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EVALUATION OF THE RESOURCES

FOR THE

CHILD HEALTH (REACH) PROJECT
REPUBLIC OF YEMEN

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PREFACE

The Resources for Child Health Project (REACH II), a part of the Accelerated Cooperation for Child Survival Project (ACCS), Yemen, became operational in 1989 with the objective of upgrading and expanding the Primary Health Care system in four governorates of the Republic of Yemen within a four year period. This evaluation has focused on the five discrete activities undertaken by the REACH/ACCS II Project through its technical assistance contractor, John Snow, Inc., discerning their effectiveness in reaching the stated objective.

This process evaluation has focused not only on select activities of the REACH Project--training, commodities and equipment, cold chain and maintenance, management, and cost recovery--but has likewise promoted inquiries into the Project as a whole, especially its design, planning, implementation and the interrelations of the agents whose collaborative effort was responsible for its performance and achievements: REACH/JSI, USAID/Sana'a, and the Ministry of Public Health (MOPH).

Within a limited time frame of four weeks, the Evaluation Team endeavored to extend its inquiries in an objective, forthright and comprehensive manner. Such would not have been possible without the cooperation of USAID/Sana'a, the MOPH, former REACH/Sana'a staff, and the Health Offices of the Hajjah, Mareb, Sa'adah and Hodeidah Governorates.

The Team especially wishes to thank Mr. William McKinney, USAID Mission Representative, and his staff for their strong support and guidance, the Ministry of Public Health for its direction and cooperation, and Mr. Hashim Awnallah and Mrs. Lamiya Wills, former REACH/Sana'a staff, for their contributions and patience in our inquiries. Special thanks are extended to Dr. Raga Uqba, HPN Officer, USAID, who persevered as the Team's translator and assisted in conducting focus group discussions in the field and to Mrs. Sofia Bafagih, Administrative Assistant HPN, USAID, whose administrative aid and work in preparation of this report were exemplary.

LIST OF ACRONYMS

ACCS	Accelerated Cooperation for Child Survival
ARI	Acute Respiratory Infection
CDC	Center for Disease Control
CS	Child Survival
CSAP	Child Survival Action Program
DG	Director General
DO	Delivery Order
EPI	Expanded Program for Immunization
FGD	Focus Group Discussion
FP	Family Planning
FPHCW	Female Primary Health Care Worker
FT/S	Female Trainer/Supervisor
GC	Governorate Coordinator
HEd	Health Education
HC	Health Center
HMI	Health Manpower Institute
HO	Health Office
HPN	Health Population and Nutrition
HTC	Health Training Center
JSI	John Snow, Inc.
KAP	Knowledge, Attitude and Practice
LASO	Logistical Administrative Support Office
LCCD	Local Council for Cooperative Development
MCH	Maternal and Child Health
MOF	Ministry of Finance
MOH	Ministry of Health
MOI	Ministry of Information
MPD	Ministry of Planning and Development
MOPH	Ministry of Public Health
MPHCW	Male Primary Health Care Worker

MT/S	Male Trainer/Supervisor
NEDS	National Epidemiological and Disease Survei
NGO	Non Governmental Organization
NDCP	National Disease Control Program
OFC	Options for Family Care
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PH	Public Health
PHC	Primary Health Care
PHCU	Primary Health Care Unit
PHCW	Primary Health Care Worker
PID	Project Implementation Document
PIL	Project Implementation Letter
PL480	Public Law #480 (Foreign currency / Foreign aid)
PIO/C	Project Implementation Order/ Commodities
PIO/P	Project Implementation Order/Participant Training
POI/T	Project Implementation Order/Technical Assistance
PM	Person Months
REACH	Resources for Child Health
ROY	Republic of Yemen
ROYG	Republic of Yemen Government
SEATS	Service Expansion and Technical Support
SOW	Scope of Work
STC	Short Term Consultant.
TA	Technical Assistance
TBA	Traditional Birth Attendant
TC	Training Center
TO	Training Officer
TOT	Training of Trainers
TPHCP	Tihama Primary Health Care Project
T/S	Trainer/Supervisor
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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EXECUTIVE SUMMARY

A. Purpose, Scope and Procedures of the Evaluation

The purpose of this evaluation was to assess the performance, achievements, and effectiveness of the REACH Project component and technical assistance contractor, John Snow, Inc., in providing support to the Ministry of Public Health in expanding and upgrading the Primary Health Care system in the governorates of Hajjah, Mareb, Sa'adah, and Hodeidah.

The Evaluation Team (hereafter referred to as the "Team") was to evaluate the effectiveness of five discrete activities:

- o Strengthening the Primary Health Care (PHC) system by training managers, clinicians, technicians, trainers, and health workers nominated by the Ministry of Public Health;
- o Strengthening the PHC system by providing a standard package of commodities and equipment to PHC Units provided by MOPH for the delivery of basic health services, and for the Health Training Centers (HTCs) in the four governorates;
- o Establishing a cold-chain system and assisting in the organization of an equipment maintenance program for Yemen's EPI program;
- o Fostering improved management of a PHC system that focuses on decentralization and leads to a measurable improvement in the delivery and sustainability of PHC services at the governorate level;
- o Assessing and making recommendations for operating costs recovery through use of health center fees at the Local Councils For Cooperative Development afternoon clinics and the Al-Thorah Hospital in Hodeidah.

The Team was to accomplish its work through the interview of appropriate project-related persons in Washington, D.C., and Yemen; the review of project papers, consultant reports, and other project activity-related documents; meeting with Ministry counterparts and other involved parties; field visits to representative sites in the four governorates; and interviews with personnel involved in implementation of the REACH activities in the field; the examination of variations between the contractor's Scope of Work (SOW) and outputs; the review of preliminary findings with USAID/Sana'a and the MOPH; and the preparation of a draft report with recommendations for discussion prior to departure.

B. Background

The ACCS Project was authorized in August 1986 with an estimated cost of \$12.7 million and is expected to be completed in 1996. Its purpose is to institutionalize Yemen's capacity to improve child survival by strengthening Yemen's primary health care delivery system. The Project had originally targeted up to seven governorates but has only worked in four to (1) improve the primary health care system; (2) improve health education techniques; (3) improve disease surveillance systems; and (4) undertake special projects such as the study of the potential of health care financing, the establishment of a system for disease surveillance, and strengthening manpower planning.

Technical assistance has been provided by USAID central projects REACH and Healthcom, Pathfinder and the Center for Disease Control. Healthcom activities ended in August 1992, Pathfinder activities in February 1993, and REACH activities in September 1993.

REACH project services were obtained through a USAID/Yemen buy-in to the central project. The primary objective of the buy-in was to work with the Ministry of Public Health to expand and upgrade the Primary Health Care system in the governorates of Hajjah, Mareb, Sa'adah, and Hodeidah. This included promoting the development and integration of an expanded program for immunization as a routine, decentralized PHC activity.

C. Conclusions and Recommendations

1. Training managers, clinicians, trainers and health workers

REACH was largely effective in only one of the training parameters: the training of primary health care workers (PHCWs). The addition of 259 PHCWs (165 males and 94 females) greatly enhanced the MOPH's capability to provide health care to rural under served population, especially women and children. The training of managers and clinicians was not addressed, and the training of trainers was only superficially accomplished. If the PHC system is to be further strengthened, the crucial need for more managers and trainers, particularly female trainers, must be addressed.

The entire PHCW training was carried out using an outdated 1986 curriculum because the 1989 revised curriculum approved by the REACH training and curriculum consultants, was not ready in time. Accordingly, graduates lacked some skills required by their job descriptions. A new FPHCW curriculum has now been completed but, as yet, not produced.

Recommendation #1: Support the training of managers and Trainer/Supervisors (T/Ss) under the ACCS or some other available mechanism.

Recommendation #2: Consider fulfilling the promise made by REACH to the MOPH and the Health Manpower Institute (HMI) to assist in the production of the new FPHCW curriculum, provided funding is available.

Recommendation #3: Arrange for all Trainer/Supervisors to be given in-service training to upgrade their skills in order to implement the new curricula (male and female) and orient the PHCWs to their new job descriptions.

Recommendation #4: Support the development of a working group of T/Ss to standardize PHCW training through formulation of guidelines and an implementation plan, based on the new curricula.

Recommendation #5: If or when funds become available, procure the training equipment and materials needed for the four Health Training Centers (HTCs) in Hodeidah Governorate. Consider the possibility of likewise allocating them some of the equipment procured for the PHC Units (PHCUs) in Mareb, Hajjah, and/or Sa'adah Governorates.

Recommendation #6: Encourage the MOPH to designate an officer with specific responsibility to coordinate work at the governorate level in the training, deployment, supervision and professional growth of the PHCWs.

Recommendation #7: In future projects, insist on the provision of a national counterpart by the MOPH for training activities in order to ensure effective transfer of technology, appropriate timing of off-shore consultant visits, and timely and satisfactory accomplishment of programmed activities.

2. Standard package of commodities and equipment for PHC Units and Health Training Centers

REACH was very effective in developing a standard list of commodities and equipment for the PHC Units and the HTCs, appropriate to the tasks and capabilities of the personnel who were to use them.

REACH was not responsible for the ordering and procurement of the commodities and equipment. The Team observed that substantial delays were experienced in the procurement of the Unit equipment and that several sets of training equipment borrowed from Hajjah Governorate for use in Hodeidah Governorate were neither returned nor traceable.

Recommendation #1: In a manner that ensures accountability at the point of delivery, complete delivery of the Unit equipment now warehoused at the Mission.

Recommendation #2: In collaboration with the appropriate governorate Health Office, re-evaluate the appropriateness of the medical equipment designated for the PHC Units and determine whether some equipment might better be placed at Health Centers.

Recommendation #3: In collaboration with the Hajjah and Hodeidah Health Offices, compile a list of the borrowed training equipment which should be returned or replaced by USAID.

Other promised commodities, materials, and equipment as yet not procured or delivered, should be detailed and prioritized by USAID in collaboration with the MOPH/PHC and appropriate governorate Health Offices. The procurement of such would be subject to available funds.

Through interviews and documents the Team was able to establish what had been promised by REACH and has listed such in Annex 6. In addition, the status of commitment should be clarified for audiovisual and delivery equipment (Ref: an unsigned Hodeidah Agreement, 1992/1993) and for renovation of the Zaidia Health Training Center (Ref: Contract Summary Report, Delivery Order #6, page 4.).

3. Cold chain system and equipment maintenance program

REACH consultants played a key and active role in supporting the development of a National Model EPI/PHC Operations Plan that contained several components directly relating to the assessment and development of the cold chain systems in the four project governorates and to steps needed for the development of an equipment repair and maintenance workshop and program. In the four governorates REACH was actively involved in appropriate follow-up and work to ensure that the workplans were developed, the appropriate training conducted, and repair shops equipped and operational. The Team noted that Operations Plans activities needed reprogramming several times and that there were some delays in procuring tools and parts purchased for the repair workshops.

Recommendation #1: In collaboration with the national MOPH/EPI office and its Operations Officers, a follow-up effort should be organized to reassess the end-of-year status of the governorate Operations Plans and to develop appropriate second or third year activity lists.

Recommendation #2: In collaboration with the Governorate DGs and Director/PHCs, follow up the planning process, its levels of responsibility, and updating of activity outlines.

Recommendation #3: In collaboration with the MOPH/EPI and PHC, follow up the situation in Hodeidah and ensure that some plan of action is developed to recover the missing equipment and to repair whatever possible of the nonfunctional equipment. This effort should be integrated into the supervisory and zone planning activities of the Governorate.

Recommendation #4: Arrange training for the Storekeeper, Hajjah, in collaboration with the appropriate MOPH/EPI Operations Officer.

Recommendation #5: In collaboration with the MOPH/EPI Operations Officer, some mechanism should be found to ensure continued attention to innovative supervisory planning in light of the deteriorating budget situation in the governorates. Districts must be encouraged and supported to continue practical supervisory plan development for the Health Centers and Units. Involvement of Local Councils should be sought.

4. Primary health care management

The REACH consultancies were of limited input and effectiveness considering the complexity of management problems at the governorate level. Although the initial assessment of the PHC system in the Hodeidah Governorate identified needs and recommendations, the follow-up workshop in management problem-solving, had no sustained benefits in enhancing the HO participants' managerial skills or the managerial process. Lower level management/supervision should have been included in that workshop or a later program. The proposed plans of action were enumerated, on the whole not prioritized, and essentially not implemented in the interval years, excepting those initiated under the National EPI Plan. Emphasis was apparently not put on certain constraints: political issues, decentralization, community support, and attitudes of MOPH personnel.

In essence, there was no apparent change in the managerial process as a result of the REACH activities. In the context of developing a comprehensive PHC management plan, the REACH consultancies were elementary inputs and did not offer continuity or completion of the process.

Recommendation #1: Facilitate the completion of a governorate management plan and the monitoring and evaluation of project activities through a long term management advisor.

