Lic. Hilda Mejia, Nutritionist.

CHILD SURVIVAL SPECIALIST
Dr. Elba M. Velasco

MEETINGS

27 April 95. USAID Honduras: Meeting with Eng. Herb Caudill, TACCS-water.

02 May 95. MOH, Tegucigalpa: MOH counterpart Meeting. Participants: Dr. Gustavo Flores, Head Diarrhea Disease and Cholera Control Program, Maternal and child Health Division.

03 May 95. Region 1, Hospital Gabriel Alvarado, Danli: Initiation of evaluation of Child Survival interventions in the Region. Participants: Dr. Ramon Antonio Perez, Director, Lic. Corali Beaumont, Head Nurse of the Area, Lic. Betsy Rapalo, Head Nurse, Dr. Gustavo Flores, MOH counterpart. Telephone 93-21-00.

03 May 95. Region 1, CESAMO El Paraiso: Evaluation of Child Survival interventions. Participants: Dr. Gaby Iguigurem, Head, Dr. Jorge Bueso, in Social Service duty, Lic. Viviana Perez , Nurse Sector El Paraiso, Lic. Leydi Diaz, Nurse in Social Service duty, Lic. Nelida Sosa, Auxiliary Nurse, Dr. Gustavo Flores, MOH counterpart.

04 May 95. Region 1, CESAR De Jutiapa: Evaluation of Child Survival Interventions. Participants: Norma Patricia Molina, Supervisor Sector 5, Lic. Elsa Hernandez, Dr. Gustavo Flores, MOH counterpart

05 May 95. Region 1, FUNHDANI (Fundacion Hondurena para el Desarrollo del Nino), CESARs La Hermita and El Tablon. Evaluation of Child Survival interventions by PVOs. Participants: Lic. Digna Ferrera, Auxiliary Nurse in Social Service duty, Dania Varela Aux. Nurse, La Hermita, Lic. Miriam Andino Nurse Supervisor and Denis Juarez, Director FUNHDANI, Dr. Gustavo Flores, MOH counterpart.

06 May 95. Tegucigalpa: Meeting USAID Dr. David Losk and Dr. Stan Terrell and Evaluation Team. Up date of activities.

07 May 95. Region 6 Offices, La Ceiba: Meeting with Regional staff to explain visit and request support. Participants: Dr. Marco A. Alvarenga Regional Director, Lic. Miriam de Valenzuela, Coordinator of Continued Education, Lic. Norma de Carias, Head Department of Nursing, Melbi Castro Soto, Head MCH, Lic. Rosario Fernandez Diaz, EPI Technician, Lic. Sandra Regina Mercado, Statistician, Julio Roberto Ordonez, Cold Chain Technician, Dr. Luis Gustavo Amaya, Epidemiologist, Dr. Gustavo Flores MOH counterpart. Telephones: 41-1685, 41-1695, 41-1723.

08 May 95. Region 6 OFRANEH (Organizacion Fraternal Negra de Honduras), La Ceiba. Meeting with PVO staff and request information on the Child Survival activities. Participants: Horacio Martinez Director, Minery D Montero Suazo, Director of Projects and Evaluations, Dr. Sonia Guity Project Physician, Dr. Gustavo Flores, MOH counterpart.
Telephone 43-24-92

08 May 95. Region 6 Offices Monitoring of HSII project. Participants: Dr. Gustavo Bardales, Antonio Pinto and the technical group from the UCP and from Region 6.

08 May 95. Region 6. BASICS Office, Meeting with Dr. Barry Smith Regional Advisor to the BASICS project, concerning activities of POSAIN in the country.

09 May 95. Region 6 Regional Hospital, Atlantida. Meeting with regional staff concerning information about Child Survival activities. Participants: Dr. Jorge Peraza, Director, Lic. Luisa R Rodriguez, Chief Nurse, Lic. Norma de Carias, Head Nurse for the Region, Dr. Gloria Pavia, Chief Nurse Area 1, Lic. Efedora Perdomo, Nurse Area 1, Ana Amayo, Educator, Lic. Estefania de Galeano, Community Nurse, Dr. Gustavo Flores, MOH counterpart.

09 May 95. Region 6, Unidad de Rehidratacion Comunitaria (UROC), Colonia San Judas. Visit to this unit of rehydration concerning their activities. Present: Lic. Norma de Carias, Region Head Nurse, Dr. Gustavo Flores, MOH counterpart, Ms. Zandra de Molina, Manager of the UROC.

09 May 95. Region 6, CESAR El Confite. Meeting with personnal concerning Child Survival activities. Participants: Xiomara Vargas, Auxiliary Nurse, Juventina Puerto, Auxiliary Nurse, Novarino Ruiz, Malaria Volunteer.

09 May 95. Region 6, CESAMO La Masica, Area 1. Meeting concerning Child Survival activities. Participants: Lic. Maria T Gonzales, Assistant, Maria C. Murcia, Auxiliary Nurse, Elba Lopez, Auxiliary Nurse, Digna Sevilla, Nurse Assistant, Hector Duzon, Laboratory Technician, Judith Ordonez, Pharmacy Auxiliary, Dr. Elba Robles, Social Service duty, Dr. Gustavo Flores, MOH counterpart.

09 May 95. Region 6, Community La Gazcona. Community survey for "Quality Control of services".

10 May 95. Region 5 Offices Santa Rosa. Initiation of visits to services in the

Region. Participants: Dr. Oscar Aguirre, Director, Dr. Arturo Escobar, Epidemiologist, Lic. Olguita Portilla, MCH Technician, Lic. Maritza Mejia, Regional Nurse.
Telephone: 62-0095

10 May 95. Region 5, Hogar Materno, Elvia Zavala de Ruiz, San Marcos Visit to a community albergue for pregnant. Present: **Bertha de Flores,** President, Carmen Delgado, TBA, Josefa Garcia, Manager of the albergue.

10 May 95. Region 5. PVO Hermandad de Honduras, San Marcos de Ococatepeque. Meeting with staff concerning child survival activities. Present: Jesus **Arturo Paz,** Deputy Director and Programs Coordinator, Dr. Gustavo Flores, MOH counterpart. Telephone: 63-3938

11 May 95. Region 5. PVO Federacion del Desarrollo Comunitario de Honduras (FEDECOH). Meeting with staff concerning Child Survival activities. Present: Dra. Norma Hernandez, Chief Health Program, Hernan Luna, Acting Manager, Dr. Gustavo Flores, MOH counterpart.

11 May 95. Region 5. Community El Tablon. Coomunity survey for "Quality Control of services".

12 May 95. CESAR San Pedro Copan. Meeting with staff concerning Child Survival activities and the "Programa de Cuidado Integral del Nino" (POSAIN). Present: Orfilia Monge, Nurse Auxiliary, Dr. Gustavo Flores, MOH counterpart.

LIST OF INDIVIDUALS CONTACTED

Ing. Herbrt Caudill (USAID Ciunterpart)	USAID/Honduras Advisor in Rural Water Supply and Sanitation Tel. 36-9320/2488
Dr. Roberto Valladares (National Counterpart)	Ministerio de Salud Asistente de la Direccion de Atencion al Medio Tel. 37-8400
Ing. Francisco Antunez (Multiple Interviews)	SANAA Director, Proyecto PRASAR/SANAA/ USAID Tel. 32-9003
Dr. Heladio Ucles Melzer (2 May 1995) A.M.	MSP/DSA Jefe Division Saneamiento Ambiental Tel. 378783
Lic. Marcio Mejia (2 May 1995) A.M.	MSP/DSA Administrador, Division Saneamiento Ambiental Tel. 37-8783
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Annex 6
Questions and Answers

I. MOH SUSTAINABLE SUPPORT SYSTEMS

1. LOCAL PROGRAMMING

1.1 Has local programming improved as a result of project interventions?

Local programming is the means through which decentralized management, decision making, and budgetary administration are to be accomplished at the operational level (i.e., at the level of the UPS[1]). Essentially it refers to each UPS planning its goals and activities based on the size, distribution, and priorities of its target population; taking into account local health problems and needs; and, considering available resources. A basic premise is that programming will be determined by local UPS staff with support from the area and regional levels. Community participation is important to the local programming process.

Local programming means that MOH staff at the operational levels will be enabled to program, implement, monitor, and evaluate health resources. This will ensure the following:

1) The adequate distribution of pharmaceuticals and supplies to each UPS.
2) More effective placement of operational-level personnel.
3) Adequate monitoring and evaluation of the various child survival programs through health information systems (HIS).
4) Greater discretionary programming and budgetary authority.
5) Control of supervisory visits and related supporting activities.[2]

Local programming is an important emphasis of the Health Sector II Project (HSII), and is a primary strategy in the Health Plan of the GOH[3]. All MOH and regional personnel interviewed considered it to be a crucial component. As it is practiced, it is a means of stimulating and enhancing local administration. Local administration facilitates the delivery of basic health services in the more than 810 UPS (see Table 1). The focus on local programming is the critical foundation of the HSII strategy to improve local services.

In general, local programming is in a beginning phase in most health centers. Most planning and programming appears to be conducted by the sector or area nurses with the assistance of the local staff, usually nurse auxiliaries. At the sites visited, it appears to be a relatively mechanical procedure of updating the goals of the previous year's plan. There is little to no investigation of

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1 UPS=Unidad Productura de Servicios = Service Producing Unit. This refers to the two types of health centers, known as CESAMOs and CESARs. CESAMO = Centro de Salud con Médico = Health Center with a Physician. CESAR = Centro de Salud Rural = Rural Health Center.

2 AID/LAC/P-426: HONDURAS PROJECT PAPER, HEALTH SECTOR II. Project Number 522 - 0216. USAID, Washington, DC, 1988. Pages 27-28.

3 HONDURAS: SITUACION DE SALUD Y PRIORIDADES 1994-1997. Pages 5, 7, 9.

the actual state of health indicators nor are needs assessments performed. In the great majority of localities, the local family census has not been conducted since 1988 or 1989; population data is generally based on estimates calculated from those surveys. There is little analysis of the current health situation in their community by the local health care staff.

Table 1. Areas and UPS by Region. Honduras, 1993.[4]

Region	Number of Areas	UPS		
		Number of CESARs	Number of CESAMOs	Total
Metropolitan	3	15	15	30
1	4	79	24	103
2	5	93	19	112
3	8	86	48	134
4	5	99	21	120
5	4	89	30	119
6	5	67	26	93
7	4	62	16	78
8	1	19	2	21
Total	39	609	201	810

Generally, community participation is rudimentary to non-existent. In one of the sites visited, members of the community were gathered together to listen to the plan the health center staff had prepared,were asked their opinion, and asked to contribute to achieving the proposed goals. At another site, local leaders were assembled to discuss health center needs. At another site, local volunteer personnel met with local staff to decide on future goals. Again, there appeared to be little local community participation in the analysis of the local health situation or in the identification of community needs and expectations, and associated decision making.

Community participation in health care is a growing concern throughout the world. Local programming provides an excellent opportunity to involve the community in the conduct of health activities. It is more likely that the community will contribute to satisfying the needs of the health

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[4] Departamento de Estadístico: BOLETIN DE ESTADISTICA E INFORMACION DE SALUD; ESTADISTICAS DE ATENCION AMBULATORIA, AÑO 1993. MSP, Tegucigalpa, 1994.

care establishment if the establishment includes the community in the planning and programming process.

Supportive or facilitative supervision is essential to developing skills necessary for local programming and local administration. There are four levels of supervision (see Question 2.1, below). At the sites visited, the health care personnel had not been taught management or administrative skills in their professional education programs. During the past year, there had been no training activities to train health care staff in these areas, and there had been no attempts to develop planning or programming capabilities within the community.

1.2 Is DOFUPS being used, and has it improved local programming and services?

DOFUPS is a collection of administrative and supervisory systems which were designed to simplify and reduce the workload of health center personnel. It was primarily directed at strengthening the administrative systems in the health centers or UPS, and at enhancing the sustainability of these systems. DOFUPS means "Organizational and Functional Development of the UPS -- Service Producing Units" ("Desarrollo Organizacional y Funcional de las Unidades Productoras de Servicios").[5]

The administrative support functions included in DOFUPS are as follows: Supervision, facilitated by the POSSEM[6], is required to maintain the systems. POSSEM is a list of objective questions designed to measure health center performance. POSSS[7] is designed to organize and facilitate inventory and commodities management. POSI[8] is an information management system which systematically organizes all the paperwork, files, educational and reference materials, etc., in the health center. Maintenance is facilitated through the POSMAB[9]. Finally, lists of child and maternal health information are maintained as LINVAC, LINEMB and LISMF.[10]

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5 Management Sciences for Health: HONDURAS HEALTH SECTOR II PROJECT FINAL REPORT. Boston, 1994.

6 POSSEM = "Proceso de Organización y Simplificación del Sistema de Evaluación y Monitoreo" = Process for Organizing and Simplifying the System for Evaluation and Monitoring.

7 POSSS = "Proceso de Organización y Simplificación del Sistema de Suministros" = Process for Organizing and Simplifying the Supply System.

8 POSI = "Proceso de Organización del Sistema de Información" = Process for Organizing the Information System.

9 POSMAB = "Proceso de Organización y Simplificación del Mantenimiento Básico" = Process for Organizing and Simplifying Basic Maintenance.

10 LINVAC = "Listado de Niños a Vacunar" = List of Children that Need Vaccinations. LINEMB = "Listado de Embarazadas" = List of Pregnant Women. LISMF = "Listado de Mujeres de Edad Fertil" = List of Women of Fertile Age.

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During site visits, regional and area supervisory staff described the use of DOFUPS as very important to the development of local administrative skills in staff, and the organization of effective and efficient health service facilities. DOFUPS had been initiated at all of the sites visited, but in general, its components have not been fully implemented. Usually, the POSI was the most prevalent, and was found in all of the UPS visited, in some form or another. The POSSS was next in frequency of implementation, though again, it is generally not fully implemented. The POSMAB was observed in very few centers, and the POSSEM is rarely applied as designed.

The PCU visits one Region per month to monitor progress in implementing the HSII components. During the monitoring process, they visit randomly selected CESARs to assess HSII implementation at the local level. Table 2 shows their results in regard to DOFUPS.

Table 2. Implementation of DOFUPS.
PCU Monitoring Visits, Honduras, 1993-1995.[11]

	1993 (9 Regions)	1994 (9 Regions)	1995 (Region 6)
Number of CESARs Visited	77	77	11
POSI	74%	95%	73%
POSSS	79%	88%	64%
POSSEM	66%	84%	27%
POSMAB	36%	29%	18%

Where the DOFUPS has been used, it is credited with improving local programming and health care services. Though its components are not fully applied nor implemented at the present time, the recognition of the need to organize some response to the needs addressed by DOFUPS does seem to be widespread.

The most serious problem with the implementation of DOFUPS appears to be the lack of training in its purposes and uses especially at the area and local levels. Personnel that had been trained previously may not be currently working in the positions they had occupied, and new staff may be performing those jobs. Local health care personnel have never received consistent training in the DOFUPS and related administrative functions.

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[11] Project Coordinating Unit: Consolidated Database of Monitoring Visits, 1993-1994; and, Results of the Monitoring Visit in Region 6, 1995.

2. Supervision

2.1 Has continuous supervision improved as a result of project interventions?

The emphasis in HSII on supervision as a primary strategy for implementing both technical and management components has stimulated and improved supervision. The use of DOFUPS has promoted and improved continuous supervision at the local level.

The development of systems for organizing and channeling local programming and administration has provided a practical focus for supervision centered on the effective delivery of basic health services and questions of quality control, rather than on the completion of specific tasks and the production of statistical indicators. The utilization and reinforcement of supportive supervision instead of "fault-finding" supervision, has improved the effectiveness of supervision at all levels, though this kind of supervision has not been uniformly applied in all areas.

Continuous supportive supervision is viewed by regional supervisors as providing several advantages. These include: serving as an effective method for identifying and correcting problems which may impede or interfere with the delivery of good quality, appropriate health care; a process to monitor the completion of local goals; a strategy for training; and a means of determining where to allocate scarce resources so they will have the best effects.

There are four levels of supervision:

1. The national or central level supervises the region
2. The regional level supervises the areas
3. The area level supervises sectors and the local level
4. The local level supervises community personnel, largely voluntary.

The continuity and frequency of supervision at all levels is varied and inconsistent. The principal supervisory activity of the national level is monthly meetings with all of the regional directors, the vice-ministers and other MOH staff members. Only the Maternal-Child Health Division (MCHD) schedules regular monitoring/supervisory visits to the regions, dedicating a one-week visit to a specific region each month to supervise the implementation of MCH programs at all levels. Other technical divisions visit the regions sporadically.

Supervision of the areas and UPS by the regions is varied. Region 1 staff program at least four supervisory visits per year to each level (including hospitals, CESAMOs and CESARs[12]) every four months, in addition to monthly meetings with area chiefs. Geographic limitations sometimes permit only two to three supervisory visits to some localities. Region 6 personnel do not schedule supervisory visits to their areas, but rather rely on monthly evaluation meetings with area chiefs.

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12 CESAMO = Centro de Salud con Médico = Health Center with a Physician.
CESAR = Centro de Salud Rural = Rural Health Center.

Area staff should visit each locality at least once a year in both regions. The area and sector nurses generally do visit each locality once a month.

The supervisory visits at the local level still tend to be more "fault-finding" rather than supportive. Area chiefs (physicians), and area and sector nurses indicated that they know that supportive supervision is better and that it is the policy of the MOH to use supportive supervision. They also said that they did not yet do it well, adducing this to several factors, including lack of time, established habits and insufficient knowledge of the process.

Local personnel stated that they know that they should receive supportive supervision, but that they rarely did, receiving instead the traditional list of deficiencies. Their faults would be written down in a notebook for reference. All of the auxiliary nurses we visited had these notebooks, and often the same entry would be repeated time after time. Even though they received negatively-oriented supervision, all local staff said that they would like to receive more supervisory visits, because that was the way they could improve their services. They also said that they would like the supervisory visits to be announced beforehand so that they could program their time to be with the supervisors, and avoid conflicting activities.

Unfortunately regional and area personnel indicated that the frequency of supervisory visits would decrease more due to the constraints described below. One of the problem areas in the MOH is the relative lack of positive and reinforcing incentives for doing a good job. This would be particularly advantageous as a supplement to supportive supervision.

2.2 What are the constraints to implementing an effective and sustainable supervision system?

One constraint concerns training. Personnel at all levels require continuous training and upgrading, first to establish and then to reinforce and refine the appropriate values, attitudes, and skills to be able to implement supportive supervision, especially at the area and local levels. Also, community officials and residents should be taught to participate in the supervisory process as part of local programming.

A second constraint relates to financing. The recent 300 % increase in the levels of authorized per diem payments, without a corresponding increase in regional budgets, effectively means that there are less funds available for supervisory visits. Per diem payments enable personnel to mobilize and participate in the following activities:

1. Special service delivery campaigns (e.g., vaccination campaigns)
2. Analysis and evaluation meetings
3. Local programming
4. Training activities
5. Supervisory visits
6. Community participation meetings, etc.

A third constraint in transportation. The widespread lack of reliable transportation in the regions severely hampers supervisory activities. For example, Region 6 has a total of 38 vehicles, of which 20 (53%) are nonfunctional, and the remaining 18 do not always function reliably. There is great demand for use of the vehicles by all of the technical programs and activities programmed by the region, areas and local levels. In addition to lacking vehicles, funds budgeted for maintenance and fuel purchases are extremely inadequate and consequently limiting.

2.3 How can the quality of supervision be enhanced?

The quality of supervision can be enhanced by better defining what should be achieved during supervision and how to do it. Simply filling out a form like the POSSEM is not enough to be considered supportive. Supportive supervision requires specific values, attitudes, and skills. These elements seem to be filtering down through the system, mainly through trial and error attempts to imitate what seems to work for others.

Regional and area supervisors in the regions visited, stated that they themselves, and personnel at the sector and local levels, needed more training to reinforce what they are doing right and to correct what impedes supportive supervision. The process can be made more effective and efficient by formulating specific learning objectives and designing a program of systematic training and developmental activities to fulfill the objectives.

A brief manual or booklet describing how to do supportive supervision should be written and given to all personnel who are expected to supervise. This should include a conceptual description of what supportive supervision is, the appropriate attitude of a supportive supervisor, and practical suggestions for doing it. Scenarios of supportive and non-supportive supervision, to illustrate differences, should be included. This could then be referred to during supervisory visits, and be used to complement other training activities. Practical workshops with structured experiential exercises should be organized to describe, demonstrate, and give guided practice in supervisory skills. All supervisory staff should attend brief refresher workshops annually.

Including personnel from the same level and community members in the supervisory visits would help to enhance supervision. For example, outstanding auxiliary nurses could contribute significantly to supervising other auxiliary nurses. They could identify problems they have faced, and could give practical technical assistance based on their own success in implementing service delivery and public health programs. The participation of community members would help to foster feelings of community responsibility for their health center and help to gain an understanding of health care operations and procedures.

2.4 Should the MOH policy level be involved more actively in supervision? If so, how?

The MOH central level or policy level should be more actively involved in supervising the regions. The policy level refers to the higher levels of decision makers in the MOH, such as the Minister, Vice-Ministers, General Directors, Directorate Chiefs, and Division Heads. Central/national-level

personnel should visit regions to experience how their policies help or hinder the effective and efficient delivery of health services to the population. Simply emitting policies and formulation programs for regional-area-local implementation based on the reports from regional personnel is like trying to diagnose and treat a sick person by telephone.

It appears that the Maternal and Child Health Division and the HSII Project Coordinating Unit are currently the only central/national-level organisms that regularly supervise and monitor their programs at the regional, area, and local levels.

Field visits should be programmed in such a way as to combine the supervisory and monitoring efforts of other divisions and central/national organisms and so as to interrupt service delivery as little as possible. Also, as much as possible, such efforts should include local-level staff, and be accompanied by feedback sessions. It would be advantageous for local programming in the regions to limit all possible supervisory visits to a certain week every month, such as the second or third week.

2.5 Is there an on-going role for the project in this area?

The HSII project should continue to provide technical assistance for the continued development of supervisory skills at all levels, and encourage the development of supervisory systems in each of the regions. While it is not necessary that each region use the same supervisory system, it is important that each region have a consistent, effective system that suits their needs.

According to one MOH source, three of the regions have developed functional supervisory systems based on DOFUPS (the Metropolitan Region, Region 1 and 5), and one region has virtually no supervisory system (Region 4). The other regions are at various intermediary positions between these two extremes.

3. HUMAN RESOURCE DEVELOPMENT

3.1 Has human resources development improved as a result of project interventions?

The goal of the human resources development component of HSII is to maintain an adequate supply of updated, trained manpower for the MOH. Most of its numerical objectives have been fulfilled. But the effectiveness and impact of these interventions are either unknown or have been disappointing. Twelve self-instructional manuals (see Table 3) have been prepared and distributed, fulfilling the numerical goal; but in practice they have been ineffective as a mechanism for training. A staff resource register has been completed. At least 26 MOH personnel have been sent to foreign graduate public health programs, and at least 15 have received MPH degrees. Short-term training objectives of community volunteers and refresher courses for MOH staff have been surpassed.[13]

Table 3. Self Instruction Modules, HSII, Honduras, 1993.[14]

MODULE SUBJECTS	
1.	Malaria, Dengue and Chagas
2.	Acute Respiratory Infections
3.	Diarrhea and Cholera
4.	Breastfeeding
5.	Management
6.	Tuberculosis
7.	Expanded Program for Immunizations
8.	Rabies
9.	Maternal Care
10.	The Cold Chain
11.	Pregnancy, Delivery, and Postpartum
12.	Family Planning

Materials have been developed, but a cogent methodology for the use of the materials is not understood or remembered in the regions. For example, self-instruction modules were designed, produced, and distributed, but an effective and consistent methodology for using the modules was not recalled by personnel at the sites we visited. Staff at every UPS we visited showed us copies

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13 USAID/Honduras: HEALTH SECTOR II PROJECT STATUS REPORTS, October 1, 1991 - September 30, 1994.

14 Management Sciences for Health: HONDURAS HEALTH SECTOR II PROJECT FINAL REPORT. Boston, 1994.

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of the self-instruction modules and told us that they had read parts of the books. No one had read an entire module or could explain how to use the modules effectively.

The self-instruction modules could be more effective with some simple instructions and recommendations concerning their use. For example, supervisors should give personnel sections of the modules to study, and then follow up with questions about the assignments. Supervisors should also review the modules to make sure that written assignments have been completed. The monthly sector and area meetings should regularly include sessions to discuss reading assignments, and area and regional supervisors should follow up to make sure that there is compliance. Occasional quizzes or tests should also be given. Positive incentives need to be formulated as well. For example, those who read their assignments and compete the modules could be rewarded with trips to training activities or special meetings. Certificates should also be given for completion of a module.

Technical divisions and departments of the MOH organize regional and national workshops concerned with their areas of responsibility seemingly without any coordination between events. This tends to be disruptive to the practical work of regional and area personnel. There continues to be an over-emphasis on technical training for medical service delivery, and underemphasis of management training at all levels.

There are very few training events organized for local and community personnel, beyond initial training programs. The "cascade" method for multiplication of training efforts, focusing on key regional and area supervisors and presuming a top-down diffusion of critical knowledge and skills, has proved to be inoperative and ineffectual. This has resulted in an excess of training opportunities and obligations for a few, and virtually no training for most staff.

There is no systematic evaluation of the results and impact of training other than casual and anecdotal observations of performance. Organizers equate the conduction of training events with the fulfillment of educational objectives. Instructional techniques tend to emphasize information transfer rather than learning specific skills. There is very little follow-up or reinforcement of training. Most events do not have clear learning objectives focused on the needs of health care personnel, but instead tend to reflect the needs of event organizers.

3.2 What is the intention of the MOH in terms of developing local and area human resources?

The MOH has prioritized the development of local human resources and community participation. This is the province of the regions. The regions have recognized the need for development and training in both technical and management areas. They acknowledge that previous attempts at training and development have not been sufficiently successful, and that new instructional programs and methodologies must be devised. They also sustain that training should be practical, experiential (e.g., on-the-job training), and not interfere with service delivery by requiring personnel to leave their work areas for training. At present, the MOH is not quite sure how to accomplish this.

3.3 Is there an on-going role for the project in this area?

Training is the most critical and essential contribution of HSII to the MOH. The sustainability and persistence of the HSII components depend on the establishment of an educational program that can present, reinforce, and enhance knowledge and skills necessary for the implementation of the components.

The on-going role for HSII in human resource development is to assist in the formation of effective, coherent, and flexible educational procedures, activities, and programs to fulfill the needs of the MOH.

