



# Pakistan Child Survival Project

FINAL REPORT

Project Number  
39-0496  
Contract Number  
391-0496-C-00-0769-00

Contractor:  
Management Sciences for Health

Sub Contractors:  
Harvard Institute for International Development  
Academy for Educational Development  
Jaffer Brothers (Pvt) Limited

September, 1993

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One Volume Only

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**This report was developed under the direction of Diana R. Silimperi with significant contributions by Theo Lippeveld, Tara S. Upreti, Zahid Hussein and Youssef Tawfik.**

**September, 1993**

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## List of Abbreviations

ADB	Asian Development Bank
ADDR	Applied Diarrheal Disease Research Project (HIID)
ADG	Assistant Director General
ADHO	Assistant District Health Officer
AED	Academy for Educational Development
AHI	Assistant Health Inspector
AJK	Azad, Jammu, Kashmir
ARI	Acute Respiratory Infection
ATU	Acute Respiratory Infection Training Unit
BCG	Bacillus of Calmet/Guerin
BHS	Basic Health Services
BHSC	Basic Health Services Cell
BHU	Basic Health Unit
CDC	Centers for Disease Control
CDD	Control of Diarrheal Diseases
CEC	Continuing Education Cell
CHW	Community Health Worker
CIDA	Canadian International Development Agency
CMR	Child Mortality Rate
COP	Chief of Party
CS	Child Survival
CSD	Child Survival Drugs
CSTU	Child Survival Training Unit
CWG	Communications Working Group
DA	Daily Allowance
DCOP	Deputy Chief of Party
DD	Deputy Director
DDG	Deputy Director General
DG	Director General
DHO	District Health Officer
DHQ	District Headquarter Hospital
DHQTU	District Headquarters Training Unit
D&HS	Demographic and Health Survey
DHS	Director of Health Services
DPT	Diphtheria, Pertussis, Tetanus
DTSP	Development Training Support Program
DTU	Diarrheal Training Unit
EPI	Expanded Program of Immunizations
FANA	Federally Administered Northern Areas
FATA	Federally Administered Tribal Areas

FBHSC	Federal Basic Health Services Cell
FHP	Family Health Project
FLCF	First Level Care Facilities
FSMO	Field Supervisory Medical Officer
GOP	Government of Pakistan
HEC	Health Education and Communication
HI	Health Inspector
HID	Health Institution Database
HIID	Harvard Institute for International Development
HIS	Health Information Systems
HISC	Health Information Systems Committee
HMIS	Health Management Information Systems
HPN	Health, Population and Nutrition
HRD	Human Resources Development (USAID)
HT	Health Technician
ICST	Integrated Child Survival Training
IDD	Iodine Deficiency Disease
IEC	Information, Education and Communications
IMR	Infant Mortality Rate
IPC	Interpersonal Communication
JBL	Jaffer Brothers (Pvt.) Limited
KAP	Knowledge, Attitude, Practice
LHV	Lady Health Visitor
LQAS	Lot Quantity Assurance Sampling
MBBS	Medical Bachelor - Bachelor of Surgery
MCBA	Mothers of Child Bearing Age
MCH	Maternal and Child Health
MIS	Management Information Systems
MO	Medical Inspector
MOH	Ministry of Health
MOIC	Medical Officer in Charge
MS	Medical Superintendent
MSD	Medical Store Depot
MSH	Management Sciences for Health
MTID	Management Training Institute for Doctors
NDFC	National Development Finance Corporation
NGO	Non-Governmental Organization
NHISC	National Health Information Systems Committee
NIH	National Institute of Health
NWFP	Northwest Frontier Province
ORS	Oral Rehydration Salts

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ORT	Oral Rehydration Therapy
PBHS	Provincial Basic Health Services
PCSP	Pakistan Child Survival Project
PH	Public Health
PHC	Primary Health Care
PHDC	Provincial Health Development Center
PIMS	Pakistan Institute of Medical Sciences
PMDC	Pakistan Medical & Dental Council
PMRC	Pakistan Medical Research Council
PMS	Project Monitoring System
PPA	Pakistan Pediatric Association
PPHA	Pakistan Public Health Association
PRITECH	Technologies for Primary Health Care Project (MSH)
RGH	Rawalpindi General Hospital
RHC	Rural Health Care
RR	Routine Reporting
RTI	Regional Training Institute
SCKL	Supervisor's Checklist
SES	Socio-Economic Status
SMC	Social Marketing of Contraceptives
STTA	Short-Term Technical Assistance
TA	Travelling Allowance
TAT	Technical Assistance Team
TBA	Traditional Birth Attendant
TBC	Tuberculosis Control
TT	Tetanus Toxoid
UCI	Universal Coverage Immunization
USAID	United States Agency for International Development
UNICEF	United Nations International Children's Educational Fund
WHO	World Health Organization
WMO	Woman Medical Officer

## ACKNOWLEDGEMENTS

Members of the Pakistan Child Survival Project Technical Assistance Team and their US-based support staff wish to express deep appreciation for the dedicated effort and spirit of collaboration of our Pakistani counterparts and colleagues in the National Ministry of Health (Basic Health Services Cell, National Institute of Health, National Child Survival Program Managers and Coordinators) as well as the Provincial Ministries and Departments of Health, particularly the Secretaries, Director Generals and Child Survival Program Directors, and of course, all PCSP Project Directors.

The unflagging encouragement of our USAID colleagues, particularly after the ramifications of the Pressler Amendment became clear, made it possible for the team to continue our work despite overwhelming constraints.

Most importantly, we would like to thank members of the Pakistan Child Survival Project, both those in the central office as well as the provincial staff, for their years of hard work to implement an extremely challenging project.

In addition, the cooperation and assistance, both technical and financial provided by UNICEF, WHO, and CIDA are sincerely appreciated. We are particularly thankful to UNICEF and the World Bank for cooperative planning to assure the continuation of training and HIS activities.

A note of special appreciation to Jaffer Brothers (Pvt.) Limited for providing such effective administrative and logistical help, without which PCSP could never have successfully conducted so many of its workshops or maintained such efficient provincial offices. In addition, recognition should be given to our communication component subcontractors, Aftab Associates and Spectrum who each provided excellent technical assistance in the mass media activities of PCSP.

Without the tireless efforts of the individuals and agencies noted above, including others which space does not allow me to mention, the PCSP could never have succeeded! Your energy, work, and skills have made the PCSP a success. Thank you for helping the PCSP in its work to institutionalize child survival programs to decrease infant and child mortality in Pakistan.

Last but not least, my sincere thanks and appreciation to those who assisted in the production of this report - especially Ms. Shahnaz Farooq, Mr. Gohar Khilji, Mr. Naseem Khan, Ms. Andrea Usiak, and of course the TAT!

Sincerely,

Diana R. Silimperi, MD  
PCSP/MSH

**DEDICATED TO THE MEMORY OF  
DRS. DUANE SMITH AND ABDUL GHAFOOR**

*The Pakistan Child Survival Project's Final Report is dedicated to the Memory of Dr. Duane Smith and Dr. Abdul Ghafoor.*

*Dr. Duane Smith's tireless devotion to this project provided the foundation for its ultimate achievements. The accomplishments of the Pakistan Child Survival Project are a tribute to Dr. Smith's leadership during his tenure as the Chief of Party.*

*Dr. Abdul Ghafoor provided constant, and unflagging support to the Pakistan Child Survival Project particularly during the difficult days following the evacuation. He was instrumental during the development of the early collaborative bodies, such as the steering committees, and also in the development of the ARI research projects.*

*Both Drs. Smith and Ghafoor provided technical and managerial leadership which contributed greatly to the ultimate success of this project. Pakistan Child Survival Project pays tribute to these two outstanding individuals who contributed their lives to decreasing infant and child mortality in Pakistan.*

# EXECUTIVE SUMMARY

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## PAKISTAN CHILD SURVIVAL PROJECT (1990-93)

The Pakistan Child Survival Project (PCSP), is supported by a bilateral cooperative program between the Ministry of Health, Government of Pakistan and the United States Agency for International Development. The overall goal of the Project is to expand and institutionalize child survival programs, in order to decrease infant and child mortality. Hence, this project will use its resources to combat the leading causes of child and infant mortality: diarrheal diseases, acute respiratory infections, vaccine-preventable diseases, and malnutrition; in contrast to the preceding USAID-funded Primary Health Care Project, which had a much broader mandate. The Pakistan Child Survival Project was designed taking into account previous experiences in the Ministry of Health and the Primary Health Care Project.

Strategies which address the main causes of infant and child mortality are implemented through 6 project components which have been identified as having particular importance for the strengthening of child survival programs. The 6 components of the PCSP are: Planning and Management, Health Information Systems, Training, Communications, Drugs and Logistics, and Research. Objectives were created for each component, building upon and utilizing past experience.

In order to achieve the objectives and accomplishments noted in this report, collaborative partnerships with the Ministry of Health/Basic Health Services Cell and the National Institute of Health, as well as the provincial Ministries and Departments of Health were forged with the PCSP (provincial and central) technical assistance team.

The senior technical assistance team originally consisted of: a senior public health physician - Chief of Party; a specialist in program planning, management, and contracts - Deputy COP; and 4 Senior Technical Advisors in the areas of health information systems, training, communications, as well as drugs and logistics. The members of the technical assistance team are drawn from a consortium of three nonprofit international consulting agencies: Management Sciences for Health, the prime contractor for the Project; Harvard Institute for International Development and the Academy for Educational Development - subcontractors to MSH. In addition, a local subcontractor, Jaffer Brothers Limited was utilized for administrative and logistical support.

The PCSP experienced what may have been unprecedented challenges during the 3 years of its operation. Significant events adversely affecting management and implementation of its activities included: delayed start-up due to prolonged negotiations between the Governments of Pakistan and the USAID about the amount of technical assistance to the Project; evacuation of the technical assistance team due to the Gulf War in January 1991; followed by drastic reductions in budgetary allocations due to the Pressler Amendment which also necessitated a major overhaul of the workplan; a shortened project life - limited to the original base contract period of three years (another result of the Pressler Amendment); loss of 2 COPs - one through resignation and the second through death; changes in other critical technical assistance team members as a result of major alterations in the scope of PCSP activities; and turnover in both GOP counterparts as well as USAID Officers.

### **ACCOMPLISHMENTS**

Despite such overwhelming constraints, the Project has been remarkably successful in achieving the objectives planned for each component. Critical accomplishments by component are listed below.

#### **PLANNING AND MANAGEMENT**

- \* Establishment of Federal and Provincial Child Survival Steering Committees
- \* Development and implementation of computerized project monitoring system
- \* Initiation of Donor Consortium
- \* Creation of successful collaborative partnership with the Government of Pakistan, Basic Health Services Cell
- \* Institution of administrative procedures and systems, as well as computerized tracking and monitoring of accounting and financial resources

#### **HEALTH INFORMATION SYSTEMS**

- \* Completion of assessment study of health information systems in Pakistan
- \* Design of a nation wide health management information system for first level care facilities (HMIS/FLCF);
- \* Initial implementation of HMIS/FLCF including:
  - training of health personnel in the use of data collection instruments
  - printing and distribution of data collection instruments
  - establishment of computerized data processing system
  - training in the use of information for planning and management
- \* HMIS/FLCF institutionalization

### TRAINING

- \* Initiate establishment of federal and provincial continuing education cells
- \* Creation of the Integrated Child Survival Training Manuals for medical officers, paramedics and supervisors of FLCF
- \* Establishment of child survival training units, and
- \* Strengthening the supervisory system in FLCF

### COMMUNICATIONS

- \* Planning and message development documents (Action Plan, Creative Briefs, etc.)
- \* Media Products (Neelam Ghar, Radio Drama Series)
- \* Interpersonal communication products (Three Training Modules, Breastfeeding Flipchart)
- \* Research reports

### DRUGS AND LOGISTICS

- \* Analysis of the medical supplies depot procurement (indent) system in 4 provinces
- \* Study of shortage in child survival drugs at the periphery
- \* Organization of a National Workshop on Essential Drugs
- \* Completion of needs assessment of EPI storage facilities at federal and provincial levels, and
- \* Computer training on drug indent analysis

### RESEARCH

- \* Completion of the study, "The Impact of Cotrimoxazole Resistance on The Clinical Outcome of Children with Pneumonia"
- \* Design of an ethnographic study on acute respiratory infections
- \* Completion of a qualitative study on breastfeeding, and
- \* Technical and logistical support to the ADDR Project for the development of their applied research portfolio for child survival interventions

### LESSONS LEARNED

Some of the critical lessons learned through the PCSP are listed below by component.

### PLANNING AND MANAGEMENT

- \* Importance of donor consortium and the establishment of inter-agency relationships to foster coordinated planning and collaborative implementation

- \* Valuable role of the federal and provincial child survival steering committees to promote ownership, and to encourage coordination to maximize resources and avoid duplication

#### HEALTH INFORMATION SYSTEMS

- \* Importance of consensus-building (noted by both Training and HIS) as the only approach which guarantees future ownership and hence, sustainability of activities
- \* Implementation of system changes in a complex bureaucracy are time-consuming and require in-depth understanding of decision-making within that bureaucracy
- \* For the restructuring effort of the Health Information Systems to have a durable effect on the quality of care delivered, other appropriate management interventions will be necessary in government health services

#### TRAINING

- \* Training material must be adapted for use in local languages
- \* Selecting and appointing qualified government staff to key positions serves to guarantee continuity and promote sustainability
- \* During the planning stage, donors and the Government counterparts must discuss proper guidelines

#### COMMUNICATIONS

- \* The enter-educate communications approach has proven effective in the communication of HEC messages for child survival
- \* Both IPC and mass media are needed in HEC to complement each other's effect
- \* There is a need to devolve communication strategies to the provincial level

#### DRUGS AND LOGISTICS

- \* The most cost effective ways to improve the availability of essential drugs include:
  - 1) minimize and limit spending on expensive and non essential drug items
  - 2) stimulate more competitive bidding among drug suppliers to obtain better unit pricing
  - 3) monitor prescribing to minimize unnecessary issuing of precious and essential drugs

#### RESEARCH

- \* The Cotrimoxazole Trial found an increased clinical failure rate in:
  - 1) cases with *H. influenzae* compared with *S. pneumoniae*
  - 2) younger children (2-11 mo.) compared with older children (12- 59.9 mo.), and
  - 3) cases of severe pneumonia as compared with pneumonia

However, the results substantiated the current WHO and National ARI Program treatment recommendations since both amoxicillin and cotrimoxazole were found equally effective for the treatments of pneumonia

- \* Research is an essential component in child survival projects which increases the development of improved interventions and services, as well as expanding national essential research capabilities
- \* Coordination between USAID-funded projects should be encouraged, such as that between ADDR and the PCSP

### **ACTIONS FOR SUSTAINABILITY**

A variety of specific actions for sustainability are described in the report. Nonetheless, at the conclusion of the MSH contract, provisions have been made for the extension of the Health Information Systems Component in order to complete implementation in the remaining districts, and also to continue integrated child survival training in the 10 pilot districts or divisions until all eligible providers have received training. These components will be extended with USAID financial support; but also both UNICEF and the World Bank will be providing additional support to assure the completion of objectives for each of these components. Furthermore, child survival research will continue through the auspices of ADDR. And finally, communication activities, at least in the area of breastfeeding, will be further pursued with financial assistance from Johnson & Johnson.

Hence, although the MSH portion of the Child Survival Project is concluding, due to the determined efforts of the TAT and their colleagues in the GOP and USAID to create effective collaborative networks during the life of the Project, essential child survival activities will be continued with the assistance of new donors and the full support of the Government of Pakistan.

The Pakistan Child Survival Project is living testimony that adversity may foster collaboration and cooperation, which ultimately maximized output, despite crippling constraints. It is truly an example of effective team work and collaborative partnerships, not only within the technical assistance team, but with their counterparts and colleagues in the Government of Pakistan (at federal and provincial levels). Finally, the PCSP made particular use of preceding project and MOH experiences, and was therefore able to direct its limited resources to the most effective interventions to strengthen and expand child survival programs.