In improving the managerial process at the governorate level, there has been one pivotal issue mentioned in the REACH/ACCS FY91 Workplan and in Delivery Order #4 but never addressed in substance: the need for continuous management oversight in project activities.

Recommendation #2: Consider two coordinated project management mechanisms to effectively address the uncompleted tasks in the REACH Project and, most importantly, to monitor, evaluate and reorganize governorate-level management on site :

- o At the governorate level: a project management team headed by a long term advisor experienced in PHC management and including senior HO managers;

- o At the central level: a steering committee composed of the MOPH, the contractor, and the long term advisor.

5. Operating cost recovery assessments

The recommendations developed from the case studies and produced by the REACH Consultant during the February-March 1992 visit, focused primarily on cost containment and improved financial management, not on cost recovery through the use of clinic fees. The analyses were necessarily incomplete and inconclusive due to the lack of financial data.

The Team felt that the studies would have been more useful with regard to the cost recovery vs. fees collected aspect, had the hospital study shown more clearly how the afternoon clinic produced direct benefit to the hospital. The potential benefit of similar clinics to the Hodeidah Health Offices' budgetary needs could have then been addressed. Furthermore, the Team felt that the report would have been more useful had it outlined activities underway by other donors or NGOs dealing with cost recovery.

Recommendation #1: Assist the Government of Yemen to study, develop and implement a cost recovery/cost containment mechanism. As part of this study, recent draft policy should be reviewed and the activities of the donor community outlined.

D. Lessons Learned

Ideally, successful projects are managed by the host country with technical assistance provided by USAID through the services of a contractor. In the case of the ACCS/REACH Project its management seems to have been the responsibility of the contractor. The following lessons learned are instructive.

1. Management

- o Long-term TA personnel should have a national counterpart and be located in close proximity to or in the office of the counterpart within the parent ministry.
- o The development of meaningful and substantive counterpart relationships is essential for effective implementation and follow-through of long term projects.
- o An active management oversight mechanism consisting of both the donor and the recipient, can better ensure the effectiveness and sustainability of the project, especially if project management by the contractor is weak.

- o The dual areas of responsibility created by the establishment of LASO, affected the accountability of the contractor and provided the occasion for several things to "fall through the cracks".

2. Implementation

- o Buy-ins do not facilitate a long term counterpart relationship which is essential for developing shared ownership, sustainability and transfer of technology.
- o The process followed by the MOPH in the development of the National EPI Plan, is an effective model which should be emulated for strengthening the PHC system as a whole.
- o In the current political climate, a task force seems to be the most effective mechanism for fostering collaborative action within the MOPH and for ensuring donor collaboration.
- o The post-TPHCP situation illustrates that institution building, in terms of management and decision making capability at all levels, is essential for post-project sustainability.
- o Government commitment to senior-level policies such as decentralization and financial support of PHC, is essential for the sustainability of project interventions.

3. Design

- o When the key players at any level in the MOPH do not feel themselves to be active partners in project development, there is little commitment to outcome.
- o Failure to take into account the MOPH's absorptive and functional capacity in the design of the project, adversely affects implementation and sustainability.
- o Failure to involve the governorate level in the planning process adversely affects implementation and sustainability.
- o The difference between willingness to pay and ability to pay must be carefully analyzed before signing grant agreements with the Yemen Government. Where it is obvious that no mechanisms are in place to

see that commitments can be honored, USAID/Yemen must either accept lack of sustainability as the most likely outcome or actively assist the host government to develop alternative health care financing mechanisms.

I. INTRODUCTION

A. Background of Evaluation

USAID/Yemen's assistance to the Republic of Yemen's (ROY) health sector began in 1980 under the Tihama Primary Health Care Project. This project ended in June 1990 at a cost of \$10.5 million.

The ACCS Project was authorized in August 1986 with an estimated cost of \$12.7 million and is expected to be completed in 1996. Its purpose is to institutionalize Yemen's capacity to improve child survival by strengthening Yemen's primary health care delivery system. Therein the Project's goals were to (1) improve the primary health care system; (2) improve health education techniques; (3) improve disease surveillance systems; and (4) undertake special projects (e.g., establishment of a system for disease surveillance, strengthening manpower planning). Originally up to seven governorates were targeted for the project; this was later reduced to four.

Technical assistance has been provided by A.I.D. central projects REACH and Healthcom, Pathfinder, and the Center for Disease Control. Healthcom activities ended in August 1992, Pathfinder activities in February 1993, and REACH activities in September 1993.

REACH Project services were obtained through a USAID/Yemen buy-in to the central project. The primary objective of the buy-in was to work with the Ministry of Public Health to expand and upgrade the Primary Health Care system in the governorates of Hajjah, Mareb, Sa'adah and Hodeidah. This included promoting the development and integration of an expanded program for immunization (EPI) as a routine PHC activity.

To examine the effectiveness of USAID activities in the health sector, the Mission undertook a Limited Scope Health Sector Assessment in March-April 1992. One of the most important conclusions of the assessment was that USAID should encourage the ROYG to integrate maternal-child health and family planning efforts. This would have the synergistic effect in reducing programmatic, technical and socio-cultural barriers to the accessibility of health services. The ROYC accepted this strategy and USAID began to integrate its own activities of the ACCS project with its newer family planning project, the Options for Family Care (OFC) Project.

This integration required formal modification of the OFC Project. Full implementation of the OFC Project is not expected to begin until latter 1994. In the interim, USAID/Yemen organized a buy-in to the central SEATS Project for population activities. John Snow, Inc., is the contractor for both the SEATS and REACH projects, thus enabling USAID to integrate the field activities of the two programs.

B. Purpose, Scope of Work and Methodology

The purpose of this evaluation is to assess the performance, achievements, and effectiveness of the REACH Project component and technical assistance contractor, John Snow, Inc., in providing support to the MOPH in expanding and upgrading the Primary Health Care system in the governorates of Hajjah, Mareb, Sa'adah and Hodeidah.

The five discrete project activities to be evaluated are the following:

- o The effectiveness of the REACH component in strengthening the Primary Health Care system by training managers, clinicians, technicians, trainers, and health workers nominated by the Ministry of Public Health;
- o The effectiveness of the REACH component in strengthening the PHC system by providing a standard package of commodities and equipment to PHC Units provided by MOPH for the delivery of basic health services, and for the Health Training Centers in Hajjah, Mareb, Sa'adah and Hodeidah;
- o The effectiveness of the REACH component in establishing a cold-chain system and assisting in the organization of an equipment maintenance program for Yemen's Expanded Program for Immunization. Inputs provided include technical assistance, training, and cold-chain and maintenance equipment. This activity was done in support of a decentralized governorate-level system that focuses on staff working at HTCs, PHCUs and other fixed sites in the four target governorates;
- o The effectiveness of the REACH component in fostering improved management of a PHC system that focuses on decentralization that leads to a measurable improvement in the delivery and sustainability of PHC services at the governorate level;
- o The success of the REACH component in assessing and making recommendations for operating costs recovery through use of health center fees at the Local Councils for Cooperative Development (LCCD) afternoon clinics and the Al-Thorah Hospital in Hodeidah.

Action steps taken for the evaluation were :

In Washington

- o A review of the central REACH/John Snow, Inc. contract and scope of work with the Bureau for Research and Development, Office of Health;

- o A review of the ACCS Project Paper, contractor reports and other project documentation, including USAID/Yemen's Limited Scope Health Sector Assessment;
- o A review of REACH activities in Yemen with John Snow, Inc. personnel in Washington.

In Yemen

- o USAID/Yemen staff briefed the Evaluation Team on its scope of work and known project history. Field work schedules and logistics were organized. Documents and records were collected, reviewed, and double-checked with local counterparts wherever possible.
- o MOPH counterparts in Sana'a were met to discuss the MOPH's perceptions of achievements, performance and problems of the REACH activities, including the Expanded Program for Immunization, primary health care training, health manpower assessment and analysis, and decentralized management.
- o Available ex-employees of REACH/Yemen and current employees of SEATS were interviewed.
- o Meetings were held with key actors in the MOPH at the central level.
- o Field visits to representative health care sites in two project governorates (Hajjah and Hodeidah) were undertaken. (Because of security problems, Mareb and Sa'adah could not be visited.)
- o Personnel involved in the implementation of REACH activities in the field were interviewed. Focus group discussions were held for trainees and trainers.
- o Variations between the contractor's SOW and output indicators were examined, e.g., amount of training completed; its impact on PHC services;; placement of trained personnel in the field; and the amounts of commodities procured, distributed and utilized at project sites.
- o Preliminary findings were reviewed with USAID and the MOPH for comments and clarification.
- o A draft evaluation report with recommendations for discussion, was prepared prior to the Team's departure.

C. Working Conditions in the Field

In the three weeks of inquiries, observations, interviews and collection of documents in Sana'a and the Governorates of Hajjah and Hodeidah, the Team found the MOPH, USAID and other sources to be very cooperative and open to questions and discussion. There were no appreciable communication problems; information was readily available, especially at senior MOPH and governorate levels.

In the first week the Team developed its strategy of evaluation based on the SOW, reviewed documents and commenced interviews in Sana'a. The time-lapse between the end of the REACH Project and the evaluation, resulted in difficulty in locating some valuable information. The REACH archives were not catalogued to enable ready and complete access to documents; with few former REACH staff still present in Yemen, access to institutional memory was limited. Nevertheless, among the former REACH staff, older USAID staff and other sources associated with the project, it was felt that sufficient but not optimal primary source information had been obtained.

Of the four governorates scheduled for visit, Mareb and Sa'adah were inaccessible because of security problems. Although on-site investigation would have improved the Team's perception of PHC delivery in these governorates, some insight was gained through interviewing a senior HO person from each governorate in Sana'a.

With respect to governorate visits, access to REACH documents and availability of former REACH staff, the Team's scope of work had been constrained but not to the extent of compromising its information support or the evaluation process.

D. Situational Analysis

Located in the southwestern corner of the Arabian Peninsula, the Republic of Yemen is a young nation with three millennia of history and a distinctive Arab civilization. Its topography of harsh mountainous terrain, eastern desert and dry, hot coastal plains, has bound its people to a subsistence agricultural life in the past and into this century. It has always been a poor nation with limited resources and underdevelopment, a fact reflected in the low health status of its people.

1. Political: internal and external

Until thirty-five years ago the sociopolitical development of the Yemeni people was basically similar to but behind that of other peoples on the Arabian Peninsula. Thereafter, revolutions in both North Yemen (1962) and South Yemen (1967) led to divergent political systems and a precarious situation for the two states, especially South Yemen, which, because of its socialist orientation, was isolated in the Arab world. After years of suspect and border wars, they were reunified in 1990 as the Republic of Yemen (ROY).

In the subsequent four years of reunification or "unification", the Government's solidarity, direction and development have been compromised by political strife drawn from both social systems, strengthened tribal confederation in the northern provinces, and by multiparty challenges to institutional stability. The first national election (1993) did not lead the Yemeni out of political uncertainty or establish a strong central government. Although both the northern and southern provinces are Yemeni in a nationalist sense, they have not yet found sociopolitical identity as a united republic.

The effects of this young, yet traditionally old, nation's growing-pains are evident in its institutions, including health. Unification, subsequent political unrest at national and regional levels, and the elections of 1993 - all have promoted an MOPH bureaucratically top heavy and slow in commitment to and action on national policies. Present political and economic realities have curbed any decentralization or greater financial support by the MOPH to its governorate administrations.

In confluence with and compounding its political uncertainties, is a poor economy. Once one of the ten least developed nations, far behind other Arab states on the Peninsula, Yemen's infrastructure improved through the discovery of oil and the infusion of foreign capital in the latter '80s; however, its fortunes were reversed in early 1991 because of its pro-Iraqi stance during the Gulf War. It was economically ostracized, especially by the its Arab neighbors who sent the Yemeni workers home, burdening the ROY with unemployed returnees and a stifling loss of remittances to the economy.

Today the social fabric of the Yemeni is strained; the government is saddled by a poor economy, political unrest, tribal and old dual-state rivalries, and by faltering social development. Against this background institutional changes in the health care system are countered by limited resources and bureaucratic inertia.

Donor support has become a necessary, and perhaps reluctantly accepted, ingredient for Yemen's health care development. In the same vein, the planning and implementation of donor projects, such as the ACCS Project, have to be realistically related to and knowingly weighed against the nation's present political, economic and social realities .

2. Ministry of Public Health

The MOPH's organization remains largely unstructured and top heavy at senior levels. Its departments exhibit compartmentalization; decentralization is very limited; and it exercises tight fiscal restraints over its limited budget. It has many operational constraints and difficulties and lacks action-oriented efforts towards improving its managerial capacities at all levels of its system. Several programs (e.g., PHC and EPI) operate vertically at the central level but are intended to be integrated at the governorate level.