The project has provided long-term technical assistance and scholarships for MPH education abroad. Two of the objectives of this were:

1) Sustainable improvements of the technical quality and appropriateness of rural health interventions.

2) Sustainable improvement in the management of rural health interventions.

3.4 To what degree did the project achieve these two objectives?

Definite improvements in the technical quality and appropriateness of rural health care and in the management of rural health interventions have been achieved by HSII interventions. Greater strides have been made in enhancing technical quality and service appropriateness. More personnel have been trained in the implementation of technical programs, and current MOH standards and practices concur with the HSII interventions. The success of technical programs is reflected in the objective improvement of basic health indicators, such as the reduction in the rate of infant mortality.

The management of rural health interventions has not improved to the same degree as the technical quality of service delivery. Progress has been made in the management interventions, but they are less well understood and less successfully implemented. It is clear that more progress had been made while the long-term technical advisors were present. Since their departure, some of the advances in management have deteriorated.

3.5 What were the constraints to success?

One of the constraints to success is the lack of consistency and follow-through in the implementation of human resource development methodologies. This is largely due to the lack of understanding of the training and educational process by technical personnel, and the assumption that "anyone" can function as a trainer. Problems arise when trainers do not fully understand the knowledge and skills they are expected to teach, and do not know effective instructional techniques. This is the case with regard to the emphasis on supportive supervision and on-the-job training as one of the major strategies for human resource development.

A second constraint is the relative lack of evaluation and monitoring of training and educational activities. As a result, there is no feedback as to whether or not people really learn what they should, and there is not real information concerning the impact of training activities.

A third constraint concerns misconstrued and unclear expectations in relation to training. For example, there does not seem to be an appreciation of the different phases of teaching staff what is necessary to implement HSII components. Thus there does not seem to be any differentiation between initial training and reinforcing training, nor does there seem to be recognition of the difference between the two types. At the same time, any institution requires different classes of training: 1) institutional socialization, or learning the norms, procedures, and culture of the institution; 2) job training, or acquiring knowledge, skills and attitudes necessary to perform specific tasks and jobs; 3) continuing education, or professional development, which includes updating, enhancing, and expanding professional knowledge and skills. Current human resource development does not consistently take into account these differing classes of educational needs.

A fourth constraint is the lack of incentives for training and acquiring new knowledge and skills. One incentive would be to make specific training a prerequisite for certain jobs, or for promotions, or for salary increases, etc. Another would be to make awards for studying and voluntarily participating in training programs outside of work hours. Another would be to grant certificates for completing a specified number of hours of training or a particular program of study.

3.6 Is there a solution to the problem of the continuous turnover of key staff?

Continuous turnover is obviously a serious problem. The principal causes--politics, economics, job instability--are difficult, though not impossible, to change. One of the principal effects of turnover is that people who have received training and/or gained experience enabling them to do a specific job, leave and untrained personnel take their places. An effective training system within the MOH, with provisions for varied and flexible instructional programs, is the most practical strategy to deal with this problem. In particular, all new personnel should be trained with regard to the needs of their specific job. The training should take place before they assume their positions, and should be prerequisites for work.

Knowledge and skills which are critical for the performance of specific jobs should be prerequisites for being placed in those jobs. This training could be offered to persons who aspire to take on those jobs, who before being employed by MOH, could take MOH training during non-work hours to fulfill prerequisites, and pay for it themselves.

Another strategy is to train as many people as possible in the basics of the HSII intervention components, to increase the pool of possible replacements. A means of accomplishing this would be to include the training in the curricula of professional education programs, such as the medical and nurse training schools. Another measure would be to offer continuing education, such as through workshops and/or seminars, to current MOH employees and persons interested in such

employment. Certification of basic knowledge and skills should be a prerequisite for employment by the MOH.

3.7 Is the management training for these positions sustainable, and could it be a prerequisite to assuming a management position?

Management training is currently not consistent or systematic. Previously it was assumed that it would be provided by long-term resident advisors assigned to regions and central MOH departments. While this occurred in some regions, unfortunately the in-service training experience was not consistently successful in all regions. Also, dependence on one training mechanism has proved to be ineffective. A coherent, more efficacious management training program needs to be designed. The lack of understanding and deterioration in the HSII management components testifies to the need to attend to this deficit.

Appropriate management training should be included in current health professional educational programs, offered though elective seminars and developmental workshops, self-instructional modules, and specialized materials that could be used to enhance supportive supervision.

Sustainability would be strengthened by offering a variety of educational and training activities and opportunities. Such training should be a prerequisite for employment, for promotion, and for salary increases.

3.8 Does the National University's MPH program have a training role in the solution of this issue?

The National University's MPH program appears to be a good quality program which responds to identified needs of the MOH. It uses modern and effective instructional methodologies. The possibility of obtaining a master's degree is a concrete and compelling incentive to health professionals. Support of the UNAH-MOH program could replace scholarships to foreign MPH programs. In addition to the MPH program, the University's MPH department can organize specialized seminars and workshops for the MOH regions, and can organize and conduct operational research.

The National University's MPH program offers a number of advantages for the training needs of HSII and the MOH. The MPH curriculum was formulated in coordination with the MOH, and based on studies of needs and problems encountered in the health regions. Consequently, the goals and objectives, instructional methodologies, on-the-job training strategy, and course content are designed to prepare health professionals to better respond to the specific needs of Honduras. Students maintain their jobs while they study, which provides professional security and assures that the new knowledge and skills they learn will be applied to those job areas.

The program of scholarships to study public health outside of Honduras has a number of disadvantages. First, it requires that personnel give up their jobs, leave their families, and abandon the country for a year or more. This is personally and socially disruptive. Second,

foreign study costs more than study in Honduras. Third, students study in a foreign environment and context, which may or may not be germane to Honduras. Fourth, they tend to study a general curriculum which is not focused on the specific needs of Honduras.

3.9 Are there viable alternatives to training as carried out so far by the project?

There is a need for a greater variety of effective training programs. Supportive supervision and on-the-job training are excellent strategies, but they are not enough. They need to be complemented by other activities. Workshops represent a good training methodology but have not been used well in Honduras. There have been too many poor quality workshops held too often. Currently there is widespread disillusionment with workshops and training in general. Nevertheless, training is fundamental to the success of the HSII interventions. Strategies that could make training more effective and viable are: 1) formulating clear learning objectives which contribute to the implementation of HSII technical and management components; 2) using more efficient instructional methodologies, including models and practice in desired behavior; and 3) rationalizing training activity scheduling.

Some training programs could be organized and offered by the UNAH MPH program. This would lend greater credibility to certificates which would serve as an incentive. They should be offered to both MOH employees and non-MOH personnel, so as to involve more people in training related to the needs of the MOH. This would contribute to forming a pool of people who could replace persons on leave. The training activities should be offered during "free-time" so as not to interfere with work.

3.10 What about "supportive supervision"?

Supportive supervision is an excellent management strategy. It is flexible and very responsive to management and human resource development needs. There is widespread acceptance of the positive potential of supportive supervision in the regions, but there is also recognition that it is not being done well at all levels.

Supervisory personnel need more and better training to be able to perform supportive supervision more effectively. They also need "how-to" support materials to guide the process and help them enhance the results of supportive supervision. There is a need to emphasize and develop follow-up procedures and feedback in relation to follow-up.

3.11 How can the impact of training be monitored on a regular basis?

Currently, there does not seem to be any systematic evaluation of training activities at any level. This may be partly due to the lack of clear learning objectives and the lack of a coherent training program. Consequently, one step that would contribute to monitoring the impact of training would be to clarify learning objectives and to identify learning indicators that could then be followed. Strategies that could be used to follow the indicators include self-assessment

instruments, institutional performance assessment, pre-post testing, and supervisory follow-up of technical and management indicators.

3.12 Should the project take a different approach to training?

The project needs to refocus and dynamize training. A coordinating agency should be identified to assure that there is not excessive programming of training activities by individual technical divisions and departments of the MOH. It should also assure that training responds to identified needs of the regions and especially of the local levels. Learning objectives related to HSII technical and management interventions should be emphasized. This agency should represent the regions and the MOH central level, and should schedule all training activities for the ensuing three to six months. No other training activities should be allowed.

The project should also program more training activities and these should be more varied, flexible, and continuous. Fewer training events should be scheduled during work hours, and more should be programmed during off-work hours. A greater emphasis should be placed on individual responsibility to obtain and update professional skills. Specific incentives need to be identified to stimulate this process. Training should become a prerequisite for employment by the MOH, and for job promotions and salary increases. Other incentives include granting certificates for study, and devising programs of study for specialization in specific areas.

3.13 Should the project continue to provide training at all?

Training in the context of the HSII components is the most critical and essential contribution of the HSII to the MOH. The proper implementation, sustainability, and persistence of the HSII components depend on the establishment of a training program that can present, reinforce, and enhance the knowledge, skills, and attitudes necessary for the implementation and continuation of the components.

The development of an effective, efficient, and multi-faceted (including in-service, workshops, etc.) training program is one of the most important contributions HSII could make to the MOH. As described previously, currently there is no ystematic training system in the MOH. There is no consistent mechanism for assuring that MOH staff have, or acquire the skills required, to do their jobs. The most advanced computer in the world will not produce better work if no one knows how to use it. In the same way, the best management or medical/health technology or procedures will not be effective if people do not know what they are and how to use them. The training system is also the mechanism for passing on the knowledge and skills of HSII components to new generations of MOH personnel, and it is also the best way to ensure that innovations and interventions continue after HSII terminates.

4. MOH COMMODITIES/LOGISTICS SYSTEMS/ADMINISTRATION

4.1 Have the warehousing/distribution of commodities improved as a result of project interventions?

The goals of the logistics administration system are to: provide for more rapid and rational purchases of commodities and supplies; provide for improved distribution, storage, and use of commodities through the use of inventory control systems; and provide better storage facilities. There have been significant improvements, though the deficiencies in the system are still more notable. The most salient problem is the reported lack of supplies at UPS. Health centers visited reported that they only had medicines for about 50% of the time they attend patients. This appears to be the major complaint the population has against the UPS.

On the positive side, there seems to be better systematization at the local, area, and regional levels of the procurement process, and in the storage and disbursement of the supplies received. On the negative side, the MOH central warehouse still does not fulfill orders from the regions completely or in a timely manner. Supply needs are programmed annually. The regions formulate a supply list based on projected needs for the coming year, which is then reviewed and approved or not. Even though the supply list may be approved, the regions often do not receive the approved quantities. The late arrival and incomplete filling of supply requests from the regions produces shortages of materials and medicines at all levels. Many community residents do not utilize health centers if they know they do not have medicines.

4.2 What are the continuing problems in transportation?

Transportation continues to be a headache for the MOH. A relatively large proportion of the MOH vehicular fleet is non-functional. For example, Region 6 has a total of 38 vehicles, of which 20 are non-functional. Some vehicles are simply old--for example, 14- to 15-years-old--and have outlived their functional life. Others have developed mechanical problems and need to be repaired. Due to the unavailability of parts in Honduras and due to the high cost of purchasing imported parts, they have not yet been repaired. Some of these have been waiting more than a year for required parts. While it does appear that most of the vehicles provided by HSII are functional, the regions view their transportation problems as a whole and not as project-related problems.

A major factor of the problem of transportation is the low amount of funds budgeted for vehicular maintenance and repairs. Regional administrators prefer to invest what little they have on the maintenance of functioning vehicles that can be used immediately. Maintenance is relatively low-cost, and a sure thing, i.e., it keeps functioning vehicles functional. Repairs, on the other hand, are expensive and unsure. Parts tend to be expensive and usually have to be imported, which implies delays, and there is always the possibility that the repair will not be enough to make the vehicle functional.

Another problem with vehicular maintenance and repair is the practical unreliability of the MOH mechanics. Whether or not vehicles are repaired and maintained, the maintenance and repair staff members receive their salaries. The chronic lack of parts and materials gives them an acceptable excuse for not repairing vehicles, though this is also very frustrating for the mechanics, since without parts and materials they cannot do their work. There are no incentives for MOH mechanics to search for substitute parts or to remanufacture parts or to use locally-produced parts, which is what private car owners usually do to keep their vehicles moving. Private mechanics do not get paid unless they actually repair vehicles.

Transportation is critical and indispensable for the fulfillment of the objectives of the MOH. If the MOH considers it important to have its own fleet of vehicles, the inescapable conclusion is that the MOH should replace its worn-out vehicles, of which there are a considerable number, and repair those which still might have several years of useful life remaining. Nonfunctional and non-repairable vehicles should be removed from MOH books and disposed of. Also, the maintenance and repair budget should be increased to be able to attend to the actual needs of maintenance and repairs.

One possible solution would be to condition MOH drivers' contracts on the availability of a functioning vehicle to drive. A driver could be assigned a vehicle and as long as his vehicle is functioning, he would have a job. This would provide an incentive to the drivers to ensure that their vehicles are adequately maintained, and opportunely repaired. Another possibility would be to use private contractors more to do maintenance and repairs. Each region would be responsible for arranging and supervising their contracts. This would help to reduce costs, repair vehicles in a more timely way, and increase the functional life of vehicles. Local funds received though cost recovery efforts could be used for this purpose also.

Leasing vehicles might be a viable solution for the MOH. If the MOH leased its vehicles, the leasor would be responsible for maintenance and repairs. While vehicles are being maintained or repaired, the replacement vehicle could be given to the MOH so as not to interfere with its work. A number of transportation needs can be efficiently and relatively inexpensively resolved by contracting vehicles and drivers for specific tasks or needs. For example, the delivery of supplies would be more rapid and less expensive if transported this way.

A quick investigation could determine the actual cost of maintaining and repairing the current MOH fleet of vehicles at the national, regional, and area levels, the cost of MOH maintenance and repair staff, and the cost of purchasing new vehicles to replace those that are worn out. At the same time, the health regions should determine the least number of vehicles required to do basic work, and also the ideal number of vehicles needed to do the work it would like to do. Estimates for leasing could then be collected from local and foreign businesses.

4.3 What are the continuing problems in logistics?

Briefly, the principal continuing problems in logistics include the following: inadequate procurement budgets; bureaucratic and torturous procurement authorization processes;

incompletion of requests/orders for medicines and other supplies--quantities and items solicited often not sent; orders filled late; and quantities of orders not determined by patient flow or use of supplies, but rather by predetermined basic supply lists at the local, area, and regional levels.

The major problem in the logistics system is the procurement of pharmaceuticals, or rather, the lack of procurement of an adequate supply. All personnel at all levels complained about the scarcity of pharmaceuticals, which begins in the central warehouse, and progressively affects the descending levels from region to area to UPS (CESAMO or CESAR). All of the UPS we visited stated that they usually had medicines only at the beginning of trimesters, because they never received all of what they had requested (even though the quantities ordered are within the parameters of the preapproved annual supply request), and their supplies ran out. Many said that what they usually received generally only lasted for about one-half of a trimester.

Each region prepares an annual supply list, based on projected requests from their areas and UPS, which is remitted to the MOH. There it is revised and approved (or not) by the Pharmacy and Finance Divisions. The latter combines the supply requests of all the regions, and sends it to the Purchasing and Supply Division. This Division must coordinate with the Treasury Ministry to search for and select a vendor, and make the purchase. The purchase for the entire year is made at one time. this process takes a relatively long time, and is described by MOH and regional personnel as an enormous and tedious bureaucratic effort.

The preparation of the annual supply list is based on the quantities indicated for each health establishment in the "Basic List" ("Cuadro Básico"). The basic list was prepared several years ago. The use of this list of pre-established maximum amounts means that supply requests are not based on the history of the use and demand for specific pharmaceuticals in the service delivery establishments. The UPS always request the maximum possible because they never receive everything they order.

This has been a major problem for a long time. The best solution in the current context would be to centralize procurement, and make the regions responsible for procuring what they need, as well as permit the regions to further decentralize until each UPS becomes responsible for procurement. This would alleviate the central MOH from this onerous and complicated task, and permit it to dedicate its energies to investigation, analysis, planning, human resource development, supervision, and monitoring. It would also permit the regions and their UPS to procure the medicines they need, in the quantities they need, and when they need them.

A major problem underlying the deficient procurement of pharmaceuticals is the lack of sufficient funds to purchase adequate amounts. This can be alleviated by involving the beneficiary population in the financing and procurement of medicines. At the present time, medicines are given to patients, essentially at no charge, or at most for a charge of 1.00 Lempira (approximately US$0.11). If medicines were sold in the UPS essentially at cost, that would still be significantly cheaper than having to purchase them in pharmacies or neighborhood stores.

According to one of the vice-ministers, there are over 400 small community pharmacies functioning throughout Honduras. All of these were started with an initial donation of medicines, which are then sold and replenished with the proceeds. A similar arrangement could be made with the UPS. Each could form a revolving drug fund initially financed by the MOH. This would be maintained by sales and small sustaining grants from the MOH to cover medicines given to indigent patients.

These local funds could be managed by the local health committee, which would be responsible for making purchases, setting prices, receiving payments, and consulting with the local UPS staff to plan new purchases. This would allow the community to decide how much they would have to pay for medicines, based on the financial realities of procurement, and would involve the community in planning and management of the UPS. This coincides with the current GOH policies of social participation in decision making, social control of public management, and the democratization of the administration of services.[15]

4.4 What are the constraints that keep the POSSS system from being a fully effective pharmaceutical and supplies inventory/purchasing/supply system?

The POSSS is present in some form or another in most of the health centers. According to the monitoring visits conducted by the Project Coordinating Unit (PCU) in 1993, 82% of CESARs had implemented the POSSS, and in 1994, 88% had done so.[16] In the UPSs we visited, we observed that the Kardex was not always up-to-date. The POSSS is also functioning primarily as an inventory system. The current practices of the purchasing/supply system do not take into account POSSS data, and this is somewhat of a disincentive to maintain it.

According to regional and area supervisors, other constraints to the correct use of the POSSS include lack of training, reinforcement, and follow-up to training; lack of follow-up to supervisory observations; and, as alluded to previously, orders not filled with regard to quantities and items requested, nor with regard to patient flow.

4.5 How can the system by strengthened?

The POSSS could be strengthened by providing better training and follow-up to training. The training should be given by area and sector personnel, so that they could also improve their supervision and monitoring of the POSSS in the UPS, and provide better follow-up to supervisory observations. Giving a short training on the POSSS, and ostensibly including it in supervisory/monitoring visits, would emphasize its importance and stimulate local staff to pay more attention to it.

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15 HONDURAS: SITUACION DE SALUD Y PRIORIDADES 1994-1997. Pages 1,5,7,9,10.

16 Data from PCU monitoring visits, 1993 & 1994.

4.6 What are the constraints to the implementation of an effective system?

Constraints to the implementation of an effective POSSS include the following: an unwieldy and relatively unresponsive procurement process; procurement is still too centralized; lack of local initiative and motivation; underfunding; absence of community participation in the process; and no cost recovery for medicines.

4.7 What about building delivery of pharmaceuticals and supplies into procurement contract(s) with the private sector?

Combining the delivery of pharmaceuticals and supplies into procurement contract(s) with the private sector would be a good strategy. This offers greater potential to fulfill local needs opportunely, is more flexible and responsive, and fosters community participation and local programming. It can also be associated with cost recovery. One drawback is that the regions, areas, and local levels do not have much experience with the private sector. Initially, medicines may cost more than they would have if the MOH had purchased en masse for all of the regions. Eventually this will work out as different local vendors compete to sell to the regions and UPS, and as units join together to make immediate purchases.

4.8 What are the obstacles to the sustainability of these systems?

The obstacles to the sustainability of the POSSS include: insufficient training; lack of emphasis during supervision and little follow-up of supervisory observations; and the absence of concrete incentives for doing it right. A significant disincentive is the current procurement process, which is based on pre-established quantities and not on patient flow, consumption of medicines, or actual stock on hand. This reflects a lack of relation to identified needs and seems to make the process meaningless. Another obstacle is the lack of community participation in the procurement and supply process. Community participation offers considerable human resources to assist the local UPS staff in solving the supply problem.

4.9 What is an appropriate on-going role for HSII?

HSII should assist in training and human resource development in the management of the POSSS, and in fostering and organizing community participation. HSII could also help to arrange technical assistance in forming local rotating drug funds.

5. MOH FINANCIAL MANAGEMENT SYSTEM

5.1 Has financial management improved as a result of project interventions?

Regional directors report that they perceive an improvement in financial management in terms of organization. On the other hand, they report that the instability of the regional administrators, who are political appointees, is disruptive. This appears to be a major concern of the regional directors. It would be more efficient to have the regional administrators named by the regional directors and therefore responsible to them.

Recent studies of the organization, procedures, and functioning of the financial administrative area by EA Associates were published in March 1995.[17] Together with MOH counterparts, they described a number of deficiencies and recommendations to improve these. Among their suggestions are the following: 1) formulate work goals and timelines to carry them out; 2) prepare job descriptions and establish responsibilities; 3) define the organizational and functional structure of the area; 4) provide management training to establish an effective corporate culture and to develop skills for leadership, planning, delegation, direction, and decision making; 5) design follow-up mechanisms; 6) provide modern financial administrative tools (i.e., adequate computers and software); 7) simplify and optimize procedures and write manuals for each process; and 8) train staff at the national and regional levels. These are excellent recommendations and should be implemented. It would be advantageous for the HSII project to encourage and support the MOH in putting them into practice.

5.2 What further project assistance is needed in this area?

The development of cost recovery without reducing coverage to severely disadvantaged families holds a great deal of potential for obtaining sufficient funds to be able to pay for the level of services required and desired by local populations. To make cost recovery feasible, there is a need to focus on quality of services and good treatment of patients. There is also a need to develop a client-centered attitude for service delivery in MOH staff. This will improve the quality of services and increase cost recovery. Community participation is an essential element, and needs to be expanded and made more effective.

5.3 What effort has the MOH made to recoup expenses?

Cost recovery in CESARs increased significantly between 1989 and 1994, jumping from 13% to 77% of establishments monitored by the PCU (see Table 4). Recovery in hospitals and CESAMOs also increased. The concept seems to be well accepted by the beneficiary population.

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[17] EA Associates: AREA ADMINISTRATIVO FINANCIERA: DIAGNOSTICO TECNICO ORGANIZACIONAL. Ministerio de Salud Pública & USAID/Honduras, Tegucigalpa, March 1995. And, EA Associates: AREA ADMINISTRTIVO FINANCIERA: ESTUDIO DIAGNOSTICO DE LOS PROCEDIMIENTOS OPERACIONALES. Ministerio de Salud Pública & USAID/Honduras, Tegucigalpa, March 1995.

One of the CESARs we visited informed us that they had routinely collected Ls.5.00 per consult while it was administered by an NGO. We were informed by staff at one of the CESAMOs we visited that patients often paid L.30.00 to a health center run by an NGO.

Current policy concerning cost recovery by CESARs is that the local community health committee should fix the price to be charged for consults, and the committee should collect payments, and decide how to spend it. According to what the committee decides, the collected funds are used to purchase more medicines, make repairs and improvements in the CESAR, etc. One of the CESARs we visited did not charge a fixed amount, but rather left it up to people's conscience to pay whatever they decided was fair. That CESAR did not recover many funds.

The CESAMOs collect Ls.1.00 for consults and for medical care. Of this, 75% should remain with the CESAMO to cover local expenses and should be spent at the discretion of the local staff. A total of 25% should be sent to the region. Currently, both of the CESAMOs we visited sent all of the funds they recovered to the region, and then solicited funds as they needed them to make repairs in the health center or to buy something for the CESAR. This practice is contrary to MOH policies.

Table 4. Proportion of CESARs that receive cost recovery payments, Honduras, 1995.[18]

Year	Proportion of CESARs
1989	13%
1991	50%
1992	48%
1993	62%
1994	77%

5.4 What are the legal issues of retained revenues and how might the MOH surmount them?

The constitutional right to health care is interpreted to mean that medical care and medicines should be given free. There is a need to reinterpret these concepts to conform to current realities. If the national budget will be unable to fully fund medical services through the MOH system, then

[18] Pinto, Antonio: INFORME, ANUAL DE LA MONITORIA AL PROYECTO SSII, 1994. USAID/Honduras, HRD/HPN, Tegucigalpa, 1995.

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supplemental financing needs to be found. Cost recovery from service beneficiaries is a feasible possibility, and one community people are willing to pay for.

The legal necessity of MOH employees being bonded to manage local funds collected can be avoided by having health committees receive payments. Local health committees should manage funds for CESAMOs too.

5.5 How effective is the management of revenues at the local level?

The management of funds at the local level seems to be well done, where it is allowed to occur. The regions are still managing funds to a great extent. There needs to be greater community and local health care staff involvement in managing recovered costs. The potential for local accountability is very good. Simple management and accounting systems should be developed and disseminated. Preferably these systems would be developed by community groups, such as the health committee, and shared with other communities.

5.6 Is there a continued role for the project in this area?

There is still a great need to train local health care staff and to develop community participation in this area.

6. MOH MAINTENANCE SYSTEMS

6.1 Are the MOH's maintenance systems for rural health centers and vehicles providing adequate support for rural health care delivery, or are they impediments to improving the quality of rural health care services?

The maintenance system has three priorities in HSII. The first is to maintain and sustain the cold chain. The second priority is to establish and repair vehicles and motorcycles. The third priority is to maintain local health establishments through active and efficient community participation.

Maintenance is not working well for some things, and for others it is adequate or improving. Vehicular maintenance is grossly deficient at the central level and in the regions. See the previous discussion of transportation problems. Non-functioning, non-repairable vehicles and refrigerators are maintained as part of the inventory.

The maintenance of physical facilities is doing well in some areas and not well in others. In some communities, community participation is helping considerably to accomplish maintenance. This is particularly true where there are active health committees.

Cold chains are relatively well maintained for the present. The principal impediments are the lack of parts; lack of repair facilities; and the lack of funds. We were informed that while the cold chain is adequately maintained for the present, there may be some problems in the near future as refrigerators outlive their functional life span.

6.2 How effective has decentralization been?

Decentralization of maintenance functions has proceeded fairly well in an administrative sense. Unfortunately, the underfunding of maintenance has severely hampered its successful functioning. Fortunately, the cold chain is fairly well maintained for the moment, thanks to special funding for this purpose. As refrigerators age and need to be replaced, there may be some deterioration in the cold chain unless arrangements are made to purchase new refrigerators.

6.3 What alternatives are available to the MOH?

Alternatives available to the MOH include using local contractors to perform maintenance, especially with regard to vehicles. At the same time, increasing community participation and local programming with community inputs could supply volunteer manpower and contributed resources for maintenance. Maintenance is a logical recipient of the benefits of local cost recovery efforts.