The PCSP Team



Consensus-Building



Transfer of Technology



Hands-on Training

# BACKGROUND

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The Pakistan Child Survival Project (PCSP) is a bilateral cooperative program between the Ministry of Health, Government of Pakistan and the United States Agency for International Development (USAID). Management Sciences for Health (MSH) is the prime contractor responsible for the overall implementation of the Project; the Academy for Educational Development (AED) and the Harvard Institute of International Development (HIID) are both subcontractors providing technical support to the Project. In addition, Jaffer Brothers (Pvt.) Limited is a local subcontractor responsible for logistical and administrative support. The goal of the Pakistan Child Survival Project is to expand and institutionalize child survival programs, in order to decrease infant and child mortality. The PCSP began implementation in June 1990; the Management Sciences for Health contract will conclude on September 30, 1993.

## **HISTORICAL PRECEDENT: PRIMARY HEALTH CARE PROJECT**

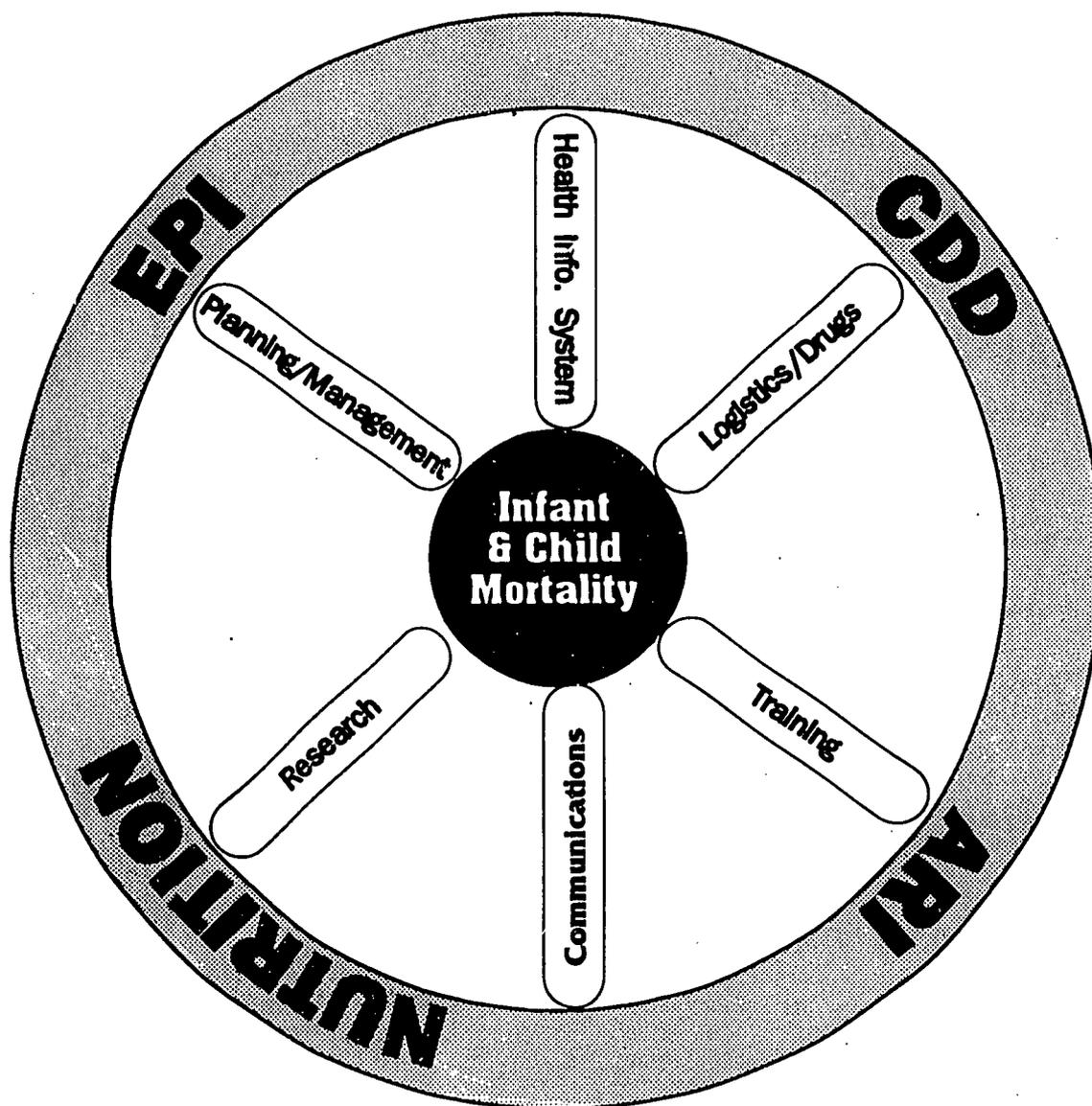
The PCSP was preceded by another USAID-funded project, the Primary Health Care Project (PHC Project) which operated from 1982 until 1990. Many of the lessons learned through the PHC project were applied in the design of the PCSP. Consequently, the PCSP does not have the broad mandate of the Primary Health Care Project, but instead is focused on combatting the leading causes of infant and child mortality in Pakistan: diarrheal diseases; ARI; vaccine-preventable diseases; and malnutrition. Based on the previous experience of the Ministry of Health and the Primary Health Care Project, six components were identified as particularly important for the strengthening and institutionalization of these child survival programs: Program Planning and Management; Health Information Systems; Training; Communications; Drugs & Logistics; and Research. These are the 6 components of the PCSP. (see Figure 1)

There are clear objectives for each component, as well as particular strategies to strengthen the four main child survival programs: EPI, CDD, ARI, and Nutrition. Objectives of each component are detailed in the body of this report; strategies per child survival intervention program and objectives per intervention can be found in the appendices. In order to assure that the objectives of the Project are achieved in a timely fashion, a comprehensive project monitoring system has been created with specific indicators and appropriate targets for each component.

For the goal and objectives noted in this report to be achieved, collaborative partnerships among the Federal Ministry of Health (Basic Health Services Cell and the National Institute of Health), the Provincial Ministries or Departments of Health, and the Pakistan Child Survival Project (provincial and central) were essential.

# Pakistan Child Survival Project

FIGURE 1



Management Sciences for Health  
Harvard Institute for International Development  
The Academy for Educational Development  
Jaffer Brothers (Pvt) Ltd

## **NEGOTIATION AND APPROVAL**

Although the original Project Agreement was signed with the Government of Pakistan in August 1988, the first members of the technical assistance team did not arrive, and hence activities did not commence until June 1990. This delay was a result of ongoing negotiations between the two governments, particularly regarding the amount of resources devoted to technical assistance. Thus, in many ways, the Project began implementation under less-than-optimal circumstances.

## **CRITICAL MANAGEMENT EVENTS**

Throughout the duration of its project life, the PCSP experienced a series of critical events which significantly affected its management, productivity, and ultimately, its sustainability. The impact of these events is discussed in more depth within various component reports. Briefly, significant events in chronological order include: evacuation of the TAT due to the Gulf War; resignation of Chief of Party; Pressler determination which resulted in marked budgetary reduction and decreased duration of the Project; turnover in the GOP Project Director position (4 different Project Directors in first operational year of PCSP); and the tragic death of the second COP. Clearly, such events greatly influenced Project implementation and hence, were the cause of missed targets or failure to complete activities according to the original timelines.

## **CONSORTIUM APPROACH/TECHNICAL TEAMS**

As noted above, the PCSP developed strategies to strengthen child survival intervention programs directed at decreasing infant and child mortality. The strategies are organized according to components. Activities within each component were implemented by a resident team of senior technical advisors skilled in one or more of the component areas. The initial team consisted of: 1 public health physician with experience in primary health care and applied research who served as the Chief of Party; 1 management and contracts specialist who served as the Deputy Chief of Party; 1 health information systems expert and epidemiologist; 1 training specialist; 1 communications and marketing expert; and 1 drugs and logistics specialist (1/2 time). The 6 members of the TAT represent the 3 institutions (prime contractor and 2 subcontractors) which formed the Consortium to implement the PCSP.

The Consortium not only operated in the field, but also was active in the US-based home offices of the participating institutions, where teams of senior technical and administrative support staff performed essential "backstopping" duties for the Project. The US members of the PCSP Consortium communicated on a regular basis, and held quarterly meetings to exchange information and address issues of concern. Members of the Pakistan technical assistance team

as well as the US backstopping teams are listed in the General Appendices. A complete list of all PCSP staff members throughout the Project; as well as GOP counterparts and short term consultants are also detailed in the Appendices. Finally, Project organograms, management structures, timelines and budget/cost breakdowns are other important background documents located in the Appendices of this report.

## **ADMINISTRATIVE STRUCTURES**

As noted, organigrams are detailed in the General Appendices. It is important to recognize that the Project had two prime partners in the Ministry of Health- the Basic Health Services Cell and the National Institute of Health (NIH). The National Diarrheal Disease Program and the Expanded Program on Immunization are located within the NIH; the National ARI Program is within an autonomous body - Pakistan Institute of Medical Sciences; and the National Nutrition Coordinator is located within the Planning Cell, Ministry of Health. The Basic Health Services Cell is in charge of Primary Health Care and responsible for the health providers who serve in the BHUs and RHCs (FLCF). Teaching Hospitals, although within the Ministry of Health, report to the Secretary of Health, not the DG. The same degree of compartmentalization as well as parallel lines of reporting and authority for child survival services are found in most provincial health systems.

# PLANNING AND MANAGEMENT

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## INTRODUCTION

The Pakistan Child Survival Project (PCSP) seeks to assist the Government of Pakistan (GOP) in the development of simple, effective management systems to support the institutionalization of high quality preventive and curative health care, specifically relating to child survival programs. Planning and Management objectives are thus directed at improving the delivery of child survival interventions (preventive and curative). The Project promotes coordinated planning and implementation of programs in ARI, CDD, EPI, and Nutrition - through the establishment of Child Survival Steering Committees at the federal and provincial levels. In addition, the establishment of a Donor Consortium and inter-agency relationships promotes coordinated planning and integrated implementation of child survival activities, as well as assuring continuity and sustainability of critical activities. The creation of formal channels of communication between and within government health services as well as the development of project monitoring (financial, technical, and administrative) systems are significant achievements which will contribute to program sustainability while simultaneously improving the delivery of services.

## OBJECTIVES

1. To set up Federal and Provincial Child Survival Steering Committees to assist in policy direction, financing and program planning of the PCSP.
2. To set up a computerized Project Monitoring System (PMS) in order to measure progress of the Project over time.
3. To assist the GOP in the development of a comprehensive plan for child survival interventions, including: CDD, ARI, EPI, and Nutrition in the government health services.
4. To strengthen lines of management and communication within the government health services in order to improve delivery of the four child survival interventions.

## **ACCOMPLISHMENTS AND OUTPUTS**

### **ESTABLISHMENT OF FEDERAL AND PROVINCIAL CHILD SURVIVAL STEERING COMMITTEES**

The Federal and Provincial Child Survival Steering Committees provide important forums for communication between leaders in child survival from both federal and provincial levels, and from a variety of departments instrumental in the planning and implementation of child survival activities. The first Federal Steering Committee took place in May 1991. Since then meetings have been conducted as needed to address critical issues. The Federal Steering Committee played an instrumental role during the initiation of the Project and then again during the closing days of transition from a USAID to GOP-supported Project. The Federal Committee also provides an important opportunity for provincial health leaders to share experiences.

At the provincial level, the Steering Committees play an essential role in coordinating child survival interventions, activities, and policy for the variety of departments and agencies involved in these endeavors. At both provincial and federal level, the coordination and integration of child survival activities, whether in training, communication, or health information system development, is complicated by the fact that structures remain somewhat "vertical" within intervention-specific programs and departments. Thus, the steering committees provide an "umbrella function" for appropriate authorities to coordinate the implementation of activities, as well as associated planning and policy.

Policy-makers and those responsible for planning or financial allocations, such as members from Planning and Development (Health) or the Finance Department were included on the Steering Committees for the purpose of involving such individuals early in the implementation process; it was believed that early commitment might ultimately contribute to longer term institutionalization of child survival activities within the structures and resource bases of provincial and federal governments.

Steering Committees for training, nutrition/breastfeeding, and HIS were established in the provinces to address component-specific issues in child survival across departments and agencies.

### **ESTABLISHMENT OF DONOR CONSORTIUM AND INTER-AGENCY RELATIONSHIPS**

In the aftermath of Pressler, if the original objectives were to be accomplished in any of the component areas, additional funding would have to be identified. Coordination with other donors with similar goals and objectives as the PCSP was thus essential. A forum was needed

for cooperative planning and implementation of child survival-related activities which would also, in due course, allow consideration of cooperative funding efforts.

Under the auspices of the GOP, the Project assisted in the organization of a Donor Consortium for information exchange and coordination of activities and funding. The Project was represented at the Consortium Meetings by the Chief of Party (COP). This effort decreased overlap between child survival activities, augmented implementation, and extended the foundation laid by PCSP.

In addition, individual meetings were held with other agencies involved in child survival activities, be they in training, health information systems, communications, or intervention-specific programs such as EPI, CDD, ARI, or Nutrition. International agencies such as UNICEF and WHO, as well as donor agencies like the World Bank and CIDA, were targeted for specific discussions regarding Project goals and objectives, activities (planned or accomplished to date), and funding to sustain these activities.

Ongoing communication channels were established at federal and provincial levels between PCSP staff and the child survival staff of other agencies. Specific areas of overlapping activities were identified and efforts made to promote cooperative planning and implementation, to avoid duplication as much as possible in the future. This was especially true for training, where the provincial Child Survival Steering Committees played a significant role.

The investment of time and energy has been more than compensated by the rewards of improved inter-agency relationships and the coordination of donor plans for continuing the HIS and Integrated Child Survival Training (ICST) activities of the PCSP. In particular, UNICEF, and the World Bank are making substantial contributions to assure the continuing of PCSP activities. The pie charts on the next page illustrate cooperative donor efforts to extend PCSP activities. (see figure 1)

### **COOPERATIVE COLLABORATION WITH GOP/BHSC**

PCSP established monthly meetings with BHSC/MOH counterparts and USAID to assure the regular exchange of information and promote cooperative collaboration.

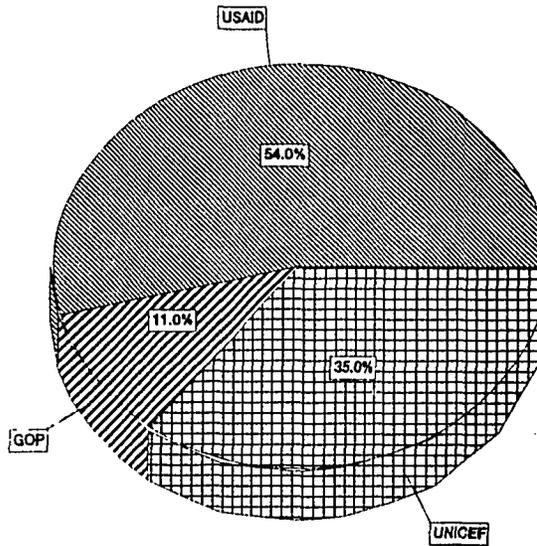
### **ADMINISTRATIVE SYSTEMS DEVELOPMENT**

- a. **Workshop Tracking:** Together with the HIS and Training teams, the Project developed detailed tracking systems for both Training and HIS workshop expenditures. This enabled the technical team to closely monitor expenditures for the various workshops, to identify cost-saving areas, and to more accurately budget for future workshops.

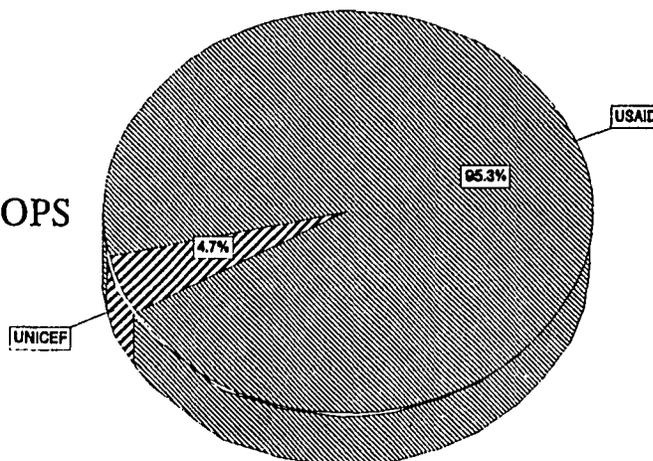
# Cooperative Funding USAID / UNICEF / GOP

FIGURE 1

HIS WORKSHOPS



TRAINING WORKSHOPS



- b. Accounting and Finance:** Together with USAID, the Project developed a standardized quarterly expenditures reporting system for MSH and its subcontractors. MSH/Boston also developed various tracking systems to review Project (field and home) office expenditures.
- c. Administrative/Procedural Systems:** A number of administrative systems were designed and implemented for this project including the development of:
- \* office procedures;
  - \* a standardized set of guidelines and administrative procedures;
  - \* a system for hard disk file management and computer hardware;
  - \* a PCSP Employees Handbook;
  - \* a computerized Inventory Management Program;
  - \* staff hiring procedures;
  - \* salary structures; and
  - \* per diem policies.