The Government's tight fiscal constraints are reflected in the MOPH's budget (2.5-3% of the national budget allocated to health) whose trickledown to the governorate Health

Offices is inadequate. Such centrally-imposed constraints and lack of decentralization challenge the governorates to optimize their management and utilization of resources and to solicit community participation and resources through the Local Councils for Cooperative Development (LCCDs). Yet, their powers have been curtailed since unification, compounding a faltering situation.

3. USAID/Sana'a

In the life span of the ACCS/REACH Project, USAID/Sana'a had been faced with changes in personnel, policy, and priorities--principally related to the Gulf Crisis and affecting its REACH operations and interfacement with the REACH/JSI team.

As a result of the Gulf Crisis, USAID/Sana'a and REACH were essentially non-operational between January and April 1991. With a U.S. policy change toward Yemen came a considerable downsizing of the USAID staff from 22 to 2 direct hires and a closure of its core agricultural projects. The postwar focus shifted to humanitarian activities, making the ACCS/REACH Project a principal activity of the Mission. In tandem with the realignment of its activities, the USAID health staff's mobility (e.g., three new HPN officers from 1991 to 1993) affected its monitoring of and focus on REACH activities.

In early 1992 USAID/Sana'a began re-assessing its health programs and the ACCS Project's direction in line with a USAID global policy change to effectively concentrate project operations. In addressing policy change, a logistics and administrative unit, LASO, was formed to service the Mission's projects; it operated somewhat independently of the contractor with more focus on procedural requirements than on project objectives. In further consolidation, the ACCS Project was integrated with the new Options for Family Care (OFC) Project in early 1993.

4. REACH II /Sana'a

Between 1989 and 1993 REACH II was responsible for implementing a major module of the ACCS Project: the expansion and upgrading of the MOPH's primary health care services in four governorates. Its activities focused on training, EPI activities, commodities and equipment, management and on cost recovery, of which training began in 1990 and the others mainly in latter 1991. Because of the evacuation of USAID and REACH staff during the Gulf Crisis, ACCS activities were halted between January and April 1991.

The REACH/Sana'a staff (consisting essentially of a COP, Administrator, Assistant Administrator and Governorate Coordinators) was unchanged until December 1992 when its COP departed. By mid-1993 REACH II's activities were being downsized, at a time when they were beginning to show promise (e.g., the implementation of governorate EPI Operations Plans) and terminated in September 1993. The ACCS Project was integrated with the OFC Project, the new COP coming the latter.

In summary, there were multiple intra- and extra-mural factors which interacted, especially from 1991 to 1993, to qualify REACH's performance and effectiveness in carrying out its scope of work. These factors and their relations to REACH activities, are chronologically outlined. (See Table #1.)

Table 1: Situational Analysis

DATE (YR/QTR)	POLITICAL EVENTS	USAID ACTIVITIES	USAID PERSONNEL	REACH PERSONNEL	TRAINING ACTIVITIES	EPI ACTIVITIES	MANAGEMENT ACTIVITIES
1990							
1				N. BROWN. COP. ARRIVES			
2	UNIFIED YEMEN		J. WILES. HPNO. GOES		ARRIVAL OF EQUIP. (3 GOVTES)		
3					TOT PHCW S/T CONSULTANCIES		
4					PHCW TRAINING START-UP (3 GOVTES)		
1991							
1	GULF WAR						
2		MISSION DOWNSIZED					
3			G. FLORES. D.R.. ARRIVES				PHC ASSESSMENT (HODEIDAH)
4			C. HABIS. HPNO. ARRIVES			SAADAH PLAN DEVELOPED	
1992							
1						SAADAH MODEL ADOPTED (ALL GOVTES)	MGT/COST RECOVERY CONSULTANCY (HODEIDAH)
2		HEALTH SECTOR ASSESSMENT		BUDGET MODIFIED			
3		LASO BEGNS					
4			G. FLORES GOES	N. BROWN GOES/ M. FARAG AS NEW COP	PHCW TRAINING START-UP	EPI REVIEW (HODEIDAH)	
1993							
1		JOINT OFC/ACCS PROJECT					
2			C. HABIS GOES			EPI SUPPORT: LAST PHASE	
3							
4				REACH ENDS	1989 M/F CURRICULUM AVAILABLE		
1994							
1					REVISED CURRICULUM AVAILABLE		
2		REACH EVALUATED					

II. ACCS/REACH II PROJECT EVALUATION BY COMPONENT ACTIVITY: ACHIEVEMENTS AND RECOMMENDATIONS

A. Manpower and Training

The first of the five objectives in the Team's scope of work, focuses on REACH's role in strengthening the primary health care system in Yemen by training managers, clinicians, technicians, trainers and health workers nominated by the MOPH.

In the FY91 Workplan for the period October 1990 through September 1991, REACH agreed to accomplish eight discrete activities outlined under the objective : " To strengthen the primary health care system in Yemen by training managers, clinicians, technicians, trainers and health workers nominated by the MOPH".

These activities were:

- o Prepare a manpower needs assessment.
- o Prepare a training needs assessment and an implementation plan based on the manpower needs assessment.
- o Prepare for and begin the training of up to 180 male and female PHCWs in the Governorates of Sa'adah, Hajjah and Mareb. (Sept.-Oct. 1991)
- o Prepare for and begin the training of 60 male and female PHCWs (minimum 50 % females) in Hodeidah Governorate.
- o Prepare, sign and implement joint agreements detailing payment procedures between ACCS/REACH and the LCCDs for the PHCWs' training stipends.
- o Prepare a technical report assessing the status of the HTC's in the start-up phase of training, provide guidance for preparation of teaching modules, and make specific recommendations regarding local management to help assure the successful completion of training.
- o Prepare and execute a plan for the proposed mid-term PHC training review in collaboration with SEATS, UNICEF and WHO. Prepare and execute a plan for a EPI phase workshop for up to 45 participants for 10 days in Sana'a.
- o Prepare and execute a plan to conduct one in-service training workshop in each target governorate for up to 35 participants. (Estimated start-date : April 1991)

I. Activity 1: Manpower needs assessment

Despite the valuable contribution made by the REACH Consultant to the MOPH in the development of a national health manpower plan, this activity was not successfully completed.

The consultant was originally commissioned for eight weeks to assess manpower needs in the four governorates (Hajjah, Hodeidah, Mareb and Sa'adah). This assignment was to coincide with a national health planning exercise and be carried out in two visits with the following scopes of work:

- o Assisting in the design and planning of a health manpower survey which would cover the four governorates as part of national exercise;
- o Assisting in the analysis of the current health manpower situation based on the survey data and in the health manpower projections of requirements and supply. This will lead to a health manpower plan for the four governorates.

The first part of the SOW was successfully completed. The second part was only partially completed due to mistiming of the second consultancy visit. This management flaw resulted in the assignment taking two extra weeks and an additional visit being added to the consultancy without any health manpower plans being completed.

After the consultant had successfully contributed to the design of the survey forms in September 1991, the MOPH was required to print the forms, begin data collection in 2 governorates, review experiences of the pilot data collection, make necessary adjustments, reprint forms and collect the main data. The consultant also clearly stipulated an additional list of activities which were to be fulfilled before the second consultancy could start. He further stipulated that given the uncertainties in the timing and duration of many of the activities, it would be prudent to postpone the start date of the second consultancy until "...there has been substantial progress on the survey and the subsequent computerization of the data." (Shipp, Sept. 1991). Despite such clear guidelines there did not seem to be a thorough assessment by REACH as to where the MOPH actually was in the above process before the consultant was recalled five months later. When the consultant arrived, he was unable to proceed with the second objective of analysis because essential prerequisites (e.g., data entry) had not yet been addressed and certain decisions by the MOPH to facilitate his work were not due until April (2 months after his arrival).

The consultant proceeded to help the MOPH to organize data input and do a preliminary analysis, tasks which the MOPH seemed capable of doing on its own. In November 1992 the consultant returned a third time to complete the analysis but obviously did not have time to complete the governorate plans.

Five major questions are raised by the above situation:

- o Who requested the second visit of the consultant?
- o Was the COP not responsible for seeing that the MOPH was ready to receive the consultant before his services were requested?
- o Who in USAID approved the SOW for the second visit? Was this person too trusting of the COP?
- o Did the initiative for this exercise come from the MOPH, the donor or the contractor?
- o Who finally signed off that the SOW was fulfilled?

All these questions seem to point to an underlying flaw in the management of the project by REACH, USAID and the MOPH.

Recommendation #1: Where more than one visit is involved, blanket approval of Scopes of Work should not be given by USAID. Where the work of a consultant is broken into two or more segments, the request for each segment should originate with the MOPH. The COP should then verify that the time required is appropriate and that all preconditions have been fulfilled before it is signed off by the HPN Officer. The COP must also verify that the SOW has been fulfilled.

2. Activity 2: Training needs assessment

The health manpower needs assessment was identified as the first activity of the FY91 Workplan and was to be the foundation on which the second activity (training needs assessment) was to be built. This training needs assessment was to identify, by priority, the short- and long-term training needs for filled and unfilled positions of both male and female health personnel in each governorate. It was to be the basis for the identification and selection of candidates and courses for third country long- and short-term training.

The time frame for the manpower needs assessment was April to June 1991, that for the training needs assessment July to September 1991. However, as the first activity was not completed before the end of 1992, the training needs assessment and related training of managers, trainers and technicians seems to have gotten lost. No candidates were selected for third country long- or short-term training; no managers, technicians or trainers received any meaningful training under the REACH component.

The question of accountability is again raised. The fact that the Workplan was signed by the Deputy Minister of Public Health, the USAID Acting Director and the REACH COP gives credence to the document. The circumstances underlying these significant changes are

not clear but the consequences are: the four governorates did not benefit from any training of managers, supervisors or clinicians, all essential to the strengthening of the PHC system.

Recommendation #2: Since the MOPH's manpower needs assessment had been completed before the end of the REACH component but no training of managers and T/Ss had been realized as originally intended and since they, particularly female T/Ss, are essential to the sustained effectiveness of the PHC system and future USAID inputs (e.g., the OFC Project), it is recommended that USAID support, under ACCS or other available mechanism, the training of at least one manager, one HTC manager and two T/Ss in each governorate.

3. Activities #3, #4, #5, #6: Training

Training activities commenced in May/June 1990. The assessment of the HTCs (Activity #6) was done in Hajjah, Sa'adah and Mareb Governorates in May/June 1990 and found to be well equipped with USAID-provided training materials. Assessed in November 1990, all of Hodeidah Governorate's HTCs were found lacking in essential equipment; a list of needs was prepared and submitted to USAID.

A one week planning workshop for those responsible to select, train and supervise PHCWs was conducted from June 2-6 1990, in Sana'a. Seventeen persons from the four governorates participated: T/Ss, DGs and LCCD representatives. The aim was

- o To help the T/Ss to develop a plan for training male and female PHCWs in the four governorates, to develop a schedule for theoretical and practical training, to identify possible sites for practical training in HCs and the community, and to develop steps for the implementation of the training program;
- o To develop the S/Ts' skills in training methods, preparation of lesson plans, production of audiovisual aids, and PHC evaluation and leadership;

Participants indicated that the workshop was successful in the first aim. However, the time allocated to the development of training skills was too short. Some participants at that workshop indicated that they had gotten no real practice in developing skills.

Training of PHCWs started in September 1990 and ended in December 1993 in Hodeidah. Training consultancies were provided by REACH throughout the process. (See Table #2.)

Table 2: Consultancies in Training

Dates	Consultant	Objectives
<p>May 9 to June 8, 1990</p>	<p>Dr. M. Taha (training)</p> <p>Mr. W. Bower (curriculum)</p> <p>Ms. S. Thaddeus (curriculum)</p>	<ul style="list-style-type: none"> - Prepare and conduct a TOT workshop for male and female T/Ss responsible for training PHCWs in the 4 governorates. - Review available curricula and training materials and available job descriptions. - Follow up on training and problem-identification. - Mid-term training assessment. - Assessment of issues of posting, managing and supervising PHC workers upon graduation. - Review and assess PHCWs' training plan in Hodeidah. - Assist in planning and preparation of a management workshop to assist the governorates in managing the newly graduated PHCW.

a. Selection

The selection procedure for FPHCWs was greatly affected by the inability to find female recruits. Although the communities were to be involved in the selection process, it appears that this was abandoned in some instances. As a result there were several candidates who were either too young or lacked appropriate educational qualifications. In some instances the community leaders selected females from their own household without community input. Such circumstances could promote non- or under-utilization of training or its manipulation for political or personal reasons. For example, in Hajjah Governorate 10 of the FPHCW trainees belonged to the household of one of the district directors, who removed them from service after their training. Whereas REACH is not responsible for this occurrence, it is a learning experience in that such was tolerated within the governorate. The MOPH should try to stop such abuse by having clear selection guidelines and being more involved in the selection process.

Recommendation #3: In the future selection of FPHCWs, the MOPH should develop and circulate clear guidelines and remain involved in the final selection process, to ensure that no more than two FPHCWs come from the same household or family group.

b. Training needs assessment

As previously mentioned, there is no indication that a training needs assessment was conducted.