6.4 What are the obstacles to the sustainability of this function?

The main obstacles to the sustainability of maintenance are the following: the lack of focus on the importance of maintenance; the lack of funding and resources; and the absence of community participation. There is also the danger of a possible lack of personnel capable of maintaining the

cold chain, as the persons who had been trained to do so are gradually being replaced. The general lack of training in maintenance methods and procedures, and the relative rarity of the practice of preventive maintenance, indicating a lack of appreciation of its importance, are also obstacles.

6.5 Is there a role for future project interventions?

This is a very important issue. It is unlikely that maintenance will ever be adequately funded at the central level. Consequently, local sources of financing maintenance need to be developed. This will require the development of training, education to change inimical mind sets, and local control systems. HSII expertise and technical assistance are important for the improvement of maintenance at the local level.

7. MOH MANAGEMENT/HEALTH INFORMATION SYSTEMS (M/HIS)

7.1 How reliable and effective is the MOH HIS system?

The goals of HSII for the HIS are to maintain the systems and procedures designed and implemented during HSI. A system of microcomputers was to be established within the MOH to facilitate the collection, processing, and analysis of information and data. In particular, this component will focus on the use of appropriate information for planning and decision making.

The MOH HIS is not yet effective for the decision making process. Enormous quantities of information are received by the Statistics Division each month. They then process the information manually, consolidating the information from the nine regions, and produce a report of health statistics. The Statistics Division has just finished the report of statistics for 1994, and it is currently being printed, after which it will be distributed. Such information might be important for the formulation of local, area and regional annual plans, such as for 1995. Clearly this information is becoming available rather late. Due to the difficulties of processing the information, there is little feedback to the sources of the information (the regions).

These problems could be resolved, at least in part, by the recent "Proposal for the Revision and Adjustment of the Health Information System,"[19] prepared by a special MOH commission with technical assistance from the CDC/Data for Decision Making (DDM) Project.[20] Measures recommended in this proposal include the following: 1) simplify the HIS so that it would focus on services delivered, epidemiological surveillance and population data in such a way that it would contribute to the development of an attitude and capability for analysis at all levels (national, regional, area, local, community); 2) adapt the HIS to reinforce its use in decision making at all levels, including staff training; 3) assure an adequate and appropriate utilization of information at all levels through supportive supervision; and 4) initiate a process to coordinate the information needs of specific programs with the feasible capacity of local personnel to collect it, including procedures to pretest and approve forms that would be used at the UPS level. It would be advantageous to implement this proposal as soon as possible.

7.2 Are supervision objectives being met?

Supervision objectives concerning HIS are not being met. There is no systematic or consistent supervision of the processes or procedures or personnel involved in the HIS. On the other hand, supervisors are not making sufficient use of the data produced by the HIS. This is due to a lack of training with regard to the skills necessary to process and apply information, and to the relative

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19 Ministerio de Salud: PROPUESTA PARA LA REVISION Y AJUSTE DEL SISTEMA DE INFORMACION EN SALUD. Tegucigalpa, August, 1994.

20 Malison, M.D., & Blyler, M.: DATA FOR DECISION MAKING, HONDURAS, COUNTRY ASSESSMENT. 1993.

unavailability of timely information, and to the lack of practice in using data about services and service results.

7.3 How effective is the HIS for local programming?

The HIS is of minimal use for local programming. Data is collected locally and sent to the areas; areas retransmit it to the regions. The data is rarely processed and analyzed before it is sent off. There is little appreciation of the utility of information for planning, evaluation, and decision making. Local staff and community members need to be trained in these skills.

7.4 How is the HIS data used?

The HIS data is mainly used as indicators of health status. It is rarely used in planning. Part of the problem is caused by the large number of forms used to collect information, which in the regions totals to more than 70. The management of this tremendous flow of paper is somewhat daunting. The central and regional statistical personnel are all using very old and inadequate computers for this task, with a lot of duplication of effort. Data is used minimally in planning because of the lack of practical processing.

8. HEALTH EDUCATION

8.1 What can be done to bridge the gap between the health education division and other MOH technical divisions?

One of the major problems seems to be a lack of recognition by MOH leaders of the importance of health education and communication programs to improving health, and the potential contribution to increasing the effects and reach of the service delivery programs. This probably reflects the general clinical orientation of most MOH staff, and the lack of knowledge regarding public health. Part of a solution to this problem would be to provide general education concerning the value of well-designed health education/communication programs. This could be done through short reports and presentations, pamphlets, videos, etc. The capabilities and achievements of the Division of Health Education (DHE) should be described and actively promoted.

Another problem of the DHE is that it appears to be seen as a non-essential program which depends on the other technical programs for its work and funding. Part of the problem with this is that the DHE does not have control over funds for health education. Rather, these funds tend to be included in the general budgets of the service delivery programs. At present, the MOH does not stipulate that such funds should automatically go to the DHE. Consequently, sometimes program directors hire external health educators, bypassing the DHE. Not only does this decrease the control of the DHE over educational/communication components, but it also results in inconsistencies in the technical efficacy of these programs, duplication of efforts, needless repetition, and confusion of messages. A practical solution to this problem would be to transfer all funds for health education/communication to the DHE. If the DHE lacks sufficient staff to respond to MOH needs at a given time, the DHE should be the agency to contract and supervise external education or communication personnel.

The DHE should be given authority and supervisory responsibilities over all health education/ communication programs. DHE staff should work with external consultants. At present, there is little to no evaluation of the effectiveness and impact of health education/communication measures, materials, and programs, and this should be done by the DHE. A more autonomous and self-sufficient DHE could take more initiative in evaluations and in improving current education/communication plans and programs. Thus, the DHE could be of greater service to the regions as well as to the MOH.

DHE staff should receive more and better training, so as to gradually enhance their professional skills.

8.2 Should HSII assist in this area, and if so, how?

The MOH is not enjoying the potential benefits of health education/communication. This technology is the basis of prevention and intercourse with target populations, and is an important complement to medical services. One of the major reasons why the MOH is not taking advantage

of this discipline is the lack of a clear national policy concerning health education/communication. This could be favorably alleviated by the MOH adopting the policy recommended in the proposal entitled, "Politica Nacional de Educación para la Salud" ("National Policy for Health Education")[21], which was prepared by the DHE with the technical assistance of Dr. Reynaldo Pareja of the Academy for Educational Development. The HSII should suggest to the MOH that it consider enacting this policy statement.

HSII should disseminate and reinforce general concepts concerning the importance and characteristics of health education programs.

HSII should promote the proper implementation of the communication plans, and promote community education and communication programs. For example, currently most health education consists of talks with flip-charts given to small groups by auxiliary nurses, and the distribution of materials. Many of the materials are given out with no accompanying education or explanation. The radio spots were transmitted during one campaign and then shelved. All of these examples reflect inefficient utilization of health education/communication resources.

Much of the inefficient use of education/communication resources is due to the incomplete implementation of the communication plans. More specifically, the training components of the plans were only superficially carried out. This means that most health care workers did not receive adequate training with regard to the essential messages of the plans, or educational or counseling techniques. Also, education and communication are not discrete actions, but rather processes. As with all education, repetition is necessary for success and thus improves results.

In light of this, it would be propitious to reimplement all of the components of past plans, and ensure the same for new plans. Health education/communication plans should be repeated periodically to establish and then reinforce the basic messages and to better inculcate the practice of new behaviors.

It would be advantageous to implement the strategy of having the DHE review and approve all health education and communication materials, activities, and plans before they are carried out. This would allow the expertise developed in the DHE to benefit other technical divisions, and assure that resources expended on health education are well spent.

The DHE should develop a system to monitor and evaluate health education and communication activities, both from the standpoint of doing operational research on techniques and materials for future plans and activities, and also to monitor the effects and impact of the plans.

The DHE does not receive its own budget which would enable it to perform some of the actions mentioned previously. Funds for IEC are given together with money for health care services.

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[21] Ministerio de Salud, División de Educación para la Salud: POLITICA NACIONAL DE EDUCACION PARA LA SALUD. Tegucigalpa, Honduras, Marzo 1995.

The entire financing is generally given to the technical division responsible for the program. This division then gives the DHE funds to develop the education/communication plan. This means that the DHE does not have money with which to do other activities, such as follow-up, reinforcement, monitoring, or evaluation activities. In conclusion, the DHE should be given a budget which would permit it to fulfill its functions.

Health education/communication measures are technical public health services, which complement specific medical interventions to improve the health of populations. While the medical services offer defined actions that protect against and treat specific diseases or health conditions, health education/communication services prepare the population to use the services, help to establish behaviors and practices necessary to support the medical services, increase the rational use of medical services, and enhance appropriate community participation in its own health care.

The DHE is currently in the Subsecretariat of Sectoral Policy, while the other technical service divisions (such as the MCH, STD-AIDS, Epidemiology, Mental Health, and Dental Health) are part of the Subsecretariat of Population Risks. If the DHE were integrated into the organizational structure of the MOH with the other technical divisions, these divisions could make better use of DHE services and expertise, and the DHE could better supervise health education/communication activities of these divisions. The capabilities and achievements of the Division of Health Education (DHE) should be described and actively promoted.

BASICS has presented a well thought out proposal to work with the MOH in three content areas with two fundamental objectives.[22] The content areas are maternal/neonatal health, ARI/CDD, and integrated child care. The two objectives are: 1) improved caretaker behavior at the household level; and 2) improved access to quality care at the community level. These objectives will require considerable health education/communication involvement. The BASICS proposal should be promoted by HSII, and the DHE should be one of the principal counterparts and collaborators in carrying out the proposed activities.

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22 Smith, Barry, et al: BASICS DRAFT HONDURAS COUNTRY ACTIVITY PLAN. April 17, 1995.

II. REPRODUCTIVE HEALTH

1. What would be an acceptable family planning/maternal/child health strategy?

In response to a perceived need to reduce maternal mortality and improve family planning services, the MOH developed "Manual de Normas Y Procedimientos de la Atención Integral de la Mujer" which define the reproductive risk strategy (84). These norms are a product of three-years development and have been validated by regional technical teams, clinical personnel from the area and clinic levels, and physicians from the OB/GYN sector of the teaching hospital in Tegucigalpa. Technical review was also sought from other programs, such as HIV/AIDS, Cancer Prevention, Vector Control, and PAHO/WHO.

These norms are accompanied by a Ministerial Resolution. This Resolution states that the norms are an integral part of the Health Policy Project and contain a strategy of integrated maternal/child health which focuses on reproductive risk. The Ministerial Resolution gives recognition to the fact that family planning is an integral part of both maternal and child health in consideration of known facts, i.e., maternal mortality rates may be lowered if pregnancies are spaced to allow full recuperation for the mother and full and prolonged breastfeeding for the health of the child. (22, 23,24)

The strategy for family planning/maternal/child health is well developed by the MOH. The strategy is divided into two parts: obstetrical risk which demands appropriate care for women of high risk who are pregnant, and non-obstetrical risk, for all women of fertile age, and provides family planning services to postpone or avoid a pregnancy which could be high risk. For the pregnant woman, family planning is provided postpartum to avoid short interval births.

These norms with the Ministerial Resolution provide an acceptable policy statement and strategy for reproductive health without causing conflict either among health care providers or community groups opposed to family planning as a vertical program or as a demographic program. Perhaps this strategy is not ideal because Honduras is not equipped to fulfill the demands of this strategy, such as referral systems, transportation, and well-trained personnel, and equipped facilities for obstetric emergencies. The MOH is making many efforts to overcome some of these deficits through the creation of Maternal/Child Health Clinics, communal houses where TBAs can attend clean deliveries, and Maternal Homes where the pregnant woman stays for up to15 days prior to the initiation of labor and is then cared for in the hospital.

2. Do problems of training exist in clinical and counseling skills?

The answer is definitely yes. Physicians trained in clinical skills for family planning over several year as by ASHONPLAFA (this is on-going) are mostly those participating in their required year of social service. The Hospital Escuela is the training ground for clinical skills for medical or nursing students. The numbers of students are greater than the demand for family planning services, so neither physicians nor nurses have a chance to adequately practice family planning clinical skills.

The Hospital Director, Dr. Zambrano, stated that he has actually graduated OB/GYN residents who did not know how to insert an IUD. ASHONPLAFA attempts to fill this need for clinical training of physicians and nurses. However, their clinic in Tegucigalpa can only train two at a time for lack of space. The Woman's Health Care Department of the MOH receives information from ASHONPLAFA as to who has been trained, and uses this information to try and get others trained. (See next question concerning curricula in medical and nursing schools.)

Auxiliary Nurses and other health care providers need to be trained in counseling skills and in some cases have been trained. Those who have been trained under an ASHONPLAFA program, have had no follow-up by the MOH. Auxiliary nurses are the only permanent personnel in the rural areas with very few exceptions. Follow-up/supervision activities need to be done in order to improve counseling skills, whether for professionals or auxiliary nurses. Materials must be developed to help personnel improve their counseling skills, especially in family planning.

3. Should the project work on changing the curricula in schools of formation of health care workers?

The University Nursing School developed curricula for family planning which has been in use for some three years. The theory of family planning and reproductive risk is taught, but practice of skills is postponed until the nurse is on her/his year of social service, due to a lack of training facilities as indicated above. However, if the physician in the health center feels that family planning is his/her prerogative, the professional nurse does not get the practice. If rotation problems affect training of physicians, how much more difficult it is to find facilities for professional nurses. Therefore, even though this curricula has been in practice for three years, one finds nurses who have never been trained in family planning clinical skills during or after the formation course.

The University Nursing School has developed a post graduate course for professional nurses. The course has a duration of 12 months, and three specialty areas are offered: Maternal/Perinatal, Integrated Child and Adolescent Care, and Family Health. The three tracks award a Master's Degree as a Nurse Specialist. The program has a heavy emphasis on practice, which each nurse will do at her/his working locale. Seventeen nurses were accepted for the 1995-96 cycle and have begun their studies. They received scholarships from UNFPA this year to cover costs of the program which are estimated at L.10,000 per student. It will not be possible for UNFPA to give these scholarships next cycle. This program should be effective in providing some well-trained professionals to assist in implementation of the Reproductive Risk Strategy. In refocusing HSII, USAID and the MOH would do well to consider this program for financial and material aid.

The medical school at the University has designed curricula for family planning, which they plan to initiate next year.

In the ten-month course for auxiliary nurses some four out of more than 1,000 hours are devoted to family planning. (31) Since 1993, this has improved, but not to the extent of increasing counseling skills prior to his/her assignment in a rural health center. The auxiliary nurse is given a

more active role in family planning in the norms for Women's Health Services (84) than was allotted before. She is expected to provide all of the integrated women's health services, except for deliveries: prenatal care, postpartum care, family planning counseling, and distribution of condoms, other barrier methods, and oral contraceptives. If the auxiliary nurse, as the permanent health care provider, has an increased role in family planning, far more attention should be given to her/him than is being given now by the MOH. If the HSII project expects to bring family planning to rural areas in order to increase coverage, the auxiliary nurse is the person in the system who can do this with further training and closer supervision.

4. What are the issues and obstacles for providing male reproductive health care and sexual education to adolescents?

Male Reproductive Health:

In the private sector, ASHONPLAFA in San Pedro Sula has instituted a male reproductive clinic on Saturdays, when only men are seen. In this clinic, counseling is given, STDs tested and treated, and VSC or vasectomies are offered and performed. Reproductive risk and birth spacing are part of the education program for men. This is one of three of its kind that was found. ASHONPLAFA does almost all of the vasectomies accomplished in Honduras. MOH hospitals or clinics do not do vasectomies and feel it is the responsibility of the urology department. In the male clinic at ASHONPLAFA, San Pedro Sula, infertility problems are also treated and sperm counts are done in their own laboratory. The other two ASHONPLAFA clinics offering the same services are in Tegucigalpa and Santa Rosa de Copan.

Adolescent Health and Sex Education:

On paper, adolescent health is mandated in the Department of Women's Health as part of an integrated program for women. There is a lack of information on adolescent health and sex education. Even studies on family planning prevalence ignore this group and concentrate on women in stable unions. (12) The Women's Health Department has a plan to get some sexual orientation and education into schools, but have not begun to implement this plan. Due to the large numbers of teen-age pregnancies, (113), and a high maternal mortality (230/100,000)[23], the MOH is beginning to put more emphasis on adolescent health and sex education. The population target of this activity would, of course, be both male and female youth, providing at least a beginning to address male reproductive health issues.

Both of these issues seem of concern to health care providers and division heads, but no one seems sure how to attack the problem. In the Hospital Escuela, a program for adolescents (which includes sex education) is in the planning stage. This will be funded by UNFPA. The Hospital has asked for technical assistance from the Department of Women's Health.

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[23] In the adolescent group, 15-17 years of age, the MMR is higher than the national average.

In teaching youth, it is important to make sure they are knowledgeable about reproductive health and family planning. They should be oriented to reproductive health and family planning as a health issue but it is tremendously important that they also understand the demographic issues.

They are the group that in adulthood will have to face the demographic explosion in their own country, as all countries were forced to examine at the Cairo Conference of 1994.

5. How well has the process of community-level rosters of Women of Reproductive Age (WRA) functioned? (especially in Region 5)

Community-level rosters for WRA are lists of women in the community falling into the 12-50[24] age group. These lists include age, marital status, number of children, and other information concerning pregnancy and childbirth. The rosters are kept at the health center level and used primarily to detect women at risk so that the woman can be followed and referred if necessary. Rosters were designed for the Integrated Maternal/Child Health Care Program (POSAIN), which keep data on children under five-years-of-age, i.e., vaccinations, diarrheal episodes, respiratory infections, other illnesses, and growth and development milestones.

During field visits to Region 5, it was found that both women and children have rosters. There is a tendency to record only pregnant women and only vaccinations for children. However, a MOH person stated recently that in some areas of Region 5, the complete roster for women is used, analyzed on a regular basis, and that pregnant women with risk factors are monitored carefully. In other regions the rosters have not been implemented.

The roster is a fine instrument for risk detection in women and children. The implementation of this tool has been very slow. The new roster for women, which is annexed to the norms, contains information on family planning and methods used.

6. How could Project indicators be improved?

The three main indicators for the reproductive health component of HSII are:

1) Total fertility rates of women between 15 and 44 years of age will be reduced from 5.6 in 1987 to 4.6 in 1996.

2) The maternal mortality rate will have decreased from 221/100,000 in 1989 to 145/100,000 or less in 1996. (3)

3) The percentage of rural women who had a prenatal visit at a health center during her last pregnancy will increase from 67.2% in 1991 to 80.2% in 1996.

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[24] WRA in international norms is 15-44, but Honduras changed this to 12-50 to better reflect their reality. It does make comparisons between countries difficult to calculate.

The only indicator of the three that is easy to measure is the last. However, a more realistic indicator would be one that measured prenatal visits in the rural areas for HSII, since rural areas are a priority in the project. The percentage of prenatal visits to health centers as in the above indicator is skewed, because they include urban as well as rural areas and thus this is not a measure of project success.

Indicator 1 needs to be changed to reflect a concern for the RAPID IV population projections. (87) The Epidemiological Survey of 1991-92 gives the fertility rate at 5.1, (12) so it is known that the rate is dropping. However, aiming at a rate of 2.1 is necessary in order to slow down the demographic growth in Honduras. For a project like HSII, which has its own life span, this indicator is too hard to measure.

Couple Years Protection (CYP) would provide a measurable and reliable indicator year-by-year without awaiting surveys and epidemiological studies. CYP can be used to: monitor the volume of activities of a family planning program; compare effectiveness and efficiency of different project components; determine the cost effectiveness of a family planning program; assess the contribution of family planning-related activities to increased prevalence of contraception; and quantify the contribution of various components to direct service delivery. (80)

Other end-of-project indicators are:

- The percent of all high-risk pregnancies receiving proper referral services will increase from 12% to 90%.

  Considering that the referral system is not well developed, this is a big jump and not realistic. Considering the efforts the MOH is making to improve the referral system, a more realistic indicator might be 12 to 30%.

- 90% of the CESARs will be distributing temporary contraceptives.

  When only a fraction of CESARs are now distributing contraceptives, it seems unlikely that this is realistic. A more realistic indicator might be "90% of the CESARs within the project implementation Areas."

- 80% of pregnant women that visit health facilities will receive attention in compliance with program norms, such as prenatal and postnatal care, childbirth, family planning/birth spacing services, cancer detection and others.

  How can this be measured?

- 60% of beneficiaries of the maternal care program will have vaginal cytologies performed at intervals prescribed by MOH norms.

This is a service statistic which can be measured and probably attained, but it is not a good indicator, because the problem is not taking the PAP Smear, but rather reading it and getting results back to the women.

- 100% of health providers and 50% of women of fertile age will be aware of the health risk of short intervals between pregnancies.

  This can be measured by KAP studies.

- 100% of women aged 12 to 49 will have been vaccinated with a second dose of tetanus toxoid within the last three years.

  This can be measured as it is a service statistic. It may be attainable as the Health Technologies section on EPI of this report states that 87% of WRA have already been vaccinated with the second dose of TT.

These indicators should be reviewed with the MOH and some of the people at the operational level. They should be validated and should be adjusted in order to be possible to attain. Service statistics are easy to measure and in designing new indicators, would be valuable given the short time left of project life. In reality, one of these indicators will have to be abandoned as the extension of HSII is implemented in a few scattered areas, not countrywide. It is important to revise all of these indicators.

7. How could MOH supervision for FP/RH be improved? What project assistance could be provided for this?

In general the FR/RH supervision could be improved by establishing local systems in rural areas that would reflect the needs of local personnel. The MOH should work with one or two areas in designing a local supervisory system and guide, based on that area's needs. The supervisors would have to be trained in quality supervision, i.e. facilitative, supportive, teaching learning oriented. The supervisor would of necessity be knowledgeable in technical as well as administrative aspects of the reproductive health and family planning program. As the supervisor supervises personnel in levels of care below that of the area, teaching these personnel on a one-to-one basis can support them with their own supervision at the community level with guardianes, TBAs and others.

Project assistance could be provided to these sentinel areas by funding operations research and technical assistance in the area of supervision and monitoring process evaluations, leading to more realistic modifications and implementation, thereby making this activity replicable in other areas of the country.

8. Does the IEC component on reproductive risk stress the importance of preventive practices, adequate prenatal care and birth spacing?

The IEC component does stress the importance of preventive practices like prenatal care, advocated especially for primiparas and women over 35 or with many children. The methodology and importance of birth-spacing are also stressed. These materials reviewed are only in the development stage.

8.1 Does it emphasize how to respond to obstetrical emergencies that require rapid treatment?

In TBA materials under development, obstetrical emergencies are defined, and referral is the rapid treatment.

The development of IEC materials has been delayed by personnel turn-over and the lack of funds to print the materials. It is difficult to review materials when they have not been fully developed. Certainly when they are, the materials should reflect preventive practices, adequate prenatal care, and birth spacing, as well as response to obstetrical emergencies.

8.2 What can be done to strengthen the counseling skills of health providers?

Health care providers need information about family planning. They need information on why family planning is both a health issue and a demographic issue. Not having this information, they are not motivated to counsel women, especially because they see no real reason. This information needs to be available to each one, or appropriate counseling cannot be done by health care providers.

9. To what extent has the project addressed reproductive health, family planning, and maternal mortality in the rural areas?

The project has addressed this problem in rural areas by providing equipment for some CESAMOs and CESARs in rural and isolated areas, and providing the contraceptives necessary. The training under the project has mostly been for high-level personnel, not the two levels mentioned above (e.g., a trip to Quito to learn postpartum IUD insertion techniques, and an observation visit to Mexico to see how they have implemented reproductive risk strategies.) USAID provided in the project for the use of IEC materials in rural areas, but this development by the MOH has been delayed and postponed for various reasons. The resources provided are not enough and focus on facilities and equipment. The project needs to focus more on helping women to understand their own health needs and those of their families.

9.1 What are the constraints?

The MOH has depended on the regions to distribute equipment and materials, but the regions do not always distribute according to the MOH programming. Consequently, some establishments are over-equipped and stocked with contraceptives, while others do not have what they need.

Constraints also include distances, poor roads, no transportation, no supervision, no update on training, no IEC materials, and lack of both clinical and counseling skills on the part of personnel. Other constraints are cultural as people think differently in rural and urban areas (26). Frequently health care personnel are not aware of this and this is not reflected in IEC materials still in the development stage.

The rural population is dispersed with little access to health care. Unlike the urban and peri-urban areas where access is not the problem, many people live more than an hour's walk from any health center.

9.2 What actions need to be taken to strengthen reproductive health, family planning and reduction of maternal mortality actions in the rural areas?

The MOH has initiated some strategies designed to improve maternal health in the rural areas. One initiative is the construction of a "home" for pregnant women who live great distances from services, where women stay for the last 15 days of pregnancy and are attended in childbirth at the hospital. She stays at this home with a companion-friend, TBA, family member. Municipal Governments are totally responsible for these homes. Two have been constructed and six others are in the construction phase.

Another initiative is a birthing center in the community where the TBA can attend the birth, but where health personnel are close in case of emergency. Again, the construction and maintenance is the responsibility of the Municipal Government. Eight of these are functioning and 32 more are in the planning stage.

A third initiative is that of working with communities to provide transportation in case of obstetrical emergencies. This means that the community would always have transportation available where TBAs provide care to the pregnant woman before and during childbirth.

The MOH has also constructed and maintained personnel for some seven or eight maternity centers. The objective of the center is to provide integrated maternal/child health services. One center in Paraíso was providing all of the services for women and children. This center was started as a collaborative effort by the MOH, the IHSS, and the Municipal Government Council. We were informed by central-level MOH personnel that in two or three other places, centers provide integrated services. At another center visited in Siguatepeque, only maternal and newborn services were offered. Family planning and child health were offered at the CESAMO next door to the center.

To strengthen these and other rural area priorities, it is suggested that HSII provide in-depth implementation of reproductive health activities in some areas in the country, instead of trying to implement these actions nationwide. This could be done by: 1) operations research to test maternal care interventions in demonstration projects which can be duplicated in other areas; or by 2) technical assistance to provide solutions to service delivery problems, organizational strengthening, and workshops for managers and decision makers; or by 3) operations research specifically seeking to increase access to contraceptive services of rural women by expanding the availability of clinical methods through physicians, professional nurses, and, most importantly, auxiliary nurses.

Other technical assistance contractors and NGOs in country are looking to the above suggestions in other child survival activities in rural areas. INOPAL III could provide any of the above services for the reproductive health/family planning component of HSII, working directly with the MOH.