In addition, demobilization plans were formalized, and a series of coordinating meetings with PCSP, MOH/GOP and USAID assured a smooth transition at the close of the MSH contract.

These financial and administrative systems will be bound in a PCSP Administration Manual which can serve as a prototype for other child survival projects.

## **DEVELOPMENT OF PROJECT MONITORING SYSTEM (PMS)**

An essential component of the PCSP implementation strategy was the development of a monitoring system to track accomplishment of targets for quantifiable inputs and outputs, as well as resource utilization. While meeting the Project's immediate management requirements, this system was also capable of being adapted to Ministry of Health (MOH) use for monitoring ongoing health programs as a component of the larger Health Management Information System (HMIS) for Pakistan (see Appendix 18).

### **Objectives of PMS**

The PCSP Monitoring System was developed to provide the means for tracking:

**a. Project Input Indicators for Accountability Purposes**

- e.g. \* Child survival commodities  
\* Vehicles provided  
\* Computer equipment provided

**b. Project Output Indicators and Comparisons with Targets**

- e.g. \* Training sessions held and associated costs  
\* Workshops held  
\* Number of staff trained  
\* Number of CSTUs established

**c. Indicators Related to the Quality of Case Management in Each of the Child Survival Interventions**

These serve as proxy measures of project impact indicators for which data collection is very complicated and costly.

**d. Provincial/District-wise Variation in Project Activities, Process Indicators and Resources to Identify Gaps or Inequitable Spread of Project Interventions**

**e. Recurrent vs Capital Investment Expenditures**

This permits more accurate cost projections for identifying cost of implementation and eventual sustainability of project interventions by the MOH.

**Monitoring Indicators**

The indicators selected to monitor the Project's status included a blend of process and output indicators which have been identified to be useful for management purposes and in quantifying the attainment of project objectives.

It should be noted that the targets set for the indicators in Training and in Health Information Systems assumed the identification of additional funding for the Child Survival Project. USAID utilized a list of indicators for which the targets have been modified, taking into account the present funds available to USAID and to the MSH contract.

## **System Structure**

The system consists of a number of data files built around a comprehensive Health Institutions Data Module. This is the backbone of the system which provides the denominator information for many of the performance indicators used, as well as the geographic coding required for preparing regional/district breakdowns of the data. It can also be used operationally for personnel and health facility planning and management by the MOH.

In collaboration with the MOH and USAID, the original monitoring indicators and targets were revised after project revisions were made in scope and time subsequent to the Pressler Amendment determination. A computerized monitoring system was then developed and fully implemented. The databases of the Project Monitoring System (PMS) were finalized. The Health Institutions Module (HID) was installed in all the provinces. In addition, the Training Module was further refined so that data entry on integrated child survival training activities and on HMIS/FLCF training activities could be maintained. Data files and screens for the Inputs Module and the Personnel Module were designed, and the data entry forms for the Personnel Module finalized after feedback from the provinces. The Inputs Module was then installed on the PCSP computers.

## **CHALLENGES AND CONSTRAINTS**

### **CONTINUATION OF VERTICAL PROGRAM STRUCTURES**

At both federal and provincial levels, the coordination and integration of child survival activities was challenged by the fact that structures remained "vertical," within intervention-specific programs and departments (CDD/EPI, ARI, Breastfeeding MCH, BHSC). As already noted, the Steering Committees provided an "umbrella function" for appropriate authorities to coordinate activities and associated planning or policy. Nonetheless, more-or-less vertical program planning and resource allocation continues to undermine coordination and maximize competition.

At the federal level, the Child Survival Program Coordinators do not reside in one institution, but independent managers are part of different agencies, report to different authorities, and thus

relate individually to the Provincial Health Departments. Hence, the flow of authority, responsibility and resource allocation can be quite variable for different child survival intervention programs.

#### **NO FORMAL VEHICLE FOR COORDINATION/EXCHANGE**

The effort to coordinate donor activities through the Donor Consortium met with several challenges. The main obstacle was the fact that prior to the Donor Consortium, there was no vehicle through which donors could regularly communicate on issues related to child survival program support, and their plans for future implementation. As a result, each donor would be familiar with his own portfolio of projects, but would have incomplete knowledge of projects supported by others, and little detailed information on the impact that projects funded by others might be having on his own activities, or vice versa. In addition, diverse donor objectives and priorities often created competing, rather than complementary strategies. As a result, much of the Consortium's initial time was spent on exchanging information between donors.

#### **REVISION OF PROJECT INDICATORS AND LACK OF MORTALITY RATES TO MEASURE IMPACT**

The changes in Project activities induced by the consequences of the Pressler Amendment necessitated major revisions in the Project indicators originally developed. Revised indicators and targets were thus created for each Project component. Targets were set at two different levels: one level was based on the now-limited availability of USAID funds in the Project; the other assumed that additional funding sources would be identified for Training and Health Information System Components.

The Primary Health Care Project Evaluation Report recommended the use of age and disease specific mortality rates as outcome indicators to measure impact of the PCSP. However, in developing countries, such data are not routinely available, and Pakistan is no exception. Given the limited funding available for the PCSP, it was not realistic to perform a prospective morbidity/mortality survey to establish a baseline in order to later assess impact, as was recommended by Garenne and Parvez in their report. Furthermore, the revised scope of activities of the PCSP was directed towards the institutionalization of child survival programs, rather than activities with direct interventions to decrease infant and child mortality.

All indicators of the revised Project Monitoring System are output indicators. Specifically for training activities, the eventual improvement in the quality of care delivered in the "trained" health facilities is a valuable indicator of Project success. As pointed out by van Norren et al<sup>1</sup>, the current status of knowledge on determinants of child survival allows the use of such indicators as "intermediate variables which directly influence the health status of children." In the absence of reliable age and disease-specific mortality rates, and in light of PCSP's revised scope of activities, the use of these "intermediate" indicators for monitoring and evaluation of the Project was initiated.

### **GULF WAR AND RELATED EVACUATION**

The evacuation, as a result of the Gulf War, resulted in the resignation of the Chief of Party; a prolonged delay in Islamabad and Provincial Offices staff selection and hiring; as well as an overall loss of an estimated three to six months in the implementation of each component.

### **PRESSLER-INDUCED FUNDING CUTS**

In early February 1991, the U.S. Government made a so-called negative Pressler determination, because the Government of Pakistan would not sign the non-nuclear certification required by the U.S. Government. This determination drastically altered the future of the Pakistan Child Survival Project. The budget was greatly reduced (by 54%) and the duration of the Project decreased to the base period of 3 years. Instead of beginning to implement the recently approved workplan, the TAT was asked to begin "priority activity" discussions, with a goal of determining an overall reduction of activities, to fit within the newly reduced budget.

During the months of February and March, the TAT was asked to review each component and assess which activities could be reduced without altering the basic design of the project. "Useful units" were developed per component as well as a new timeline. Eventually changes in Project scope were agreed upon by USAID and the GOP based on these new "priority activities." At the first PCSP Federal Steering Committee on May 28, 1991, the Director General, Ministry of Health and the Provincial Ministers of Health reaffirmed their commitment to the PCSP and supported the "priority activities" presented.

To formalize these changes in a working document, preparation began for the Second Annual Workplan Review Meeting which included presentation of a revised 3-Year Workplan document and associated background materials. The Revised 3-Year (1991-93) Workplan was approved by the GOP and USAID.

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<sup>1</sup> Van Norren B., Boerma J.T., Sempebwa E.K.: Simplifying the Evaluation of Primary Health Care Programs. 1989. Soc. Sci. Med. Vol 28. No 10, pp 1091-1097.

- \* The "slashing" of the original budget clearly necessitated a major revision in PCSP's scope of work and the specific activities possible within each component. Such a marked revision in activities and times (since the base period of the contract became the new "end" of the contract, with no option period possible) resulted in complete "overhauls" in the strategies of several components, particularly Communications and Research. Both Training and Health Information Systems strategies also underwent significant alterations, and were now focused more on development and initial implementation (with the hope that other donors would be capable of extending activities in accordance with the original PCSP scope).
- \* All TAT were involved in this remarkable re-planning exercise and devoted major proportions of time and energy to the revisions. In addition to the literal re-writing of the strategies, significant amounts of time were required to discuss these alterations with our colleagues in the GOP and USAID in order to obtain a consensus on the new priority activities, as well as to gain the necessary approvals.

Clearly, such an endeavor is sensitive in the best of times, but in the light of the political climate at the time, it was a definite challenge to maintain credibility and some semblance of stability. If one considers the evacuation, loss of key staff, the drastic reduction in funding, and corresponding revised scope of work, the challenges which faced the Project are obvious!

### **MULTIPLE STAFF CHANGES**

In addition to the above, multiple staffing changes challenged the overall management of the Project, as well as constraining the technical work of the team.

**Project Director(s):** The Project sustained a number of changes in key leadership positions. The federal Project Director changed multiple times during the first 18 months of the Project. The turnover in this position resulted in lapses in continuity in the relationship established with the Basic Health Services Cell. Such turnovers also required significant amounts of time to re-orient each Project Director, and to develop new relationships of credibility and trust. Turnover also limited the strength of PCSP's support base within the Basic Health Services Cell. Furthermore, given the critical decisions faced during the first year of the PCSP, the lack of a consistent Project Director at the Basic Health Services Cell during that time made rapid decision-making more difficult.

However, contrary to the federal level, our relationships with provincial Project Directors, Director Generals and Program Heads/Coordinators related to child survival (of programs such as EPI, CDD, ARI), were stable. This allowed strengthening of the child survival activities and our relationship with government agencies responsible for these activities.

**Chief of Party:** There was a change in the Chief of Party during the evacuation which resulted in the placement of an interim Acting Chief of Party until the long-term position could be filled. The Acting Chief of Party assumed responsibilities during the evacuation period and returned with the team in April. The initial several months were devoted to the re-creation of credibility for the Project, as well as the establishment of the Acting Chief of Party in her role, particularly building rapport with critical GOP and USAID colleagues. Given the political sensitivity surrounding the evacuation, as well as the history of this Project, including difficulties in initiating implementation, the change in the Chief of Party was a most sensitive issue.

Effective October 1, 1991, Dr. Duane Smith assumed his duties as permanent Chief of Party, replacing Dr. Diana R. Silimperi who had served as Acting Chief of Party from the time of the evacuation in January, 1991. Tragically, Dr. Smith passed away on September 17, 1992, an unexpected and overwhelming loss to the Project. Following his death, and taking into account the end-date of the Project, MSH/Boston increased management support for the remaining period through short term visits, and revised the management structure to permit smooth functioning of the Project without appointing a new Chief of Party. Dr. Theo Lippeveld then agreed to serve as Acting Chief of Party until the end of the Project.

**Project Manager:** Mr. Najam Saeed was appointed the new Project Manager to replace Mr. Stephen J. Sacca. After revision of the Management structure, following Dr. Smith's death, the Project Manager's position was eliminated.

**Other Staffing Challenges:** Higher-than-average employee turnover was observed in provincial PCSP positions and the Cotrimoxazole Trial research staff. This was attributed to the salary level maintained by the PCSP, mainly due to budgetary constraints. However, such staff turnover created more difficulties for timely completion of tasks in various components of the PCSP.

## **LESSONS LEARNED**

### **SIGNIFICANT ROLE OF FEDERAL AND PROVINCIAL CHILD SURVIVAL STEERING COMMITTEES**

The success of the federal and provincial Child Survival Steering Committees is evident in the transition of "ownership" of the Pakistan Child Survival Project from a USAID-sponsored project to the GOP: the Basic Health Services Cell at the federal level, and the Provincial Ministries or Departments of Health. The Steering Committees played an instrumental role in this transition, by ensuring that all parties were informed of Project activities to the maximum extent possible, and that their input was respected and incorporated into project design and implementation.

### **IMPORTANCE OF DONOR CONSORTIUM AND ESTABLISHMENT OF INTER AGENCY RELATIONSHIPS**

The success of the Donor Consortium at building inter-agency relationships is evident in the assumption of HIS and Training activities by UNICEF and the World Bank following the closure of the MSH contract of the PCSP. Such would not have happened without the regular communications and strong collaborative planning pursued over the last 3 years. The chances for long-term sustainability of the Project look brighter given the support of the GOP at both federal and provincial levels which has also encouraged new donors to assume funding responsibility for PCSP activities.

### **VALUE OF COLLABORATIVE PARTNERSHIPS FOR CHILD SURVIVAL WITHIN GOP**

The monthly meetings between PCSP Technical Assistance Team, USAID, and members of the BHSC/MOH were instrumental in developing a strong team approach which was essential for success given the overwhelming challenges facing the Project. Such partnerships also fostered institutional growth and skill-building within the BHSC and the TAT.

### **UTILITY OF FORMALIZED ADMINISTRATIVE AND MONITORING SYSTEMS AS WELL AS MANAGEMENT SYSTEMS**

The development of a cadre of financial and administrative monitoring systems was a necessity for a project in PCSP's situation: unexpected, drastic budget and resource reductions; with simultaneous need for visible outputs and products. Furthermore, these management systems

have helped assure sustainability of the Project despite staff turnover and have promoted the institutionalization of many activities. The development of agreed upon standards and guidelines such as those for DA/TA and honorarium have fostered cooperation and helped maintain the quality of activities and services.

### **ACTIONS FOR SUSTAINABILITY**

#### **CONTINUE FEDERAL AND PROVINCIAL CHILD SURVIVAL STEERING COMMITTEES**

Ensure continuity of the federal and provincial Steering Committees, especially for Training. Support cooperative planning and implementation at district and local levels between the variety of agencies and departments implementing child survival activities (HEC, MCH, EPI, ARI, CDD, Nutrition, PHC/BHS....).

#### **MAINTAIN DONOR CONSORTIUM AND CONTINUE TO BUILD INTER-AGENCY RELATIONSHIPS**

Maintain active communications among the donor community, and between agencies involved in different aspects of child survival and primary health care. Urge the World Bank and the Asian Development Bank to examine the value of integrated rather than vertical child survival program implementation at the provincial level.

#### **CONTINUE COLLABORATIVE PARTNERSHIP FOR CHILD SURVIVAL WITHIN THE BASIC HEALTH SERVICES CELL, MOH**

After the closure of the MSH contract, the BHSC may take over the responsibility of maintaining the bimonthly meetings, involving all those implementing or supporting child survival activities.

# HEALTH INFORMATION SYSTEM

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## INTRODUCTION

Increasing and widespread resource limitations in the health sector in developing countries make careful planning and management of the health services a top priority in trying to improve accessibility and efficiency of health care. The slow progress made under the health-for-all strategy in several countries is due, to a considerable extent, to the poor management capacity of the health services. This situation is certainly not different in the government health services in Pakistan.

One of the most powerful tools of management support for primary health care is a well designed management information system. The improvement of existing health information systems was therefore made part of the national strategy for the development of primary health care delivery systems in Pakistan, and was thus included as a main part of the proposed Child Survival Project.

When the Project's resources were drastically reduced as a result of the Pressler Amendment, both the GOP and USAID wished to continue the important work of restructuring health information systems in the country. It was decided to focus mainly on the development of a comprehensive Health Management Information System (HMIS), and not to dedicate resources to a more specific improvement of disease surveillance systems. Even then only an estimated 40% of the required funds for nationwide implementation of the planned Health Management Information System for First Level Care Facilities (HMIS/FLCF) were available under the Project. It was hoped that other sources of funding would be identified at a later stage.

Notwithstanding these severe resource constraints, substantial progress has been made under the PCSP in designing and implementing a nationwide health management information system. In the following paragraphs, a summary overview of the achievements by a joint team of PCSP/HMIS technical assistance staff and of government counterparts is given. These achievements are critically reviewed, and recommendations are given for future HMIS/FLCF institutionalization.