The 1986 HMI curriculum used for training was based on the PHCW job description at that time. This job description seems to have been centrally developed and based on a concept of what the PHCWs should do rather than what they are required to do. For example, the job description and the training guidelines developed from it, contain nothing about diagnosing and administering basic drugs; yet the PHCWs stationed in Units are given "Basic Drugs" packages prepared by WHO. Some are also found to procure and dispense drugs not included in the package. Annex 4. contains the list of drugs given to the Hajjah PHCW.

A new job description has been prepared by the MOPH with the assistance of WHO and should form the basis for future curriculum review.

Recommendation # 4: Within the ACCS Project or the OFC Project, develop an in-service program for FPHCWs at HC level and support the updating of PHCW skills so as to be consistent with their revised job descriptions.

c. Curriculum

In June 1990 technical assistance was provided by REACH's training and curriculum consultants. Part of their mission was to review existing job descriptions and update the curriculum. These activities were successfully completed. They had reviewed the curriculum being prepared by the HMI, recommended changes (e.g., inclusion of health education and community participation) and declared the curriculum otherwise acceptable. It was agreed that REACH would provide the graphics, etc. and fund the final production of the MPH CW and FPH CW curricula. However, the production process was slow and the first part of the curriculum was not used in training. The training was completed using an outdated 1986 curriculum. The FPH CW curriculum is now complete and in the hands of the Director of MCH. It is yet to be produced and distributed to the female T/Ss and PH CW graduates. As a result, graduates lack some skills required by their job descriptions.

In a follow-up visit in November/December 1990, REACH's training consultant found that several different curricula were being used. In some instances the Sudanese trainers used their own curriculum for the FPH CWs. Additionally, those Yemeni trainers with no previous training experience seem to have diverted from given guidelines and included subjects which the training consultant did not see as beneficial. There is a need, therefore, for the skills of the PH CW graduates to be upgraded as soon as possible and be in line with the demands of their work requirements.

Recommendation # 5: If possible, fulfill the promise made by REACH to the MOPH and the HMI, in relation to the production (graphics and printing) of the FPH CW curriculum. As in other recommendations, accomplishment may be related to the availability of funding.

Recommendation # 6: Convene a working group of T/Ss from the four governorates, to formulate an implementation plan and guidelines for both the MPH CW and FPH CW curriculum, so that the level and quality of training can be standardized for all governorates.

Recommendation # 7: Give all T/Ss in-service training to upgrade their skills to implement the new curriculum.

Recommendation # 8: The MOPH should designate an officer with specific responsibility to coordinate work at the governorate level for the training, deployment, supervision and professional growth of PH CWs.

d. Instructional materials

An adequate supply of instructional materials was made available to three of the four governorates. Since then materials had been borrowed from Hajjah for training in Hodeidah and have not yet been returned.

Two reference books were purchased and given to the graduates: " Helping Health Workers Learn" and "Where There is No Doctor." The "Training Manual Guide for MPHCWs and FPHCWs in PHC" is also now in the possession of the PHCWs. However, these references have not been highlighted as to what may or may not be relevant to the Yemeni health care situation. Unfortunately, they are kept in the PHCWs' homes and are therefore not available for quick reference. In addition, the PHCWs need reference materials on drugs used by them, especially regarding indications, contraindications, dosage, duration, side effects, and advice to patients.

Recommendation #9: Support the HMI or other appropriate body, to develop Yemeni-specific and -relevant reference material such as standard operating procedures and protocols for use at the community level, particularly in the management and administration of drugs.

e. Implementation

Training activities were successfully implemented in the four governorates.

The joint agreement (Activity #5) was duly signed and implemented. In most instances the trainees received stipends from the LCCDs for 12 months. Problems occurred, however, when the training had to be extended (for as much as 4 months in some instances) because of inadequate places for clinical experience .

On the return visit in November/December 1990, the training advisor found that:

- o There was no training supervision in the governorates from either the MOPH or the governorate Health Office;
- o The training staff, except in Hajjah Governorate, was inadequate to properly train and follow up students;
- o Student selection was done without the participation of the T/Ss and often without the involvement of the MOPH and HMI.

Additionally, the consultant expressed her concern about the heavy concentration on theory, the weak link between theory and practice, the training of students in centers lacking proper MCH services and HEd activities, and the large number of students vs. training staff. She also noted the absence of transportation, budget for trip expenses, and essential training materials (e.g., stationary, reference books for students, audiovisual aids), as well as problems with funding and living conditions of students.

These factors and others related to the knowledge and experience of the T/Ss, had their impact on the outcome of the training. Several students failed their exams in the HTCs where these problems existed; they had to be transferred to other sites to gain experience and to retake their exams. Some of the T/Ss interviewed during this evaluation believe that many of the graduates still need close supervision and more practical experience. The graduates interviewed in Hajjah and Hodeida also echo these views.

A difference was noted in the competence and knowledge recall of the graduates in two HTCs in Hodeidah and between the graduates in Hajjah and Hodeidah. In a short test (see Annex # 1) administered to FPHCWs in both governorates, those in AL Tahreer did significantly better than those at either Marawa (also in Hodeidah), and Shaghadrah in Hajjah. Also both Hodeidah groups scored higher than their Hajjah counterparts. This is said to be due to the fact that the graduates working at Al Tahreer HTC got more practical experience and are continually supervised.

Except for the need of more practical experience expressed by those PHCW graduates interviewed in Hodeidah, they were quite happy with the training received. In the focus group discussions all expressed satisfaction with the length of their training, the teaching methods and learning aids, the approach of the trainers, the trainers themselves, the training sites and the way the program was organized. It should be pointed out, however, that the trainers in Hodeidah had received long-term third country training under the TPHCP; and that they benefitted from the impact of a training methods consultancy before their training began in late 1992.

The PHCW trainees in Hajjah felt that their training could be improved through the provision of more practice and more focus on F/P, first aid, suturing and deliveries. In a short test (Annex 6) given to ascertain how much knowledge they had retained, they did not do as well as the Hodeidah graduates. This may indicate that they were not adequately trained.

Overall the quality of the training was adversely affected by lack of follow-through on the recommendations made by the training advisor. This situation could have been avoided if there had been an in-country trainer to oversee and guide the fledgling training process for at least six months at its onset. It may also have been avoided if the ACCS project management mechanism envisaged in the FY91 Workplan, had been in place. The training advisor made periodic visits to assess progress, only to find that many of her prior recommendations had not been implemented. She spent her time problem-solving and making recommendations, most of which were not implemented or implementable. More importantly, the training suffered because the MOPH at both the central and governorate levels, did not see fit to assign a counterpart to the training advisor to ensure continuity, transfer of technology and follow-through on recommendations

Avoidable problems thus occurred in each phase of the training process, with implications for both cost and sustainability.

The REACH Training Consultant was very competent and knowledgeable. However, her services did not have much impact on either the quality of the training or the sustainability of quality training at the governorate level. The reasons include:

- o The lack of a counterpart or a management mechanism to follow through on recommendations;
- o The way her services were deployed. Four consultancies averaging one month each, were provided throughout the Project. However, she was not available at the inception of training to assist the fledgling trainers in such weak areas as community training methods, community participation and health education ; or in the use of some training aids. Although recommendations had been made repeatedly for strengthening the skills of these T/Ss who were largely curative-oriented and health-facility biased, no additional training was given to them.

In conclusion, REACH was largely effective in only one of five parameters of training, namely the preparation of PHCWs. This additional group of 259 PHCWs (165 males and 94 females) greatly enhanced the MOPH's capability to provide care to the rural under-served population, especially to women and children. The training of managers and clinicians was not addressed. Strengthening of trainer/supervisors was only superficially done. If the PHC system is to be strengthened, the need for managers and trainers, particularly female trainers, remains to be addressed.

Recommendation # 10: In future USAID-supported projects, insist that the MOPH assign a principal counterpart who will serve as project manager or co-manager for the project. Also USAID should insist that the MOPH assign a national counterpart for each major area of concentration, to ensure transfer of technology and sustainability of skills at the end of the project.

Recommendation # 11: Where a new program is being introduced, ensure that there is a concentrated level of technical effort at the beginning to ensure that field activities are well established and in progress before interval "progress assessment" visits are utilized.

Concern is still expressed in Hodeidah that the promised training equipment has not arrived. According to the leaders, this has negatively affected the quality of the training. FPHCWs were both trained in and assigned to work in Hodeidah HTCs which are not suitably equipped either for training or for MCH services. Thus the system has not really been strengthened as a result of the REACH intervention. It was also noted that even at the time of this evaluation, graduates assigned to some HCs in Hodeidah were unable to do deliveries because of the lack of basic equipment which was to have been provided earlier for training.

Recommendation # 12: Find a mechanism to procure training equipment and materials for the HTC's in Hodeidah, to be in line with the other 3 governorates.

f. Supervision of graduates

A realistic supervisory plan was not developed by the MOPH at the governorate level, to ensure that new graduates were indeed working appropriately and effectively, at least at the time of their placement. This omission could weaken the system. Several of the newly graduated PHCWs are functioning on their own in the communities without supervision.

Recommendation #13: Given the fact that problems with transportation are likely to remain with the MOPH at the governorate level for the foreseeable future, it is recommended that some funds from the ACCS Project be set aside for one year to assist the governorates in developing alternative supervisory mechanisms. One alternative possibility is recalling PHCWs to training sites for supervised practice and in-service education on a quarterly basis until they are competent and capable of functioning in the community with minimal supervision.

g. Outcome of training

A total of 259 PHCWs were trained under the REACH Project. Of these, 165 (64%) were male and 94 (36%) female. The majority of the females (60) were trained in Hodeidah Governorate. The small number in the other governorates is attributed to an initial inability to recruit females due to cultural reasons. However, it is now said that more women are enrolling and that there is a waiting list of female trainees.

Table 3: PHCWs Trained: by Sex and Governorate

Governorate	Male PHCWs	Female PHCWs
Marib	68	0
Hodeidah	0	60
Hajjah	50	23
Sa'adah	52	08
Total:	165 (64%)	64 (36%)

Source : ACCS/REACH, Yemen.

h. Placement/employment of graduates

The graduates were placed in 143 health facilities: 27 HCs and 116 PHCUs. The majority of the females (70%) were placed in HCs and only 28 (30%) in PHCUs. The reason given for this is that the MOPH is short of female staff to conduct essential MCH activities at the HCs. Of Hodeidah's 104 PHCUs only 17 are now staffed with FPHCWs. There is still a need to train more FPHCWs if the needs of mothers and children are to be fully addressed.

Recommendation #14: If possible, USAID should continue training female PHCWs under the impending OFC Project to meet the demands for their services in MCH/FP at the HC level.

Table 4 gives the placement of graduates in HCs and PHCUs by governorates.

Table 4: Placement of PHCW Graduates by Governorates in HCs and PHCUs

	Placement of Graduate PHCWs				
	No. and % of Graduates placed in HCs		No. and % of Graduates Placed in PHCUs		Total No. of Graduates.
	No.	%	No.	%	Number
Hodeidah	42	70	18	30	60
Hajjah	15	24	48	78	63*
Sa'ada	17	28	43	72	60
Mareb	6	10	56	90	62
TOTAL all Gov'tes	80	32	165	68	245 (100%)

* 10 FPHCW trainees were withdrawn by their sponsor after training.

Table 5: Placement of Female PHCW Graduates

	Placement of Female Graduates				
	No. and % of Female Grads Placed in HCUs		No. and % Female Grads Placed in PHCUs		Total No. of Female Grads. 100% per Gov.
	No.	%	No.	%	No.
Hodeidah	42	70	18	30	60
Hajjah	7	54	6	46	13
Sa'ada	4	50	4	50	8
Mareb	6	100	0	0	6
TOTAL all Gov'tes	66	70	28	30	94 (100%)

Except for Hodeidah Gvernorate which was the last to train PHCWs, all graduates are now civil servants. Hodeidah indicated that the process of confirmation had started but could not give accurate figures.

i. Relationship of training to the current role of PHCW graduates

It was found that all graduates were not currently using the skills they were taught. Others were doing things for which they were not prepared. For example, the FPHCWs at Marawa, Hodeida Governorate, were not able to do deliveries at the HC because it was not adequately equipped. Additionally, the graduates in this governorate are not yet able to do deliveries on their own due to a mix up in the allocation of delivery kits. Fortunately, these have been located and will be delivered as soon as possible. It was also noted that no official graduation has yet been held in this governorate.

Recommendation #15:

- o Conduct a survey of the four Hodeidah HTC's with a view to giving them some of the equipment procured for PHCUs so that deliveries and F/P services can be conducted in these centers (e.g., Marawa HTC).

4. Activity #7: Preparation of a plan for mid-term training evaluation accomplished.

5. Activity #8: Preparation of a plan to conduct in-service education accomplished.

B. Commodities and Equipment

The second of the five objectives in the Team's scope of work, focuses on the extent to which REACH was effective in strengthening the PHC system by providing a standard package of commodities and equipment to Primary Health Care Units and Health Training Centers.