9.3 Are there any gender issues that should be considered when developing strategies and training programs?

As stated in the Midterm Evaluation (4) and is still notable, there is a disproportionate number of men in senior management positions. In rural areas at the operational level, women predominate. The population targeted for reproductive health activities are mothers and primary care givers. Strategies or training programs for the rural areas should emphasize the importance of women in all community activities. Training should be directed toward building self-esteem in women and motivating them to seek help for their own health problems and not just those of their children. Rural women tend to have very low self-esteem (26) and do not feel for the most part a sense of equality with men

10. How can focused project assistance assure maintenance of progress to date in Child Survival?

An interval between births, 12 months or less, is a universal risk factor for the mother and the child. These births at short intervals increase the probability that the child will be born with low birth weight. Low-birth-weight children have greater chances of illness and less probability of survival than a child born with normal birth weight. Short birth intervals also terminate the process of lactation which can lead to malnutrition and diarrhea and upper respiratory infections (70).

The Epidemiological and Family Health survey, 1991-92 (12), estimates that the risk of dying for children born with short birth interval is double that of children born with intervals of 24 months or more.

Short birth intervals take their toll on women as well, increasing the possibility of death, which disappears when pregnancies are spaced 24 months or more. Estimations based on data from the

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Maternal Mortality study found that 63.2% of maternal deaths occur in women who have had a short birth interval. (70)

Progress to date with child survival can be maintained by emphasizing birth spacing as a child survival activity, just as important for survival of the child as for survival of the mother.

11. What can be done to establish a more effective referral system in rural areas for obstetrical emergencies?

The MOH has taken initiatives to try to establish a more effective referral system. They have created Maternal Child Health Centers (birthing centers) in some areas to provide integrated maternal and child health care. These centers are now providing prenatal care, childbirth, newborn care for the baby, and postpartum checks for both at ten days. A few of these centers provide integrated services including family planning. However, many of the centers do not provide family planning services, nor child health services. They attend normal deliveries and refer high-risk women to the next level of care or the hospital. The centers visited on field visits were a good example of differences. The center in Paraíso provided integrated services and had sufficient space to do so. This center was also an example of collaborative efforts of MOH, IHSS, and the Municipal Council. The center in Siguatepeque was limited to prenatal, childbirth, newborn care, and one postpartum visit at ten days. Indeed, the infrastructure was not adequate for integrated services.

Transportation is being addressed by the MOH in their effort to establish a better referral system. In communities where a birthing center is run by a TBA, the community is urged to find a permanent vehicle if transportation of the patient is necessary.

Area and regional hospitals are not equipped to handle obstetric emergencies. They do not have the equipment or supplies needed, and most do not have personnel trained in the management of these emergencies.

11.1 What services are routinely performed during prenatal and postnatal check-ups at health centers?

Prenatal checks by an auxiliary nurse include: eye examination to detect anemia pallor; extremity check for edema; blood pressure; weight; uterine height and position of the fetus; and fetal heart tones. This is supposed to be followed by nutrition counseling if needed, and/or any other advice the auxiliary might give to the woman about exercise, breastfeeding, and the care of the nipples. It is a thorough check, and adequate to detect any signs of risk that may appear.

Postnatal checks are routinely done before a patient leaves the hospital and include: check for bleeding; uterine tone; blood pressure; and final check of the newborn. These checks are done eight to ten hours after childbirth when the mother is discharged from the hospital. Health centers do not do these checks, but birthing centers ask the mother to return in ten days, which in rural

areas seldom happens, and do a 40-day check-up, which should include counseling for family planning.

11.2 How is the quality of care?

Quality care is provided in the CESARs. The examinations done by the auxiliary nurse are adequate. This will improve when the norms are put into practice. For the moment, however, the auxiliary is trained well enough to provide quality prenatal care.

In hospitals, standards of care are the norm. Procedures are performed according to the hospital standard. It was obvious on field visits that many of the institutional factors of quality care do not exist or are not adequate. Hospitals are not equipped to provide quality care; their human and material resources are not adequate.

11.3 Why do women with life-threatening problems not get to health centers/ hospitals?

The MOH and others have studied this question for years. By interviewing rural women, they found the primary cause was distance from the center/hospital; a secondary cause was no confidence in the health care providers; transportation/cost was the other cause.

11.4 What are/could communities do to organize transportation services and support the referral system?

(See #11) Communities who have become more aware of their own health needs, either through education or experience, are gradually, so far in just a few cases, organizing around health care. They recognize that the health care system is not effective without their participation. The MOH effort to get the communities to provide transportation for emergency referrals is receiving cooperation from the communities.

11.5 What innovative approaches, such as birthing homes near a health facility, or two-way radios, might be employed?

The birthing home initiative has been put into practice by the MOH but too recent to evaluate the impact this may have on mortality or even morbidity.

A two-way radio could be valuable in the maternal/child health centers to: receive advice from a specialized physician when a life-threatening situation presents, and because of lack of transportation or the immediacy of the situation the patient cannot be referred; serve to call for transportation at another locale where it is known to be available and there is sufficient lead time to transfer the patient; and alert the receiving hospital to anticipate the referral. Births are not managed at either a CESAR or CESAMO, nor are these two centers open 24 hours a day as the maternal/child health centers are.

12. How effective are TBAs? Prenatal care, screening, safe deliveries, and referrals when signs of danger appear?

Before 1990, TBAs were trained with traditional classroom methodology. Beginning in 1990, a new methodology was put into practice, that of participative, active, and reflective training with some practice, and based on reproductive risk. The learning objectives of this training involve the TBA in prenatal exams, which check for anemia (eye), edema, age, numbers of children, and a short non-manipulative abdominal exam. If any risk factors are found the woman is, at that time, referred to a higher level of care. In the case of edema, the TBA should advise the woman to rest with feet elevated, etc., but if not improved in two days, referred. The TBA is also taught clean childbirth, non-manipulative placental delivery, and immediate care for the newborn. How effective this training is, is still to be determined, but central-level MOH personnel felt that TBAs have contributed to lowering the maternal mortality rate. Though the risk factors are new to the TBA, there is some evidence to show that TBAs are referring more patients to hospitals, especially. The MOH just completed an evaluation of the TBA training done in 1993-94, a project financed by FHIS. The project was implemented in 14 areas. Supervision and follow-up of the TBAs after training was mostly done by NGOs working in the sectors where the TBAs lived. For all 14 areas, follow-up and supervision were made to 28.7% of the TBAs trained. In total, 4,126 of a possible 6,000 to 8,000 were trained and at the time of the evaluation, only 154 had been lost to the system. (122)

This preliminary data did not include all of the departments and regions where the training was given. Some had not reported, or the NGO had not reported at the time of the evaluation. The MOH plans further evaluations and analysis of data before launching a new training program. They feel TBAs are providing a service that will eventually bring about a lower MMR and perhaps already have, but there are no evaluations to prove this hypothesis.

12.1 Do they have basic equipment?

After training, the TBA receives a birth kit, like a backpack which contains a plastic sheet and apron, sterile cord ties, one sponge forceps for washing the perineal area with sterile gauze, two kidney basins, two small bottles containing disinfectant for the cord dressing, drops for newborn eyes, gauze for cleaning the perineum and dressing the cord (unsterile and sterile respectively), two small towels, soap dish and soap, and one pair of scissors. This equipment is adequate. More recently razor blades were added for cutting the cord, as older TBAs cannot manipulate scissors. Actually, in the above project, the equipment did not come on time and had to be distributed during supervision. (122)

12.2 How can their needs for materials and other supplies be met?

Materials needed for subsequent deliveries are either provided without cost by the health center, or the TBA buys them at the pharmacy with the proceeds of the previous delivery. Another mechanism for assuring materials is that they are purchased by the woman for her own delivery. These alternatives will not necessarily function at any one given time. The MOH should establish

a mechanism for replacing materials that is more secure, such as assuring that the health center has materials necessary specifically for the number of TBAs in the area of influence of the center, or decide how much material will be needed by the estimate of how many births are expected, and include this in the programming for each center.

12.3 What is the attitude of health care personnel toward the TBA?

Auxiliary nurses generally show great respect for the TBA and the way in which she attends births. They tend to work together closely. Physicians have notoriously not treated the TBA with respect and have brushed off her diagnosis when referring a patient. Professional nurses who have worked with TBAs or participated in their training, respect the TBA and the contribution she makes to health care in her community. These attitudes are changing somewhat as all of these personnel become involved in the new training modality used by the MOH. The MOH efforts to change attitudes have been admirable, but this is a slow process.

12.4 How can training and supervision be improved?

The new modality calls for TBA meetings with health care providers once a month. The MOH has called on NGOs working in the area to call together the TBAs, and/or visit them when they go on their regular site visits, a responsibility the NGOs assumed when they joined the above project. TBAs should not be trained unless there is a system of follow-up and supervision. Evaluations of TBA programs in other countries all recommend this because otherwise the TBA is lost in the system and goes on making the same errors as before. This follow-up became a top priority in the new training modality. The nurse in charge of the TBA program also indicated that the MOH had difficulty in measuring success or failure of the TBA program because no prior investigations were done, and none are as yet planned. Before starting the next training round of the rest of the TBAs, it would be wise to have some baseline data.

13. Is the support plan for the National HIV/AIDS Program consistent with the overall context of project assistance for Reproductive Health? Look especially at possible alternative and sustainable sources of condoms.

It appears that in Honduras, HIV/AIDS has become an MCH problem. Since Honduras has 57% of the cases in Central America and only 17% of the Central American population, and transmission here is predominantly heterosexual, the impact on MCH could be very negative. There is not only a health impact, but a socioeconomic impact, which currently can be seen only in the cities, but there is no reason to believe that this impact will not be felt in the future in the rural areas. (11) HIV/AIDS is affecting the population 19 to 30-years-of-age, which for women is also the reproductive age.

The project goal for women and children is to lower mortality rates. It is reasonable, knowing how women and children can be affected by this disease, that a project of HIV/SIDA was added on to the HSII project in August 1994 (2). This project became a division within the MOH, and

unfortunately divisions do not tend to collaborate with each other, causing among other problems, duplication of efforts.

Recently, ASHONPLAFA began a program of HIV/AIDS prevention and detection within their family planning service delivery system. This program is too new to be able to evaluate impact, but it will be important for the MOH to subsequently evaluate this and decide whether or not education and prevention of HIV/AIDS should become an integral part of MCH services.

Source of condoms has been much talked about as USAID is not certain how much longer they will be able to provide condoms. One alternative offered some time ago was that the MOH budget and buy a supply, which they did. The MOH could, of course, look for alternative sources of condoms, but condoms are needed in good supply for both reproductive health programs and HIV/AIDS prevention and education. The most sustainable alternative would be for the MOH to discover where supplies are available and continue to budget and purchase the condoms needed in the country.

14. In the light of the team's answers to all of the above questions, what is the most effective approach for project-supported reproductive health interventions?

The project should support an effort in sentinel Areas to implement the reproductive risk strategy, testing whether this is practical for a countrywide implementation. In these areas, education programs for health care providers should emphasize the role of women in the community, as well as the role of women providers.

III. HEALTH TECHNOLOGIES

A. ACUTE RESPIRATORY INFECTIONS

The epidemiology of Acute Respiratory Infections (ARI) in Honduras, is the number one single cause of morbidity and mortality in children less than five-years-of-age (1). A child in rural and peri-urban areas suffers an average of five episodes of acute respiratory infections per year. Episodes in children from adolescent unmarried mothers were 42% more frequent than in older mothers. Thirty-two percent of consultations at public health centers are due to acute respiratory infections and up to 21% of infant mortality is due to ARI, principally pneumonia (2). Sixty-seven percent of infant deaths occur at home. Half of pneumonia-related infant mortality occurs in the first two months of life (3).

Children with moderate to severe forms of malnutrition have a 15 times higher risk of disease or death (4). Associated risk factors are Vitamin A deficiency, low birth weight, absence of exclusive breastfeeding, and environmental risks such as smoke and overcrowding. Breastfeeding has been shown to be protective against ARI: frequency of the disease in children less than two months was only 14% compared with 23% frequency in children receiving mixed feeding (6). The Epidemiology and Family Health Survey (EFHS) of 1991-92 (6), reports a reduction to almost one-third of the diarrhea/ARI-related deaths between 1987 and 1991. ARI control has benefited from the high rate of immunizations in the country against diphtheria, pertussis, and measles. It has been calculated that a coverage between 80-90% can avert 59-67% of measles cases and deaths and 20-25% of ARI deaths in children under five-years-of-age (5).

1. What actions need to be taken to increase community involvement in the identification and treatment of pneumonia?

Critical to the treatment of ARI/pneumonia is the recognition of the problem by the mother or caretaker, the provision of quality care, the timely recognition of the need for additional help outside the home, and the availability of a knowledgeable health worker to provide care. (8) A health-seeking behavior has been identified in a PAHO/WHO sponsored "Focused Ethnographic Survey" and research conducted by the Academy for Educational Development. A communication plan was developed but contained certain technical flaws and was not completed.

In 1991-1992, the MOH/NCARIP, conducted a nationwide training on standard case management for health personnel in response to the need to revise standards of care. The pre-post evaluation process was done in 1994. A preliminary analysis of some of the results is presented in Table 1 and Appendix 1 (IRA 94108. CH3).

Table 1. Pre-Post Test of Institutional Case Management of ARI by Health Personnel Public Hospitals of 6 Health Regions, Honduras 1994[25]

HEALTH REGIONS												
	1		4		5		6		7		Nation Av.	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Use of Antibiotics	17	74	20	41	-	77	-	60	33	48	21	60
Chest Indrawing	0	89	20	53	-	88	-	73	33	60	14	74
Danger Signs	4	29	16	14	-	35	-	11	5	17	9	23
Difficult Breathing	25	49	12	40	-	81	-	25	54	29	32	49
Know & Use Norms	4	29	16	14	-	35	-	11	5	17	9	23
Give Follow-Up	39	50	11	27	-	52	-	30	37	7	25	35

There is an increase in knowledge concerning institutional case management (18% to 44%). It is not clear if the same audience who received training in 1991-1992 was tested in 1994.

Common household behaviors of mothers or caretakers on the management of ARI, were reported in interviews conducted with health personnel from Regions 1, 5, 6 and health personnel in areas, CESAMOs, and CESARs during May 1995. It was found that mothers administer chicken fat, fish oil, medicate with aspirin and teas of different local herbs, cough medicines, and administer sulfa and antibiotics, i.e., self medicated in 62% of cases. The TBA, "curandero", health volunteers (guardianes) are their community resources. About 15% of the time they reach the formal health system (CESAR and/or CESAMO) (PAHO/MOH, 1994). This suggests a limited use of the health care system for the management of ARI by rural and peri-urban dwellers.

The community health volunteers "guardianes" have been trained to identify and treat simple respiratory infections and prevent overloading of the UPS. What has not happened is training to identify and treat pneumonia in the community. Efforts have just begun to address this issue. The HSII project must closely monitor this effort to determine the impact of community management of ARI. The involvement of BASICS in this effort seems most appropriate.

It is also necessary to conduct community studies to explore local knowledge of pneumonia since diagnosis of pneumonia by the caretaker is more difficult. Previous studies only explored

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[25] NCARIP/MOH/Dr. J. Melendez/1995

respiratory infections in general. Also, operations research needs to explore health-seeking behaviors of caretakers.

Current training of "guardianes" is not being conducted, i.e. Region 6 has not trained guardianes for the past 4 years. Training has been difficult because of desertion. As reported in the last monitoring of Region 6, in May 1995, only 57% of guardianes and 37% of the "colobaradores voluntarios" attend the monthly meetings.

There is a high level of desertion among guardianes in general and fewer are benefiting from this information/training to be able to translate the training into actions at the community. The reasons for desertion seem to be the lack of incentives to come to the monthly meeting, the distances they must travel, and the lack of "viaticos" to pay for the trip. Frequently the health units do not have medicines or Litrosol to share with their guardianes. The logistics for antibiotics and other supplies takes at least three months to reach CESARs and CESAMOs, and they receive no more than 50% of what was requested. This causes a chronic shortage of medicines and supplies in the health units. The community health personnel cannot cover remote areas on foot and depend heavily on the guardianes.

Personnel at CESARs have a monthly calendar of meetings, training, immunizations, plus the contingency of sick days or vacation. During these periods the CESAR is closed for four days or more. This is a very important slot of time in which referrals cannot be cared for.

Actions needed to improve this situation include reaching out for the strengthening of community organizations and their components. The "Comite de Salud" could be used as a vehicle for community involvement. Since the Committee is elected by the community it could become an important link between the guardianes and the health system. The committee could be involved in the decisions taken on their own health, evaluate the different lists, and the newly developed "censos" of communities proposed by the ARI division of the MOH.

In countries such as El Salvador (9) and India (10) it was possible to substantially lower morbidity and mortality from ARI/pneumonia with the employment of community health workers, well trained to educate, manage the disease, interrupt the morbid process, and provide antibiotics.

The opportune case management in the community by trained health workers contributes to reduced referrals to the more expensive and less-accessible health institutions. The early identification of problems by the guardianes might ensure that caretakers seek timely care from physicians and nurses in necessary cases.

2. What kind of promotional and training activities are required in this area?

It is urgent to implement and support mass communication programs to educate mothers about ARI. This must be maintained as a one-to-one communication activity by the local "guardiane." Although for over a decade the problem of ARI and its seriousness was recognized by the MOH

and many good plans were developed based on ethnographic research and participation of community and health personnel, these have not been fully implemented or sustained.

The training of health personnel on the appropriate management of ARI was initiated by the MOH in 1991-1992, but was interrupted. The plan for health communication about ARI for early identification and treatment was also delayed. Recently (May 95) the NCARIP has reinitiated training of health personnel from seven regions who in turn will train community volunteers, who are supposed to provide health education and treat pneumonia cases with antibiotics.

There is a need to develop appropriate training materials for health personnel and community workers. Existing manuals are outdated and new recommendations for case management need to be incorporated. Validation of material at the community level has not occurred.

The high turnover of personnel at CESAMOs, including medical staff performing the year of social service, makes necessary a continuous in-service training program on the standardized case management of ARI/CDD. CPU monitoring reports two years as the average number of years for nurses in health posts.

3. What needs to be done to reduce the number of institutional pneumonia-related deaths in children under five years?

Death from pneumonia in Honduras in health institutions seems to fall into two categories: 1) children who arrived on time and received poor attention; and 2) children who arrived too late for the health system to do anything about it.

The lack of materials, equipment, incomplete or unusable health records, irrational use of medicines and poor capacity of personnel to treat complicated ARI cases, were reported in a hospital survey in 1991. Similar answers were given in interviews with directors and staff of regional and area hospitals in Regions 1, 5, and 6. Medicines and supplies take months to arrive at health facilities, and poor families cannot buy medicines in the majority of cases.

It is not clear how the referral system works; for instance, if patients seen at CESARs go to area or regional hospitals. Neither is a counter-referral system in place. Apparently families ignore the local health system and go directly to hospitals when children are critical and when the system can do very little for them. The MOH/NCARIP personnel state that there is a great demand for oxygen tents, aspirators, and antibiotics at area hospitals.

As is shown in Table 1, knowledge of standardized case management has improved, but it is still very low at 44% knowledge of appropriate management nationwide. Refresher courses, continued education, written protocols, plus follow-up are needed. This should be provided by the medical organizations, hospital associations, etc. Evidence of courses, workshops, and continuing education should be a requirement for promotion and advancement of the medical and nursing staff. It would be appropriate to adapt medical and nursing school curricula to the epidemiologic profile of the country.

4. How should the project support the area-level hospital in the treatment of pneumonia as the first line of referral in the PHC system?

The emphasis of HSII project support should go the area hospital, by providing them with the basic elements to become self-sufficient and serve as the main focal point for community activities. There is need for equipment, (respirators, antibiotics), instruction manuals, materials, technical assistance on the management of health records, useful sources for monitoring research case studies, and other activities.

Personnel in area hospitals must be trained in standardized case management and receive support to organize and deliver training of community health personnel. The system of referral and counter-referral must be clearly established. The participation of local training institutions should be explored to provide training in monitoring and evaluation skills.

5. How could communities support the referral system?

Referrals of ARI cases from community volunteers to CESARs are made, but there is not a systematic process, and the end result of the referral is not documented. The basic information system for referral and counter-referral does not exist. There are no forms, coordination, or standardized norms for referral that define cases or patients to be referred.

The most important activity to initiate the involvement of the community in the referral and counter referral system, should be to strengthen the community organization and develop and maintain health committees in the communities.

6. How effective has the IEC campaign been in informing the population of danger signs that require rapid treatment and referral?

There is little information on the IEC campaigns. After the ethnographic research that was done by HEALTHCOM and the resulting development of plans, years went by without action. The MOH/NCARIP reported that there was never any follow-up to activities done in 1991-1992. The lack of support from HSII has been frustrating for the past four years. After the initial radio spots and use of mass communication, printed material planned, i.e. posters, graphics, manuals, materials of education to illiterate mothers, were never produced or printed.

7. What efforts, if any, should the project continue to support?

An updating of the communication program, developed a few years ago, must be done. To make it more effective, it should focus on community health workers' and mothers' management of the problem with less focus on referral to health centers that are frequently too far, or are closed, or do not have the basic elements for treatment.

Again, it is important to promote the organization of health promoters and to recognize their importance in the MOH's strategy to provide health care in isolated and rural communities. The

health promoter should have basic, common, and adequate training in child survival interventions to avoid the specialization of promoters in the community. Mothers should not have to consult a different promoter for each different complaint.

8. What are the problems with the pilot program?

A pilot program was developed in 1993 to promote community-based management of ARI, with a focus on education and support to the mother or caretaker. This was postponed for lack of support. In May 1995, the MOH/NCARIP decided to implement a national program of community-based management of ARI. The program will train 530 community volunteers in seven health regions to manage ARI in the community. The first step began in May 1995 with the training of 98 volunteers in Region 1. A workshop for trainers, made up of health personnel from areas, will begin during the month of June.

BASICS will be involved at four points in the development of the program:

a) Assessment of volunteer and supervisor performance and the accessibility to community health service; evaluation of program support system.

b) Assessment of program follow-up and recommendations.

c) Evaluation of the program strategy's impact on infant mortality; complete the feasibility assessment; define elements of the strategy which can be replicated in other remote areas.

d) Evaluation of the sustainability of the strategy under routine conditions in the pilot study area.

9. How should HSII assist in this area?

In the health areas identified for HSII, the project should collaborate with BASICS to fully implement a community-based treatment strategy. This should include operations research and evaluation.

The Division of Health Education at the MOH should be supported in the development of appropriate messages for the community for the control of household risk, prevention of pneumonia, and treatment of non-pneumonia cases at home. Support should be given to women's organizations to the IEC effort to inform the public that pneumonia is the first cause of death in children under five-years-of-age. Some PVOs have been effective in the dissemination of messages against AIDS, for instance, and could well share their experience with the MOH.

B. DIARRHEAL DISEASE/CHOLERA

The prevalence of diarrhea in the country has been diminishing and mortality due to diarrhea decreased by 40% between 1984 -1992. However, diarrheal disease continues to be one of the leading causes of infant morbidity and mortality in Honduras. It accounts for 16.5% of infant deaths and 34.1% of child mortality. Diarrhea accounts for 14% of all hospital visits.

1. How effective are the Community Oral Rehydration Centers (UROCs) in reducing diarrheal disease morbidity and mortality?

The extensive national cholera campaign, prepared with PAHO's technical assistance, has effectively reinforced the promotion of ORT. The distribution and use of ORS, known locally as Litrosol, has been effective in rural as well as in urban areas.

The report of the Division of Diarrheal Disease Control Program (DDCP) from the MOH reported a rate of access to ORS of 65%, the use of ORS at 40%, and the rate of access to ORT of 70% by 1994.

The UROCs or "Unidades de Rehidratacion Oral Comunitaria" were created by the MOH following PAHO's suggestion, in response to the cholera epidemic. For many years, before cholera was present in Honduras, the MOH promoted the use of ORT through a network of "Puestos de Distribucion of Litrosol," highly visible areas in the community where children were rehydrated and mothers received education and were given Litrosol. UROCs were created on this base. Managers of the UROCs received an initial training and materials from the local UPS. The objectives of the UROCs are: prevention of dehydration, timely administration of ORS, timely referrals, participation in basic sanitation, and community education in diarrheal management.

The evaluation of UROCs in January 1995 (11), showed that the community volunteers responsible for the UROCs did not treat cholera cases in their homes. They were effective in organizing the community for the early identification of cholera cases and referral. They provided ORS in the patient's home, participated in education and water and sanitation committees. They played leadership roles in their communities and have provided a valuable service in reducing morbidity from diarrhea by promoting the fast referral of cholera cases to the UPS, actions that could prevent death.

A field visit to the UROC in San Judas, Region 6, confirmed the positive role outlined by Barriga (11) in his evaluation. A woman volunteer was elected by a community assembly to house the UROC, educate mothers seeking help, and rehydrate children with diarrhea. She does not treat any cholera cases, but she has educated families in home oral rehydration. She has organized groups of men to carry acute cases to the hospital. It should be noted that the UROC manager serves the same role that the guardiane did in oral rehydration therapy in 1980. The UROC as originally conceived is not working; however, it has provided an important service to the community and has served as sentinel points for cholera and diarrheal disease.

Community knowledge of rehydration, use of liquids, continuity of breastfeeding during diarrhea episodes, etc. is well known.

The DDCP in the MOH shares the determination that UROCs are not essential; more important is the continued effort to educate and support the community through the activities of the network of community health workers. A need felt by the DDCP/MOH is to improve the capacity of the Oral Rehydrating Units (ORU) in area hospitals. At present ORUs are not staffed, not used, or they are used for other purposes. Therefore, children with diarrhea and dehydration seeking services must be hospitalized instead of being treated in an ambulatory service. This increases cost per service to the MOH system when a diarrhea case needs to be hospitalized.

2. What further support should the project provide in this area?

The HSII project should continue to support the communication, education and information portion of the program. Materials development must include quality research to study changes of behavior, pre- and post-testing of materials, and validation of the interventions. Funds for education and materials should be provided directly to the Division of Health Education at the MOH.

The Division of Health Education must be raised to a level of Directorate of Communications and Education in Health, with a core technical, multi-disciplinary staff that could incorporate specialists from the different divisions of the MOH when needed.

3. How effective has the IEC campaign been in reducing diarrheal disease/cholera mortality?

The demand and use of Litrosol is high, as a result of massive and systematic health communication and social marketing interventions.

The continuity of the education and communication effort has been curtailed heavily by lack of funds. Television spots were not effective in reaching the most neglected and at-risk groups. Radio announcements and education has proven to be the best approach.

The Division of Health Education (DHE) has lost personnel and visibility in the MOH. Apparently the actions of the DHE are disconnected from the mainstream of activities. It is expected that with the approval of funds by the coordinating unit of the HSII project, the educational campaigns can be initiated again with appropriate messages on preventive actions, such as control of water contamination at the household level or community sources, and care of the environment and appropriate maintenance of latrines. Rehydration of persons over 15-years-of-age who possibly have cholera would be of special interest to health providers as well as communities. The manuals prepared for cholera control are being printed.