## **OBJECTIVES**

1. To assist the GOP in restructuring the existing routine reporting system for First Level Care Facilities through the design of a comprehensive and integrated Health Management Information System for First Level Care Facilities (HMIS/FLCF)
2. To computerize this HMIS/FLCF at appropriate levels in the health system and provide the necessary staff with computer training
3. To make the HMIS/FLCF operational in 1500 first level care facilities throughout the country, by providing training in data collection to the health personnel, and by supplying a stock of all necessary printed materials
4. To provide training to supervisors in the use of the information for improved decision-making as related to the planning and management of child survival interventions
5. To assist the GOP in institutionalizing the new HMIS/FLCF

## **ACCOMPLISHMENTS AND OUTPUTS**

### **ASSESSMENT OF EXISTING HEALTH INFORMATION SYSTEMS**

#### **Assessment Study on Health Information Systems in Pakistan**

Between July and December 1990, a general assessment of the existing information systems was performed by the PCSP/HIS team. Data were collected from at least three sources:

- a. existing reports and studies relevant to the study's objectives;
- b. interviews with public health officials at the federal and provincial levels, and with representatives of donor agencies and of non governmental agencies involved in health information systems;
- c. field visits to institutions involved in health information collection, and to selected health facilities.

As a framework for analysis, an organizational model of the health services with three management levels (see Figure 1) was used: the health system management level; the facility level; and the patient/client management level. For each of these levels, information needs were examined, and the adequacy of the existing information system in responding to these needs.

A comprehensive report was published in April 1991<sup>2</sup>. In summary, the study pointed out that existing health information systems as a rule did not provide adequate information for decision-making, either to health managers for system planning and management, or to health workers for facility or patient management. The reasons were multiple:

- a. Overall health information system management is weak;
- b. Indicators do not always respond to specific information needs at different levels in the health system;
- c. Data collection in health facilities is poorly organized;
- d. Information flows are fragmented. Most national programs have set up separate reporting systems, and often, separate supervisory systems;
- e. Data consolidation and processing is mostly done manually. In addition to being time consuming, this process compounds the opportunity for human error;
- f. Use of the information generated is greatly limited by the quality of the data collected, by the fragmented information flows, and by the virtually non-existent feedback mechanisms.

As for mortality data, a separate study<sup>3</sup> was performed in the first two weeks of January 1991 by Prof. M. Garenne from Harvard School of Public Health and by Dr. Akram Parvez, former WHO epidemiologist; a report was published in February 1991. A summary of the findings and recommendations of this study have been incorporated in the HIS assessment report.

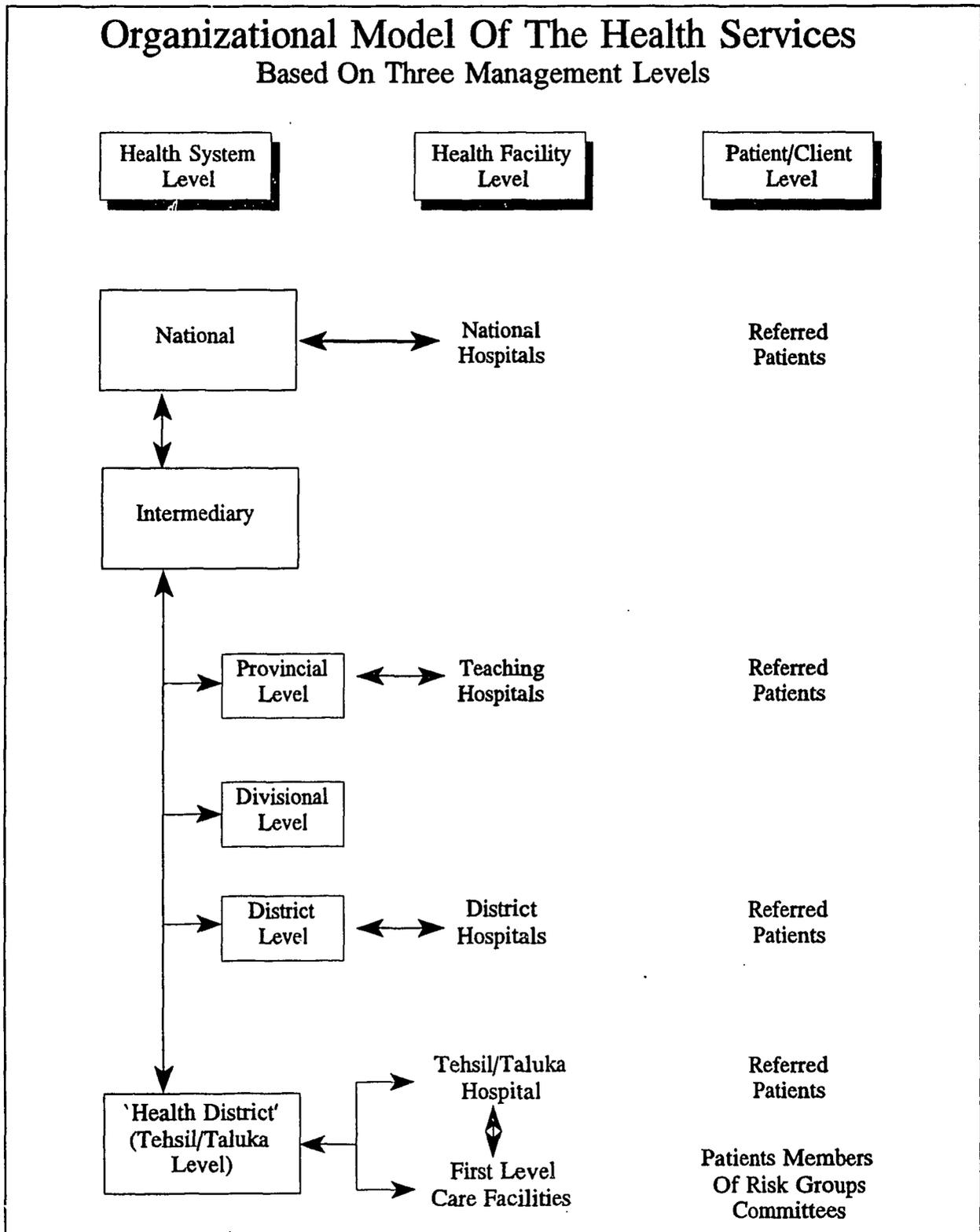
The Assessment Study Report with its recommendations was the basis for a one year consensus-building effort on restructuring health information systems in Pakistan. More than 500 copies

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<sup>2</sup> Assessment Study on Health Information Systems in Pakistan, PCSP, April 1991

<sup>3</sup> Report on Levels and Causes of Infant and Child Deaths in Pakistan. Michel Garenne and Akram Parvez, February 1991.

**FIGURE 1**



of the report have been distributed throughout Pakistan, and requests for more copies are still coming in.

### **The Primary Health Care Monitoring System**

The Primary Health Care (PHC) Monitoring System was introduced in 1988 by the Primary Health Care Project. The system was implemented in over 320 first level care facilities (Rural Health Centers, Basic Health Units, and Dispensaries) in the four provinces of Pakistan. It gathered management information in RHCs and BHUs focused on six priority health problems: diarrheal diseases, vaccine preventable diseases, acute respiratory infections, tuberculosis, malaria and malnutrition.

In order to gather further evidence for the usefulness of a comprehensive management information system for first level care facilities, the PCSP kept the PHC Monitoring System operational in as many facilities as logistically possible. For this purpose, Dr. Nancy Limprecht, formerly with the PHC Project, was given an extended appointment until May 1991. The 1990 data from Sindh and NWFP was analyzed and a feedback analysis report prepared for the Director General and the District Health Officers of these provinces. However, with the development of a new Health Management Information System, the PHC Monitoring System was no longer necessary; PCSP's efforts in this regard were stopped in December 1991.

### **DESIGN OF HEALTH MANAGEMENT INFORMATION SYSTEM FOR FIRST LEVEL CARE FACILITIES (HMIS/FLCF)**

The main strategy for the restructuring process as proposed by the HIS team was to use a consensus-building approach, involving as many future users of the system as possible. Therefore, a National Workshop on Health Information Systems was organized in May 1991, in Islamabad<sup>4</sup> to decide on the content and the process of restructuring the health information system. About 50 participants attended representing the Federal Ministry of Health, the Federal Planning Division, the Federal Bureau of Statistics, the Provincial Departments of Health, and the donor community.

The basis for discussions were the findings and the recommendations put forward in the HIS Assessment Study report. A general consensus was reached between federal and provincial health officials to transform the existing routine reporting system in government-managed first level care facilities into a comprehensive and integrated health management information system

(HMIS/FLCF). Priority was given to first level care facilities because they are the principal level for the delivery of child survival related services.

Agreement was also reached on the proposed design and implementation plan for HMIS/FLCF. The Basic Health Services Cell of the Federal Ministry of Health, assisted by the HIS team of PCSP, received the mandate to coordinate the HMIS/FLCF development phase. This group, including the Chief Statistical Officer of the Biostatistics Cell, is further referred to as the "federal HMIS team". Each Provincial delegation appointed an HMIS work group, representing the users of the future HMIS, from the Director of Health Services through the health workers in the first level care facilities. The federal HMIS team, together with the provincial HMIS work groups would design the future HMIS/FLCF.

### **HMIS/FLCF Macro-Design**

The first step in the design phase was to start listing functions and activities performed in first level care facilities (FLCFs) and at higher levels in the system, and then to define indicators for each of them. Initially, National Program Managers were consulted through a series of meetings, and a provisional list of indicators was provided for the following national programs: CDD Program, EPI, ARI Program, Malaria Program, Nutrition Cell of the Planning Division, Tuberculosis Program, MCH Program, and Family Planning Program (Ministry of Population and Welfare).

Next, the first series of *Provincial Workshops on HMIS Indicators* was held between September-October 1991 in all provincial capitals and in Islamabad for AJK, Northern Areas, and Federal Health Services. Based on a standard list of functions/activities in first level care facilities, provincial HMIS work groups prepared a list of HMIS/FLCF indicators.

In a second series of *Provincial Workshops on HMIS Structure*, held between November-December 1991, the same work groups defined a set of data collection instruments needed to gather the data for each of the indicators. Reporting procedures and data flow were defined. Finally data processing and feedback mechanisms were discussed, and recommendations were made in preparation for the national workshop.

The Second National HMIS Workshop on macro-design of HMIS/FLCF was held in Islamabad on January 20-21, 1992<sup>5</sup>. During this workshop, a consensus was reached for: a final national list of indicators; a set of HMIS/FLCF data collection instruments; report forms and report transmission procedures; the data processing system; and feedback mechanisms.

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<sup>5</sup> Consensus on Design of HMIS/FLCF: Report on the 2nd National HMIS Workshop, January 20-21, 1992

## **Design of Data Collection Instruments**

From February to July 1992, the federal HMIS team, with the help of the Provincial Health Departments, designed all necessary facility-based HMIS/FLCF data collection instruments. Specifically, in the area of maternal and child health data collection instruments, technical assistance was provided by the MIS team from the Department of Community Health Sciences of Aga Khan University.

Draft formats of the facility-based instruments were field tested in May-June, 1992 in 23 health facilities throughout the country: 2 in AJK, 5 in Balochistan, 6 in NWFP, 5 in Punjab, and 5 in Sindh. Based on the results of the field testing, formats were modified and prepared for presentation at the Third National HMIS Workshop.

The Third National HMIS Workshop was held on July 7-8, 1992 in Islamabad<sup>6</sup>. Final formats for facility based data collection instruments were approved and HMIS/FLCF training plans prepared for each province.

In the meantime, draft formats were also prepared for a set of district level data collection instruments, including a supervisory checklist for first level care facilities. Field testing of these instruments was done much later. In order to field test the supervisory checklist, several workshops were held to introduce supervisors to the concepts of supportive supervision, and to make them familiar with standardized case management procedures. Final formats of these instruments are still to be approved by the provinces.

## **Design of a Computerized Data Processing System for HMIS/FLCF**

At the First National HIS Workshop, it was decided that HMIS/FLCF data processing should be computerized. The feasibility of provincial computerization of data processing had already been tested under the PHC monitoring system noted previously.

Software development was therefore initiated in 1991 with the help of Mr. Randy Wilson, systems analyst from MSH, as short term consultant. A relational database set-up was designed through which all future computerized data processing in the Ministry of Health and in the provincial/state Health Departments could be handled (see Figure 2). The central database is the "Health Institutions Database (HID)"<sup>7</sup>. All government managed health institutions of Pakistan were entered in this database and were given a unique identification number. A HMIS/FLCF

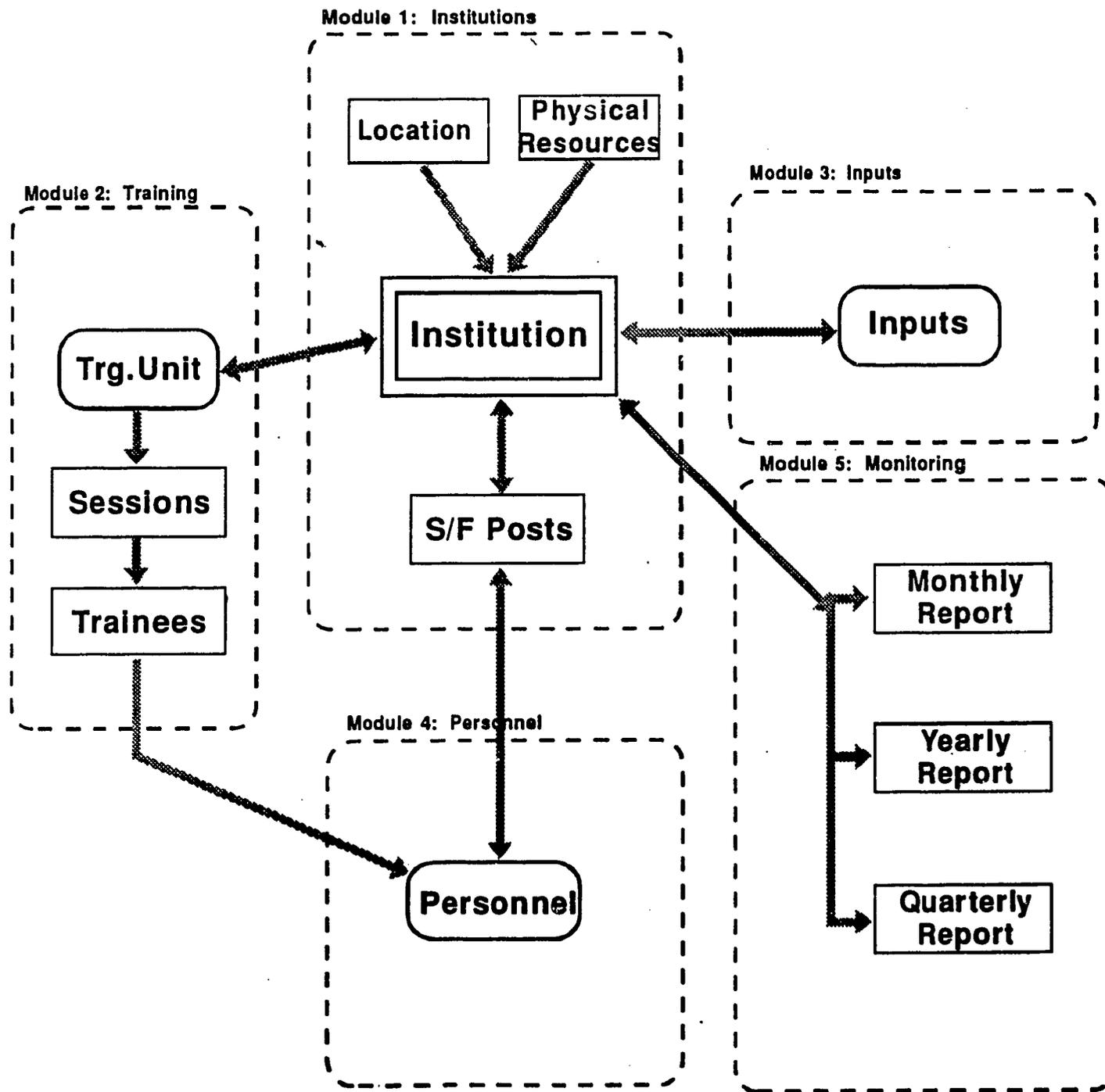
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<sup>6</sup> Data Collection Instruments of HMIS/FLCF: Report on the 3rd National HMIS Workshop. Islamabad, July 7-8, 1993

<sup>7</sup> Health Institutions Database: User's Guide (ver 2.0)

FIGURE 2

# Structure of Pakistan's HMIS



Reporting Module was designed in which all HMIS/FLCF reports can be entered. Finally, a Training Module was designed. Both modules can be linked to each other through H.I.D. Later, other databases, for example on personnel, can be added to this framework.