In an agreement with the MOPH signed in March 1991, for the period October 1990 through September 1991, REACH agreed to accomplish two of four discreet activities outlined under the objective :

"To strengthen the primary health care system in Yemen by providing a standard package of commodities and equipment to MOPH constructed facilities or fixed sites designated by the MOPH for the delivery of basic health services at HTCs and PHCUs in Hajjah, Hodeidah, Mareb and Sa'adah Governorates."

The two activities were:

- o Furnish the above facilities from off-shore (UNICEF) and local purchase sources and arrange with USAID/Sana'a for the purchase of six vehicles, one for each of six new HTCs. (Time Frame: October 1990-August 1991).
 - o In Hodeidah governorate conduct a survey and inventory of MOPH vehicles by model, serial and license number for the purpose of developing a repair and maintenance plan for the PHC system.
1. Activity #1: Equipping the PHC Units

In the Project Plan up to 90 PHCUs were to be equipped with medical equipment and furniture in order to extend the coverage of primary health care services at the village level. In collaboration with the MOPH it was determined that UNICEF guidelines established for such a purpose, should be the basis for development of the equipment list.

The Team judged the equipment listed in the guidelines to be appropriate to the understood tasks and capabilities of the REACH-trained PHCWs working at the Unit level. One possible exception in the appropriateness, might be the choice of examination table and bed, neither seemingly appropriate for deliveries and possibly, the beds in particular, too large for many of the Units.

The Team proposed that some of the surgical equipment might be more appropriately utilized at the HC level.

Recommendation #1: With the collaboration of the MOPH/PHC, re-evaluate the appropriateness of delivering all of the medical equipment to the PHCUs and determine whether some surgical equipment might better be placed at the HC level.

From review of documents and discussion with involved parties, the Team noted that the delivery of equipment is nowhere near completion. In fact, it arrived at the USAID Mission in October 1993, one month after the REACH contract ended. This resulted from a number of events, each affecting the coordination of delivery with the completion of construction of some 90 PHCUs and of training of some 180 PHCWs. For example, as originally agreed, the MOPH was to build the Units with PL 480 funds which subsequently were released very slowly by the Ministry of Planning and then in amounts insufficient to construct all 90 Units. A compromise plan was developed whereby temporary facilities would be rented, thereby enabling the delivery of the anticipated equipment. Unfortunately, this agreement was not settled until the summer of 1993 and UNICEF off-shore orders were placed thereafter.

The Team learned that the Mareb Health Office had, as agreed upon, rented 15 facilities in the summer of 1993 and placed REACH-trained PHCWs there in anticipation of the receipt of equipment. The rentals have since been canceled and the PHCWs either work at the Health Centers or not at all. The situation is most likely similar in Sa'adah Governorate.

Recommendation #2: Complete the delivery of Unit equipment with a refresher orientation, as soon as possible and find a mechanism by which Sa'adah and Mareb Governorates could receive their equipment.

Recommendation #3: In collaboration with the MOPH/PHC, investigate ways in which the local community could be involved in the maintenance and security of the installed Unit equipment.

2. Activity #1: Equipping the Health Training Centers

As with the PHCU equipment and furniture, the UNICEF guidelines were used to develop the Health Training Center equipment list.

The Team judged the list to be appropriate but noted that some equipment arrived in mid-training and some equipment (e.g., audiovisual equipment) was not utilized by some of the T/Ss. Furthermore the Team learned that training equipment was not ordered for three of the four HTC in Hodeidah and that some equipment was necessarily borrowed from two HTCs in Hajjah for use in Hodeidah but not returned.

Recommendation #4: In collaboration with the Hodeidah and Hajjah Health Offices, compile a list of the equipment borrowed and trace that still missing. If it is not possible to return the borrowed equipment, USAID should look into the possibility of replacing it. Table 1 summarizes what the Team has established as promised and as-yet undelivered commodities and equipment. The list is a composite of all procurements promised by USAID. The USAID Mission should corroborate the appropriateness and status of the items noted on the list and delivery accordingly.

Recommendation #5: In collaboration with the MOPH/PHC, cost out the unobligated but promised items listed in the table and determine priorities given the availability of funds and current needs.

C. EPI Cold Chain and Equipment Maintenance

The third of the five objectives in the Team's scope of work, focuses on REACH's role in establishing a decentralized EPI cold chain system and in assisting in the organization of an equipment repair and maintenance program in the four governorates.

REACH was asked and agreed to undertake, in the form of two major delivery orders from August 1991 to September 1993, activities grouped under the objectives:

" to facilitate the maintenance phase of the Expanded Program for Immunization through the provision of appropriate technical assistance, training, and equipment for EPI and disease surveillance based on a decentralized plan at the governorate level that focuses on the Health Training Centers, network of staff at Primary Health Care Units, and other fixed sites staffed by trained volunteers in the four target governorates and to facilitate the development and implementation of an immunization disease control and surveillance system for the EPI package of immunizable diseases."

From these objectives an attendant list of discrete activities are outlined using the National Model EPI Plan as a reference:

- o Development of governorate-level Operational Plans based on the National EPI Plan;
- o Training of appropriate governorate-level personnel, including senior PHC staff, S/Ts and in-service providers;
- o Reorganization and refurbishment of the governorate cold storage for vaccines;
- o Assessment of cold chain equipment with regard to location and condition and the establishment of a repair and maintenance plan;

- o Establishment of governorate-level repair and maintenance workshops with a trained full-time repairman assigned;
 - o Development of a phased monitoring and supervision system, taking into account the availability of vehicles and funds.
1. Activity #1: Development of governorate-level operation plans

In 1991 a team composed of MOPH/EPI, REACH, UNICEF and Sa'adah Governorate staff, undertook the development of a plan of action focused on a decentralized, integrated approach to EPI and PHC. In April 1992 this plan was adopted as the National Model EPI Plan of Action and its phased implementation begun nationwide in the four target governorates. The Plan called for the organization of each governorate into zones of supervision, establishment of targets, programming of essential activities, and annual review and updating of planning.

In evaluating the implementation of the cold chain/maintenance repair components of the National Plan, the Team noted the following target dates set for the four governorates:

Table 6: Target Dates of EPI Operation Plans

Governorate	1st Year Activity	Equipment	Repair Shop/Repairman	Workshop		
	Outline	Assessment	Needs	Trained	Established	
Sa'ada	11/91-10/92	5/92	5/92	9-12/92	8/93	
Mareb	1/92-12/92	6/92	6/92	9-12/92	8/93	
Hodeidah	3/93-2/9	6/93	9/93	9-12/92	8/93	
Hajjah	4/92-3/93	7/93	4/92	9-12/92	8/93	

The Team noted that the target dates were not met as planned until the last year of the Project. A study of the REACH consultancy reports, revealed a frequent need to reprogram activities. It reflected the complexity of such a coordinated undertaking and the difficulty in implementing the original, logical sequence of planned activities. All involved parties (contractor, donor, recipient) had not demonstrated a full and active commitment to the work. Procurements were late in being organized and delivered, budgets not made available, and operational progress and problems not adequately tracked and addressed.

Furthermore, it was noted that not all governorates had conducted annual reviews or developed their second year activity plans. Unfortunately, time did not allow the Team to observe EPI activity below the governorate level, e.g., the status of the development of

zone/district planning; arrangement of district (intersectoral) meetings . Follow-up at this level is certainly needed.

The Team has concluded that such a tremendously complicated undertaking as the integration of EPI and PHC services, would require better and more active coordination and cooperation within the MOPH administration at all levels and between the MOPH and the contractor. Obviously, more time is needed to implement such a program. The year plus that this effort had been underway, had shown results; but it was still in an infancy stage. And all this was in a climate of increasing uncertainty of the timely availability of resources.

Despite this climate and the novelty of such coordinated effort, the Team observed that governorates could organize themselves to optimize the utilization of available resources. The experience of Hajjah should be better studied and understood, particularly in contrast to Hodeidah. The Hajjah HO was observed to have found, albeit temporary, solutions to its budget difficulties and district supervisory problems. In contrast and granted its fewer resources (e.g., vehicles), the Hodeidah HO appeared unable to fully deal with realities.

The deficiencies in the EPI activities are hallmarked by the lack of resources. Every effort should be made to obtain and release budgets to the governorates. Even if community support can be mobilized as in the Hajjah Governorate, such cannot obviate the budget needed from the central level.

Recommendation #1: In collaboration with the central MOPH/EPI office and its Operations Officers, follow up and reassess the end-of-the-year status of the Governorate Operational Plans ; develop an appropriate second or third year activity list.

2. Activity #2: Training of cold chain personnel

Under REACH the training of cold chain personnel included senior PHC staff, T/Ss and in-service providers within the governorate. Training accomplishments are listed in Table 7.

Table 7: Cold Chain Personnel Trained under REACH

	Sa'ada	Mareb Hodeidah		Hajjah
Senior PHC Staff	2	2	2	2
PHC Trainer Supervisors	5	5	21	12
In-Service Providers	81	96	-	196

The Team had found the amount of time for orientation and training of senior governorate staff (DGs and the PHC Directors) to be inadequate,--a four day session to cover planning methodology and activity development. Given a July 1992 deadline to develop their Operation Plans, the Director Generals had flawed output (e.g., lack of activity outlines and timetable) and reflected a lack of full understanding and importance of the planning process.

Recommendation #2: Arrange for follow-up with the DGs and PHC Directors regarding the EPI planning process, its levels of responsibility, and the updating of activity outlines.

Recommendation #3: As called for in National EPI Plan, expand orientation and/or training to senior hospital and clinic staff to ensure full governorate awareness and understanding of immunization activities.

In T/S training, candidates attended a 10 day governorate-level training course conducted by the MOPH Operations Officers and the REACH Consultant. The course focused on cold chain maintenance, the use of PHC/EPI supervision, and on training in-service providers.

Recommendation #4: In collaboration with the MOPH/EPI Operations Officers, arrange refresher training for the T/Ss to ensure their continued ability to monitor and maintain cold chain functions and the related PHC activity of in-service providers.

The training of PHCWs and other providers was conducted by the governorate T/Ss for six days at local HTC's. The MOPH/EPI Operations Officer and the on-site REACH EPI Consultant monitored the training.

3. Activity #3: Reorganization and refurbishment of cold storage

By April 1992 the reorganization of the cold chain depots was completed in all the governorates. Equipment assessments were made in the summer of 1992 in Sa'adah and Mareb, and one year later in Hajjah and Hodaidah. With the exception of Hajjah, the Storekeepers were trained in record-keeping and equipment maintenance by the on-site REACH EPI Consultant.

Recommendation #5: In collaboration with the Operations Officer, arrange for refresher training of the Storekeeper, Hajjah.

4. Activity #4: Assessment of cold chain equipment

The assessment for Sa'adah and Mareb was completed in the summer of 1992, and one year later for Hajjah and Hodeidah. The Hodeidah assessment was very poor: 1/3 of PHCUs non-operational; 1/2 of the refrigerators and freezers missing; 1/4 of present

refrigerators inoperative. Responsibility for the repair and replacement of equipment had been established; however, the Team observed no discernable improvement in the situation.

Recommendation #6: In collaboration with the MOPH, follow up on the situation in Hodeidah and ensure that some plan of action is developed to recover missing equipment and to repair the other. This effort should be integrated into the supervisory and planning activities of the Governorate.

5. Activity #5: Establishment of repair workshops

All governorate repair workshops were established and fully operational by August 1993. There were evident delays in the process: 14 months between the needs assessment of tools and parts and their delivery; 8 months between the training of repairmen and their beginning work. The repairmen were trained for three months at the Health Manpower Institute, Sana'a, by a German technician who is presently working with the MOPH/EPI.

The Team found the Hodeidah repair workshop cramped, disorganized and in need of an air conditioning which the repairman believed REACH had promised to provide. The Team also observed no repair manuals available at the shops.

Recommendation #7: Arrange a follow-up refresher visit by the German technician to determine the repairmen's further training needs and also the status of their workshops.

Recommendation #8: Determine whether two air conditioners were promised to Hodeidah; and, if so, this delivery should be completed. Refer to the unsigned Hodeidah Activity Agreement (10/92-9/93) as possible evidence of this commitment.

Recommendation #9: In collaboration with the MOPH, determine the appropriate reference materials and supply such to the governorate workshops.

6. Activity #6: Development of supervisory plans

The supervisory plans were completed under the activity outlines of the governorate Operations Plans and the developed supervisory tools.

The EPI activities observed by the Team in Hajjah were well organized, with regularly scheduled visits and monthly records including supervisory summaries and graphs. The HO staff prioritized according to its budget, sought innovative solutions (e.g., obtaining fuel on credit from the local gas station), and prudently allocated its limited transport to cover immunization and supervisory visits. As noted in the REACH EPI Consultant's report of June 1993, the Hodeidah Operations Plan was not implemented as agreed but switched to a more accessible and cooperative zone. Even so, visits had ceased before the end of the year, both vehicle and gas budget availability cited as the reasons. The team was told that

supervisory checks were made only when the peripheral staff visited the governorate HO for vaccines and supplies.