4. How effective is the community response to diarrheal disease and cholera?

Efforts to control diarrhea at the community level are evident by the generalized use of ORS. The MOH/DD/Cholera program, has a national Plan of Action that includes training of community volunteers for ORT in children less than five and over five-years-of-age. The office has just developed a proposal for the strengthening of the epidemiologic surveillance and case identification and control.

Morbidity due to diarrhea apparently is being controlled with extensive use of ORS, but the case fatality rate in hospitals has increased. For children less than one-year-of-age, there were 44/1000 deaths in 1990 and 98/1000 in 1993. For children over five-years-of-age the figures are 18/1000 in 1990 and 50/1000 in 1993. (Perfil del Programa Nacional CED/OPS/MOH/95.1) This is to be expected, if most cases are being treated effectively in the community, and only more severe cases are reaching the hospital. These cases probably arrived too late to the hospital centers to be able to receive help. On the other hand, it might be that the institutional capacity is insufficient and the knowledge about standardized case management by the hospital staff is inappropriate. However, efforts may need to be taken to improve hospital case management, with continuous in-service training.

5. What are the obstacles to effective supervision, IEC, and logistics?

The DDC program is one of the oldest and most completely implemented elements of the HSII project. Although successful it has also demonstrated the general lack of community involvement. The UROCs, for example, were enthusiastically begun by community members. But little training, support, and supervision was provided. The HSII project extension needs to deal with supervision in general. DD control should be a routine component of POSAIN or any other integrated primary health care system.

6. What efforts, if any, should the project continue to support?

It is important to reinforce health behavior change and health education of the community, through health education campaigns, emphasizing education to prevent diarrhea.

The DD/cholera program should also receive support to include in the training materials and education other areas of child survival activities such as the support to exclusive breastfeeding, support for the validation of the "Manual de Capacitacion del Voluntario" that is supposed to be used to prepare volunteers for their work in the communities. A comparable information system must be implemented from the community to the area where it can be processed and used to feed back to the system. At the moment each community informs in a different form without feedback.

C. IMMUNIZATIONS

The objective to have 95% of children less than one-year-of-age fully immunized has been reached. The Expanded Program of Immunizations (EPI) is a success story in Honduras and the Region of the Americas (See Table 2).

Table 2. Immunization Status of Children < 1 year. Honduras 1995.

VACCINES/YEARS	1989	1992	1994
POLIO	85.9%	94.5%	95.4%
DPT	84.6%	92.7%	95.8%
MEASLES	94.2%	88.7%	93.6%
BCG	80.4%	91.5%	95.2%
TT2 in WFA	37.0%		87.0%

WFA = Women of Fertile Age

In 1995 the International Commission on Polio Eradication[26] declared polio officially eradicated from Honduras and all the regions of the Americas. At the same time, international donor agencies pledged their commitment to maintain their support until the year 2000 when eradication of polio from the world is expected.

The new goals of the GOH and the MOH are the elimination[27] of neonatal tetanus (NTT) and measles and the control[28] of whooping cough (Pertussis).

Present coverage of women of fertile age with two doses of tetanus toxoid (TT2) is 87% in the country and 85% in 62 municipalities considered at high risk. An Accelerated Plan of Action against neonatal tetanus is in place with emphasis on vaccination of women of fertile age in the work place, markets, schools, etc. The requirement for certification of elimination is to maintain an incidence of less than one case per 1000 live births, (Honduras has already reached this point), and 100% coverage in women 12- to 44-years-of-age.

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26 Eradication = Global interruption of disease transmission, the extinction of the microorganism, and the termination of preventive procedures (5).

27 Elimination = Elimination of disease transmission in a geographically defined area (6).

28 Control = Reduction of disease morbidity and mortality to a level that is no longer a public health problem (7).

After the success of the polio eradication in the Americas, PAHO, local governments, and donor agencies have proposed to work on the elimination of measles. In Honduras, measles has ceased to be a public health problem (8). The average incidence for the past five years is 64 cases per 100,000 population (MOH/PAHO). From 8.360 cases of measles in 1990, it went down to three cases in 1994 with zero mortality for the past four years. The retrospective analysis of deaths from measles done in the Metropolitan Area in 1989 (9), found that only 12% of cases could have been averted by vaccination coverage. Most of the cases have occurred in children to be vaccinated, in adults, and in vaccinated children. The Metropolitan Region concluded that measles incidence could only be reduced further by increasing the age of vaccination from 9 to 12 or 15 months or adding a second dose of vaccine to the schedule.

Eighty percent of the EPI is supported by the GOH and the rest is supported by a group of international donor agencies that includes USAID (5.8%), the Agencia Espanola de Cooperacion Internacional (AECI) (2.2%), la Communidad de Estados Europeos (CEE) (2.8%), UNICEF (5.6%), Pan American Health Organization (4.7%), the Japanese Agency for International Cooperation (JICA), the Latin American Institute of the Child, and the National Committee for Certification of Polio Eradication.

Their participation includes supporting the different needs of EPI including construction of storage areas and cold rooms, cold chain, provision of photovoltaic systems for areas of difficult access, monitoring and epidemiologic surveillance, education, social mobilization in support of vaccination campaigns, and TT2 coverage, etc.

The HSII program supports the national program of immunization to achieve the eradication of polio, to reduce incidence of measles, whooping cough, tetanus in children, and to elevate the prevalence of TT2 in women of reproductive age.

The group of donor agencies are the core of the Inter-Agency Committee of the Expanded Program of Immunizations that was created in 1988, to coordinate the activities of the different components of EPI and avoid duplication of efforts.

1. What are the logistics, maintenance and sustainability problems in the cold chain?

The logistic system deals with procurement, storage, and tracking of supplies to ensure that vaccines, materials, equipment, and transportation for service delivery and support services are available. The logistic system to provide vaccination is centralized and quasi-autonomous. The cold chain runs from the central level to the regions and from there to the areas and community posts. The system works reasonably well with some areas of concern, such as shortages of measles and BCG vaccines (Regions 5, 6) and polio (regional). The absence of preventive and corrective maintenance was expressed as one of the problems encountered by the EPI program countrywide.

The PCU monitoring of 1994 and the first trimester of 1995 in Region 6 reports the availability of vaccines in the sample of UPS, as seen in Table 3.

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Table 3. PROPORTION OF VACCINES AVAILABLE AT UPS FROM PCU MONITORING 1994-1995

	1994	1995 (REGION 6)
POLIO	76.6%	81.8%
DPT	81.8%	81.8%
BCG	64.9%	54.5%
MEASLES	76.6%	81.8%
TETANUS TOXOID	75.3%	72.7%

The HSII project has supported the logistic system and cold chain with warehouse construction, vehicles, equipment, refrigerators, materials, personnel, training, and monitoring.

The sustainability of the system presents foreseeable problems. There is a deficiency in the number of refrigerated vehicles and in general, few vehicles to transport vaccines from the airport to the central warehouse and from there to the storage areas in the regions, health areas, and community posts. Breaks in the old and poorly maintained vehicles can occur at each of these levels. At every level of the cold chain the key elements are: to establish procedures for transport, storage, and monitoring of the vaccine; to provide trained, well-supervised personnel able to manage and monitor vaccine distribution according to established procedures; and to maintain equipment to store and transport vaccines at the proper temperatures.

Maintenance of the cold chain is done by technicians of the cold chain (TCC) at central and regional levels, and by trained volunteers in the areas and community. Several drivers "volunteers" have been trained to perform a double job. This last option has not been effective because of the high turnover of these people. In several areas auxiliary nurses are being trained as TCCs.

Freezers and refrigerators are reaching the end of their functional life-span (up to 30% - 50%); some are 15- to 20-years-old. Many are not working well. Some are old and unusable and in storage. Donated equipment cannot be repaired because of a lack of spare parts, funds, and trained personnel. An area of particular concern is Region 8 in the Mosquitia. The isolation and difficult access are risks for the sustainability of the program.

The Project Coordination Unit (PCU) monitors information on the availability of vaccines and the status of refrigerators and supplies, through the use of questionnaires. Health regions have a very visible color code list of health posts and of the status of the cold chain. A green mark means the chain is in good status; yellow means that some areas need attention or are not working; and red is a danger sign of a break in the system. This identification system should promote awareness

and prompt reactions by the regional officers. A 1994 HSII project monitoring report stated that there were 72% of refrigerators with green status in a sample of UPS. However, in Regions 4 and 6 refrigerators in working condition in a sample of UPS with green status had a mean of only 44% and 52% respectively.

This fast, visual way of monitoring should continue and expand in the EPI. Most of the health personnel are already involved in the recognition of the problem. They discuss it in monthly meetings and push the system to take action. It also gives priority to the procurement of parts or services.

Supervision of the cold chain is apparently weak specifically in the area of follow-up. There is a lack of funds and transportation for supervisory trips. Mosquitia does not have technicians to provide preventive services or technical assistance.

At the central level the EPI technical personnel visit regions three times a year and the technician of the cold chain provides supervisory visits twice a year. From the regions to the areas supervision is not a regular activity and the forms prepared for this effort are not generally used. The regions do not request in their annual budget an appropriate amount of funds for supervision.

The central EPI is in the process of preparing monitoring and control of inventory.

Supervision is reported in Section I, Sustainable Support Systems.

2. What is the appropriate strategy for reducing and finally terminating HSII support of the cold chain?

The cold chain is a weak link of an effective EPI that has reached the remotest communities in the country. EPI is the entrance point to the formal health care system and the opportunity to involve private and public providers and community groups in a primary health care activity.

Of 879 UPS in the country, there are 995 refrigerators and 80 freezers. Approximately 30% are not working and 80 of them are over 25-years-old.

Approximately 100 UPS do not have refrigerators and there is a lack of parts and pieces. The budget assigned to the regions for these items is not realistic in terms of prices in the local or international market for parts. Sixty percent of refrigerators run by kerosene and situated in the more remote UPS, do not work because of a lack of fuel, transport, and spare parts (See Table 4).

Table 4. STATUS OF THE COLD CHAIN IN HONDURAS 1995[29]

REFRIGERATORS		FORM OF ENERGY	NOT FUNCTIONING WELL	
NUMBER	%		NUMBER	%
547	55	KEROSENE	180	32.9
100	10	GAS	20	20
50	5	ELECTRICITY		
298	30	COMPRESSION	100	33.5
995	100	TOTAL	300	86.4

HSII should continue to support this most effective and visible child health program. USAID's voice in the interagency committees is needed to maintain leverage, amplify concepts, and assure quality control for the system.

3. How should monitoring of the cold chain be part of the overall MOH strategy of supervision?

Supervision and monitoring is part of the MOH strategy, but is not well implemented for lack of funds, personnel, or training on the art of supervision. Several forms have been produced by the MOH that are either not used or not filled.

It is most important that the MOH recognize the fragility of its system and the actual dependence on PCU information. Budget must be assigned to care for monitoring and supervisory activities as part of routine services.

4. How can gains achieved in developing the cold chain and the horizontal EPI program be sustained?

The sustainability of the cold chain is based on an up-to-date inventory of refrigerators, freezers, notation of life span, accessibility to parts and services, the availability of trained personnel to maintain it, and continuous supervision and training. Repair and maintenance of vehicles is needed to maintain the levels of achievement to date.

The climactic conditions of Honduras (heat and humidity) and the poor electrical power system are high risks for the cold chain. Several CESARs have refrigerators run by kerosene. A present

[29] Dr. Ida Berenice Molina/Situacion Actual de la Cadena del Frio en Honduras, 1995.

problem is the logistics for obtaining kerosene, the availability of a driver to transport it, and per diem to pay for this.

The horizontal EPI or regular vaccination on demand is provided in all health centers, rural and urban, as well as by visits to remote areas by auxiliary nurses. Vaccination campaigns have been reduced to one a year, still with great effort and high costs.

To sustain the horizontal EPI requires the maintenance of the logistic system, supervision, education, and the development of specific plans for communication or programs to support specifically the horizontal vaccination strategy. The private support to the vaccination campaign was obvious in the regions visited. There were posters in stores and banners in the cities and towns.

The support and maintenance of the LIVACs could be used as a supervisory and monitoring tool. Also if the LIVACs are up-to-date and include the real number of children living in the community, it would facilitate the request for inputs and materials based on real numbers, avoiding the estimations that could be inaccurate. LIVACs are simple to use and almost cost free; they are kept in the majority of rural and urban health care centers, and reportedly have facilitated the coverage increase and follow-up of at-risk children. The potential of the listings should be utilized to encourage the participation of the family in the decision to seek preventive health care and to develop their responsibility and involvement in the management and operation of the health center.

The education and support to the families given by the "guardianes" should include the understanding and importance of the LIVACs for them to translate to the families in their communities the reasons and the needs for immunizations, well baby visits, monitoring of weight gain, etc.

D. BREASTFEEDING AND GROWTH MONITORING

From 1983 to 1989 the MOH, Social Security Institute, and the "Junta Nacional de Seguridad Social" received assistance from USAID to develop a comprehensive project to support breastfeeding called PROALMA (Programa de Alimentacion Materna). At the end of 1988 the project reported a success in securing 100% elimination of artificial milk and bottles from the postpartum wards in the country and 50% of hospitals have initiated "rooming-in" facilities. The prevalence of breastfeeding has increased from 9.6 months in 1981 to 12.4 months in 1987 in urban areas and from 17.7 months to 19.6 months in rural areas. Popkin's evaluation in 1991 suggested that this was due to the changes in hospital policies.[30]

Data from the Family Health Survey of 1991, using data on breastfeeding status on the day preceding the survey that were analyzed by Wellstart[31], found that exclusive breastfeeding rates increased for the country as a whole from 30.3% in 1987 to 37% in 1991. The table below shows increases within Tegucigalpa/San Pedro Sula, other urban, and rural areas.

Table 5. Breastfeeding Practices/Honduras, 1987-1991

Exclusive Breastfeeding Rates in Honduras for Infants under Four Months of Age				
Location	**1987**	**(N)**	**1991**	**(N)**
Tegucigalpa/San Pedro Sula	14.7	(102)	27.6	(76)
Other Urban	16.3	(80)	23.6	(72)
Rural	36.8	(419)	42.9	(282)
Total	**30.3**	**(601)**	**37**	**(430)**

Since 1991 - 1992, the MOH has been implementing the Integral Care of The Child Organization Process (POSAIN in Spanish), in two health regions and about twenty health units. The objective of POSAIN is to monitor children's growth, to promote the early identification of problems, and to promote community involvement in the solution of problems.

Anthropometric assessment of the nutritional status of the child is a recognized diagnostic tool, in which weight-for-age seems to be the most useful estimation of nutrition. A growth monitoring session in the health centers is also used as an avenue to communicate and educate mothers on the benefits of breastfeeding practices, appropriate weaning foods, keeping the immunizations up-to-date, and aiming to keep the child healthy. POSAIN also integrates prenatal care following the

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30 Red Nacional de Concejeras Comunitarias en lactancia Materna. La Liga de la Leche, 1992.

31 Hubert, Allen, Analyses of the Honduran Family Health Survey: Comparison of Breastfeeding Rates, December 1993. Wellstart Expanded Promotion of Breastfeeding Program.

high-risk concept and a coordinated involvement of the community volunteers or "monitores" to support the initiative.

1. Has the POSAIN been sufficiently validated (in terms of the applicability of the methodology and results in the community) so that it merits further support?

An evaluation of POSAIN was carried out in 1992 (8 months into its implementation). As a result of the evaluation a series of modifications to the instrument and to the process were recommended. The number of children in the program were insufficient to prove or disprove that POSAIN had a significant effect on nutritional status.[32]

In 1994 an evaluation was done on data collected from four communities in 1991 and 1992. Even without baseline data on the nutritional status prior to the intervention, in concluded that there is evidence of improvement in the nutritional status of children. Overall malnutrition fell in the four villages from 41% at one-year-of-age in 1991 to 30% at one-year-of-age in 1992.[33]

The program is too young and has been implemented in too few places to speak of sufficient validation.

2. If so, how should the project support it?

POSAIN is effectively working in the CESAR of San Marcos, Region 5. The characteristics of the CESAR might not represent Honduras but it has accomplished the MOH's objectives of engaging the community in the health seeking and disease prevention process. It reported 100% completion of immunizations, and no mortality for ARIs or diarrhea in the past year, (ORT is done by community volunteers). There is identification and listing of all pregnant women with emphasis on the reproductive risk cases and monitoring of children's growth and development. It has been able to work with well-trained community volunteers who maintain close surveillance of children at nutritional risk.

POSAIN combines years of experience in the field and scientific knowledge of Management Sciences for Health (MSH) and of the Latin American Center of Perinatology (CLAP). This approach coupled with community involvement could be an effective strategy for a comprehensive Primary Health Care System (PHCS). The work needs to be evaluated and monitored to measure impact and quality of services. Also needed is a continuous IEC system to the community. Community health workers need to be evaluated and monitored in terms of their knowledge and skills for implementing the different POSAIN components.

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32 BASICS Honduras Country Activity Plan, April/1995.

33 BASICS Evaluation of POSAIN data. Barry Smith/December 1994.

3. Who provides the household care of children, and what is the quality of care?

During the past decade, materials, audience research, radio production, training, monitoring, and evaluation competencies were developed by the MOH. A series of communication strategies were implemented unevenly for ARI, CDD, and Reproductive Health. Administrative reasons or insufficient support curtailed the initiative. BASICS has proposed two objectives in this area: 1) to improve caretaker behavior at the household level; and 2) to improve access to quality care at the community level. The modification of caretaker behavior will be carried out in two phases, first to understand current practices at the household level and second to design education and communication strategies based on formative research.

4. How effective is the current network of community breastfeeding counselors?

The first group of 129 Counselors and 50 breastfeeding promoters in Region 3 were the object of evaluation in 1991. Through focus groups the mothers reported an increased interest in breastfeeding and extension of breastfeeding due to the participation of the counselors. The change in attitude was evident when mothers who expected to bottle feed their babies changed to exclusive breastfeeding. The second evaluation done in San Pedro Sula in 1992 showed also an increase in the number of months of exclusive breastfeeding.

5. Is this intervention replicable and sustainable at the national level?

The replicability of the intervention is being shown with effective training of counselors in different areas of the country with the same promising results of exclusive and sustained breastfeeding, lowering of episodes of diarrhea, and the presence of a community support group that has reached a great number of mothers, more than any other counseling intervention.

Sustainability of the project depends on financial support and on the continuous involvement of the counselors. The need for work outside the home is promoting desertion from the counseling network which is voluntary work. Other reasons are lack of incentives or time to continue with their duties as counselors.

The La Liga de la Lactancia Materna de Honduras is trying to solve the economic problem of the counselors by the promotion of small business, preparation and selling of handcrafts, etc.

6. How should the project continue to assist?

There is a need for constant supervision, monitoring, and support to the counselors to avoid desertion. Also it is important to measure their level of success through formative research. The presence and involvement of counselors in the health system of their area could be used to learn more about their work and the influence they have on the community to maintain exclusive breastfeeding, especially in adolescent mothers who make up over one-fifth of the total population of mothers in the country.

7. What is the relationship between POSAIN and the work done by the Community Breastfeeding Counselors?

The development of a community network in support of BF was successfully initiated by La Liga de la Lactancia Materna de Honduras (LLMH). Their approach is to train mothers "consejeras de la lactancia" who in turn train and support mothers in their communities to maintain exclusive breastfeeding to the sixth month of life. By the first trimester of 1995 LLMH have trained 438 consejeras or "peer counselors" and 61 promoters in Regions 3 and Metropolitan.

The summary report of December 1994 indicated that breastfeeding practices and the average months of breastfeeding in the target areas seems to be increasing. Training of the counselors is intense and with very active participation. It covers an ample group of components of successful breastfeeding.

8. What potential exists for combining the two strategies?

There is a good potential to combine the two strategies. Breastfeeding counseling should be a component of the network of community activities, and volunteers working with POSAIN, must have sufficient training to intervene with a pregnant mother and support her decision to breastfeed. It seems most appropriate to include it in the maternal side of POSAIN, in order that women could facilitate a good beginning for a well-nourished child. The advantages of exclusive and continued breastfeeding for the mother and the child and could contribute to the objectives of POSAIN to lower mortality and morbidity from ARI, diarrhea, and other infectious diseases. Breastfeeding counselors could also train their peer volunteers such as guardianes, nutrition volunteers, and other volunteers working in the communities, to support each other and erase the feeling of extreme specialization among the community workers.

It is important for the MOH to carefully revise the job descriptions of the several groups of volunteers working in the community, to study the problems in the community that could be solved with the intervention of volunteers, aiming to integrate their activities and to make the best use of volunteers in the community.

Efforts should be made to organize training sessions by the breastfeeding counselors in the health centers working with the POSAIN intervention. Their activities could be monitored, measured, and the recognition of the community could lower the possibility of desertion from their job.

9. What support, if any, should be provided by the project?

The support of the project is needed to expand this initiative to at least two whole regions, monitor activities, evaluate results, and cost of the intervention.

E. ROLE OF PVOS IN CHILD SURVIVAL ACTIVITIES

The role of private voluntary organizations (PVO) in the HSII project is to participate in the implementation of child survival interventions and water and sanitation systems.

Ten PVOs were contracted to work on child survival activities and to cover geographical areas not served by the MOH. They have received supervision, monitoring and overall support from the project.

The ten PVOs are: 1) PREDNISAN (Predicar y Sanar); 2) Horizontes de Amistad; 3) Aldea Global; 4) CEDEN (Comite Evangelico de Desarrollo y Emergencia Nacional); 5) Honduras Outreach; 6) FUNHDENI (Fundacion Hondurena por los Derechos del Nino); 7) FEDECOH (Federacion del Desarrollo Comunitario de Honduras); 8) La Liga de la Lactancia Materna de Honduras (LLMH); 9) OFRANEH (Organizacion Fraternal Negra de Honduras); 10) Hermandad de Hondura.

FEDECOH has secured a good deal of community involvement in the area of Lempira, Region 5. Their work is done in remote areas with a high rate of illiteracy in women (78%) and widespread poverty. They have trained community health volunteers or "Voluntarios de Salud Infantil" to cover ARIs and DD, 150 nutrition volunteers to advise mothers on the best use of foods donated by CARE, 150 breastfeeding counselors, growth monitors, and "guardianes". There is a great deal of important training material developed with the help of the community and based on the MOH norms. The group of personnel working in this PVO could be a great addition to the MOH staff.

OFRANEH has developed a project in the Department of Gracias a Dios, Region 6. It covers isolated coastal and mountainous areas. Their objective is to cover a population of 36,000 persons including 6,000 children under five-years-of-age, belonging to the "Garifunas and Pech Communities." The MOH does not provide services in this area and coordination, monitoring, supervision, and general support to the medical and nursing staff from Region 6 is not evident, with the exception of meeting for the support of EPI activities. Under the most difficult circumstances, the program has been able to involve the community with the formation of 36 groups of volunteers, has trained 18 TBAs in Sangrelaya and Cusuna. For nutritional rehabilitation they are using ethnic mixtures of leaves and herbs to add to the meager menu. The immunization rate of children less than one-year-of-age is 60%. This PVO is new and needs some time to develop. It is in great need of support, training, and supervision. The administrative requirements of USAID seem to overwhelm the personnel.

FUNDHENI, located in Francisco Morazan, Region 1, is a young PVO with a great deal of community influence. Two CESARs were built with the participation of the community, one in La Hermita and another one in El Tablon. These are the only community health centers where we actually found activities for mothers, such as insertions of IUDs, postpartum control, along with a horizontal approach to immunization, well baby clinic, and water and sanitation. There is a great

deal of uncertainty among the staff about their future since the centers were given to the MOH at the end of the project.

HERMANDAD DE HONDURA, is a strong PVO that has received support from USAID for many years. It works with many donors including CARE, the Swiss community, Italian donors, among others. It has an impressive building with health clinic, oral health, education and training facilities, a program for the development of new seeds, and best use of soya. A cooperative provides financial help to the community and revenues for the PVO. They have trained 139 TBAs in courses that last a year, 228 guardianes, 60 female guardianes, and nutrition monitors in charge of the day care center. They have very good coordination with Region 5 for training, support, and monitoring. The region uses the PVO's facilities to conduct their training of personnel.

The ten PVOs working on child survival activities serve 245 communities, with a population of about 130,000 children less than five-years-of-age. The PVOs have built, or are in the process of building, 16 health centers. The total cost for this effort is 13,445,240 Lempiras.

1. How have the ten PVOs working in child survival activities contributed to the achievement of the project purpose and out put indicators?

The PVOs have a wide range of structural, managerial capacity as well as individual capacity and personnel to carry out their responsibilities. PVOs' health services providers are willing to work in areas where the MOH has not been able to provide services or is not considering providing services at the current time.

The number of community health volunteers contacted, trained, and supported by the PVOs have been able to maintain the network of services, immunizations, referrals, education, support of breastfeeding, growth monitoring, education to mothers, and the development of community gardens to supplement the diet.

It is important to note the development by PVOs of training materials, based on the MOH norms but adapted to the level of comprehension and needs of the mothers in poor communities.

In all the areas of PVOs' influence, with the exception of the Garifunas and Pech communities, the levels of immunization as an indicator of primary care is maintained. Other communities' complaints such as prevalence of ARIs, diarrhea, and malnutrition are as common as in any other area, CESAR, or CESAMO visited. It is possible that the isolation of communities and socioeconomic problems, such as illiteracy and poverty, make these problems more obvious.

2. How successful were the PVOs in expanding coverage and testing innovative ideas?

The coverage is ample, to well over 120,000 children less than five years that otherwise would have little possibility of being cared for by the MOH system. In their activities, the PVOs combine health with nutrition education, gardening, the development of local foods, and peer counseling, among other activities of water and sanitation.

3. How sustainable are the efforts of the PVOs?

Current PVO sustainability depends on the support by donor agencies and on the strength of their own collaborative support. From the point of view of cost recovery, the PVOs in general have a weak potential for financial sustainability. Some PVOs charge 5 Lempiras per service (MOH charges 1 Lempira) but only if the person can pay. Estimations on total collections were not available.

4. Is there an ongoing role for PVOs in child survival activities?

The role of PVOs must be supported by the organization of a successful network of indigenous Honduras PVOs, working on child survival interventions. Collaboration among PVOs must foster mutual technical assistance in areas such as: child survival interventions, water and sanitation, community development, women's participation, among others.

However, they must be strengthened and trained to provide appropriate maternal and child health services, and respond to the most pressing needs of a particular community that can have a significant impact in the improvement of health in the community.