### **Design of a Computerized Feedback System for HMIS/FLCF**

During 1993, work has started on developing computerized feedback reports adapted to each level of the health services. Based on data collected by the first level care facilities, these reports summarize per administrative unit and/or per time-period indicators for different FLCF activities in table form or in graphs. A first set of feedback report formats was presented at the VIth National HMIS Team Meeting in January 1993. These formats were then shared with provincial and district level managers and were further refined during the VIIth National HMIS Team Meeting in July 1993.

By the end of August, a FLCF annual summary report, a comprehensive set of district level reports, and several formats for higher levels were ready. It is planned under the HMIS extension to further develop and refine the computerized feedback system.

## **IMPLEMENTATION OF HEALTH MANAGEMENT INFORMATION SYSTEM FOR FIRST LEVEL CARE FACILITIES**

### **Training of Health Personnel in the Use of HMIS/FLCF Data Collection Instruments**

#### **a. Training Program Strategy**

Once a full consensus on the HMIS/FLCF was reached, a massive training program for approximately 16,000 health workers of more than 10,000 first level care facilities had to be launched to teach them how to fill in the various newly designed or modified data collection instruments, and how to use the data generated for management of the first level care facility.

Before training the FLCF staff, District Orientation Meetings were held to introduce the new system to district level supervisors, and to plan for implementation in their district. For the FLCF staff, it was agreed to use a cascade type of training whereby initially master trainers would be trained, who in turn would train the health workers. Training would be implemented district by district through four-day workshops. As soon as health personnel of a district had been trained, use of outdated registers and forms would be discontinued and the new system adopted.

**b. Preparation of Training Materials**

From July until September 1992, the 4-day HMIS training curriculum and related training materials were developed. Training methodology was based on experiential learning, where health workers were given exercises with actual data to fill in themselves, thereby learning how to use the data collection instruments. From the outset, the emphasis was placed on use of the data for decision-making in their daily activities.

The basic document for the training was an Instruction Manual, produced both in English and in Urdu<sup>8</sup>. The manual contained standard definitions, completed models, forms, and detailed instructions for each data collection instrument. It was given to all participants and would later serve as a reference manual in the FLCFs. Specific training manuals for trainers were also developed<sup>9</sup>.

**c. Status of the Training Program as of August 31, 1993 (see Tables 1 and 2, and Figure 3)**

**i) Training of district supervisors**

To date, 10 District Orientation Meetings have been organized introducing the new HMIS/FLCF to 234 supervisors. Most of these meetings were held at the divisional level, except in Punjab where two orientation meetings were held, each including supervisors from four divisions. The agenda for these two-day meetings included: a brief historical overview of the development of the HMIS/FLCF; a short presentation of the HMIS/FLCF data collection instruments; and an introduction to the future use of the information generated through the HMIS/FLCF.

**ii) Training of master trainers**

Three workshops for master trainers were held in Islamabad, for a total of 94 master trainers. About half of these were from Punjab, which had decided to have two trainers for each district. A consultant provided special expertise regarding training methodology.

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<sup>8</sup> Instruction Manual for First Level Care Facility Staff - HMIS/FLCF, May 1993

<sup>9</sup> Trainers Manual: Training in HMIS/FLCF Use, District Level Workshop, February 1993

## iii) Training of FLCF staff

By the end of September 1993, the staff of approximately 40 % of all first level care facilities in the country had received HMIS/FLCF training through the organization of the four-day workshops in the district capitals. In Sindh, which had decided earlier in the development process to train only FLCFs managed by the Department of Health, the staff of more than two thirds of the FLCFs had received HMIS/FLCF training.

At the close of the MSH contract, a total number of 5,556 FLCF staff have been trained. For each type of FLCF, a standard number of staff were invited, varying between one person (the in-charge position) from dispensaries and first aid posts, to eight or more from OPDs of hospitals. Approximately 79% of the trainees were male and 21% were female; 37% of the trainees were doctors, while 63% were paramedics.

In general, the participants showed keen interest in the new information system as expressed in their evaluation forms completed at the end of the workshops. The main criticism was the short duration of the training course.

**TABLE 1: OVERVIEW OF HMIS/FLCF TRAINING ACTIVITIES**

Training activity	Number	Training Output	
District Orientation Meetings	10	234	Supervisors
Master Trainers Workshops	3	94	Master Trainers
District Level Workshops	123	5,556	FLCF Staff

TABLE 2: SUMMARY OF DISTRICT LEVEL WORKSHOPS as of September 30, 1993					
Province/Region	Workshops			# of Trainees Trained	FLCF's Trained
	Target	Completed	% Compl.		
AJK	18	8	44%	380	260
Balochistan	43	17	40%	594	383
Federal	3	2	67%	56	48
NAs	9	5	56%	215	150
NWFP	67	26	39%	1,256	756
Punjab	174	44	25%	1,977	1,216
Sindh	31	21	68%	1,078	626
TOTAL	345	123	36%	5,556	3,439

Distribution of the district level workshops according to the funding source follows:

USAID/PCSP	65	53%
UNICEF	45	36%
Govt. (Punjab)	13	11%



### **Printing and Distribution of HMIS/FLCF Data Collection Instruments**

From the outset, it had been decided that the PCSP would provide a one year stock of supplies to all trained FLCFs, after which the Government through their own funds would furnish the necessary supplies. Essential printed supplies included: 11 patient/client record cards, 18 registers, 3 report forms, and 2 posters. Given the lack of funding after the Pressler Amendment, PCSP could supply printed supplies for only about 25% of the health facilities. Fortunately, UNICEF agreed to provide the remaining funds, so that as originally planned, all trained health facilities will receive a one year stock of printed supplies.

Initially, distribution was done immediately after training, so that the FLCF staff returned home with the needed printed supplies. However, with the delay in mobilizing funds and the production of printed supplies, this procedure could not be maintained. Instead, printed supplies were given to the District Health Officer (DHO), who upon receipt, distributed them to his facilities according to a standard pattern per type of FLCF.

### **Establishment of Computer Centers**

With the combined funding of USAID and UNICEF, 30 computer centers were established, mainly at provincial and divisional levels. On an experimental basis, computers have also been installed in selected districts (see Table 3). At provincial centers, for the most part, desktop computers were provided, while in divisional and district centers, laptops with external monitors were installed, so that air-conditioned rooms were not necessary.

An extensive training program for computer operators has been undertaken. For each center, a minimum of two operators are trained; since no sanctioned positions existed, mostly statistical technicians or administrative employees were chosen. Training was given in two phases: first a week-long training was provided in the generic operation of computers and in use of the HID; as soon as data collection instruments were developed, another week of specific training was provided in use of the Monthly Report Module<sup>10</sup>.

A total of 71 computer operators have received generic training, and 73 specific training. Table 3 gives an overview of training provided per province as of September 30, 1993.

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<sup>10</sup> Monthly Report Module (ver 1): User's Guide

**TABLE 3: STATUS OF COMPUTERIZATION**  
(as of September 30, 1993)

PROVINCES/REGIONS	COMPUTERS PROVIDED				PEOPLE TRAINED	
	BY PCSP	BY UNICEF	TOTAL	Installed & Functional	Generic	Specific
AJK	1	1	2	2	2	5
BALUCHISTAN	1	2	3	3	11	13
FEDERAL (Bio.Stat & Nat. Programs)	-	-	-	-	-	7
FEDERAL (CHE)	-	1	1	1	2	2
NAs	1	-	1	1	2	2
NWFP	1	5	6	6	11	9
PUNJAB	8	3	11	10	30	21
SINDH	4	3	7	7	13	14
<b>TOTAL:</b>	16	15	31	30	71	73

#### Training in the Use of Information for Planning and Management

Ultimately, the future sustainability of HMIS/FLCF will depend upon the usefulness of the information generated by the HMIS/FLCF. As soon as HMIS/FLCF information is used at different levels to make planning and management decisions, its utility for decision-makers will be obvious, no doubt prompting them to take necessary measures to ensure its optimal functioning and maintenance.

Clearly, this stage of maturity could not be reached within the limited timeframe of the Project. Nonetheless, during the design phase, more than three hundred public health managers were involved in the brainstorming exercises regarding the essential link between information and management, which will hopefully give an impetus to reaching this ultimate stage as soon as possible. In that sense, the design phase activities provided on-the-job training in the use of information.

In the last project months, we have also initiated training of district level managers in the use of HMIS/FLCF information, based on feedback reports from districts where the system is operational.

## **HMIS/FLCF INSTITUTIONALIZATION**

### **HMIS/FLCF System Management**

As identified during the First National HMIS Workshop, within the current organizational framework of health services, the information system management is weak. In the federal and provincial headquarters, there is no central agency that has the overall responsibility of managing the system, starting from data collection procedures, and ending with the responsibility of ensuring appropriate use of the information generated. Statistical Officers receive incomplete reports from the periphery; no computer operator posts exist to ensure computerized data entry; and there are no health planners or epidemiologists available to analyze the data. At the district level, no responsibilities are assigned to monitor regularity of reporting or quality of the data collected.

As for central information system management, discussions with federal and provincial authorities were initiated early in the Project to address this situation, but very little progress has been made. Only in Punjab, a first step towards institutionalized information system management has been taken by the establishment of a Monitoring and Evaluation Cell. In Sindh, a post for an epidemiologist has been sanctioned, but the position is not yet filled. In the other provinces, no substantial organizational changes have occurred to improve the situation.

In Balochistan, Punjab and Sindh, a limited number of computer operators posts have been sanctioned. Many more are needed for computerization to succeed at divisional and later, at district level. No province has made the necessary budgetary provisions to ensure maintenance and repair of the installed computers.

At the district level, early during the implementation phase, discussions were initiated with the district staff regarding the importance of supervision of the HMIS/FLCF. Each district was requested to appoint an officer to assist the DHO in coordinating the HMIS/FLCF implementation. This officer would be called the "HMIS Coordinator". A standard checklist to monitor correct use of the HMIS/FLCF data collection instruments was also developed.

### **HMIS/FLCF Recurrent Costs**

Between November 1992 and January 1993, UNICEF supported a team from Enterprise & Development Consulting (EDC) to undertake a study on the recurrent costs generated by the new HMIS/FLCF, and to compare these with the costs of the existing system<sup>11</sup>. The study showed that recurrent costs of printing forms/registers under HMIS/FLCF are slightly lower than under the existing system, although the current budgetary allocations are insufficient to provide the necessary printed supplies for all FLCFs. The study report, including a diskette with a budget spreadsheet, was transmitted to all provinces. The spreadsheet, specific for each province, permits one to change assumptions, and should help planners to adjust non-development budgets to include sufficient funds for HMIS/FLCF. Initial steps have been made in most provinces to prepare PC-1s to address the sustainability of the HMIS/FLCF.

### **HMIS/FLCF Monitoring and Evaluation**

During the whole HMIS/FLCF development effort, continuous monitoring has been provided through quarterly meetings of the National HMIS team. The National team consists of the federal HMIS team, the four provincial PCSP/HMIS coordinators, and a representative of each provincial or regional Health Department. A total of seven National HMIS team meetings were held in Islamabad. During these two-day meetings, past activities were carefully reviewed, and future actions discussed. The meetings also fostered the development of coordination and communication lines between the Federal Ministry of Health and the Provincial Health Departments, lines that will be essential in the further institutionalization of the HMIS/FLCF.

During the month of July 1993, the HMIS/FLCF was evaluated by a team of external consultants. Preliminary results of this evaluation were quite positive, though the final evaluation report has not been submitted.

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<sup>11</sup> Recurrent Cost Study HMIS/FLCF by EDC for UNICEF, January 31, 1993

## **CHALLENGES AND CONSTRAINTS**

### **LACK OF FUNDING FOR INITIAL HMIS/FLCF IMPLEMENTATION**

Probably the biggest challenge faced during the nationwide restructuring process of health information systems was the reduction of available funding to support the restructuring. The implementation of the HMIS/FLCF was a major system change for government health services, one that needed readily available funds in order to minimize the necessary time to make the nationwide system operational. Indeed, as long as part of the country was reporting through the new system, while another was still using the old one, managerial confusion would abound; which if prolonged, could open the option to return to the old system. Readily available funds could only come from other donors, because the process to obtain these funds through government channels would have been too lengthy.

For the most part, the needed funds were provided through UNICEF on an immediate basis, and through the World Bank's Family Health Projects (FHPs) for the near future. Unfortunately, fund-raising efforts have taken a substantial amount of time, which has slowed down the pace of implementation. Also, the specifics of how and when FHP funds will be available in the provinces to complete implementation is not yet clear.

### **THE OVERALL MANAGEMENT ENVIRONMENT OF THE GOVERNMENT HEALTH SERVICES**

The carefully planned design period, involving the end-users of the system as much as possible, as well as the major efforts devoted to initial implementation could be all in vain if institutionalization is not achieved. The Director General of Health stated during the PCSP Evaluation Debriefing Meeting in July 1993: "The HMIS/FLCF has now as soon as possible to become a full part of the overall management environment in the health services".

Indeed, a management information system will only become effective within a well organized health system where the FLCF staff, with the involvement of the communities in their catchment area, and with the help of a supportive referral and supervisory system, are ready to work on the gradual improvement of the delivery of health care at the first level.

Such a management environment was not present when the design of the HMIS/FLCF was initiated. Medical officers, who were the backbone of the first level health services, were often poorly trained for their responsibilities. Called to work in remote rural areas with poor infrastructure, they lacked motivation in the absence of substantial incentives to improve their work environment. In rural health institutions, essential equipment, drugs, and supplies were not

available. Understandably, the population was hesitant to use these facilities, and preferred to travel long distances to directly consult the hospital-based specialists.

Only isolated initiatives existed to involve communities in the decision-making process. Communication between rural first level care facilities and referral hospitals was virtually absent. District supervisors considered supervision as "administrative checking", instead of assisting their staff to find solutions for the numerous problems present at the first levels of care. Absenteeism and poor performance were punished instead of examining the root causes of such problems. As a result, problems were often hidden to avoid further investigations and which might result in demotions. Furthermore, data reporting was frequently incomplete or falsified; so decision-makers learned to plan and manage without information.

This rather unfavorable management environment was fully acknowledged in discussions held during the HMIS design phase; furthermore, the sincere aspirations of several health services managers to change this situation was clear. The prevailing feeling was that the development of a good management information system could at least enable those who were motivated to make well-informed actions, which might eventually lead to an improvement in general management climate of government health services.

Given this heritage, one of the challenges for the newly developed HMIS/FLCF will be to encourage decision-makers at all levels to use information. Medical officers and their supervisors currently have difficulties in understanding basic concepts such as percentages or denominators. They are not used to examining lists of figures or graphs. In addition, their planning and management skills need to be enhanced to enable them to use the information generated by the HMIS/FLCF. For example, most are not in the habit of comparing achievements with planned targets, much less using such information to make appropriate decisions in order to rectify poor performance.

### **THE EXISTING INFORMATION SYSTEM MANAGEMENT**

As previously mentioned, the overall management infrastructure for health information systems is weak. Although strengthening of central information management at federal as well as provincial levels was one of the main recommendations made during the First National HMIS Workshop in May 1991, very little progress has been made since that time.

The macro structure of HMIS/FLCF includes indicators adapted to the information needs at the first level, improved data collection procedures, well-designed data collection instruments, a streamlined reporting flow, and a computerized system for data processing. But, without overall management capability, the data collected will remain of low quality; reports will not be transmitted regularly; data collection instruments will run out of stock and no one will take the

responsibility to reprint them; data will not be entered into computers; and most importantly, available information will not be used for improved decision-making.

Presently, the HMIS/FLCF system management of performance is artificial. At the federal and to some extent at the provincial level, in the absence of clearly identified responsibilities in the government infrastructure, most of the overall management responsibility resides in the PCSP/HIS team. Hence, many of the PCSP/HMIS counterparts at federal and provincial level have been given HMIS management as an additional responsibility. Although, statistical officers and clerks of more than thirty computer centers have received computer training, few positions have been sanctioned. Already the turnover rate is high, since many consider computer-related tasks to be merely additional work, which may even hamper their career development. At the district level, HMIS/FLCF management is currently dependent upon the personality and the motivation of the DHO - in districts where the DHO is convinced of the usefulness of the new system, implementation is going very smoothly; in other districts, even six months after initial training, no monthly reports have been received.