Recommendation #10: In collaboration with the MOPH/EPI Operations Officer, develop a mechanism to ensure continued attention to innovative supervisory planning in light of the deteriorating budget situation in the governorates. The Team felt that intergovernorate visits by senior HO staff might further encourage innovative solutions and optimal utilization of resources.

Recommendation #11: Find the mechanism to complete the delivery and follow-up of the following promised items:

- o A Supervisor Guide and Trainer Guide, both drafted and reviewed but not yet camera-ready (a responsibility of UNICEF) and produced (a responsibility of USAID). The Team recommends that this activity be followed to its conclusion despite the Project's termination, thus supplying the T/Ss with reference materials in their work.
- o Six vehicles to be repaired and delivered to the Hodeidah HO; the delivery of tires for supervisory vehicles and gas cylinders for repairing refrigerators .

Annex 6. contains a complete list of known and as-yet undelivered items compiled by the Team.

D. Primary Health Care Management

The fourth of the five objectives in the Evaluation Team's scope of work, focuses on REACH's role in enhancement of decentralized management at the governorate level. In particular, REACH was asked "to foster improved management of the PHC system that focuses on decentralization and leads to a measurable improvement in the delivery and sustainability of PHC services at the governorate level."

In response to this objective, REACH arranged three activities within a two year period (June 1991 to July 1993) to accomplish the requested outcomes. These activities were :

- o Review and assess existing program and financial management methods in order to improve planning and administrative procedures between the central and governorate levels;
- o Develop a management plan with recommendations on what activities can be implemented to improve the delivery and sustainability of PHC services;

- o Develop a supervision plan for male and female PHCWs from the HTC's including specific administrative and program intervention objectives and target coverage objectives. This activity was begun in August 1993, one month before the Project's end. The consultant was not able to complete his scope of work because of illness.

1. Activity #1: Review and assessment of management methods

The assessment of the operational status of the Hodeidah Governorate's PHC system and of its resources (facilities, manpower, supplies)--a situational analysis and needs-assessment--was carried out by the REACH Consultant with a team of seven nationals. Done in the summer of 1991, it represented REACH's initial approach to management evaluation. This was a comprehensive, in depth consultation whose document should serve as a reference and model for developing management/supervisory systems in other governorates.

2. Activity #2: Development of a management plan

Six months later, a two day management workshop was held for senior- and mid-level managers from the Hodeidah Health Office to address problems in the PHC system's structure, operations, and resources, and to develop alternative solutions and plans of action.

The consultant had preparatory discussions with managers in preparation for the workshop, facilitated the workshop itself, and apparently directed working groups in the following month in approaches to problem-solution.

a. Management workshop and training

The Team found consensus among the HO participants, that the workshop's program was too concentrated and not tailored to their comprehension of managerial skills or to their ability to accept their application. The time frame was too constraining for most of the participants.

In addressing PHC problem-solving, this forum undoubtedly broke down HO compartmentalism and promoted cooperation in and awareness of mutual problems in health delivery. However, any sustained benefits through changes in managerial behavior and skills are in question.

In the Team's interviews frustration was directed at the current bureaucratic inertia and the fallout of poorly-defined policies in the MOPH. Old and new regulations are still being followed; new senior-level appointees in the governorate have not given clear direction in administrative policies. It was felt that the workshop would have had more impact after the unification process delivered political stability and an effectively operational MOPH.

In conclusion, the workshop per se had limited benefit in changing or improving managerial skills, behavior or process.

Recommendation #1: In collaboration with the governorate HO, develop a comprehensive and practical management training program to meet the needs of its managers. This would require planning through situational analysis, needs assessment, development of training curricula, selection of appropriate candidates, and a constructive and practical approach to effecting change.

It is at the PHC unit-level that the effectiveness of the managerial/supervisory process can be discerned and the optimal use of resources realized. This is the operational level of the provider-recipient model of health. The Team had not noted any reference to the HC's role in management and supervision of PHCUs. There is no doubt that its personnel (HC directors, T/Ss) should have at least attended the workshop as observers or, more aptly, have participated in a workshop focused on their activities and problems.

The lowest management/supervisory level (HC directors, T/Ss) has an important link and endpoint in the chain of command, represents the managerial hands-on mechanism whereby effective health services can be delivered, and must be considered in a comprehensive approach to management/supervision within the governorate PHC system.

Recommendation #2: Include lower level personnel (HC directors and T/Ss) in management/ supervisory workshops and other training programs.

There must be a commitment at the central level to support improvement in management and to develop policies in that direction, especially realistic decentralization, greater budget management at the governorate level, and the promotion of greater community participation primarily through the LCCDs. The Director General should utilize technical assistance and a team-approach to addressing problems in management/ supervision.

Recommendation #3: Support the MOPH and the HO's Director Generals in improving management at the governorate level.

b. Plans of action

Of the managerial factors impeding PHC services in the Hodeidah Governorate, the Team found that the predominant themes focused on the lack of HO interdepartmental coordination in carrying out responsibilities, on the misuse and misallocation of resources, and on recurrent crisis management. The problems are reflected in a weak information/data system, a weak PHC infrastructure (manpower, logistics, transportation), poor supervision and support of PHCWs leading to low staff morale and lowered performance, and in little coordination between the HC and its satellite PHCUs.

Two years after the input of the REACH Management Consultant and the development of plans of action, the Team evaluated the achievements by REACH in fostering improved management. Governorate HO staff and participants in the workshop were interviewed as well as outputs of the recommendations and plans of action investigated in the Hodeidah Governorate.

Investigation into the plans of action for improving management, is discussed under the following topics:

(1) Information and planning

Plans of action proposed and not accomplished:

- o Adoption of certain indicators for continuous monitoring (e.g., immunizable preventable diseases, immunization coverage);
- o Introduction of consistency checks of the monthly PHCU reports by the Statistics Department in collaboration with the responsible T/Ss;
- o Supplying of adequate reporting forms from the MOPH. A chronic shortage continues.

The Team's focus of evaluation was at the HO and HC levels: the system of data collection and reporting, the assessment of the quality of the data, the extent of analysis by the Statistics Department, and the presentation of the data for local and central use. There were evident irregularities and inaccuracy of data from the peripheral health facilities; there was no quality control by T/Ss because of a chronic transport shortage to visit PHCUs. This was exemplified at the Zaidia Health Center.

Though not very effective, a basic information and reporting system is in place in the Hodeidah Governorate. While the Statistics Department has improved in organization and productivity through more qualified personnel and computerization, the quality of data and the breadth of coverage are still limited. The EPI activities initiated in 1993 in the Governorate, have been the major impetus to the information system's improvement.

The weakest link in the data collection and the reporting system, is at the PHCU level where the PHCW is essentially without supervision, support or monitoring by the T/S.

(2) Supervision

Plans of action proposed and not accomplished:

- o Reinstating meetings for supervisory staff discussions and activity planning. Such has not been done for T/S's or for physicians;

- o Orientation of curative staff to public health perspectives;
- o Preparation of female supervisors with more extensive training courses. There has been no alteration of the existing six week course for T/Ss.
- o Provision of transportation for supervisory visits. There has been a marked transport shortage for over three years.

Currently the absence of effective supervision in the Hodeidah Governorate is caused by no available transport and, more basically, by an inadequate operational budget. However, in Hajjah Governorate there is marginally adequate transport and the supervisory plan is revised quarterly in line with the available budget. Presently, there are monthly visits to vaccination centers and quarterly visits for PHC supervision. So, there is a marked contrast in supervision between these two neighboring governorates.

As in assessment of data, the weakest link in supervision is at the important point of service delivery: the PHCU level. Without the HO appreciating what is going on in the field, without the mid-level staff being knowledgeable about operations and their constraints, without on-site supervision to monitor and support the PHCW--any approach to effective management / supervision is unsustainable.

Undoubtedly attitudes play an important role in any person's productivity and work ethic. In this vein, more attention must be paid to recognizing and rewarding a worker's productivity through incentive payments, career enhancement, or improved working conditions. There should be no delay or "skimming" in the payment of salaries.

Recommendation #4: Support the governorate HO to strengthen supervision and accountability at all levels in the governorate with an incentive and staff-support mechanism .

The senior-level management, especially the Director General, must project responsibility and leadership qualities in his chain-of-command. HC directors should be made personally responsible for guiding the work of PHCUs attached to them; they should take action to achieve collaboration between PHCUs and community leaders/LCCDs on a regular basis. Regular meetings should be scheduled between PHCWs, T/Ss and HC directors.

Recommendation #5: The HO's Director General should stress accountability and responsibility throughout his chain-of-command and should be supported by a governorate-level management team.

(3) Transportation

Plans of action proposed and not accomplished:

- o The development of a plan for provision of supervisory visits through rented vehicles and hired drivers.

The main concern, repeatedly expressed in the Hodeidah HO, is the continued shortage of transport which has disrupted supervisory visits and the distribution of drugs and supplies for over three years. The protracted delay in the repair of HO vehicles (a responsibility of REACH) in Sana'a in the past nine months has worsened the situation.

The assessment of this problem reveals that several or more factors are at play: budgetary allocations, privatization of vehicles, lack of efficient use and maintenance, selective assignment of vehicles, and no funds for emergency repairs and fuel.

Recommendation # 6: Take a multi-pronged approach in attacking this chronic problem, including the re-consideration of vehicle rentals.

(4) Responsibility and authority

Plans of action proposed and not accomplished:

- o The development of a new organizational chart for the Hodeida HO;
- o The definition of the areas of responsibility for staff through specific, written job-descriptions.

The Team has found that management structure and lines of authority must be well-defined within the governorate. Likewise, linkage with other governorate HOs and sectors should be strengthened through intergovernorate visits and meetings of senior staff.

Recommendation #7: Recruit a long-term management advisor, national or expatriate, to be assigned to the HO to work with its senior staff in defining job-descriptions and the interrelation of departments and lower managerial levels.

(5) Management of immunization and other PHC supplies

By early 1992 there had been some changes recommended by the workshop: consolidation of the cold stores into one in Hodeida City and the joint delivery of EPI and PHC supplies to the HCs. In latter 1993 there had been a greater focus on EPI activities in the Governorate in line with the previous implementation of the National EPI Plan in the other three governorates. A form of selective PHC has evolved, based on prioritization and practicality. Immunization supplies and vaccines are distributed with PHC supplies to Centers and Units. Along the guidelines of the national plan, record systems for supplies and vaccines, monitoring the cold-chain, and immunization coverage at the PHCUs have been better established. However, the development of a better plan for distribution of

immunization supplies from the central stores, has not occurred. A chronic problem is pilferage at all levels.

The improved management of immunization supplies can be attributed to the focus on EPI activities in the Governorate, not to the REACH consultancies and workshop plans of action.

(6) Maintenance of buildings and equipment

Although there have been recommendations for more funding and the development of a plan for carrying out maintenance, action had not been taken. The periodic inspection of buildings, an approach to preventive maintenance and repairs: all are poorly addressed and are approached through crisis management. An example of a physical plant's deterioration is Zaidia Health Center, which had been a prototype of the Tihama PHC Project.

(7) Budget

Plans of action not accomplished:

- o Establishing a better link between finance and services through interdepartmental coordination in the HO;
- o Decentralizing the use of funds to the governorate level;
- o Development of a better system of incentives.

In summation, the plans of action developed in early 1992 were to improve coordination between governorate levels, optimize the utilization of resources, and reduce recurrent crisis management. Inquiry two years later revealed some plans of action having been accomplished in part; however, the majority, either immediate or long-term, were not. Least accomplishments were related to supervision; the pivotal issue of transportation was not prioritized. Accomplishments in the management of immunization and other PHC supplies, appear related to EPI's integration with PHC activities.

In the above evaluation of the effectiveness of the two consultancies, it is evident that their activities were of limited input considering the complexity of management problems in the governorate; and they failed to address the development of a comprehensive management plan. Furthermore, there was no apparent change in the managerial process as a result of REACH activities.

As the second REACH activity, the development of a governorate-level PHC management plan, has not been achieved, this pivotal issue must be addressed. It should be designed for the governorate level with its organization and lines of authority and

responsibility defined: the Director General having full responsibility in planning, implementing, monitoring and supervising of PHC activities and, at the operational level, the PHC director assuming program management.

Certain constraints in planning and its implementation were not taken into consideration when addressing management problems, especially the political issues, lack of any effective decentralization, limited community support through the LCCDs, and attitudes of MOPH personnel. Quite evident to the Team were the lack of incentives, bureaucratic handicapping in employment procedures, delayed payment of salaries, poor working conditions, lack of adequate budgets, and the lack of cooperation between HO departments and lower echelon workers.

Recommendation #8: Complete the planning process for strengthening the decentralized PHC system, paying attention to less apparent but important constraints.