FOPRIDEH (Federacion de Organizaciones Privadas de Desarrollo de Honduras) could serve as the vehicle for the organization and support of an "umbrella PVO" working on child survival and maternal health.

FOPRIDEH is a private volunteer organization, established in 1982 and recognized by Presidential agreement in 1983. Their objectives are to unite the NGOs working for the development of Honduras; to promote the exchange of experiences and lessons learned by the organization's members; to establish procedures to promote dialogue with the GOH and its institutions. Other objectives are to promote the development of laws protecting NGOs and the collaboration of members with other national and international organizations.

IV. PROJECT MANAGEMENT/IMPLEMENTATION

1. To what extent have project organization and management promoted and supported the goals and objectives of the project? What modifications in project organization and management would enhance the efficiency/effectiveness of the managerial role, given the expected scope of, and anticipated resources available, to the project?

Since the departure of MSH, project management has consisted of two components: 1) a Project Coordination Unit headed by Dr. Gustavo Bardales, located outside the premises of the Ministry in downtown Tegucigalpa in Edificio Alonso; and 2) a Mission-based staff.

The Project Coordination Unit consists of 16 employees: a Coordinator and Deputy, overseeing Program; Finance and Purchasing Officers; a Comptroller; Financial Administrator and Property Manager; and accountants and secretaries. The office has two vehicles and a number of outdated computers. The PCU manages the project through two instrumentalities: 1) financial/ administrative; and 2) evaluation and monitoring. The PCU tracks expenditures and prepares reports on such items as central and regional revolving funds, per diem payments, and facility repairs. Regional expenses are reviewed. These reports are submitted to the MOH Administrative Unit before being forwarded to the Ministry of Finance (MOF). Routine evaluation and monitoring visits are made to each region.

The USAID Mission project staff includes: a Health and Population Officer, Dr. David Losk; an Administrative Officer, Mr. Ross Hicks; a TAACS Advisor, Dr. Stanley Terrell; a Water and Sanitation Advisor, Mr. Herb Caudill; a Monitoring Officer, Dr. Antonio Pinto; and a Public Sector Population Advisor, Dr. Angel Coca. The team brings substantial longevity to the project. Dr. Pinto has been an FSN with USAID for more than ten years, and was formally Director General of the Ministry of Health. Dr. Coca was also with the Ministry before joining the project.

The Administrative Officer in USAID/H monitors project expenditures, projects expenditures and submits financial reports to the Health and Population Officer and the PCU. The USAID/H Financial Development Office reviews accruals and acts as liaison to the Ministry of Finance. The PCU is provided a revolving fund for expenditures to the regions. These expenditures are reviewed by the PCU, and sent through the Ministry of Health to the Ministry of Finance. If deemed legitimate, the expenditures are reimbursed with the Central Account Fund (CCC) by USAID/H. Expenditures are authorized through a series of PILs that obligate USG funds and authorize the Ministry of Finance to disburse local Lempira funds to the Ministry of Health for expenditure on the project.

The Ministry, through the PCU receives an annual budget for commodities and local cost project activities. USAID retains non-local technical assistance funding. The PCU serves both as a conduit for these funds and provides technical assistance for the Ministry in satisfying project technical and administrative requirements. The process of making funds available for a project

activity can take as little as two months to as long as eight months from initial request. This has significance for the extension of the project, which will terminate in May 1998.

The PCU monitoring and evaluation site visits are conducted jointly with USAID staff. A standard protocol was developed early in the project and with minor modification has been used throughout. Eleven CESARs are selected, by a quasi-random method (with replacement for closed centers), visited, the auxiliary nurse interviewed, and the facility observed. The instrument is quite lengthy and collects important information, some of which is used in this evaluation. It records supervisory visits, training, presence and absence of supplies, and other issues. However, the instrument collects relatively little information about the quality of the performance of any of these activities, or the quality of performance of specified tasks. Results of the one-week visits are tabulated and presented to the regional and area staff. These results are also collected in a project database saved in an SPSS system developed by MSH.

There has been a reluctance to change this system, both for comparability from year-to-year and because the PCU does not have the capability to program and analyze the data. In the one evaluation and monitoring visit which the midterm evaluation team was able to attend in Region 6, the report was read to the assembled staff, but discussion was desultory, and regional staff quite defensive. All problems were blamed on vehicles, the increase in per diem rates (even though 1994 was being discussed, before the new rates went into effect), and failures at the central level (receipt of funds and medicines), about which the region could do little. Few actionable responses were identified. There does not appear to be a formal follow-up mechanism to respond to issues identified in the site visit.

One essential element in management is the relation between USAID and the MOH. A close working relationship guarantees that the conditions specified in this question are met, i.e., that project management furthers the goals and objectives of the project. The relationship between USAID and PCU is excellent, and there is an atmosphere of collaboration and support that is exemplary. However, at the level of the region, it is less clear how effective the project is at influencing events.

The first midterm evaluation was tasked with addressing difficulties in financial tracking and reports. These issues have been addressed subsequent to the evaluation. Financial management recommendations have been developed through local technical assistance and need to be implemented. Continuing issues include concerns about managing the project in a decentralized fashion. Currently, a carrot and stick approach is used. Local cost project funds are the carrot retained by the PCU so that its recommendations will be taken seriously at the regional level; the evaluation and monitoring visits are the stick. This relationship should probably be reversed, i.e. if the evaluation and monitoring function were transformed into a continuous management/health information system, and if this system provided necessary information for use at the level of the region, project staff could continuously interact with regional and area personnel to deal with problems. A regional or area revolving fund could be set up so that local staff would have greater authority, and regular financial reviews would provide the necessary stick. Site visits could be transformed into quality assurance visits: observations and reviews of performance, training, and

problem solving. Each visit could include presentations by the area directors about specific programs, a small survey, outcomes of a training exercise, and/or demonstration of a new analytical tool or skill.

In brief, the project management team, including the PCU and USAID/H, has furthered the project goals, and works closely and effectively together. However, given the limited time for the extension, USAID's focus on results management, and the newly proposed goals of focusing the project on implementing projects in areas, current PCU functions should be transformed and enhanced.

Currently, the PCU channel funds to the regions. One overall recommendation of this evaluation is to identify health areas in which the project will now focus. Should this recommendation be adopted, the following scenario is suggested. The PCU and area and regional authorities will draw up an annual work plan and budget for local costs in consultation with USAID. Separate revolving funds accounts will be drawn up for each health area. These funds would be added to the local cost budgets currently managed by the PCU. In order to assure a close working relationship with the Ministry, the PCU and the Division of Planning would jointly develop the Health/Management Information System. This would require an increase in capacity of the PCU and the Division of Planning to provide reports, which would include new cost tracking and disbursement systems. The Ministry would also have to be strengthened to implement a health/management information system, a quality assurance approach to supervision and evaluation, and other systems. The Ministry/PCU collaboration, starting form a relatively small size, could become the model for a future central-level Ministry: focused on technical assistance, supervision and monitoring, health/management information systems, cost tracking, and dealing with external donors.

2. What has been the impact of the reorganization of the MOH's Project Coordination Unit? What are the critical problems in the MOH participation in the management of the project? What actions can be taken to resolve these problems?

The first midterm evaluation identified a series of concerns about the PCU. Following up on the recommendations, the project supported an indepth analysis of the functioning of the Unit and identified local technical assistance to prepare plans, activities, and manuals to address these problems. These reports (115, 116, 117, 119) were submitted in March 1995 and the reform process has only just begun. The reports themselves are solid and well conducted, and promise to greatly improve the accounting system of the PCU. These reforms might serve as the basis for reform throughout the Ministry as well. This is an example of how the PCU serves as a test bed for administrative and other reforms.

The PCU works directly with the regions to achieve the project goals. However, when governments change and Ministry staff change, this relationship is impeded. It is critical that USAID explore mechanisms for guaranteeing continuity in administrative and financial management arrangements.

3. What levels of total GOH counterpart funding are necessary for the funded extension of the project?

This question can only be answered when a detailed scope of work for the extension is developed. However, in general, counterpart funding for salaries needs to be maintained at or above the current level (L1,500,000/yr). It is likely that a new scope of work will call for an enhanced role for the PCU. A second concern is that PCU staff are not permanent employees of the Ministry, and investments in the PCU might not become institutionalized. It is necessary for the Ministry to consider how to incorporate the PCU or how to provide the PCU permanent staff to ensure institutionalization. The increase in per diems proclaimed by the Ministry will also greatly increase project costs. Per diems for Ministry personnel might also be requested through counterpart funds.

Agua de Saneamiento

Pregunta 1

* A qué grado están las "Juntas de Agua" dando mantenimiento a los sistemas de agua construidos bajo el Proyecto?

Todos los sistemas construidos con apoyo del Proyecto tienen una Junta de Agua que en el caso de acueductos está constituida por cinco miembros electos en asamblea general, y por tres miembros en el caso de pozos con bomba de mano. Al hacer entrega de los sistemas construidos, tanto SANAA como la DSA/MSP, capacitan a la Junta en aspectos relacionados con:

- Administración del sistema
- Operación y Mantenimiento del Sistema, y
- Determinación y reajuste de tarifas.

El contenido del aprendizaje incluye la operación y el mantenimiento de acueductos y pozos rasos. Este adiestramiento le proporciona a la Junta los aspectos esenciales para conocer qué debe hacer en cada caso. Sin embargo, tanto en SANAA como en la DSA/MSP no se hace distinción entre Mantenimiento Preventivo y Correctivo; únicamente se realiza este último. Según hemos observado en el campo, la Junta con sus propios medios, adquiere los repuestos necesarios y, si es necesario, contrata mano de obra especializada para el mantenimiento. Cuando el daño o falla es mayor y escapa a las posibilidades técnicas de la Junta, ésta busca la asesoría técnica de los Promotores en Salud o de los Técnicos en Agua y Saneamiento y conjuntamente efectúan las reparaciones que sean necesarias.

De acuerdo con nuestras observaciones, las Juntas y la comunidad en general, están altamente motivadas en relación con los beneficios que les trae el sistema de agua. Desde luego, es necesario mantener activa esa participación e interés mediante la presencia periódica de personal de promoción y de asistencia técnica. Otro factor de mucha importancia es la personería jurídica que las Juntas adquieren por intermedio de SANAA al terminar la construcción de sus acueductos. En esa forma las Juntas pasan a tener un patrimonio y se convierten en sujetos de crédito. La primera acción que realizan es abrir una cuenta de ahorros en un Banco en la que se depositan una cantidad mensual excedente del cobro de la tarifa mensual. El objetivo es capitalizar un recurso para el mantenimiento del sistema y posibles ampliaciones.

En la Oficina Regional del SANAA de La Ceiba, al entrar en funcionamiento los TOMs, se clasificaron 77 sistemas que estaban operando mal o no operando (30% del total) y al cabo de un año existían 49 sistemas en esas condiciones, (19% del total). Esto demuestra la eficacia de la labor del TOM y el interés de las Juntas en corregir sus sistemas cuando hay adecuada promoción y asistencia técnica.

* Cuáles son los posibles obstáculos a su sostenimiento y cómo puede el Proyecto atenderlos?

Las entrevistas y conversaciones mantenidas con miembros de algunas Juntas, con usuarios en las comunidades y con personal de los proyectos demuestran que existe un alto grado de confianza en las instituciones que construyeron los sistemas y que se conoce y se aprecia el aporte del PSS-II. También nos han expresado los miembros de las Juntas visitadas que esperan que no ocurra como en el pasado, que una vez entregado el sistema, los actores desaparecen y les dejan sin la necesaria asistencia técnica periódica que les permita mantener adecuadamente el sistema y solucionar los problemas que se hayan presentado, especialmente cuando ocurre cambio de miembros de la Junta o de operador (fontanero).

Sin embargo, internamente dentro de la Junta se pueden presentar posibles obstáculos si los miembros de la Junta pierden interés o si por razones de economía se contratan operadores poco responsables o si la comunidad no está de acuerdo con los reajuste tarifarios que la Junta acuerde introducir.

El proyecto puede ayudar a evitar a minimizar esos posibles obstáculos generando y apoyando una iniciativa para la creación de un grupo de mantenimiento de los sistemas que visiten las comunidades con una periodicidad de tres a cuatro meses y que además realicen una inspección de la microcuenca y del entorno ambiental general la de la comunidad. Este elemento tiene un costo, es cierto, pero ese costo será inferior al que se requeriría para reactivar un sistema prematuro deteriorado por falta de mantenimiento.

La creación de un incentivo, no monetario, de reconocimiento hacia las Juntas que, en un determinado período de tiempo, demuestren dinamismo y tengan sus sistemas en buen estado de mantenimiento, puede ser una iniciativa que la Junta y la comunidad aprecien. En varias comunidades es posible observar placas de reconocimiento de la Junta y de la comunidad hacia las instituciones y técnicos que trabajaron el sistema y hacia las agencias que colaboraron con sus aportes, pero no existe nada de parte de las instituciones hacia la comunidad y la Junta. Un pequeño diploma, una carta, un acuerdo o algo similar tiene mucho valor para la comunidad y la Junta de Agua.

* Cuál es la participación relativa de mujeres y hombres en las Juntas y cómo se puede estimular el nivel de participación?

Tradicionalmente, la participación del hombre en las Juntas de Agua ha sido prevalente, sin embargo en los últimos tiempos la mujer ha ido escalando esas posiciones y participando de manera activa en las marcha de las Juntas de Agua comunales. De las observaciones realizadas durante nuestras entrevistas y visitas al campo en donde se entrevistó a varias mujeres, es posi***

y hombres se puede decir que existen tres estratos de participación en las Juntas:

1. Integración de las Juntas solamente con hombres;

2. Presencia de mujeres en las Juntas como vocales, tesoreras y/o secretarias, y

3. Participación total de las mujeres en todo lo relacionado con los sistemas de agua. Es el caso de las comunidades Misquitas y Garífunas.

Los mecanismos expuestos anteriormente pueden aprovecharse para estimular el nivel de participación de hombres y mujeres líderes en las Juntas de Agua ampliando su responsabilidad a la vigilancia de las microcuencas dentro de un programa que puede diseñarse para ese propósito.

Pregunta 2

* Que tan efectivamente ha podido el SANAA involucrar a COHDEFOR y otras agencias, y las Juntas locales a fin de asegurar que las cuencas de agua están adecuadamente protegidas?

Se han realizado algunos intentos para coordinar acciones a nivel institucional que permitan aplicar estrategias concretas para proteger adecuadamente las cuencas de agua, especialmente las microcuencas de los diferentes sistemas rurales. Sin embargo aún no existe una política definida sobre este asunto.

En la práctica se han presentado casos de desforestación y mal uso de los terrenos que componen la microcuenca de sistemas rurales y ha sido la misma Junta de Agua encargada de interponer la correspondiente reclamación con el apoyo del Patronato y de la municipalidad para la solución de estos problemas. Las Juntas de Agua si tienen conocimiento de la necesidad de proteger adecuadamente la microcuenca, sin embargo sienten alguna inseguridad al tomar acciones defensivas por desconocimiento de los aspectos legales y de cuáles son las instituciones que pueden brindarle apoyo. Durante nuestras visitas a comunidades en la Región de Salud 6, La Ceiba, pudimos constatar el reclamo de una comunidad, con el apoyo del Patronato y del Municipio con la participación del Promotor en Salud frente a la anunciada deforestación de la microcuenca por particulares.

Es necesario definir una política clara y una estrategia de aplicación que garantice que las microcuencas sean adecuadamente protegidas. Una línea de acción del Proyecto puede ser el apoyo para la creación de viveros regionales o por áreas de trabajo, con especies seleccionadas y resistentes, que sena plantadas en las microcuencas por la misma comunidad y que sean mantenidas por la Junta.

Pregunta 3

* Qué tan efectivo ha sido el programa de educación en salud en el cambio de comportamiento de parte de los beneficiarios hombres y mujeres.

Las enfermedades diarreicas han constituido en Honduras una de las principales causas de mortalidad infantil, especialmente en el área rural, aproximadamente el 30% de las muertes en niños menores de cinco años se debe a esa causa.

De acuerdo con la Encuesta Nacional de Epidemiología y Salud Familiar de Honduras, 1991-1992, la prevalencia de las enfermedades diarreicas fue menor en las comunidades que disponen de servicio de agua para consumo humano en condiciones seguras y cuyas casa tienen algún sistema de eliminación sanitaria de excretas. El Proyecto Sector Salud II ha dedicado aproximadamente el 30% de su presupuesto a la construcción de acueductos o pozos con bomba de mano y a la instalación de letrinas de cierre hidráulico o de hoyo seco en el área rural de tres Regiones de Salud. Los sistemas han sido bien construidos y la comunidad está haciendo uso de ellos.

Sin embargo, la dotación de infraestructura sanitaria adecuada y de buena calidad, por si sola, no resuelve el problema en su totalidad. Es necesario educar a la población para el uso correcto de los sistemas así como en relación con su mantenimiento. Esta actividad de educación para la salud es realizada inicialmente por los educadores sanitarios, técnicos en agua y saneamiento y por los promotores en salud con muy buen resultado pero, desafortunadamente, no tienen una adecuada continuidad que garantice que los servicios van a ser utilizados y mantenidos siempre en la misma forma y que los cambios de comportamiento alcanzados sean mantenidos constantemente.

* Cuán sostenible es el programa?

La aplicación de las prácticas de higiene y educación sanitaria se reducen y hasta llegan a desaparecer en una comunidad cuando no se las recuerda y renueva con cierta frecuencia. El programa es sensible al paso del tiempo y necesita ser reactivado oportunamente. La sostenibilidad de este programa dependerá tanto del interés de la comunidad como del apoyo que las instituciones le puedan dar.

* Hay un papel continuo para el Proyecto?

Si, esto es un campo que merece ser apoyado y en el cual el Técnico en Salud Ambiental podría tener un papel importante.

Pregunta 4

* Cómo puede el proyecto apoyar al SANAA a seguir en deliberaciones importantes de política, inclusive la reorganización de operaciones, la descentralización y el costo-efectividad?

La política de descentralizar las funciones, toma de decisiones, la planificación e implementación de proyectos de manera que sean ejecutados en las oficinas de campo, ha traído beneficios al Proyecto Sector Salud II/PRASAR-SANAA-USAID y también a la

institución SANAA que ha aprovechado la experiencia positiva del proyecto para reorganizar su contabilidad, el manejo de inventarios, etc.

Como parte de la reorganización de operaciones el proyecto tomó algunas medidas clave, como la aplicación de tecnologías sencillas, de más bajo costo posible y cuyo mantenimiento esté dentro de la capacidad económica de cada comunidad y se ha obtenido una decidida y amplia colaboración de la comunicad, hombres y mujeres que han trabajado o aportado materiales locales para la obra y luego para el mantenimiento del sistema. También se han capacitado técnicos de mando medio para trabajar en promoción y construcción, como auxiliares del ingeniero o como técnicos en la operación y mantenimiento de los acueductos. Igualmente, se ha creado el "ingeniero de proyecto" y se ha buscado reducir gradualmente el costo administrativo de apoyo al proyecto sin comprometer su efectividad.

Adicionalmente se ha involucrado a seis OPDs que trabajan en áreas remotas cuyo rendimiento es exitoso.

Todos estos cambios estructurales deben continuar a ser apoyados por el proyecto a fin de conseguir su consolidación y la creación de dos regionales más como se tiene planeado.

También sería importante apoyar la formulación de una política en relación con la delimitación y protección de las cuencas de agua y otra en el sentido de institucionalizar el mantenimiento de los acueductos y su financiamiento como un medio par conseguir mejorar la sustentabilidad de los mismos.

Pregunta 5

* Cómo han ayudado en la implementación del Proyecto las innovaciones introducidas por el SANAA en lo referente a mejorar la eficiencia de los programas de agua y saneamiento?

a) Regionalización y descentralización

Con el propósito de darle agilidad al proyecto en su ejecución y operación, fue necesario crear cinco oficinas regionales de SANAA dotadas de los recursos técnicos, administrativos y materiales necesarios para implementar los proyectos de agua potable rural y de instalación de letrinas de sello hidráulico. Esta regionalización le permite al SANAA cubrir una área geográfica mayo y descentralizar las acciones de planificación, diseño, implementación y operación de mantenimiento. Además, los procedimientos han cambiado en el sentido de que ahora el ingeniero es responsable por todo el proyecto en forma integral y está a cargo del ingeniero en el campo directamente. La supervisión es otra actividad descentralizada que se ejecuta exitosamente.

b) Uso de Técnicos de Operación y Mantenimiento (TOMs) en la supervisión del mantenimiento y proyectos construidos.

Es un elemento indispensable en la fase de post-construcción, especialmente cuando los sistemas de agua ya tienen un tiempo de construidos y no han recibido un adecuado mantenimiento. Es una iniciativa que merece ampliarse a otras áreas después de evaluar su rendimiento y comparar el estado de funcionamiento de los sistemas a su cargo con otros que no se benefician de ese elemento. Existen seis TOMs con sede en la Oficina Regional del SANAA en la Ceiba; han sido cuidadosamente seleccionados y capacitados para sus funciones.

Los 6 TOMs en La Ceiba tienen a su cargo 260 acueductos que los visitan regularmente y de acuerdo a su real estado operacional y necesidades de asistencia técnica. Al inicio del programa se definieron cuatro tipos de acueductos, así:

A. Operando en óptimas condiciones

B. Operando, pero con deficiencias que son solucionables sin necesidad de haber inversiones.

C. Operando mal, o no operando. Las deficiencias pueden corregirse con recursos financieros de la comunidad.

D. No está operando y la inversión requerida va más allá de la capacidad económica de la comunidad.

Los 260 acueductos en mantenimiento con TOMs fueron evaluados un año después, con los siguientes resultados:

Tipo de Acueducto	Número Inicial	Un año después
A	53	89
B	121	118
C	77	49
D	9	4
TOTAL	**260**	**260**

En un año de trabajo de los TOMs el porcentaje de acueductos operando en buenas condiciones se incrementó en un 19% mientras se redujo el porcentaje de los que están operando mal o no operando en un 38%.

La utilización de los Técnicos en Mantenimiento reporta buenos resultados y es un buen medio para garantizar que los sistemas construidos sean mantenidos adecuadamente durante

todo el período para el que fueron diseñados.

La creación del TOM en la Oficina Regional de SANAA en La Ceiba ha servido de base para que se decida implementar un programa similar en la Oficina Regional de El Progreso.

c) Nuevo laboratorio de control de calidad de agua en El Progreso.

Este importante recurso está equipado con materiales, instrumentos y reactivos adecuados para realizar determinaciones que se requieren para análisis fisico-químico-bacteriológico del agua de los sistemas rurales construidos o por construir bajo el proyecto del Sector Salud II. En parte funciona como laboratorio de referencia en colaboración con los laboratorios de análisis de agua que posee el MSP en La Ceiba y otras regiones. También presta asistencia a otras instituciones y fue muy importante su participación durante la epidemia de cólera.

Aparentemente, sería posible darle mayores responsabilidades operativas y talvez de investigación. Podría pensarse en un programa de monitoreo de la calidad del agua de las fuentes de abastecimiento rural -superficiales y subterráneas - que tiene relación estrecha con las operaciones de mantenimiento. En todo caso, es conveniente cambiar la actitud actual, descrita por el Encargado del laboratorio, como receptiva de muestras por otra más agresiva de salir y buscar muestras, dentro de un bien organizado programa de monitoreo de la calidad del agua.

d) Introducción de Técnicos de Agua y Saneamiento (TASes)

Cada TAS tiene una área geográfica definida bajo su responsabilidad. Sus funciones en lo que a agua y saneamiento se refiere, son similares a las del Promotor de Salud que trabaja para la División de Saneamiento Ambiental del MSP. Como parte de la descentralización del SANAA y la creación de cinco oficinas regionales se hizo necesario capacitar a los promotores de agua y saneamiento, ahora conocidos como Técnicos de Agua y Saneamiento. El TAS motiva a la comunidad para que participe activamente en la construcción del sistema y la instalación de letrinas, adiestra a la Junta de Agua en el manejo administrativo y en la operación y el mantenimiento del acueducto incluyendo la desinfección del agua y finalmente realiza visitas periódicas a la comunidad con la finalidad de ayudar a la Junta en la resolución de problemas que hayan surgido y revisar la marcha administrativa y estado financiero de la Junta. Si es necesario, colabora con la Junta de Agua para la actualización de las tarifas por consumo. El perfil de trabajo del TAS incluye las siguientes actividades.

1. Visita preliminar a la comunidad en la cual se va a instalar agua potable y letrinas. Durante esa visita se mantienen reuniones con los líderes de la comunidad y con representantes del Patronato con quienes se analiza la participación de la comunidad en el proyecto. Además se inspeccionan las posibles fuentes de agua y se determina la viabilidad del proyecto.

2. Se desarrolla una encuesta básica que incluye un croquis de localidad y detalles

topográficos de lo que será el sistema de agua y se procede a la formación de la Junta de Agua.

3. Una vez que se cumplan los requisitos de firma de documentos de compromiso, obtención de derechos de servidumbre y se tengan listos los diseños y especificaciones de construcción, el TAS procede a organizar la comunidad a fin de hacer efectiva su participación en la obra y supervisa la construcción del acueducto siguiendo los lineamiento del ingeniero del proyecto.

4. Simultáneamente capacita a la Junta sobre administración, operación y mantenimiento del acueducto, educación sanitaria e higiene personal, uso del agua, aplicación de cloro, aplicación de tarifas, reglas para realizar las asambleas comunales. Al mismo tiempo capacita al operador del sistema. La instalación de las letrinas va paralela a la construcción del acueducto y debe concluir al mismo tiempo.

e) Redefinición del alcance de trabajo de los ingenieros.

Siguiendo las políticas de reorganización de las operaciones, el SANAA integró efectivamente todos los trabajos relacionados con la instalación de los acueductos, de modo que en la actualidad un mismo ingeniero es responsable por los estudios, diseños construcción y mantenimiento de los acueductos y ha recibido el nombre de "Ingeniero de Proyecto" y reemplaza a la suma de ingeniero de estudios y planificación, de diseño y de construcción que existía antes de la reorganización. Esta medida ha beneficiado al PSS-II porque los proyectos están mejor concebidos y hay mayor compatibilidad entre el diseño y la construcción lo cual, además, facilita la operación y el mantenimiento del acueducto.

También se ha definido una política de trabajo que consiste en módulos de trabajo compuestos por un ingeniero y tres TASes. Cada TAS es responsable por tres proyectos que en promedio se estima sean construidos en seis meses cada uno, es decir que la producción de cada módulo o grupo sería de 18 proyectos al año, rendimiento que es muy importante para la marcha del PSS-II, además que la calidad del trabajo es más uniforme.

f) Establecimiento de la autonomía de las Juntas de Agua.