It is obvious that if no specific actions are taken in the next months, HMIS/FLCF management will further degenerate, and in spite of the availability of a HMIS tailored to the needs of the health departments, the necessary information for decision-makers will not be generated in a timely and accurate manner.

### **INCREASING NON-DEVELOPMENT BUDGETS**

Sustainability of the HMIS is directly related to the availability of funding for recurrent costs. Although a detailed recurrent cost study was performed in early 1993, long-term solutions to ensure the necessary funds for printed supplies, computer supplies and computer maintenance have not been determined. Convincing Planning and Finance Departments about the appropriateness of increasing recurrent budgets is an extremely difficult and lengthy process. Even if PC-1s are approved, which provide for recurrent costs over the next two or three years, additional effort will nonetheless be necessary to make these expenditures a regular part of the non-development budgets in each province.

**LESSONS LEARNED****CONSENSUS-BUILDING APPROACH****Only the Consensus-Building Approach can Guarantee Future Ownership and Therefore Sustainability of the New System after its Implementation**

From the outset, involvement of future users in the restructuring process of the health information system has been a major element of the HMIS development strategy. It was felt that only such an approach could guarantee future ownership, and therefore, assure sustainability of the new system after its implementation.

The main question was how broad this involvement and consensus needed to be. For the design phase, it was recommended that each province would develop an HMIS work group, including representatives from all levels of the health services. As such, more than two hundred health professionals participated in the HMIS/FLCF design: provincial directors and program managers; divisional directors; district level supervisors; and medical officers and paramedics from first level care facilities. Final indicators and final formats of data collection instruments were often the result of long discussions and subsequent compromises that were sometimes only accepted with reluctance.

But this consensual method ensured that the new system incorporated the real needs of the health service managers and care providers as much as possible. Also later, during district level orientation meetings and training workshops, this method proved to be extremely helpful in establishing the credibility of the HMIS/FLCF. With the transfer of some of the main contributors to posts away from the management of first level care health services, newly-appointed public health managers again questioned some of the decisions made during the design phase, and further discussions were needed to explain the rationale and the compromises of the system.

**SYSTEM CHANGE IN A COMPLEX BUREAUCRACY****System Changes in a Complex Bureaucracy are Time-Consuming and Require an In-Depth Understanding of the Decision-Making Process Within That Bureaucracy**

More than the structure and content of the system, and certainly more than the computer technology used, the bureaucratic environment in which the HMIS functions determines its future efficiency. This environment is extremely complex in Pakistan. In order to assure full

participation and endorsement of management, all relevant decision-makers had to be involved in the development of the new system. However, these decision-makers were part of different and sometimes conflicting compartments in the bureaucracy; i.e. the Federal Ministry of Health in contrast to the Provincial Health Departments; or within these structures, the Secretariat as well as the Health Directorate; and in addition, other Departments such as Planning and Finance Departments. Each of these compartments is staffed by civil servants with their own motivations, and who follow their own particular decision-making procedures.

It is logical that in such an environment the proposed system changes needed time for implementation; in fact, more time than initially planned. Therefore, it soon became obvious that HMIS/FLCF implementation could not be completed before the end of the PCSP, and that some form of extension would be needed after September 1993 to assure that three years of effort would not be lost. Indeed, although a general consensus on HMIS/FLCF structure and implementation was reached in July 1992, the provinces are still struggling with official notifications and approvals to ensure that recurrent costs are incorporated into provincial budgets.

#### **HMIS AS PART OF A BROADER MANAGEMENT INTERVENTION**

##### **For the Restructuring Effort of the Health Information System to Have a Durable Effect on the Quality of Care Delivered, Other Appropriate Management Interventions on the Government Health Services Will be Needed**

Restructuring the health information system, although itself an important and necessary initiative, is obviously not enough to have any long-lasting impact on the delivery of health services. As was pointed out under the Constraints section at the start of the PCSP, the overall management infrastructure of the government health services was judged to be weak; and unfortunately, little has changed over the last three years. Other interventions aimed at improving the management infrastructure will be needed if HMIS/FLCF is to become a useful planning and management tool. Programmatic planning and management of first level care activities including integrated case management for children under five, mother health services, family planning services, and follow-up of chronic cases, need to be further strengthened, or in some cases developed. Community participation in decision-making and financing of the health services is a sine qua non for viable first level care health services; yet is largely lacking at this time. The conceptual basis for the supervisory system should be changed from administrative to supportive supervision, and supervisors trained accordingly. Finally, the incentive systems and social environment of FLCF staff working in remote areas require improvement.

Some of these interventions, such as training staff in integrated child case management, and remodeling the supervisory system, were addressed through the Training Component of the Pakistan Child Survival Project, and have been described in other chapters of this report. Other

interventions will be a part of new projects, such as the World Bank-funded FHP. Some interventions, such as restructuring the incentive systems for rural FLCF staff, or community financing of health services, require the urgent attention of the Government. Without such incentives, it is unlikely that an improved health information system would have any durable effect on the quality of care delivered in the government-managed health services.

### **ACTIONS FOR SUSTAINABILITY**

It is obvious that the HMIS/FLCF has a long way to go in order to become a full part of the management environment of GOP health services. The following are proposed actions to ensure future sustainability of the system:

- The PCSP/HMIS extension;
- Completion of HMIS/FLCF implementation;
- Use of HMIS/FLCF generated information;
- Strengthening of HMIS/FLCF management infrastructure;
- Ensuring funding for HMIS/FLCF recurrent expenditures;
- HMIS pre-service training; and
- HMIS/FLCF monitoring and evaluation.

### **HMIS EXTENSION**

In order to complete the initial implementation of a nationwide HMIS/FLCF, the Government of Pakistan requested USAID to identify necessary resources to keep the HMIS technical assistance team operational for an additional eight months, beyond the completion of the MSH contract for the PCSP. The objectives of this HMIS extension are:

- a. To assist the Federal Ministry of Health (MOH) and the Provincial Departments of Health (DOHs), including AJK and NA, in institutionalization of the HMIS/FLCF as initiated under the PCSP;
- b. To strengthen the GOP's capability in using the restructured HMIS/FLCF for decision-making;
- c. To provide technical assistance for transfer of technology in HMIS management and in computerized data processing nationwide; and

- d. To strengthen the HMIS/FLCF as a tool to monitor the progress and impact of child survival interventions.

## **COMPLETION OF HMIS/FLCF IMPLEMENTATION**

### **Implementation of the Data Collection System at the FLCF Level**

Obviously, as long as the HMIS/FLCF is not generally in use throughout the country, its strength as a planning and management tool for health services cannot be fully exploited. Also, as mentioned earlier, as long as both new and old systems exist simultaneously; no streamlined analysis of health services data is possible. Completion of HMIS/FLCF implementation is therefore **an urgent matter** and essential for future sustainability. The ideal target date for completion is May 1994.

The following is a summary per province on funding sources for further HMIS/FLCF implementation:

**AJK:** Since no Family Health Project (FHP) exists in AJK, UNICEF will provide the remaining funds necessary for completion of HMIS/FLCF implementation.

**Balochistan:** The budget given in the PC-1 of FHP/Balochistan includes enough to provide for completion of HMIS/FLCF in the remaining three divisions. FHP funds are expected to be available (at the earliest) in October 1993.

**Northern Areas:** Since no Family Health Project (FHP) exists in the Northern Areas, UNICEF will provide the remaining funds necessary for completion of HMIS/FLCF implementation.

**NWFP:** FHP/NWFP has committed in writing to ensure remaining funds for completion of HMIS/FLCF implementation. The FHP PC-1 will be modified accordingly. Funds are expected to be available (at the earliest) in September 1993.

**Punjab:** FHP/Punjab has committed in writing to fund the remaining HMIS/FLCF training workshops. PCSP will provide the training materials. Theoretically, funds for these workshops should be available in September 1993. FHP also committed to computerize all remaining districts, to decrease the data entry load at the divisional computer centers. For the initial stock of printed supplies, a PC-1 is under preparation. In case of delayed approval of the PC-1, alternative solutions are under study. The PCSP/HMIS Coordinator will continue during the HMIS extension period in order to assist the Punjab Government in further implementation of the HMIS/FLCF.

**Sindh:** Sindh has completed HMIS/FLCF implementation in most of its districts. FHP/Sindh has committed to pick up the remaining training program and printed supplies to complete implementation. The FHP PC-1 will be modified accordingly. Funds are expected to be available (at the earliest) by the end of 1993.

A particular problem in HMIS/FLCF implementation is its introduction in the **OPDs of teaching hospitals** and other major hospitals such as the federally-administered hospitals. These OPDs have a daily case load of several hundred patients each, and a staff of more than 50 medical officers and paramedics. HMIS/FLCF implementation in these institutions is important for several reasons: first, without their participation a substantial amount of data will not be included in the analysis of FLCF data; secondly, undergraduates could be exposed to the new system during their in-house jobs; thirdly, their present quality of data recording is particularly deficient as compared to smaller health institutions.

It will probably be necessary to organize one or more separate workshops in each of these institutions. If held within the involved institutions, no TA/DA costs are necessary. However, prior to the organization of such workshops, the printing of supplies must be discussed. Until now, no external funding sources have been identified to cover the cost of supplies for these institutions. Later, printed supplies for teaching hospitals could be funded through their own resources. In the meantime, the GOP might request WHO, which has shown keen interest in the new system, to provide the necessary funds for an initial stock of printed supplies for the teaching hospitals.

Together with the introduction of HMIS/FLCF, patient flows in these institutions will have to be discussed and modified, so as to ensure adequate data collection standards.

### **Implementation of the District Level Data Collection System**

It is expected that final formats of **district level data collection instruments** will soon be approved by the Provincial Health Departments. These instruments (the supervisory checklist, the personnel management register, the training register, and the quarterly district report) have been prepared and field tested under the PCSP. They will be extremely useful management tools in the restructuring of the supervisory system and in the monitoring of the quality of clinical case management, particularly for children under five.

Once approved, they should be implemented as soon as possible, being essential parts of the HMIS/FLCF. Initially, training courses based on the model developed under the PCSP could be organized for supervisors to generalize the use of these instruments. The provincial FHPs might be requested to provide the funding for such training.

### **Further HMIS/FLCF Computerization**

An overview of the present HMIS/FLCF computerization status has been given in Table 3. At this stage of HMIS/FLCF implementation, computerization experiences at divisional and district levels are still too limited to be conclusive. Except for Punjab, where district computerization will ease the increasing workload of divisional centers, it is better to wait some time and complete an evaluation before computerizing all districts.

### **USE OF THE HMIS/FLCF GENERATED INFORMATION**

#### **Computerized Feedback System**

The computerized feedback system needs further fine tuning. The tables that have been developed will be further adapted to the information needs at each level of health services: i.e. health facility line managers, planning and programming officers. In order for these refinements to be made, further discussions with planners and managers, who have given little input to date, will be necessary.

#### **Training of Decision-Makers in the Use of the Information**

Working with actual data sets and **computerized feedback** reports produced through HMIS/FLCF software, decision-makers at all levels will have to be guided in the use of this information in their respective planning and management functions. With the development of a decentralized district level managed health system, training should target district level staff. Funding for this training could be ensured through FHPs and through WHO's Project on District Management Systems.

Total reliance on the computerized feedback system would not be very realistic, given the limited resources for computer supplies and stationary, as well as the usual and expected hard- and software problems that inevitably arise. One of the most powerful features of the new HMIS/FLCF is the action-oriented design of data collection instruments and report forms, so that users, with a minimum of manual analysis, can receive **immediate feedback** from the data collected. Ideally, training of the peripheral health facility staff to use the data collected should be provided through the supervisory system. In the provinces where the Family Health Projects have started, this training could take place in the Provincial or District Health Development Centers (PHDC, DHDC). The supervisors themselves can also use the newly-developed supervisory checklist to improve quality of care delivered in first level care facilities.

## STRENGTHENING OF HMIS/FLCF MANAGEMENT INFRASTRUCTURE

### HMIS/FLCF Notification

In order to avoid any confusion among the staff of first level care facilities and their supervisors, it is recommended that Provincial Health Departments issue an official notification to concerned staff, stating that all districts where staff have been trained and printed supplies distributed immediately replace the old system with the new HMIS/FLCF system, as well as follow the new reporting requirements. The notification could also invite consultants of referral hospitals to fill in the left part of the referral form, and send it back to the first level care facility from which it was issued.

### Overall System Management

For efficient management, it is recommended that a single agency at the federal level and one in each Provincial Health Department perform all necessary functions of information system management including:

- a. Monitoring the quality of data collection in the periphery;
- b. Monitoring regular data transmission from the periphery;
- c. Ensuring (computerized) data processing and filing;
- d. Managing the distribution system for printed supplies;
- e. Performing data analysis; and
- f. Disseminating information in a useful manner to decision-makers at all levels.

This agency should be headed by an **epidemiologist/health planner** in order to ensure constructive communication between statistical officers and the medical corps.

### District Level Management

All tasks identified for overall system management also need to be implemented at the district level. Therefore, in terms of sustainability, it will be essential to appoint an **HMIS Coordinator** at the district level. This HMIS Coordinator could be an ADHO, an SMO, or any other appropriate person in the DHO Office, under the overall supervision of the DHO.

Direct supervision of the health institutions regarding quality and accuracy of data collection and reporting will remain the responsibility of the regular line supervisors.

## **Computer System Management**

As stated previously, computerized data processing was only recently introduced in the government health services, and is certainly far from being an integral part of the management environment.

As a first step in the institutionalization of computer systems, the PCSP recommends the creation of sanctioned positions for at least one computer manager in each provincial/state capital and for two computer operators for each computer center. Also, it was noted that a computer programmer needed to be available within the Federal Ministry of Health to ensure later refinements and expansion of the computerized data processing system. Furthermore, additional steps must be taken to ensure maintenance and trouble shooting capabilities for the hard- and software. Such support will obviously entail an increase in non-development budgets.

## **ENSURING FUNDING FOR HMIS/FLCF RECURRENT EXPENDITURES**

One of the main issues threatening HMIS/FLCF sustainability is the lack of funding for recurrent costs in the existing non-development budgets. Without sufficient stocks of printed supplies, and without computer maintenance or computer supplies, the HMIS/FLCF will die.

Initial attempts to pass a PC-1, ensuring recurrent costs funding for two or three years, have failed in some provinces. Perhaps provinces should seek direct approval from their Finance Departments for an increase in non-development expenditures related to the health information systems.

## **HMIS PRE-SERVICE TRAINING**

One of the main guarantees for the future institutionalization of the HMIS/FLCF is the introduction of a teaching course on health information systems in the curriculum of medical colleges and paramedical institutes. In this way, prior to appointment in government services, students will have been exposed to the conceptual relationship between information and management.

## **HMIS/FLCF MONITORING AND EVALUATION**

Throughout the early implementation period, careful monitoring of all the aspects of HMIS/FLCF institution is necessary. Monitoring could be complemented, when possible, by operations research addressing for example, how the HMIS/FLCF could improve continuity of care provided to tuberculosis patients; or how the HMIS/FLCF might help in running efficient growth monitoring clinics etc.

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Direct supervision of the health institutions regarding quality and accuracy of data collection and reporting will remain the responsibility of the regular line supervisors.

# TRAINING

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## INTRODUCTION

This report reflects the work of the training team at the federal and provincial levels for the period from August 1990 to September 1993. The training team consisted of two training education specialists, one training counterpart who is an Assistant Director General/Training at the Basic Health Service Cell, four provincial training coordinators and their counterparts, and four project directors. The Secretaries of Health and the Director Generals of Health Services from all four provinces have all shown keen interest in the integrated approach to the delivery of child health services and the Integrated Child Survival Training Course. They did their best to provide the necessary support to carry out the training activities in their provinces.

It was not an easy job to introduce and implement the Integrated Child Survival Training Course. A great deal of effort from Pakistani government officials and the TAT was required to arrive at an understanding of the concept of integrated child survival training. However, once a consensus was reached regarding the meaning of integration, it became easier to work effectively. The provincial and federal officials who were opposed to the concept of integration in the beginning, slowly began to consider it more favorably. Furthermore, it was not uncommon at the start of a training session, for the participants to be less than positive about the course. Some complained about the length of the course or the number of training hours each day. However, by the fourth day, complaints ceased and many even sought trainers in the evening to ask for additional help.