An advisor experienced in PHC management, could be part of a management oversight team including senior governorate-level staff (e.g., Director General, Director of PHC) and other technically capable personnel for on-site monitoring and evaluation of the managerial process. The REACH/ACCS FY91 Workplan included the provision of a project management team to monitor and evaluate project activities and their progress to stated goals; however, this team never materialized.

Recommendation #9: Recruit a long term management advisor to facilitate the completion of the management plan and monitor/evaluate project activities at the governorate level. In tandem, two coordinated project management mechanisms should be considered and include the advisor: (1) a management oversight team at the governorate level and (2) a steering committee at the central level.

The critical challenge is one of sustained commitment by MOPH administrators to resolve the operational issues besetting health care delivery through strengthened managerial capacities, including measures to ensure sound decisions on policies and a focus on priorities. This is even more critical with the MOPH's continued state of economic stringency. As a donor in humanitarian projects, USAID should continue to focus on the critical issue of improved management in Yemen's PHC system.

Recommendation #10: Support the MOPH in improving its managerial capacities at both the central and governorate levels.

E. Cost Recovery

The fifth of the five objectives in the Evaluation Team's scope of work, focuses on REACH's effectiveness in assessing and recommending ways to recover operating costs through the use of clinic fees.

In its March 1991 agreement with the MOPH, REACH agreed to provide technical assistance for the MOPH to develop the capacity to finance the running costs from the general fund of the MOPH and/or "test the potential for 'fee for service' and other schemes as a source for revenue". Specifically, REACH agreed "to assess the potential for the recovery of running costs from Health Centers and from 'fee for service' activities at the LCCD afternoon clinics and Al-Thorah Hospital, Hodeidah, and to make appropriate recommendations."

To accomplish this objective, REACH agreed to conduct a "lessons learned" review of the fee-for-service experience at the LCCD afternoon clinics and Al-Thorah Hospital in Hodeidah and to make written recommendations to the MOPH in regard to sustainability issues. (Time frame : February 1991)

Activity: Assessment of cost containment and cost recovery

The recommendations developed from these case studies by the REACH Consultant in early 1992, focused primarily on cost containment and improved financial management, not on cost recovery from use of clinic fees. In fact, the Consultant herself noted that user fees were a poor predictor of revenues and that conclusions could not be drawn from the LCCD Clinic Study as the figures were too incomplete to build a valid profile of clinic expenditure.

Both to the Team and the USAID Comptroller, who was asked to comment on the presentations in the study, the Al-Thorah Hospital Study did not clearly demonstrate the way in which its afternoon clinics and revenues generated from their fees could contribute, directly or indirectly, to off-setting the hospital's operating costs. Similarly, it did not demonstrate the potential, when multiplied by the facilities available, to contribute to the HO's overall revenue needs. This might have suggested some significant policy initiatives regarding hospitals' ability to act more independently.

Furthermore, it was noted that the report did not discuss any current activities underway, such as pilot projects, from which lessons could be drawn nor did it address legal issues found in the Constitution, policy documents or pending legislation. For example, the Team found a number of recent events or plans that should be followed up:

- o A document drafted by the National Health Conference (February 1992) stating "Since the Constitution of the Republic does not obligate the State to provide free health services for all citizens and does not explicitly forbid charging for health care, a policy of user charge' should be adopted. The approach has demonstrated its effectiveness in health financing in several less developed countries";
- o Legislation exists that is vague in language and has already allowed fee-for-service practice for some time, e.g., afternoon clinics;

- o Medecin Sans Frontiere is working in Hodeidah to develop a revolving drug-fund concept at select health facilities; OXFAM was working in Hodeidah in some fashion regarding cost recovery; and the Dutch donor effort considered cost recovery in its agenda for Yemen.

Recommendation #1: Pursue the outcome of the February 1994 National Health Conference draft document, "Forward-Looking Strategies and Policies for Health Development in the Republic of Yemen", especially Section 7, B4 noted above.

Recommendation #2: Review existing legislation and policy that permits local community groups (e.g., LCCD) in Hodeidah to establish clinics and charge fees and to even use public health facilities after hours, an example being the LCCD afternoon clinics.

Recommendation #3: Conduct a study of who is doing what in cost recovery with a view to its application in the Health Center and Unit facilities, especially as that activity follows the Bameko Initiative guideline

Recommendation #4: Assist the Government of Yemen to fully study, develop and implement a cost recovery, cost containment mechanism.

ANNEX 1

Evaluation of PHC Worker Graduates

Evaluation of Female PHC Graduates

A. Training, Employment and In-Service Training

1. Sex of person interviewed 1. Male 2. Female
2. Place of work 1. Health Center 2. PHC Unit
3. Date of completion of PHCW training _____
4. Date of employment by civil service _____
5. What did the PHCW do between training and employment?
6. Has the PHCW received any in-service training ? ___ Yes ___ If "yes", list such.

a Date	b Duration	c Topic	d Who did the Training ?

B. Reference Materials

7. Please indicate if the following materials are available in the Health Center or PHCU, when they were last used, and whether you have found them useful.

	a Materials Available		b Date last issued		c Useful	
	Ye s	No			Ye s	No
7.1 Manual of MPHCW						
7.2 Manual of FPHCW						
7.3 Where There is No Doctor						
7.4 TPHCP Child Health						
7.5 TPHCP Information System						
7.6 TPHCP Child to Child						
7.7 MOH Statistics (green)						
7.8 MOPH Referral Manual						

7.9 Any other reference materials. Please list and indicate usefulness.

C. Community Participation and Outreach

8. Is there a list of villages and population served by the PHC Unit or HC?

___ Yes ___ No

9. Please give the names of any communities visited in the past month and the reason(s) for the visits.

- a) Home visit b) Outreach c) Meeting
 d) Health Education e) Other - State

Name of Community	Purpose of visit				
	a	b	c	d	e
	Home Visit	Outreach	Meeting	Health Education	Other

If no visits were made to surrounding communities in the past month, give the reasons:

- 1) Lack of knowledge
- 2) Lack of transport
- 3) Lack of supplies
- 4) Does not feel welcome
- 5) Too busy
- 6) Other reason (State.)

11. Does the PHCW feel that he/she was adequately trained to do outreach work in the community?

12. If "no" to No. 11 above, what other training is needed?

D. Activities of the PHC Worker

13. Is there a PHCW's activity timetable available?
 ___ Yes ___ No

14. Which of the following activities were done in the past month?

For activities not done, find out if they are ever done and how frequently :

- a) about once in 3 months
- b) about once in 6 months
- c) about once in a year

Activity	a Done in past month		b Not done in past month	
	1 Yes	2 No	1 Yes	2 No
14.1 Curative				
14.2 Childrens Clinic				
14.2.1 Growth Monitoring				
14.2.2 Immunization				
14.2.3 ORS				
14.3 Antenatal Care				
14.3.1 TT given				
14.3.2 Home visits				
14.4 Labor & delivery				
14.5 Postnatal visits				
14.6 Pregnancy spacing				
14.7 Mtg. withCommunity Leader				
14.8 Mtg. with T/senior Health Officer				
14.10 Other activities - (Please list.)				

E. Registers

15. Which of the following registers are available and are they being used (completed) accurately:

Register	a Available		b Date of last entry		c Accurately entry completed	
	Y	N			Y	N
15.1 Child health						
15.2 Birth						
15.3 Death						
15.4 Curative attendance						
15.5 Family planning						
15.6 Stock book for drugs						
15.7 EPI register						
15.8 Duplicate book						
15.9 Other (List.)						

F. Recording

16. Is the following stationery available? Is it being completed correctly?
Was the PHC worker ever trained to use this?

	a Available		b Completed Correctly		c Not trained to use this	
	1	2	1	2	1	2
16.1 Road to Health chart						
16.2 EPI cards (child)						
16.3 TT cards (women)						
16.4 ANC cards						
16.5 Monthly Activity forms						
16.6 Monthly Disease forms						
16.7 Referral forms						
16.8 EPI Daily Tally sheets						

G. Reporting practices

17. Who fills out the monthly report on

17.1	Activities of the unit	PHCW	TS	Other
17.2	Age/sex	PHCW	TS	Other

H. Knowledge, Attitudes and Practices

18. What is the schedule of immunization? (At what age do children get the different vaccines? How much of each do they get?)

	Age	Amount	Route
Polio QPV			
1st DPT			
2nd DPT			
Measles			
BCG			

19. How many doses of TT should a pregnant woman get?

20. If a child is brought to you with diarrhea, what do you do?

Answer (tick if PHCW gives them):

- check for dehydration (eyes and /or skin)
- start rehydration
- teach mother how to rehydrate
- refer if not responding in 24 hrs.

21. How do you advise a mother to rehydrate a child suffering from diarrhea?

22. Ideally, how often should a woman come for regular checkups during her pregnancy?

23. When you see a pregnant woman for the first time, what do you check for?

Tick if PHCW gives the answer:

- age
- stature (short)
- first baby (number of pregnancies)
- height of fundus
- bad obstetrical history (miscarriages; haemorrhage; high blood pressure ; abnormal weight gain; C-section)
- Medical condition (severe anemia, TB or respiratory problems, heart problems, kidney problems, diabetes,

jaundice, high blood pressure, possible physical deformity)

24. Which pregnant woman who comes to you for ANC, do you refer to a doctor?

Tick if PHCW gives the answer:

- Previous C-section
- Severe anemia
- TB or respiratory problem
- Eclampsia (edema and high BP)
- Jaundice
- Psychological problems

25. What do you do if a woman bleeds a lot after delivery?

Tick if PHCW gives the answer:

- give ergometrine
- get her lying down, raise her legs
- refer her to a hospital
- massage the uterus with a cold compress

26. When would you refer a postnatal mother to a hospital?

Tick if PHCW gives the answer:

- hemorrhage
- retained placenta
- fever after 24 hrs.

27. Do you advise mothers on child spacing? Yes No

If yes, what do you tell them? (Summarize response.)

If no, why don't you? (Summarize response.)

28. Do you visit the mother and baby after the "Arba'een"? Yes No

If yes, what do you tell them?

If "no", why not?

29. For how long do you advise mothers to continue breastfeeding? (How old should the child be?)

Which family desperately needs the FP area?

30. At what age do you advise mothers to introduce weaning food?

31. Do you treat patients for malaria? Yes No

If "yes", what treatment do you give? indicated dosage times)

If you do not treat patients for malaria, how do you deal with malaria cases?.

32. What are the 5 most frequent diseases you see in your clinic and how do you treat them?

I Supervision

(code)

33. Who is your supervisor? 1) Know
2) Don't know

34. When was your last supervisory visit?

Code: 1) Within the month 2) 1 - 3 months
3) 4 - 6 months 4) 1 - 13 months
5) More than 1 year 6) Never

35. What did he/she do? Please tick activity and also probe if an activity is not mentioned. Find out if it's ever done by this supervisor.

Actions	a Last visit	b Yes, but not last visit	c Never
35.1 Used the printed checklist			
35.2 Discussed my work			
35.3 Wrote comments in book			
35.4 Checked the registers			
35.5 Compared registers with monthly reports			
35.6 Checked drug stores			
35.7 Brought drug kits			
35.8 Brought vaccines			
35.9 Brought other supplies			

36. Has the supervisor or anyone from the Health Office done any of the following activities with you? If yes, indicate how frequently and the date when last done.

Activity	a Done with supervisor	b Frequency 1. Monthly 2. Quarterly 3. Twice per year 4. Once per Year 5. Less than 1 per Yr.	c Approximate Date when last done
36.1 Examined a patient			
36.2 Accompanied on home visit			
36.3 Visited a school			
36.4 Met community leaders			
36.5 Checked completed registers			
36.6 Checked completed forms			
36.7 Checked knowledge of drugs			
36.8 Checked knowledge of EPI schedule			
36.9 Checked knowledge of common diseases & their treatment			
36.10 Helped in solving problems			

37. How frequently do you need to use your reference materials?
1) daily 2) weekly 3) about once per month
38. What is your biggest problem concerning your work?
39. Do you think that you need any further training to help you to work better? 1) ___ Yes 2) ___ No

If "yes", in what areas or topics do you need training?

39. What do you think can be done to improve the supervision you receive.

ANNEX 2

Interview Guide for Trainer/Supervisors

Interview Guide for Trainer/Supervisors

1. Is there a copy of the job description of the Trainer/Supervisor available at the Health (Center) Unit?

___ Yes ___ No

(N.B.: Ask to see if or get a copy .)

2. How long has he/she been a supervisor?

Years:

3. What was her/his basic training?

___ nursing

___ sanitation

___ Other

4. Did he/she receive training as a supervisor? ___ Yes ___ No

If yes, where _____

duration _____

major areas coverage _____

5. Does he/she feel adequately prepared for the job?

___ Yes ___ No

6. If "no" to No. 5: a) What other training does he/she need?

b) For how long should training be?

7. Are supervisors happy with the performance of PHCWs?

If yes - Why?

If no - Why?