Se ha aprobado por SANAA el Reglamento de las Juntas Administradoras de Sistemas de Agua Potable y Disposición de Excretas para las Comunidades Rurales, el mismo que ya se encuentra funcionando en las Oficinas Regionales de SANAA. El Reglamento contiene la Organización de la Junta, los Deberes y Atribuciones y su relación con SANAA.

La Junta administradora con el criterio técnico del SANAA determina el monto de la tarifa que se ha de cobrar al usuario por conexión domiciliar o por llave de uso común y que servirá para cubrir los gastos de operación y mantenimiento, incluyendo sueldos de operación, energía, combustible, lubricantes, gastos de administración, cloración y un fondo de capitalización para ser utilizado en reparaciones mayores y ampliaciones del sistema.

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La Junta Administradora maneja sus propios fondos en beneficio del sistema. Este es uno de los cambios que se han obtenido como beneficio del Proyecto. Anteriormente, la Junta entregaba al SANAA el producto recaudado y SANAA lo revertía a la comunidad por OMUR. Al desaparecer el Fondo Nacional de Saneamiento, es la Junta quien maneja sus propios recursos, además de tener personería jurídica.

* Cuáles de estas áreas merecen mayor apoyo bajo un proyecto más reducido?

Todas estas intervenciones han ayudado en la implementación del Proyecto y han mejorado la eficiencia de los programas. Sin embargo, dentro de un proyecto más reducido se identifican 3 áreas prioritarias:

1. Uso de Técnicos de Operación y Mantenimiento (TOMs) en la supervisión del mantenimiento de proyectos construidos.

2. Utilización de Técnicos de Agua y Saneamiento, y

3. Fortalecimiento de la autonomía de las Juntas de Agua.

* Cuál debe ser el papel de los participantes hombre y mujeres?

Las tareas descritas pueden ser desempeñadas por hombres o por mujeres, debidamente capacitados. Sin embargo, debido a las condiciones particulares de cada trabajo, es conveniente que algunos de ellos como el de TOMs y TASes sean desempeñados por hombres.

Pregunta 6

* Qué planes tienen otros donantes (por ejemplo: Banco Mundial, BID) para invertir en el sector de Agua y Saneamiento de Honduras?

Durante el tiempo que duró esta consultoría no fue posible contactar directamente a Delegados del Banco Mundial y del BID; sin embargo, se conoce que el BM realiza algunas actividades en los departamentoss de Valle, Choluteca, Intibuca, Lempira y La Paz, teniendo como ejecutores a PNUD y UNICEF, con el propósito de construir 40 acueductos, 152 pozos excavados y 10.000 letrinas dentro del programa Nutrición y Salud que conlleva

también un componente en educación para la salud.

El Proyecto Honduras Japón tiene también un plan operativo para 1995 para el abastecimiento de agua en 18 comunidades rurales de la Región de Salud 2 y la construccion de 500 letrinas.

* Cuál debería se el papel futuro de la USAID en ayudar al SANAA a obtener ayuda financiera de estas otras instituciones?

  La experiencia adquirida y demostrada por SANAA en el ámbito rural, con el Proyecto del Sector Salud II debe ampliarse a otros programas que sean financiados con fondos de otras agencias.

* Cuál sería una relación apropiada y sostenible entre el SANAA y el PHIS, las municipalidades y las ONGs?

  SANAA tiene muy claro que éstos programas rurales no significan solamente la construccion de infraestructura, sino que también tienen un alto componente de salud y un alto contenido social con la participación activa de la comunidad, de los patronatos comunales y por consiguiente de los municipios. En el país hay algunas ONGs calificadas que han demostrado su eficiencia en proyectos patrocinados por USAID y que pueden ser utilizadas en el futuro para ampliar la cobertura.

Pregunta 7

* Qué tan efectivo fue el papel desempeñado por las seis OPDs en extender los servicios de agua y saneamiento en el área rural?

  Seis OPDs han estado trabajando para el componente Agua Potable y Saneamiento del proyecto Sector Salud II en los Departamentos de Intibucá, Choluteca, Valle, Lempira, Olancho, La Paz, Francisco Morazán e Islas de la Bahía. Los OPDs han completado ya 172 sistemas de agua de los 257 planeados dentro del PSS-II. Generalmente, el objetivo de los OPDs es el desarrollo integral de la comunidad, especialmente aquellas que se encuentran en áreas remotas, de dificil acceso y dispersas. Su trabajo es ampliamente reconocido por su calidad y costo inferior al de las instituciones que trabajan en el sector. Además disponen de una red de promotores en sus áreas de trabajo.

  Los seis OPDs seleccionados para trabajar con el PSS-II son: Save the Children que tiene 85 comunidades para agua potable; FEDECOH con 53 comunidades; Catholic Relief Services con 73; Agua para el Pueblo con 88, CEDEM con 16 y APROBID con 16. De estas seis OPDs, una CEDEN no continúa trabajando en el proyecto, FEDECOH y APROBID están por terminar sus compromisos y los restantes continúan sus trabajos satisfactoriamente. El

modelo de trabajo del proyecto PSS-II/SANAA-USAID es adaptado a cada OPD con la variante que ellas seleccionan las comunidades a servir. Las relaciones de trabajo con las comunidades han sido particularmente exitosas, lo que favorece al proyecto.

* Qué tan efectivos fueron en la organización comunitaria y la educación en salud?

Como se expresó anteriormente, las actividades de las OPDs en la organización de la comunidad y la educación en salud han sido particularmente exitosas. Su labor es bien reconocida y apreciada tanto en las comunidades trabajadas como en todo el país.

* Existe un papel futuro para OPDs en esta área en un proyecto reducido?

Si la capacidad y responsabilidad demostrada con el Proyecto Sector Salud II son una garantía de que al reducirse los fondos del proyecto, las OPDs serán un recurso para extender la cobertura a costos menores por proyecto o por habitante beneficiado, además de poder llegar a comunidades dispersas y difícil acceso.

Pregunta 8

* Cuál debe ser el papel de los "técnicos en salud ambiental (TSA)?

En una reunión mantenida con directivos y técnicos de la Región de Salud 3, San Pedro Sula, sobre este tema, se obtuvieron variados comentarios y opiniones en relación con cuál debería ser el perfil de este recurso y cuál debería ser el tipo y tiempo de capacitación. Recogiendo esos conceptos y de acuerdo a nuestro propio criterio, opinamos que las funciones del TSA debe incluir, las siguientes áreas programáticas:

1. Agua potable
2. Disposición de excretas
3. Saneamiento y control del medio ambiente
4. Residuos sólidos
5. Higiene y mejoramiento de la vivienda
6. Higiene de los alimentos
7. Control de vectores y zoonosis
8. Educación en salud
9. Higiene y salud ambiental
10. Promoción y organización comunal
11. Impacto ambiental
12. Medidas sanitarias en casos de desastre
13. Prevención de la contaminación del agua, el suelo y el aire
14. Administración y gestión sanitaria.

Dependiendo de su área específica de trabajo o actividad, debe estar preparado para realizar una encuesta sanitaria completa, medir el impacto ambiental de los proyectos de desarrollo

y recomendar medidas preventivas que sean aplicables en cada caso.

* Deben los TSAs ser hombres y mujeres

  La descripción del perfil del TSA es válida para los dos géneros, si están debidamente capacitados y tienen espíritu de trabajar y tomar decisiones bajo presión. Los TSAs pueden ser hombres y mujeres.

* Cuáles son las intenciones del MSP en cuanto a consolidar los componentes de salud ambiental actualmente dispersos (inclusive metas, sistemas de información y recursos humanos)?

  La Dirección Nacional de Atención al Medio está en proceso de definir las políticas, metas y estrategias que habrán de guiar su gestión.

  Durante el desarrollo de esta consultoría, el Director de Atención al Medio no se encontraba en el país, sin embargo, y por entrevistas con otros funcionarios se conoce que está en el ánimo del Director el consolidar todos los componentes que sea posible en beneficio de la gestión a realizar.

* Cuál es el papel apropiado para el proyecto en esta área?

  Esta es una área que el proyecto debe apoyar en forma total y decidida. En el futuro inmediato, las acciones sobre el medio y su control tendrán una prioridad muy alta porque, entre otras razones, a través de ellas se buscará una mayor sostentabilidad de los proyectos, con lo cual se conseguirá defender la inversión realizada en el campo de la salud.

Annex 7

Donor Support Budget

SECRETARIA DE SALUD
DIRECCION DE PLANIFICACION
UNIDAD DE PROYECTO
RESUMEN DE PROYECTO EN EJECUCION 1994
EN LEMPIRAS

NO	NOMBRE DEL PROYECTO	LOCALIZACION	UNIDAD EJECUTORA	DURACION INICIO	DURACION FINAL	NO. CONVENIO	FUENTE FINANCIERA	FINANCIAMIENTO PRESTAMO	FINANCIAMIENTO DONACION	FINANCIAMIENTO FONDO NAC.	FINANCIAMIENTO TOTAL
1	Salud y Nutricion	Paraiso, Olancho, La Paz, Ocotepeque, Fco Morazan, Valle y Choluteca, Sta Rosa de Copan, Intibuca, Sta. Barbara, Lempira	Direccion de Planificacion MSP	11/03/93	31/12/96	2452-HO 01-03-92	Agencia Financiera de Fomento Banco Mundial	241,853,208		32963304	274,816,512
2	Fortalecimiento de Educacion en Enfermeria	6 centros de formacion de enfermeria CENARIL UNAH CURLA CUNR, CERARH NORTE, CERARH SUR	MSP	01/09/90	30/08/95	Acuerdo 10-08-90	Agencia Japonesa de Cooperacion Internacional (JICA)		17472000	1679000	19,151,000
3	Coop. Hondureno Alemana de Seguridad Alimentaria (COHASA) II Rural	Municipios Erandique, Sta. Cruz y San Andres (7aldeas y 43 caseros del Dpt de Lempira)	SECPLAN	01-04-93	31-12-95	Acuerdo 15-01-91	Gob de Alemania		9000000	2000000	11,000,000
4	Proy de pozos y Acueductos Rurales (PROPAR)	Yoro, Cortes, Sta. Barbara	Region de Salud 3	01-08-86	31-12-94		Gobierno Suizo (COSUDE)		6900000	2200000	9,100,000
5	Puesta en Marcha de Hospitales	Todo el pais	PRONASSA	19-09-87	31-12-95		BID	128,500,000		94000000	222,500,000
6	Prog del Desarrollo rural integrado de la Subregion de Yoro (DRI-YORO)	Negrito,Morazan, Yorito, Sulaco, Victoria y Yoro	Secret. de Recursos Naturales	Enero de 1992	Dic de 1996	Acdo Ejec 0947-92 Decreto Legal 114-92 Nov 1992	Gobierno Suizo (COSUDE)		29812500	9937500	39,750,000
7	Centro de Estudio y Control de Contaminantes (CESCCO III FASE)	A Nivel Nacional	CESCCO	01-01-88	31-12-96		OPS/OMS		1892970	3523900	
8	Desarrollo Institucional y Mejoramiento de los REcursos Humanos (Sector Salud II)	A Nivel nacional	Ministerio de Salud Publica	19-10-88	19-10-95	522-0216 30-06-88	AID		57253200 *	26016400 *	3,269,600*

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NO	NOMBRE DEL PROYECTO	LOCALIZACION	UNIDAD	DURACION		NO. CONVENIO	FUENTE FINANCIERA	FINANCIAMIENTO			
			EJECUTORA	INICIO	FINAL			PRESTAMO	DONACION	FONDO NAC.	TOTAL
9	Abastecimiento de Agua e Higiene de Base en el Sector Rural (ALA86/20)	Fco. Morazan y el Paraiso	ALA 86 20	01-08-88	31-12-95	Decreto 34-88 09-06-88 ALA 86/20	Comunidad Economica Europea		90 446,646	52,730,530	143.177,176
10	Programa de Desarrollo para Desplazados Refugiados y Repatriados (PRODERE)	San Marcos, Ocotepeque, Colomoncegua, San Antonio, Intibuca	CONARE	01-11-89	31-12-94		Gobierno de Italia y P N U D.				1,906,000
11	Abastecimiento de agua de la zona agricola de Comayagua de la REgion No. 2	Comayagua, La Paz Intibuca	Division de Saneamiento Ambiental MSP	13-12-93	14-12-94	Donacion Gobierno del Japon	Gobierno del Japon		36,003,760	6,195,028	42,198,788
12	Programa Regional de Recogida y Tratamiento de los Desechos Procedentes de Hospitales (ALA 91/33)	Tegucigalpa, Fco. Morazan	Division de Saneamiento ALA 91 33	01-01-95	30-04-98	Decreto 47-94 ALA 91/33	Commidd Europea		2,700,000	1,880,000	4,580,000 Aprobado para 1995

* Las cantidades se consignan en US$ porque el Convenio establece los compromisos financieros en Dolares Americano.

Annex 8

Extended Recommendations

Recommendations

General Recommendations

1. The project needs to continue to emphasize long-term goals of the Health Sector II project and to collaborate with the Ministry of Health on a nation-wide and sector-wide basis in the areas of administrative and policy reform, such as cost recovery, supervision, health/management information systems, DOFUPS, reproductive health/family planning, EPI, IEC and HRD, and needs to continue support for SANAA at a reduced level. In addition however, the project needs to address less-well developed health technologies, the quality of the provision of services and local-level planning and community participation through assuming direct responsibility for implementation of programs at the Area level. The project should support the PCU to adopt several Health Areas in diverse settings to design integrated demonstration sites for health systems and new technologies. These targeted foci for the extension of the project should include:

   - Implementation of a focused Reproductive Risk Strategy including provision of family planning services by Auxiliary Nurses, TBAs, and community volunteers; tracking of pregnancies and identification of obstetric emergencies; and development of effective care and referral systems in the Area.
   - Development of an effective community-based ARI detection and treatment program and referral system.
   - Promotion of breastfeeding as a tested and successful child survival intervention with impact on nutrition, diarrhea, ARI and birthspacing (78).
   - Testing of the POSAIN and other strategies to address malnutrition.
   - Elaboration of the local planning models to incorporate substantial community participation, including participation in paying for services and medicines.
   - Continued decentralization of planning, logistical management and purchasing.
   - Improvement in the quality of services provided in general.
   - Development of a health/management information system that rationalizes the needs and use of this information and that links CESARES and CESAMOs through Health Areas and Regions to the central level.
   - Strategies to enhance women's participation in decision making about which services need to be developed and implemented.
   - These demonstration sites need to be closely monitored and evaluated to be used as model Health Areas for subsequent Ministry implementation.

2. Nationwide and central level support needs focus on administrative and policy reform, health/management information systems, DOFUPS, family planning, W&S, EPI, IEC and HRD Specifically

- To sustain Health Sector advances, the Ministry needs to recover more of its operational costs from users Partial cost recovery is a reality in Hospitals, and over 77% of CESAMOs and CESARs The proportion of these costs that can be recovered can be substantially increased Implementation of Recommendation # 1, above, will provide concrete examples of enhanced cost recovery

- Provisions for Administrative Reform outlined in Amendment #19 need to be continued, including continued support for DOFUPS

- Suggestions for reform of the Health/Management Information System contained in the IDM report (98) and the Information Technology Assessment (115) need to be implemented Since this system will require the development of a system of information transfer from the periphery to the central level, the Area and Regional sites selected for the Area are natural focus for this development However, simultaneously this will need to be a Central level activity as well

- Policy and program support for family planning needs to be continued at the Central level, the project needs to provide means to encourage this process

- Support for the very successful EPI program needs to continue In addition to general support to the program, project assistance is needed to purchase and maintain cold chain equipment, including refrigerators.

- Reinforce the Health Education Division (HED) through the provision of an adequate budget and responsibility for oversecing HE in the Ministry, programs should include breastfeeding, reproductive risk, ARI and other priority programs

- Reorganize human resource development and rationalize training Design an educational and training system that can consistently and methodically respond to the training needs of the MOH

- Support the expansion of the TOM employee nationwide Support the development of the TSAs

Specific Recommendations

Local programming and supervision

- The project and the MOH should identify UPS that have successfully implemented DOFUPS or one of its components, give them a training of trainers workshop, and use them as trainers and training-supervisors for other UPS

- Promote more regular and consistent supervisory visits at all levels, emphasizing the employment of supportive supervision

Logistics and maintenance

- The project and the Ministry should explore the use of private contracts for purchases, maintenance and repairs, and to provide transportation

- The Project should train MOH staff and community representatives in cold chain maintenance. Where there are local community personnel with knowledge of refrigerator repair and maintenance, they should be utilized

Human resource development

- The Ministry should include different mechanisms or modalities for training, such as self-study, workshops, courses, formal education (in collaboration with established educational institutions, such as the UNAH, etc.)

- Develop a system for monitoring and evaluating the impact of training activities

- Design clear, practical performance (what trainees will be able to do after the training) and learning objectives, based on identified needs

- Define and develop incentives for education, such as establishing prerequisites for employment, promotions, salary increases, reclassification, etc., awarding certificates for completing courses, workshops, series of activities, etc., include in supervision, etc.

- Use local organizations to organize and conduct training activities, such as local universities, NGOs/PVOs, schools, and others

Health/Management information system

- With the assistance of the Project, the MOH needs to simplify and systematize data collection, processing and analysis

- Decentralize initial data processing to the Regions and eliminate duplication of efforts

- Acquire appropriate equipment and materials, including computers, modems and software

- Implement the health information system plans identified in the "Propuesta para la revisión y ajuste del sistema de información en salud" (19 August 1994)

- Identify human resources and design a training program to maintain the system.

IEC/health communication

- The Ministry needs to strengthen the institutional capacity of the Division of Education by locating it with the technical divisions it works with within the organizational structure of the MOH
- The Ministry needs to provide the Division of Education an adequate budget for production and distribution Where project funds are used for health communication, these need to be channeled through the Division
- Develop an evaluation and monitoring program for health education and communication activities
- Require that all health education and communication activities and materials be reviewed and approved for technical appropriateness by the Division of Education

Reproductive Health

- Use Couple Years Protection (CYP) as an indicator for measuring project accomplishments All project indicators should reflect management needs

Rural Water and Sanitation

- SANAA needs to design a system to supervise and support the Water System Boards, to guarantee that the fees charged are appropriate to cover the operation and maintenance costs of the systems
- Define policies to protect the watersheds that provide water to the rural water systems
- Use the Division of Education in the MOH to develop new training techniques in health and personal hygiene education for the beneficiary communities
- Continue to provide USAID support in the rural water and sanitation component, even if it is in a reduced scale, in order to consolidate goals met by the Health Sector II Project, and to allow the development of other activities, with community participation, under similar conditions

Child Survival Technologies

- The project needs to support and expand the current community-based treatment program for pneumonias
- Avoid the "specialization of volunteers". Instead promote a single "Community Health Worker" with sufficient knowledge in the basic management of problems at their level of influence and the ability to recognize the strengths of other members in the community to resolve problems

- The preservation of an effective Expanded Program of Immunization depends on the support to the logistic system, monitoring and equipment to the cold chain The support in the acquisition of refrigerators to lower the 30% deficit they actually report is of the most importance Also, the foreseeable need for replacement of another 10% of refrigerators, that have reached the end of their functional life is an immediate concern for the effectiveness of the cold chain This equipment should be provided by the project if other donors cannot be found to support it

HEALTH SECTOR II EVALUATION
MOH SUSTAINABLE SUPPORT SYSTEMS

RECOMMENDATIONS

1. Local programming and supervision.

Continue to promote the local programming/local administration model, including the use of CEFASA and DOFUPS, with supportive supervision as the means for achieving the model To facilitate the dissemination and development of CEFASA and DOFUPS, include the following elements:

- Increase training with a focus on problem areas of local planning, CEFASA, and the DOFUPS components, and supportive supervision.
- Emphasize the training of area and sector supervisory staff and design training materials they can use to help them give in-service training concerning local planning, the CEFASA, and DOFUPS during supervisory visits to UPS.
- Identify UPS that have successfully implemented local planning, CEFASA, and DOFUPS or one of its components; give them a training of trainers workshop, and use them as trainers and training-supervisors for other UPS.
- Promote more regular and consistent supervisory visits at all levels, emphasizing the employment of supportive supervision.
- Because of the need to focus and reduce project resources, these efforts can be focused and made operational in sentinel areas

2. Logistics and maintenance.

Decentralize commodities and supplies purchasing, and maintenance and repairs, to the Regional area and especially community levels

- Establish rotating funds from the MOH budget for the purchase of commodities, especially medicines, and for maintenance and repairs, at the Regional level
- Use private contracts as much as possible for purchases, maintenance and repairs, and to provide transportation.
- Establish more local authority and responsibility for community members, and provide suitable training for the management of purchases and maintenance for the local UPS, especially concerning funds recovered locally.
- Train more people for cold chain maintenance.

3. Community participation.

Encourage more active community participation in the management and functioning of the UPS and health programs in the community To accomplish this, implement an appropriate training and development program to activate and maintain community participation The program should include concise training in working together (teamwork), needs assessment, analysis, planning and evaluation Community participation should include the following elements

- An annual general assembly where all community members and UPS personnel meet to discuss the current health situation in the community, listen to annual reports from the UPS and the community health committee, voice desires, offer suggestions, approve the annual community health work plan, and make other general decisions.
- An annual plan developed by the community health committee and UPS staff, which should be approved by a community assembly or community council.
- A community health committee, which would assist the UPS in carrying out the annual plan, coordinate community support to the annual plan, manage funds received through local cost recovery efforts, oversee maintenance and repairs to the local health establishment, administer a rotating fund to purchase commodities, and perform whatever other activities would contribute to improving the health of the community
- Volunteers who would assist the UPS and the community health committee in implementing the annual health plan and in providing services to the community. These would include the TBAs (traditional birth attendants or "parteras"), health guardians, health representatives, and others.

4. Cost recovery.

Promote and expand cost recovery as a means of improving health care services at the local level Cost recovery should include fees for services and the sale of medicines at low cost The MOH can simply not continue to provide free drugs to all patients

- Develop and train local health committees to manage recovered funds, including the determination how much should be paid for services and medicines, the receipt of payments, deciding exonerations, care of collected monies, disbursement for approved purchases, etc.
- Establish a local rotating fund for commodities purchases and maintenance, initiated with funds from the MOH and replenished by recovered income
- Organize a system for supervising local financial management
- Evaluate laws and regulations which may impede the function of health services and activities, and recommend their modification or elimination.

5. Human resource development.

Reorganize human resource development and rationalize training Design an educational and training system that can consistently and methodically respond to the training needs of the MOH Include the following elements and factors in the system

- Take into account general institutional needs of the MOH, formulating programs for the following training requirements: 1) Institutional socialization, to learn the norms, procedures and culture of the institution. 2) Job training, or acquiring knowledge, skills and attitudes necessary to perform specific tasks and jobs. 3) Continuing education, or professional development, which includes updating, enhancement and expansion of professional knowledge and skills.

- Include different mechanisms or modalities for training, such as self-study, workshops, courses, formal education (in collaboration with established educational institutions.

such as the UNAH, etc.).

- Formulate an annual training plan based on local and regional needs assessments.
- Coordinate all training activities by any MOH agency or division.
- Develop a system for monitoring and evaluating training activities
- Design clear, practical performance (what trainees will be able to do after the training) and learning objectives, based on identified needs.
- Define and develop incentives for education, such as establishing prerequisites for employment, promotions, salary increases, reclassification; etc.; awarding certificates for completing courses, workshops, series of activities, etc.; include in supervision; etc.
- Use local organizations to organize and conduct training activities, such as local universities, NGOs/PDOs, schools, and others.

6. Health information system.

Redesign the information system so that it can provide health and management information which can contribute to planning and decision making. Include the following:

- Simplify and systematize data collection, processing and analysis.
- Decentralize data processing to the Regions; eliminate duplication of efforts
- Acquire appropriate equipment and materials, including computers, modems and software.
- Implement the proposal to reform the HIS prepared with the assistance of the CDC Data for Decision Making project.
- Design a training program to maintain the system.
- Update/implement the recommendations of the USAID Information System assessment and DDM assessment.

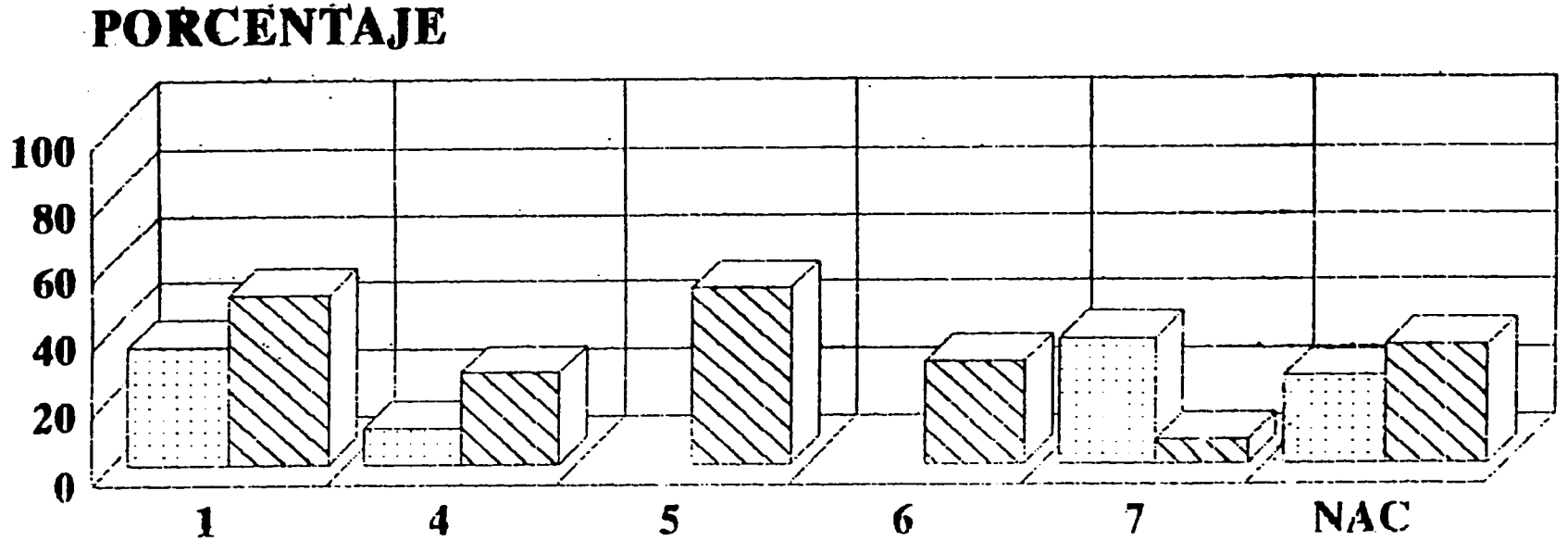
7. Health education.