The participants were asked to evaluate each day's training and give comments on the adequacy, appropriateness and length of the course. The majority of them found the course adequate and appropriate; many wanted to spend more time on areas that were new to them such as nutrition. Very few medical officers identified topics where the time allotted was more than required. However, some of the trainers who were DTU physicians thought the training in diarrhea was repetitious.

## **OBJECTIVES**

The overall goal of the PCSP Training Component was to improve child health services through the development and implementation of an integrated child health services package for any child coming to first level care health facilities. To reach this goal of integrated service, a training package was developed for two levels of health service providers: medical officers and paramedics. In addition, a training package on supportive supervision of child health services was also developed for the supervising officers of these two levels of personnel. For each type of health personnel, training in relation to improving child health services (including child survival interventions) was made job-specific.

The training packages are referred to as Integrated Child Survival Training (ICST) and were implemented at sites designated as Child Survival Training Units (CSTUs) in each of the four provinces. The decentralization of training was an essential and critical step in creating a sustainable training infrastructure with enhanced production capacity.

Common to the overall goal to improve child health services are the following four specific objectives.

1. To assist in the establishment of a Continuing Education Cell at provincial and federal levels
2. To develop training curriculum in integrated case management of under-five children for
  - Medical Officers
  - Paramedics
  - Supervisors
3. To implement training through the establishment of CSTUs in
  - 18 teaching hospitals
  - 10 district/division hospitals
4. To assist Provincial Health Departments to strengthen their supervisory systems

## ACCOMPLISHMENTS AND OUTPUTS

### ESTABLISHMENT OF CONTINUING EDUCATION CELLS

Discussions on both informal and formal bases were held with federal and provincial health officials on the need to establish Continuing Education Cells (CEC). While the need for the establishment of a CEC was generally recognized, much discussion was required to reach a consensus on its role, structure and function. However, the establishment of CECs is now underway in all provinces. Prior to initiating development of CECs, a consensus was reached on the following points:

- A Continuing Education Cell or Section would be established at the Health Directorate;
- The existing PCSP Training Committees at the provincial level could be expanded to form Provincial Training Committees responsible for assisting in the planning, implementation and monitoring of all in-service training activities in each province;
- As the World Bank-supported Family Health Project (FHP) also calls for the establishment of Provincial Health Development Centers (PHDC) which are analogous to CECs, the activities initiated under the PCSP for the establishment of CECs should be linked with efforts made through the FHP for the establishment of PHDCs.

#### a. Balochistan

Balochistan has allocated two rooms for the CEC office and a large room to serve as a classroom at the provincial Health Directorate. Two persons have been placed in charge of the CEC: The Deputy Director of Health/BHSC is the first person in-charge, and the PCSP Training Coordinator is second in-charge.

In August, the Balochistan Training Committee approved current integrated child survival training plans for first and second level care facilities. The Committee further recommended that, henceforth, all new training activities should be approved by the Committee prior to initiation.

#### b. Sindh

In Sindh, a PC-1 for the establishment of a CEC has been developed and submitted to the Finance Department for approval. The Deputy Director/BHSC has been designated as the

person in-charge of the CEC, which will be merged with the Provincial Health Development Center (PHDC) of the Family Health Project.

The PCSP Training Committee has been expanded to become the Sindh Training Coordination Committee with representatives from all donor agencies and government departments that offer in-service training activities. At the first meeting of the Sindh Training Coordination Committee (July 1993), the provincial Secretary of Health presided.

#### **c. Punjab**

In Punjab, the PCSP Training Committee has also been expanded to become the Provincial Training Coordination Committee. The Punjab Secretary of Health presided over the first meeting held in August 1993 (after a number of meetings had been scheduled and postponed because of time conflicts). Membership eligibility, the functions of the committee, and the frequency of meetings were decided upon.

A membership list was approved which contained 17 members representing both service and academic sections of the Ministry of Health, as well as representatives from donor agencies. The main functions of the Training Committee will be:

- \* To develop policy guidelines for in-service training;
- \* To act as a clearing house for all in-service training activities;
- \* To monitor and evaluate provincial training activities; and
- \* To bring about coordination between different programs or agencies involved in training activities.

The Committee agreed that it would meet twice a year. The Secretary of Health proposed that the second meeting be held in two months to review the current status of in-service training in Punjab. A secretariat was appointed to collect, analyze and present data at the next meeting, so that subsequent training plans could be more systematically developed.

#### **d. NWFP**

There has been minimal progress towards the development of a Continuing Education Cell in NWFP. An officer was appointed to head the CEC in 1991, but then he was transferred in 1992, and no replacement was assigned. There has also been minimal coordination between the Family Health Project and the PCSP. In principal, there has been agreement on the need to establish a CEC, but the required steps for its establishment have not taken place. This may be due in part to the (frequent) changes in the provincial Secretary of Health position. During the tenure of this project, there have been four Secretaries.

## DEVELOPMENT OF INTEGRATED CHILD SURVIVAL TRAINING MANUALS

The following ten training manuals were developed by the Project for four target groups: medical officers, paramedics, supervisors and trainers in order to teach the concepts of integrated case management of children under 5.

- 1) Nutrition Manual for Primary Health Care Workers - Participant's Manual
- 2) Nutrition Manual for Primary Health Care Workers - Trainer's Manual
- 3) Nutrition Manual for Primary Health Care Workers - Readings
- 4) Integrated Child Survival Training Course For Medical Officers of First Level Care Facilities - Participant's Manual
- 5) Integrated Child Survival Training Course For Medical Officers of First Level Care Facilities - Trainer's Manual
- 6) Integrated Child Survival Training Course For Paramedics of First Level Care Facilities - Participant's Manual
- 7) Integrated Child Survival Training Course For Paramedics of First Level Care Facilities - Trainer's Manual
- 8) Integrated Supervision Training Course For Supervisors of First Level Care Facilities - Participant's Manual
- 9) Integrated Supervision Training Course For Supervisors of First Level Care Facilities - Trainer's Manual
- 10) Training Methodology

These manuals incorporated existing WHO material on diarrhea, acute respiratory infections (ARI) and immunizations, as well as utilizing newly-developed modules on nutrition and interpersonal communication. Together they form the core of a training curriculum for integrated case management of under-five children attending health facilities. The manuals are meant to be used by service providers including medical officers and paramedics serving in first level care facilities.

In addition to these manuals, existing WHO manuals and readings on diarrhoea, ARI and immunizations are also utilized to train the medical officers. (Please refer to Appendix 22 for the complete list of manuals used in the training of the three levels of health service personnel.)

The Nutrition Manuals were created by a team of international and national experts. Although nutrition curriculum existed in Pakistan, few were formalized and the contents were not standardized. Hence, the development of the Nutrition Manual was a significant step forward, advancing the role and significance of nutrition as part of the integrated case management package.

The inclusion of a new module on interpersonal communication signaled recognition of the essential contribution of such knowledge and skills for effective case management.

### **Assumptions Accepted In Developing ICST Materials**

The following assumptions were accepted in developing the child survival training course material.

#### **a. Continuing Education Is An Ongoing Professional Responsibility**

Health personnel are exposed to the idea of needing to keep oneself current with the latest knowledge and skill(s) in their areas(s) of work in order to provide adequate and appropriate care for children. The responsibility for updating knowledge and skill rests both with the employer and the individual professional. However, the employer is able to provide only minimal and periodic opportunities for learning. The individual professional needs to make it her or his responsibility to take advantage of available learning opportunities at the work site, as well as at specially scheduled workshops or additional training programs.

Participants should be informed at the beginning of the course that the Integrated Child Survival Course provides new information to update their knowledge and skills. Nonetheless, it is possible that some participants may not be able to complete all of the required skill development exercises. Therefore, each person is advised to keep track of her or his own progress and to continue to practice at their own work place until satisfied that the new material/skill has been "mastered". It should be part of one's professional responsibility to identify personal learning needs and take advantage of available opportunities to improve individual knowledge and skills about child health services.

### **b. Integrated Approach To Child Health Services**

The PCSP approach is "integrated" in a number of ways. First, the four child survival intervention areas are taught as part of an integrated system of health promotion, illness prevention and disease treatment. Secondly, provision of service is integrated in that it involves the combined team efforts of health service providers and mothers (or primary caretakers of children) to keep them well, minimize their suffering, and to help them recover when ill. The supervising officers are also seen as part of this team and equally responsible for providing adequate and appropriate health care for children.

Integrated case management guidelines were developed by combining case management principles from the four child survival interventions to promote integrated child health services at first level care facilities. These guidelines are presented on the next page ON figure 1.

### **c. Training Is Child Focused Involving Service Providers and Caretakers**

One common objective of training is to bring about a desired change in behavior, usually through increased knowledge and information. Since children are not able to take care of themselves, parents or caretakers become the prime receptacles of new information and knowledge which is provided throughout the case management process of assessment, classification, treatment and follow-up. Recognizing the role of parents, the Project developed a new module on interpersonal communication (IPC) which presents methods to establish and maintain rapport, understand the health status of the child, and influence the mother or caretaker to change her behavior. The module stresses the need for health care providers to adopt such practices to assure that appropriate care for the child is provided by the mother at home. The interpersonal communication module has also been modified for supervisors, with the aim to improve quality of child health services available at first level care facilities.

### **d. Job Specific Training**

The PCSP training package includes separate training manuals and programs for medical officers, paramedics, and their supervising officers. During training, all three categories of staff receive an overview of each others' training, in order to better understand individual responsibilities of each type of provider or supervisor in the delivery of health care services.

Briefly, medical officer training emphasizes diagnosis and treatment of conditions, stressing the necessary involvement of the mother, and clarifying the role of the health care facility staff, as well as the family's responsibility in maintaining a healthy child. The paramedic training focuses more on screening and other preventive health procedures as well as

# INTEGRATED CHILD HEALTH SERVICES IN FLCF

Child brought to FLCF

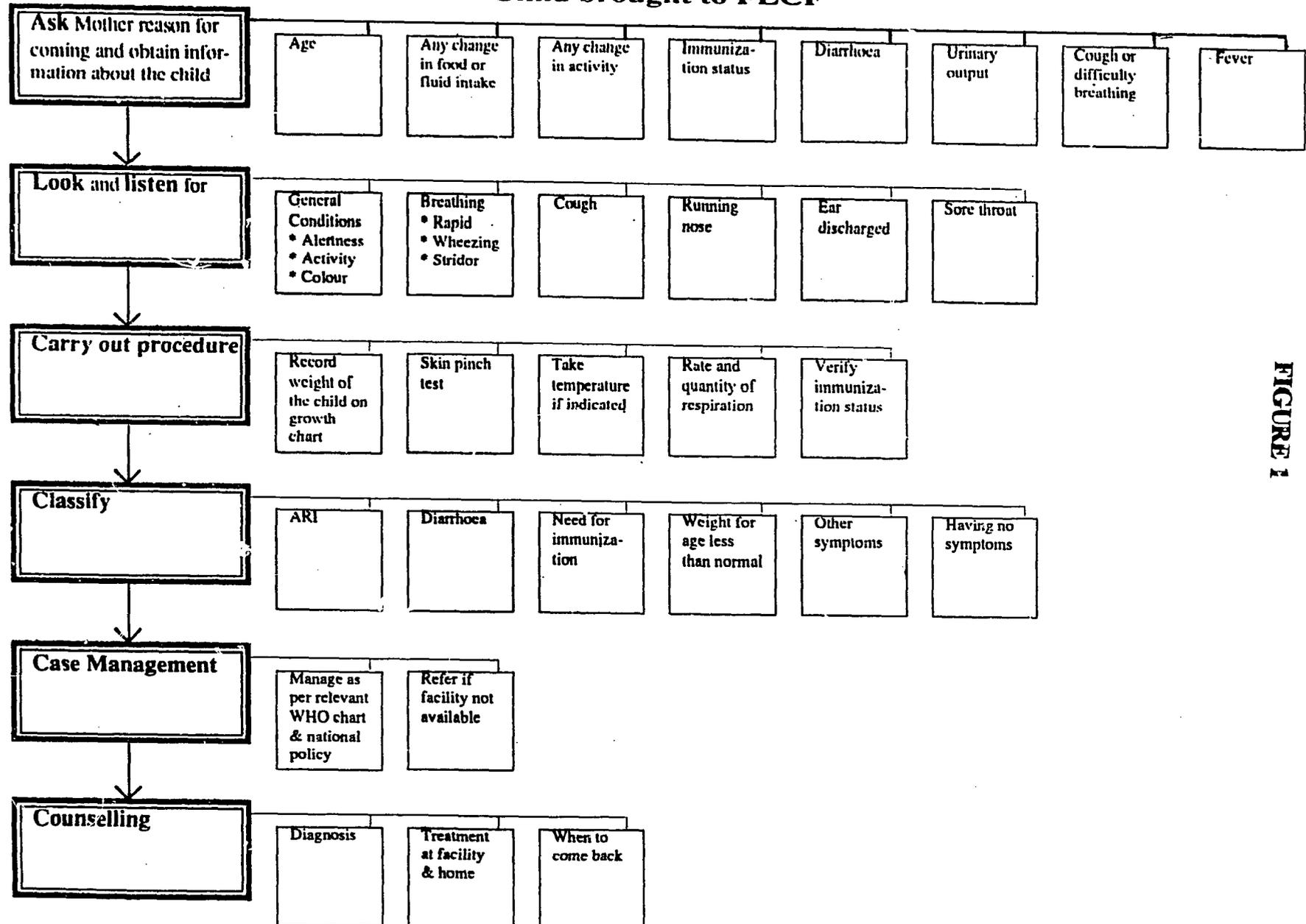


FIGURE 1

counseling techniques and how to teach mothers to properly care for their children, so that they grow and develop to their maximum potential, with minimal suffering from illness.

The supervisor training stresses the importance of providing supportive supervision which includes: essential materials and manpower; monitoring and evaluating the pre and post training performance of paramedics and MOs; and the development of materials to support the implementation of inservice integrated child survival training.

### **ESTABLISHMENT OF CHILD SURVIVAL TRAINING UNITS**

One mandate of the PCSP was to establish Child Survival Training Units (CSTU) in all teaching hospitals and a selected number of district or divisional hospitals. A total of 18 teaching hospitals are located in Pakistan. Ten of these hospitals had established Diarrhea Training Units (DTUs) manned by a Project-funded medical officer (MO) and a lady health visitor (LHV). Seventeen of the teaching hospitals were visited and assessed regarding their potential to serve as a future CSTU using the following essential criteria for establishing a training unit:

- Availability of adequate space for classroom and clinical training;
- Availability of a sufficient number of patients;
- Availability and willingness of staff to take on additional responsibilities as trainers;
- Agreement and demonstrated ability to maintain a pool of 5-10 trainers at each location (as shown through the identification of potential trainers by the hospital administrator);
- Administrative assurance that sufficient resources for the adequate delivery of child survival services would be provided; and
- Availability of nearby lodging facilities.

After assessing 17 teaching hospitals and 15 district/divisional hospitals, a total of 25 sites for CSTUs were selected. (Refer to Appendix 23 for teaching hospital CSTUs, and for district level CSTUs.) In two of the teaching hospitals, it was not possible to establish training units due to a lack of adequate space. One hospital is still under construction. By the conclusion of the MSH contract, 26 CSTUs had been established (one additional site selected later): 15 at teaching hospitals and 11 at district/divisional hospitals.

The following are the essential steps for the establishment of a CSTU:

- Perform facility assessments;

- Discuss findings from assessments at appropriate provincial training committee meetings;
- Agree upon sites for establishment of CSTU and implementation plans for each site;
- Select trainers who then participate in Integrated Child Survival Training Course according to the implementation plans agreed upon;
- Federal training team visits each CSTU, after trainers complete ICST course and essential start-up arrangements completed;
- ICST materials provided;
- Develop agreed-upon master training plan for each CSTU;
- Initiate ICST of medical officers;
- Federal training team members assist CSTU trainers throughout the first training session;
- Reports of each training session from each CSTU forwarded to the Islamabad PCSP Office in a timely manner;
- PCSP Provincial Training Coordinators or their counterparts are present throughout all training sessions to provide essential support and act as a link between the CSTU and Islamabad PCSP Office.