8. Does the supervisor have a copy of the JD of the PHCWs?

___ Yes ___ No

9. Does the supervisor have a copy of the guide to the

(a) Male PHCW curriculum? ___ Yes ___ No
(b) Female PHCW curriculum? ___ Yes ___ No

10. Does the supervisor have a copy of the curriculum of the PHCWs?

11. Is there anything in the curriculum related to community participation?

12. Has the supervisor ever had any in-service education since supervisory training? ___ Yes ___ No

If "yes", list:

Date	Duration	Major Topics	Location

13. What training methods does the supervisor use with PHCWs?

14. Views on how training can be improved.

15. Views on how supervision can be improved.

16. Overall views on the PHCWs and suggested areas for further training of PHCWs.

17. Give a list and status of training equipment.

Equipment	Functioning	Not Functioning	Reason for not functioning
Overhead projector			
Video camera			
Video			

ANNEX 3

Job Description of the Trainer Supervisor

Job Description of the Trainer/Supervisor

1. The Trainer/Supervisor (T/S) receives instructions from and reports to the project leader. She follows the directives given by the Ministry of Health and the Health Manpower Institute.
2. Within the project the T/S is responsible for the training of female PHC workers. Her activities include:
 - 2.1 Participation in the preparation of the training program.
 - 2.2 Participation in identification and selection of students, and processing the necessary formalities.
 - 2.3 Arranging organizational aspects of the training program.
 - 2.4 Contacting teachers according to schedule of teaching.
 - 2.5 Arrangement and supervision of practical training.
 - 2.6 Recording of students' performance and attendance.
 - 2.7 Regular reporting on progress of students.
 - 2.8 Preparing the necessary formalities regarding the final exam and subsequent employment by the Ministry of Health.
 - 2.9 Doing whatever necessary for the good course of things in the training program.
3. The T/S participates in arranging continued education of the PHC workers.
4. The T/S participates in arranging other training activities in the project.
5. The T/S supervises the PHC workers in cooperation with the PHC center staff, and this includes:
 - 5.1 Arranging week and leave schedules.
 - 5.2 Checking and resupplying the carry-along kits.
 - 5.3 Arranging transport by the project cars.

- 5.4 Supervision of activities in the PHC center as well as the home-visits.
 - 5.5 Regular discussions of results of home-visits with the PHC workers.
6. The T/S participates in arranging special activities, e.g. immunization, when scheduled to do so.
7. The T/S will be available to attend courses and workshops when scheduled to do so.

ANNEX 4

List of Drugs Available at PHC Units

List of Drugs Available at PHC Units

	Quantity	Way of Packing	Description
1	5 pot	1000 tabs	Acetylsalic Acid 300mg
3	2 pot	1000 tabs	Aluminium Hydroxide 500mg
5	1 pot	100 tabs	Aminophylline 200mg
13	1 pot	100 tabs	Atropine 0.6 mg
16	4 pack	10 rolls	Bandage 7.5 cm. X 10
39	1 pot	1000 tabs	Cotrimaxazole 400mg. + 80mg.
58	10 pot	1000 tabs	Ferrous Sulphate 80mg. base
60	2 pot	1000 tabs	Folic Acid 1 mg.
66	1 pot	25 grm	Gentian Violet 25 grm
75	5 tube	15 grm	Hydrocortisone 1% ointment
85	1 pot	100 tabs	Mebendazole 100 mg. chew
87	1 pot	500 tabs	Metronidazole 200 mg.
92	1 pot	1000 tabs	Multivitamin
97	1 pot	500 tabs	Noscapine 15 mg.
98	2 box	100 oral	ORS, salt for 1 ltr. sol.
99	1 pot	1000 tabs	Paracetamol 500 mg.
113	1 pot	100 tabs	Promethazine 25 mg.
116	6 pot	60 ml.	Promethazine HCL 5 mg./5ml.
117	1 pot	100 tabs	Senna 7.5 mg.
127	9 tube	1 tube	Tetracycline 1% eye ointment
26	1 bottle	5 ltr.	Chlorhexidine 5%
41	4 roll	1 roll	Cotton 500 gr
50	16 roll	1 roll	Elastoplast 7.5m X 5cm.
52	1 box	1000 pieces	Envelopes for Tablets
107	1 box	40 bottles	Phenoxymeth. Penicil. 125mg/ml.
109	2 pot	1000 tabs	Phenoxymeth. Penicil. 250mg

ANNEX 5

Focus Group Discussion Guide

Focus Group Discussion Guide

Introduction

Sometime ago you received training as PHCWs. You have now been working for various periods of time. Today we would like to discuss this training with you, so that we can (a) improve on the training for others and (b) find out what your needs are for in-service education. Please feel free to tell us exactly how you feel about things as the question comes up.

Questions

1. How long ago did you complete your training?
2. How have you benefitted from the training personally? Why? (Probe.)
3. How have you benefitted from the training in terms of the jobs you have been assigned to do? (Probe.)
4. Which parts of your training, or which skills do you use most or find most beneficial?
5. Are there any parts of the training, or are there any skills which you were given but which you do not use? What and why? (Probe.)
6. Is there anything you are now doing for which your training did not prepare you? What?
(Note to discussion leader : If they are doing things for which they were not trained, find out why are they doing this. Do not give any indication of judgement. We only want to know what the nature of the demand is on them.)
7. What do you think about the training you received? (Probe for information on
 - length of training
 - teaching methods
 - learning aids
 - approach of trainers
 - the trainers themselves
 - the training site
 - the way the program was organized.)
8. What do you think could or should be improved to make the training better?
9. What kind of in-service training do you need to help you to function better?
10. What about your supervision? (Probe: Do they get any? How frequently? Who does it? Does it help them to perform better?)
11. Do you feel that you are part of the MOH's team? If not, why not? If yes, why and in what ways?
12. How are things working with you and the LCCDs? Do you have any contact with them? Do they provide support or supervision of any kind?
13. How are things working with you and personnel from other sectors or NGOs in the community? Do you have any contact with them?

14. What do think are some of the reasons why people utilize your services?
15. What do you think are some of the reasons why people do not utilize your services?
16. What do you think needs to be done so that more people will utilize your services?
By whom should these things be done?

ANNEX 6

List of Persons Met

LIST OF PERSONS MET AND SCHEDULE OF ACTIVITIES

A. List of Persons Met by the Team

Washington, D.C.

- . Holly Fluty, CTO, USAID
- . Dr. Richard Moore, VP, JSI
- . Michael McGunnigle, JSI
- . Robert Steinglass, JSI

Republic of Yemen

USAID / Sana'a

- . Sofia Bafagih, Administrative Assistant HPN
- . Larry Dominessy, Program Officer
- . Paula Ben Gabr, Executive Officer
- . William D. McKinney, Mission Representative
- . Laurie Parker, HPN Population Specialist
- . Abdulali Al-Shami, Program Specialist
- . Dr. Raga Uqba, HPN Officer

MOPH

- . Dr. Yassin Abdulwarith, Advisor for EPI; former Deputy COP REACH
- . Hashim Awnallah, Advisor to the Minister; former Administrator REACH
- . Al-Shami Dawood, Deputy DG Mareb HO
- . Dr. Moh'd Hajjar, Director General, EPI
- . Moh'd Al-Hamdani, Ministry of Planning and Development
- . Dr. Abdulrahim Hashim, Director General PHC
- . Dr. Ahmed Makki, Undersecretary, Dept. for Services and PHC
- . Dr. Motasem Sabri, Director MCH
- . Abdulaziz Sakkaf, Director Health Manpower & Trainin
- . Moh'd Saleh Showki, EPI Operations Officer
- . Dr. Moh'd Suhail, Director General Sa'ada HC
- . Dr. Abdul Karim Tuwaiti, EPI Technical Officer

Health Manpower Institute

- . Dr. Ahmed Abdulgaher, DG
- . Sayeda Moh'd Hanash, T / S
- . Abdulwahab Al-Kohlani, Deputy DG

Ministry of Planning and Development

- . Dr. Moh'd Zohra
- . Lamia Wills, former Ass't Administrator REACH
- . Dr. Ahmed Saad Zaid, former EPI Specialist REACH

NEDS

- . Dr. Edward Kassira, EPI Specialist, CDC

WHO

- . Dr. Yousef Ginawi

SEATS

- . Ghassan Abbas, JSI Program Associate
- . Dr. Mahmoud Farag, JSI/SEATS Team Leader
- . Jerry Russel, JSI Technical Advisor

Hodeidah Governorate

- . Mog'd Fatini Abdul Akesh, Physician's Ass't Haiss HC
- . Dr. Ali Fakira, former Director General
- . Ali Ali Gili, T/S Zaidia HC
- . Dr. Abdul Hajid, Director General
- . Salem Hakimi, Director of Planning and Statistics
- . Abalgnath Qadi Hjaji, T/S, Zaidia HC
- . Yakoub Yussuf Harba, Director of Manpower
- . Dawood Ismail, PHCW
- . Yahia Ali-Majwij, T/S
- . Moh'd Abdo Moh'd, EPI Technician
- . Moh'd Ali Moh'd, Head EPI
- . Abdul Rahman Moh'd, PHC Supervisor
- . Dr. Abdul Galeel Qaid, Director Public Health
- . Abdul Rahman, Nurse, Al-Jerahi HC
- . Abdo Ibrahim Sawad, Director Zaidia HC
- . Dr. Ali Shura'i, Head, Primary Health Care
- . Aidroos Abdullah Al- Sufari, Director Haiss HC
- . Dr. Ahmed Ahmed Wahban, Head of Training and Coordination

Interviewed in focus group:

- . Zainab Yahya Zain
- . Abeer Al-Sayed
- . Ghadah Ibrahim, Tahreer HC PHCW
- . Fatima Saleh, Tahreer HC PHCW
- . Saeeda Hamid, Tahreer HC PHCW
- . Ashwag Ali, Tahreer HC PHCW
- . Fatima Ahmed Maqtari, Marawah HC PHCW
- . Salam Qassin 'Umairah, Marawah HC PHCW
- . Arwa Ahmed Abdulrahman, Marawah PHCW
- . Fattoum Hussan, Marawah HC PHCW
- . Maryam Abdulla, T / S
- . Fatima Jumaee, PHCW
- . Asma Ahmed, PHCW
- . Ibtisam Ali, PHCW

- . Mariam Kassem, PHCW
- . Mariam Saif, PHCW
- . Salama Muhammed Al-Ahmadi, PHCW Dair Mahdi
- . Alam M oh'd Saleh, Zabid HC
- . Mariam Saif Al-Sulwi, T / S
- . Mariam Saif, Head S / T Al-Tahreer HC
- . Salwa Ahmed Qaid, PHCW
- . Naziah Ahmed Qaid, PHCW
- . Fatima Ahmed Sultan, PHCW
- . Dr. Abdulla Saqir Sulaiman, Director Marawah HC
- . Omer Hassan Obayah, Med. Ass't Marawah HC
- . Hassan Hadi Haiqah, PHCW

Hajjah Governorate

- . Dr. Ahmad Abbas, Deputy DG
- . Noreen Beitling, Health Manager Peace Corps
- . Moh'd Abul Hadi, T / S
- . Ibrahim Al-Kholani, Ass't Deputy Director
- . Youssef Al-Kholani, Director Al-Shaghadirah HTC
- . Dr. Fadhl Nasser, Director General
- . Shugul Moh'd Omer, Storekeeper, Governorate Vaccine Depot
- . Sheik Ahmed Qaid Salen, LCCD
- . Ali Al-Sharafi, GC, former REACH GC
- . Moh'd Saleh Showki, Operations Officer
- . Abdullah Ali Shugri, Repairman, Governorate EPI Repairshop
- . Dr. Qamer Uddin, Physician, Al-Shaghadirah HC

Interviewed in focus group:

- . Taquijah Mahammed
- . Fatima Moh'd Nagi
- . Amani Hussen Al 'Ansi
- . Fathiya Ali
- . Omer Yahya

B. Schedule of the Evaluation Team's Activities

March 22nd Washington, D.C.

- . Meetings with John Snow, Inc. and USAID

March 26th - March 29th Sana'a

- . Meetings with USAID, MOPH , and ACCS/OFC.
- . Collecting and reading background documents.

March 30th - April 3rd Hodeidah

- . Meetings with the Hodeidah HO staff.
- . Visiting Project sites (Haiss HTC, Zaidia HC, Zabid HC / Rural Hospital Bayt al Faqih HC)
- . Holding focus group interviews.

April 4th - 6th Hajjah

- . Meetings with the Hajjah HO staff and Peace Corps.
- . Visiting Project sites (Shahadhra HC, Al-Gharib PHCU, Al-Awasim PHCU)
- . Holding focus group interviews.

April 9th - 11th Sana'a

- . Meetings with WHO, HMI, former JSI/REACH/ LASO staff, HMI, and MOPH.
- . Collecting and reading background documents.
- . Debriefing USAID and MOPH
- . Preparing first draft report

ANNEX 7

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