Reinforce the functional capability of the Division of Health Education (DHE); rationalize health education and communication (HE/C) activities through the agency of the DHE, implement and repeat the child survival and maternal health communication plans, and revise and reprint health education materials.

- Ratify a national health education policy, such as what was proposed by the DHE with technical assistance from the AED.
- Strengthen the institutional capacity of the DHE by locating it with the technical divisions it works with within the organizational structure of the MOH.
- Give the DHE an adequate budget.
- Develop an evaluation and monitoring plan for HE/C activities.
- Require that all HE/C activities and materials be reviewed and approved for technical appropriateness by the DHE.
- Implement the training components of the communication plans

Annex 9
ARI Tables

EVALUACION DE LA IMPLANTACION DE LAS NORMAS DE IRAs
GUIA DE OSERVACION DIRECTA DE MANEJO DE CASOS
DIAGNOSTICO, CLASIFICACION Y TRATAMIENTO



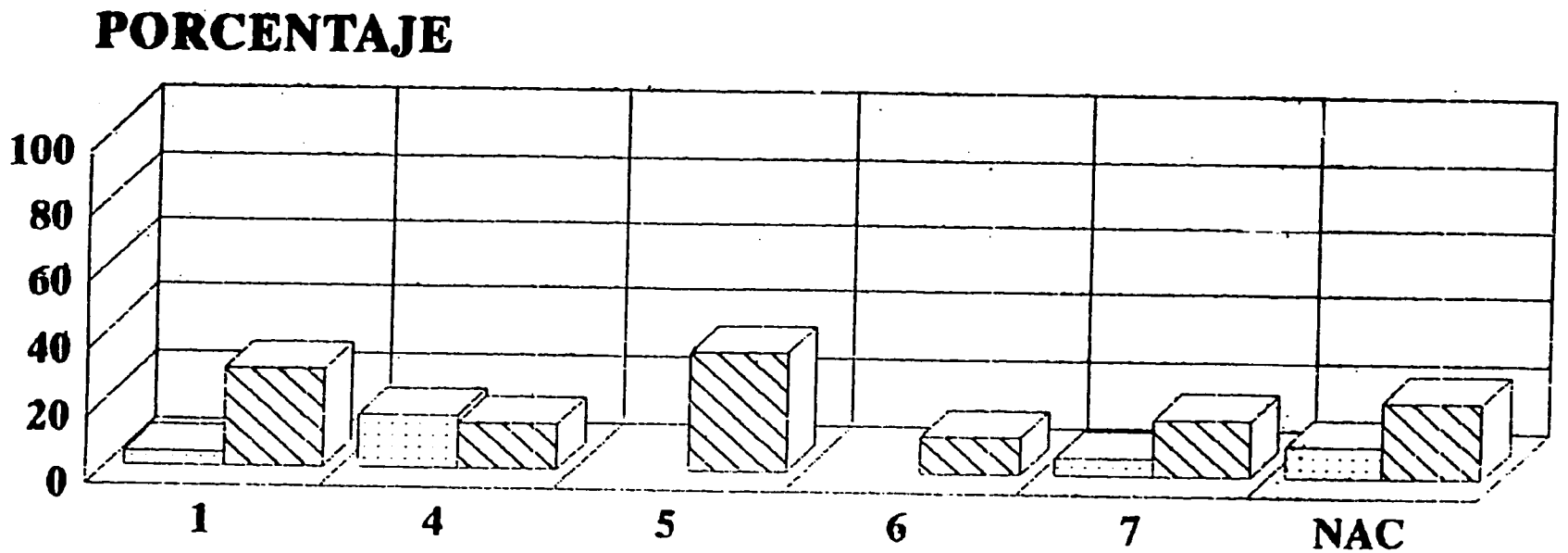
PRE	34.8	10.5			36.8	25.5
POST	50	26.7	51.9	30	6.7	34.7

REGIONES DE SALUD

PRE POST

SE INDICO LA CITA DE CONTROL

EVALUACION DE LA IMPLANTACION DE LAS NORMAS DE IRAs
GUIA DE OSERVACION DIRECTA DE MANEJO DE CASOS
DIAGNOSTICO, CLASIFICACION Y TRATAMIENTO



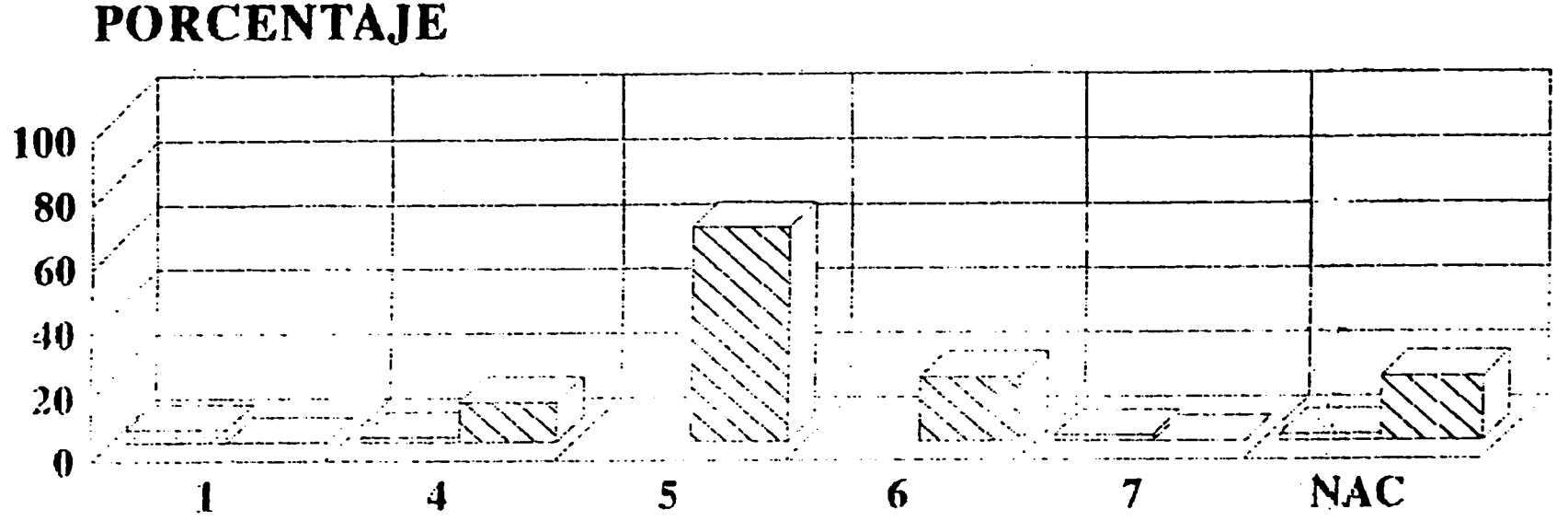
PRE	4.2	15.8			5.3	9.4
POST	29.2	13.6	35.3	11.1	16.9	22.6

REGIONES DE SALUD

PRE POST

SE EDUCO SOBRE: SEÑALES DE PELIGRO

EVALUACION DE LA IMPLANTACION DE LAS NORMAS DE IRAs
GUIA DE OSERVACION DIRECTA DE MANEJO DE CASOS
DIAGNOSTICO, CLASIFICACION Y TRATAMIENTO



PRE	4.2	1.7			1.8	2.1
POST	0	12.5	66.7	20	0	20

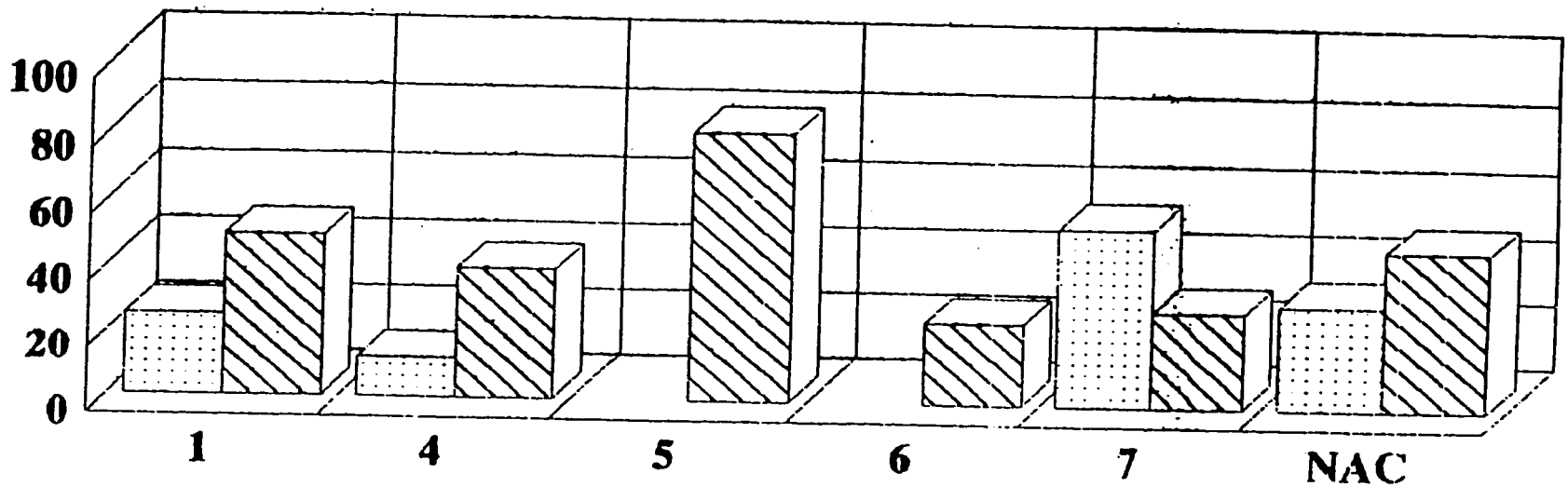
REGIONES DE SALUD

PRE POST

212

REFERIR A NIVEL SUPERIOR

EVALUACION DE LA IMPLANTACION DE LAS NORMAS DE I
GUIA DE OSERVACION DIRECTA DE MANEJO DE CASOS
EXAMEN FISICO DEL PACIENTE



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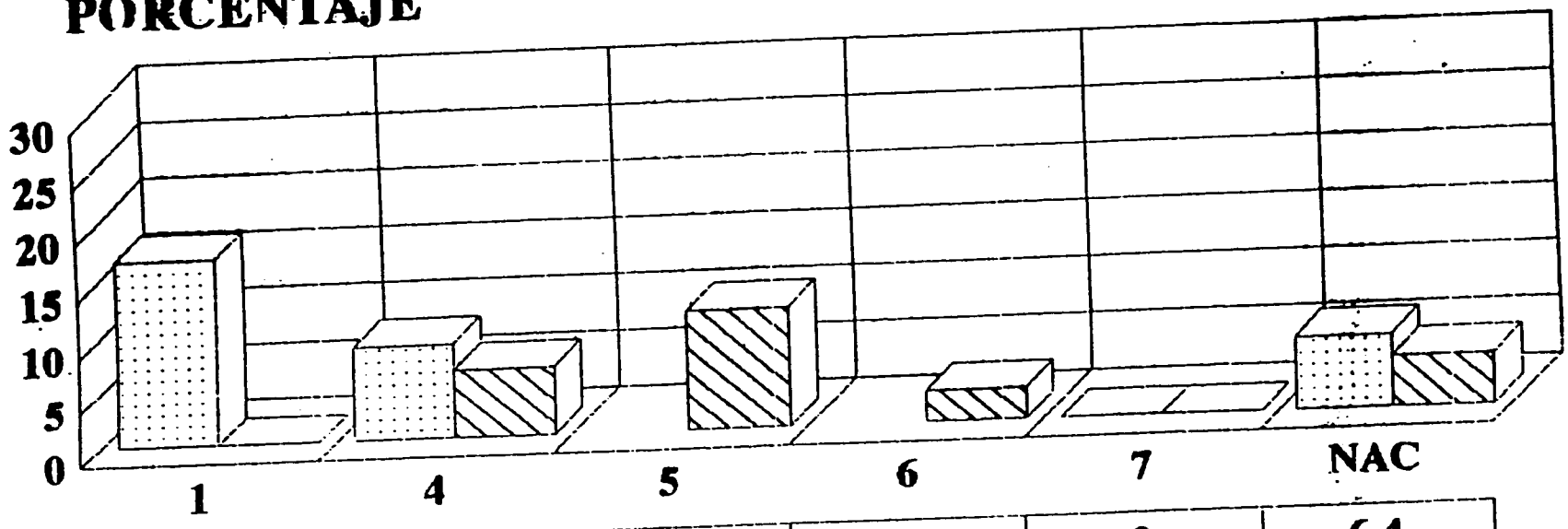
POST	49.2	39.5	81.2	25	29.2	48.5

REGIONES DE SALUD

PRE POST

TOMO LA FRECUENCIA RESPIRATORIA

EVALUACION DE LA IMPLANTACION
GUIA DE OSERVACION DIRECTA DE MANEJO DE CASOS
INTERROGATORIO AL PACIENTE



PRE	16.7	8.5			0	6.4
POST	0	6.2	10.6	2.8	0	4.5

REGIONES DE SALUD

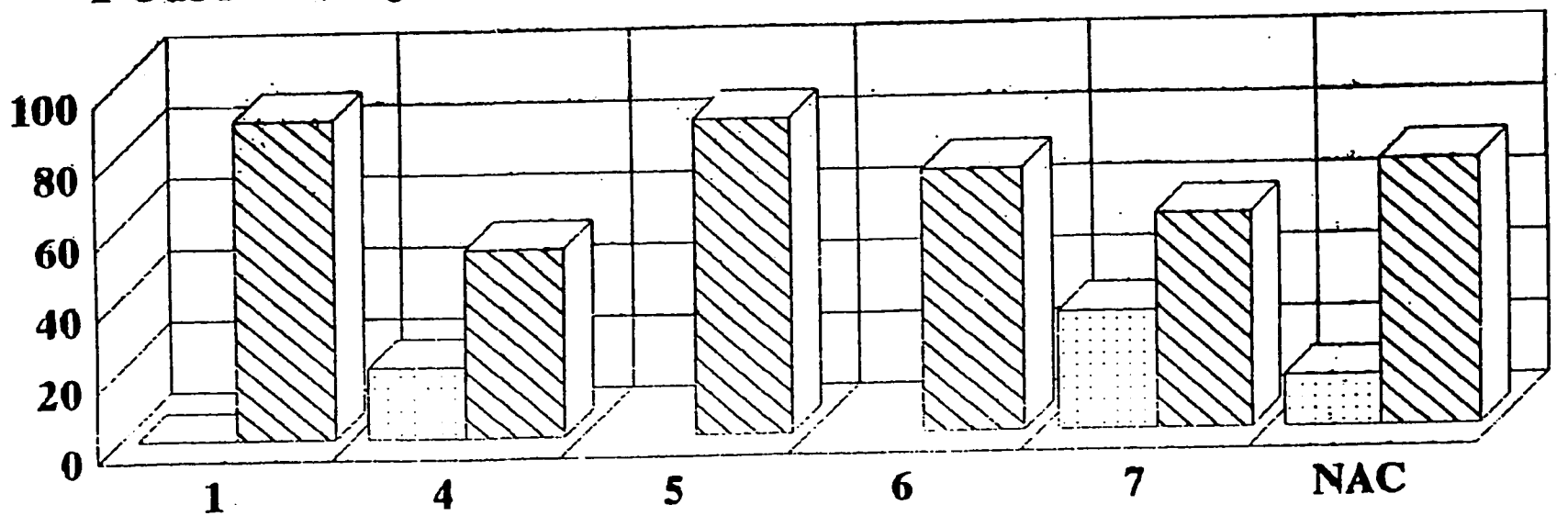
PRE POST

SI TIENE /HA TENIDO TAQUIPNEA "RESPIRACION RAPIDA"

Annex 10
Cold Chain

INVESTIGACION DE CONOCIMIENTOS EN EL MANEJO DE CASOS DE IRA, PERSONAL INSTITUCIONAL SEÑALES DE GRAVEDAD EN UN NIÑO < DE 2 MESES

PORCENTAJE



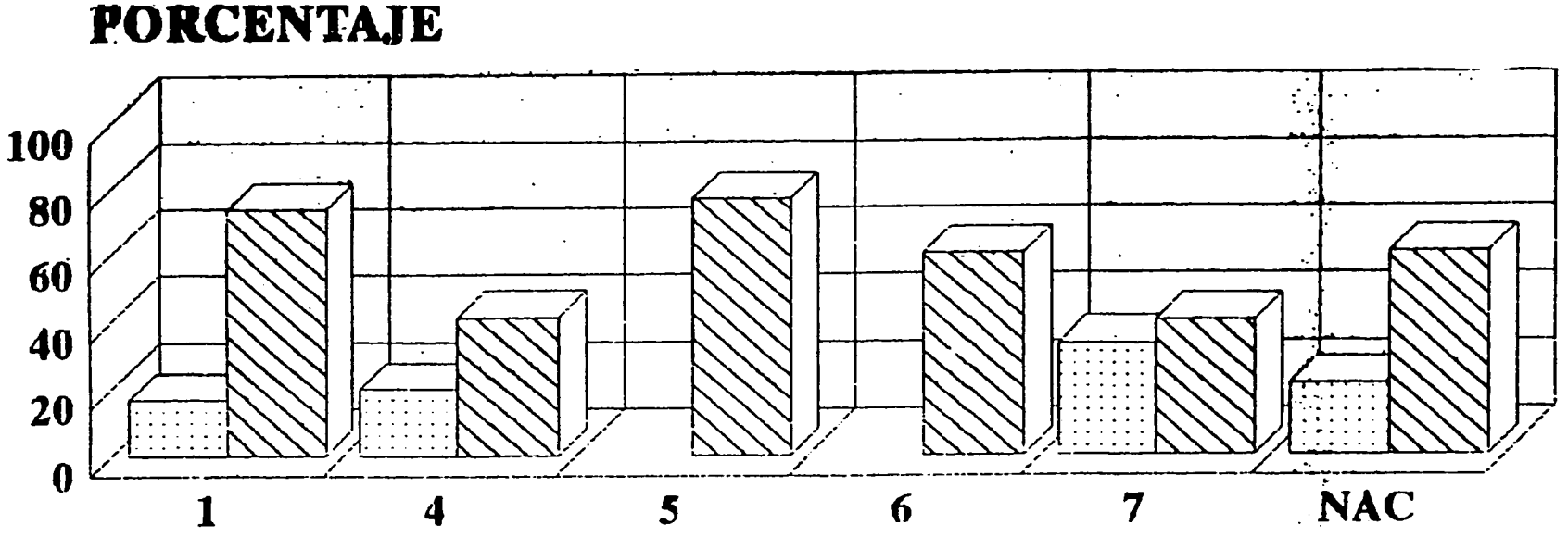
PRE	0	20			33.3	14.3
POST	89.5	52.9	88.2	73.3	60	74.4

REGIONES DE SALUD

PRE POST

TIRAJE SUBCOSTAL OBVIO

INVESTIGACION DE CONOCIMIENTOS EN EL MANEJO DE CASOS DE IRA, PERSONAL INSTITUCIONAL PRIMER DOSIS APROPIADA DE PENICILINA PROCAINICA



PRE	16.7	20			33.3	21.4
POST	73.7	41.2	76.5	60	40	60.3

REGIONES DE SALUD

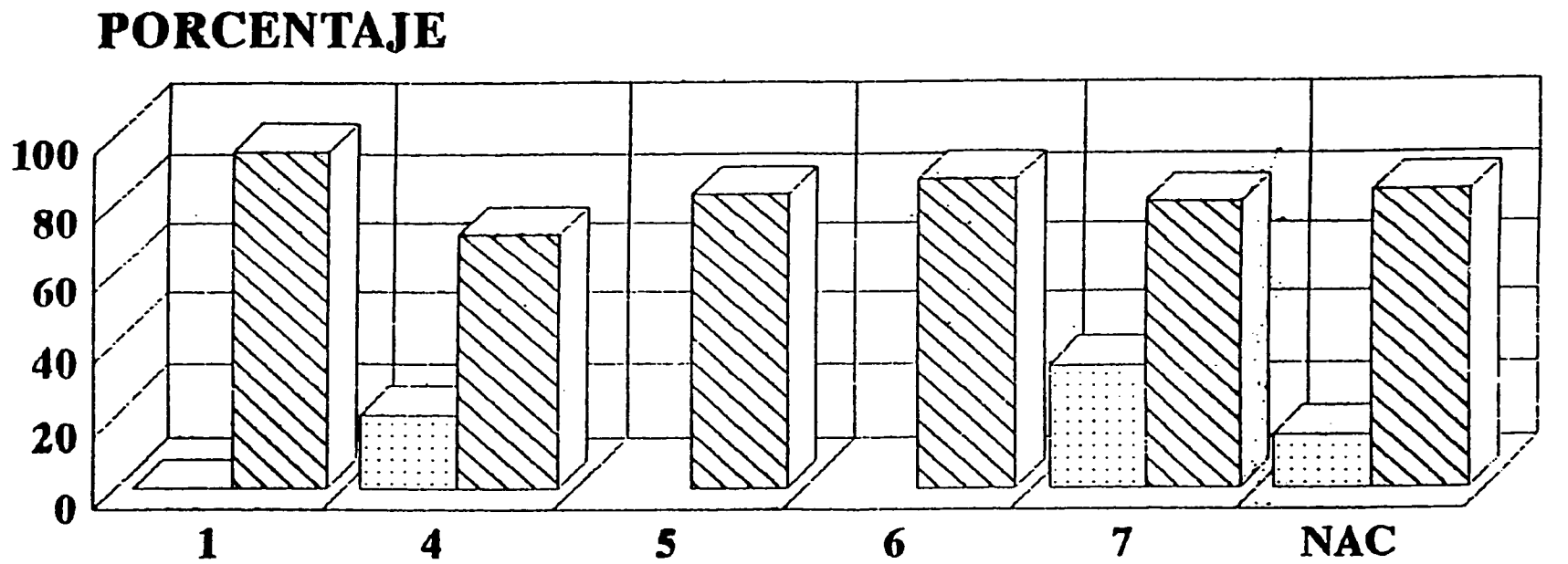
PPE POST

50,000 A 250,000 UNIDADES PARA MENORES DE 2 MESES

24

CONO048.CH3

INVESTIGACION DE CONOCIMIENTOS EN EL MANEJO DE CASOS DE IRA, PERSONAL INSTITUCIONAL PRIMER DOSIS APROPIADA DE PENICILINA PROCAINICA



PRE	0	20			33.3	14.3
POST	94.7	70.6	82.4	86.7	80	83.3

REGIONES DE SALUD

PRE POST

TIRAJE SUBCOSTAL

222

CONO014.CH3

Annex 11

Basic Indicators

Honduras: Health and Economic Indicators

Economic Indicators

Indicator	Value	Year	Source
GNP/Capita	$580	1992	World Bank/ UNICEF
Avg. Annual Growth	- 0.3 %	1980-92	World Bank
Inflation	7.6 %	1980-92	World Bank
% Share of Income			
Top 10 %	47.9 %	1992	World Bank
Top 20 %	63.5 %	1992	World Bank
Long-Term Debts	$3282 million	1992	World Bank
GDP Growth	2.8 %	1980-92	World Bank
Agricultural Growth	3 %	1980-92	World Bank
Industrial Growth	3.5 %	1980-92	World Bank
Cereal Imports	128,000 tons	1992	World Bank
Grain Imports	162,000 tons	1990	UNDP
Food Production Index	83	1988-90	UNDP
Dependence on Food Impts	13.7 %	1988-90	UNDP
Food Aid	$5.5 million	1991	UNDP
Annual Food Prod./Capita	1.3 %	1992	World Bank
Balance of Payments	- 224 million	1992	World Bank
Receipt of Devt. Assistance	283	1986	World Bank
from all Sources:	258	1987	
	321	1988	
	242	1989	
	450	1990	
	275	1991	

Honduras: Health and Economic Indicators

Socio-Demographic Indicators

Indicator	Value	Year	Source
Population	5.4 million	1992	World Bank
Pop. under 16 yrs.	2.5 million	1992	UNICEF
Population Growth	3.3 %	1980-92	World Bank
	2.8 %	1992-2000	World Bank
Adult Illiteracy	27 %	1992	World Bank
Female Illiteracy	29 %	1992	World Bank
Crude Birth Rate	49/100,000	1970	World Bank
	37/100,000	1992	World Bank/ UNFPA
Crude Death Rate	15/100,000	1970	World Bank
	7/100,000	1992	World Bank
Total Fertility Rate	7.2	1970	World Bank
	4.9	1992	World Bank/ UNFPA
	4.0	2000	World Bank
Primary Education	10 % of age group	1991	World Bank
Secondary Education	19 % of age group	1991	World Bank
Tertiary Education	9 % of age group	1991	World Bank
% Kids Reaching Grade Five	41 %	1992	UNICEF
% Pop. in Urban Areas	45 %	1992	IDB
Urban Growth Rate	5.3 %	1992	World Bank
Household with Elec.	25 %	1984	World Bank
Access to Safe Water	64 %	1990	World Bank
	69 %	1992	PAHO
Access to Sanitation	64 %	1992	PAHO

Honduras: Health and Economic Indicators

Health Indicators

Life Expectancy	66.0 yrs.	1992	World Bank
Males	63.7 yrs.	1990-95	PAHO
Females	68.0 yrs.	1990-95	PAHO
Under 5 Mortality			
female	57/1000	1992	World Bank
male	70/1000	1992	World Bank
Infant Mortality	110/1000 live births	1970	World Bank
	50/1000 live births	1990	U.N.
	49/1000 live births	1992	World Bank
Low Birthweight	9 %	1992	World Bank
Under-Five Underweight	21 %	1992	UNICEF
Malnutrition	20.6 %	1992	World Bank
Maternal Mortality	221/100,000 live births	1988	World Bank
Reported AIDS Cases	3,473	June,1994	PAHO
Reported AIDS-Related Deaths	877	June 1994	PAHO
Reported Cholera Cases	2,320	1991-93	PAHO
Reported Cholera Deaths	44	1991-93	PAHO
Cholera Case-Fatality Rate	1.9 %	1991-93	PAHO
Immunization Coverage			
DPT	94 %	1993	EPI/PAHO
OPV	95 %	1993	EPI/PAHO
Measles	94 %	1993	EPI/PAHO
	89 %	1992	UNICEF
ORT Use in Percent of Diarr. Episodes	70 %	1994	UNICEF

Annex 12

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