The first training activities for MOs (FLCF) were initiated only after completion of the MO training manuals in December 1991. These manuals were presented to all the National Child Survival Program Coordinators, DTU Directors, the Director Generals, Health of all four provinces, and the PCSP Project Directors at an ICST "Orientation Meeting" in December 1991. Next, field testing of the training materials for medical officers was conducted, and appropriate revisions made. This was followed by the training of a core group of "master" trainers from each of the provinces (between January and April 1992). From May 1992, the provinces began training additional trainers for their CSTUs and soon after, initiated medical officer (FLCF) training.

While the training of CSTU trainers and medical officers (FLCF) was taking place at the provincial levels, the federal PCSP training team was supervising and monitoring training activities at the provinces, and working on the manuals for paramedics and supervisors. The completion of both of these training manuals took longer than anticipated (particularly the translation into Urdu). Hence, training of supervisors was not initiated until February 1993, and paramedics until April 1993.

A total of **107 workshops** were held between January 1992 and August 1993 at which 10 persons were trained. (Refer to Appendix 21 for a detailed list of workshops held information on the number and category of personnel trained.) As the training target was 1400, at the end of August the Project fell short its target by 60 individuals. However, this number will be made up by September 30, 1993 through UNICEF-supported ICST initiated in Azad Kashmir and Punjab, following the termination of PCSP activities at the end of July.

Table 1 provides target numbers and types of personnel to be trained next to actual Project achievements. Trainers consisted mostly of Pediatricians, medical officers (including 25 health education officers). Some of the health education officers who attended the training were physicians. The trainers could also be counted as medical officers.

Table 2 provides information on the total number of personnel trained at federal and provincial levels.

## **DTU TRAINING**

During the months of consensus-building and development of ICST materials, the PCSP continued to support DTU training, as well as to provide some supervision and management support to improve the quality of services in DTUs, and associated corners (See Appendix 24).

**TABLE 1**  
**TARGETS AND ACTUAL NUMBER OF PERSONS TRAINED**  
**IN TEACHING HOSPITALS AND**  
**DISTRICT HEADQUARTER HOSPITAL CSTUs**  
**JANUARY 1992 - SEPTEMBER 1993**

PERSONNEL	TARGET	ACTUAL NUMBER TRAINED
Medical Officers	600	619
Paramedics	400	326
Supervisors	100	92
Trainers	280	303

**TABLE 2**  
**SUMMARY OF PERSONNEL TRAINED IN INTEGRATED CHILD SURVIVAL**  
**COURSE AT FEDERAL AND PROVINCIAL LEVELS**  
**JANUARY 1992 - SEPTEMBER 1993**

LOCATION	TRAINERS	MO/ WMO	PARA- MEDICS	SUPERVI- SORS	TOTAL
FEDERAL LEVEL	70*	21	-	18	109
BALUCHISTAN	28	85	56	20	189
NWFP	34	109	90	17	250
PUNJAB	76	172	98	17	363
SINDH	95	222	70	20	407
AJ & K	--	10	12	--	22
TOTAL	303	619	326	92	1340

\* This number refers to core group of trainers for each of the four provinces and includes health education officers.

## **STRENGTHENING THE SUPERVISORY SYSTEM**

The PHC Project evaluation report concluded that routine supervision provided in Pakistan could be characterized as administrative and "checking," not supportive or systematic. Therefore, the PCSP was given the mandate to develop a training program for supervisors which focused on supportive supervision methodology.

- Supervisor training attempts to make supervisory visits meaningful for the supervisor, as well as for the medical officers and paramedics. As a result, the supervisor curriculum includes current information on essential child survival services, and how to incorporate such information to make supervisory visits useful. Supervisory visit forms and checklists have also been developed for the supervisors to use as tools.
- The supervisory visit form consists of a planning sheet which reviews the findings of previous visit(s) and asks what the supervisor needs to focus on during this visit. A second set of forms consist of work sheets to be used in collecting information on staff case management skills, as well as skills in resource management. The forms are filled in while observing the local staff in action. After completing these forms, the data collected from observation is analyzed, and strengths and weaknesses in the operational status of the facility are identified. Next, all findings are verified through dialogue with local staff. The final step in this systematic but supportive supervisory process is planning with the local staff the ways to improve their situation, by delineating staff responsibilities as well as those of the supervisor, and then making a joint plan for improving the noted shortcomings, as well as for monitoring this plan in future visits.

## **CHALLENGES AND CONSTRAINTS**

This Project was challenged with a number of constraints that either delayed, reduced the scope of work, or interrupted implementation of training activities. There were certainly discouraging periods of low morale among both Project and government staff. Nonetheless, in spite of these constraints, the training team, with support from GOP officials, was able to successfully address training objectives and targets. The following are some of the major constraints that were met and overcome.

### **NO CONSENSUS ON THE VALUE AND CONTENT OF INTEGRATED CASE MANAGEMENT TRAINING**

Even though, from the initial arrival of the Technical Assistance Team (TAT) in June 1990, all parties concerned (USAID, GOP - federal and provincial) expressed their desire for integrated child survival training, each meeting to address the issue left most participants confused and frustrated because there seemed to be no fruitful outcome. From July 1990 until April 1991, large amounts of time were spent in informal and formal discussions to arrive at a consensus regarding the following questions:

- \* What is meant by integration?
- \* What is to be included in integrated training?
- \* Length of training?
- \* Essential resources required for the establishment of a training unit?

### **LACK OF AGREEMENT IN REGARD TO THE FEASIBILITY AND RELIABILITY OF DECENTRALIZED TRAINING**

Even though it was the Project's mandate to decentralize training to the district level, there was a lack of agreement among federal and provincial Health Officers, National Program Coordinators, and DTU Directors regarding the reliability and feasibility of decentralized training. The opinions and concerns that were raised repeatedly included:

- \* Decentralized training will reduce the quality of training;
- \* District hospitals will not have sufficient numbers of patients;
- \* Only professors enjoy credibility-to appoint and train others will deter participants from attending training;
- \* The addition of training as another responsibility will not be accepted (by MOs);
- \* It will not be possible to find enough trainers at the district level; and
- \* Facilities such as appropriate classrooms are not available at the district level.

Numerous meetings were held to clarify these issues and to suggest solutions. It took six to eight months to reach a consensus.

### **GENERAL CONSTRAINTS**

Common perceptions which the training team had to address:

- Using females as trainers is not cost effective because they will not be available to conduct training over the longer period;
- It is difficult to change mothers' attitudes and practices;
- Most mothers are illiterate;
- The extreme summer heat will deter participants from attending training; and
- Participants will not agree to being trained on Fridays.

### **CHANGE IN SCOPE OF THE PROJECT DUE TO THE PRESSLER AMENDMENT WHICH BROUGHT ABOUT A DRASTIC REDUCTION IN THE BUDGET AND PROJECT LIFE**

(See discussion under Planning and Management)

### **INTERRUPTIONS AND CHANGES IN KEY MANAGERS**

- The evacuation of the Technical Assistance Team due to the Gulf War
- Frequent changes in key managers: USAID Project Officers with oversight responsibilities; counterparts in the Ministry of Health; GOP Project Directors; and PCSP Chiefs of Party
- Death of the Chief of Party and subsequent revisions in the management structure
- Turnover of Training Coordinators from all four provinces
- Turnover in federal and provincial training counterparts

## **LESSONS LEARNED**

### **IMPORTANCE OF CONSENSUS BUILDING**

#### **Obtaining a Consensus on the Concept of Integration is Very Important**

Everyone concerned with the Project desired a package of integrated child health services in the four intervention areas, but it soon became obvious that there was little clarity about what one meant by "integration". Therefore, obtaining a consensus became a paramount first objective. It took eight months to reach this consensus, and another three months to agree that decentralization of training to district level was possible and necessary.

Reaching a consensus required the following:

- a. Discussion within the training team on the approach to be used in reaching a consensus;
- b. Informal discussions at provincial and federal levels with concerned groups and individuals at their places of work (often after office hours or during less busy hours), clarifying queries and concerns in order to reach a common understanding; and
- c. A formal meeting to attain a publicly recognized, documented consensus.
- d. The key components of the consensus reached regarding the concept of "integrated" child survival training are noted below:
  - Definition of "integration" - the components or child survival intervention areas to be included;
  - Training is to be decentralized to the district level (except in Balochistan);
  - Twelve-day training package for Medical Officers;
  - Ten trainers will be assigned to each CSTU;
  - Continuing education is necessary and the need for a CEC in each province is supported and acknowledged;
  - Existing WHO training material on immunizations, diarrhea, and acute respiratory infections is to be used; new material will be developed on nutrition and interpersonal communication; both will be incorporated into the integrated child survival training package; and
  - Federal and provincial training committees will be established to provide guidance in the development and implementation of training activities.

## **EMPLOYMENT OF CONSULTANTS**

### **Both Pakistani and Expatriate Consultants Contributed Importantly and in Different Ways to the Project's Success**

There is often much controversy about the use of expatriate consultants in developing countries, and in the context of this project, Pakistan was no exception. Some claimed it takes longer for an expatriate to understand the situation in the host country, adapt to the working style of people, and develop a program which suits both. When these concerns were expressed by some of the officers responsible for implementing Project activities, they were taken seriously and appropriate national personnel were identified to work with the expatriate advisors.

For the development of the Nutrition Training Manual, six Pakistani consultants worked with existing expatriate staff. As a consequence, this manual clearly addresses local issues. Both trainers and participants used the Nutrition Manual with interest and enthusiasm, knowing it was developed in Pakistan by national experts. The success of this venture led to the use of national consultants for the development of the paramedic and supervisor training manuals. (Refer to Appendix 11 for the list of consultants employed by PCSP.)

The employment of Pakistani expert consultants contributed to a feeling of good will towards the Project. These consultants also put the material in a Pakistani context. Provincial and National Program Managers also seemed to more readily display a sense of ownership for the products of these experts. The joint work of technical advisors and national consultants strengthened the professional capabilities of both parties.

## **IMPORTANCE OF HAVING TRAINING MATERIAL IN LOCAL LANGUAGE**

### **Training Materials Must be Adapted for Use in Local Languages**

Training manuals for the paramedics were in Urdu. However, the translation into Urdu took a long time, and was a frustrating experience due to the lack of agreement on the proper translation for specific terms. Numerous and repeated visits and discussions were held with the National Program Coordinators and those involved in training of paramedics, at the federal and provincial levels. Nonetheless, once the manuals were available in Urdu, training proceeded with few problems. Significantly, the demand for Urdu language manuals has been great; few training manuals for paramedics exist in any language, and fewer still in Urdu. Furthermore, preparation of the ICST manuals in Urdu has been widely appreciated by other donor agencies.

## **IMPORTANCE OF INVOLVING GOVERNMENT OFFICERS IN THE PROJECT FROM THE BEGINNING**

### **Selecting and Appointing Qualified Government Staff to Key Positions Serves to Guarantee Continuity and Promote Sustainability**

At the beginning of the Project, the Punjab Director General of Health requested whether some government staff could serve on the Project, so that at the conclusion there would be additional staff, other than the Project Director, familiar with project activities and hence, better able to assure continuity and sustainability of critical endeavors. Thus, the application process for PCSP's training positions was open to government employees, and many took advantage of the opportunity. However, the four individuals who were ultimately offered the Training Coordinator positions were not employed by the Government. Later, when the Project's life was reduced due to the Pressler Amendment, each of the Provincial Training Coordinators resigned. At that time, fortunately, government employees were available and willing to assume the responsibilities of PCSP Training Coordinators. In Balochistan and Punjab, in particular, the two government persons who were hired as Project Training Coordinators proved to be extremely effective.

Selecting Government counterparts, and involving government officials early in the project is a productive exercise, because it increases the exposure of those in government service to planning, implementation, and monitoring inservice training programs. In Pakistan, these same individuals are now monitoring and supervising UNICEF-supported training activities.

Under the previous DTU Project, each DTU was managed by two project staff. Consequently, at the conclusion of the project, sustainability was a major issue. Learning from this experience, in the PCSP all of the CSTU personnel at teaching hospitals and district level facilities come from government service, and are therefore more likely to continue their training activities after the termination of the project. In fact, they are now independently performing ICST activities funded by UNICEF.

## **IMPORTANCE OF ESTABLISHING PROPER GUIDELINES RELATED TO THE COST OF TRAINING**

### **During the Planning Stage, Donor(s) and Government Counterparts Must Discuss and Establish Appropriate Guidelines for such Budgetary Items as TA and DA, Training Sites and Training Materials**

Training can be very costly. Officers in Health Departments may shy away from planning training sessions because of the costs involved, particularly as the outcome of training may not

be readily or immediately visible. When the funding and life of the PCSP was reduced due to the Pressler Amendment, the future of the Training Component became a major issue because of perceptions about high cost/low return of training. Therefore, Project staff reviewed training costs and made the following observations:

- High and competitive per diem (DA) and training allowances (TA) are offered by donor agencies;
- Residential workshops are held in hotels, which are relatively expensive venues; and
- The cost of training materials is high.

In order to address the issue of per diem and training allowances, the Project formed a Donor Consortium at the federal level and had the GOP set acceptable guidelines for TA and DA rates. Government TA and DA rates were officially adopted for all training events. Initially there was some negative reaction from the participants, however in time, the Government rates were accepted without criticism.

In order to reduce lodging costs, a number of existing governmental facilities were converted into hostels for training. In six out of ten districts, lodging facilities which required some repair or furnishing work were completed at Project expense, and are now used for lodging during ICST. These are located in the following districts: Sukkur, D. I. Khan and Mirpurkhas - for females; Khuzdar, Rahimyar Khan and Jhelum - facilities which can be used for both males or females.

## **ADOPTING DIFFERENT APPROACHES FOR DONOR COORDINATION**

### **First Test Training Methodologies and New Approaches; Then Establish Coordination Mechanisms**

Although the purpose of all donor agencies is to help the host country, too often donors seem to compete with each other for the same activities. Such apparent competition may be partly responsible for confusion regarding project purpose. This confusion can also contribute to a situation in which a government may try to "channel" donor funding into other activities, rather than focus on project-related activities. Recognizing these problems, the PCSP adopted two different approaches to promote coordination with the concerned donors.

In regard to the development of integrated case management training, the donors were just as unclear as the Government as to the meaning of integration. Many concerns were raised, particularly given the years of effort devoted to the development of successful vertical training programs. Before they would support ICST, they wanted answers to voiced concerns. However, ready answers were not possible without first giving the ICST a fair field test over

time - to examine the impact of the new training material on service delivery. The selection of ten districts as pilot sites for ICST, and a trial period of two years seemed reasonable.

Thus, initially the Project training team did not make answering donor concerns a priority, because it lacked experience in implementing integrated case management training, and hence, could not provide quick and reliable answers. Instead, it concentrated on implementing Project activities to gain as much experience as possible within the short time span allotted. This approach proved successful, for as the trial of integrated training continued, specific problems and issues arose, were discussed, and resolved - thereby forming a body of reliable answers to the previously voiced questions. A sample of such questions successfully answered through trial implementation follows:

- Is an integrated approach possible and desirable?
- Is decentralized training possible?
- Will the participants stay for the duration of training?

As the training was implemented and answers became clearer, positive feedback from participants grew, and the new approach gained momentum. This increased the interest of other donors, and ultimately brought new support to PCSP's training activities.

The second approach adopted for donor coordination was to "bravely" forge ahead, taking the lead to institute necessary change. For example, in the case of competitive rates for per diem and training honorarium, the Project took the initiative to organize meetings with concerned donors and the GOP. One meeting was held in 1991 and another in 1992. During these two meetings, the Government made decisions and ultimately requested that all donors support the use of Government rates for per diem and training honorarium. Although the policy was initially instituted for USAID - funded PCSP training activities, it has now been applied to UNICEF-supported child survival training activities.

## **ACTIONS FOR SUSTAINABILITY**

Some of the facilities from which the participants came for training were visited after the completion of the ICST course; now back in their working environments, the trainees were asked about the usefulness of the course. The majority of them claimed that the course was very helpful; now they were seeing children coming to their facilities as having multiple needs, rather than viewing them as just a case of diarrhea or acute respiratory infection. Furthermore, they noted that the interpersonal communication model had helped them to hold more fruitful discussions with mothers; they were better able to find out about children's conditions and help mothers to understand what they must do to care for the sick child.

*However, they expressed some frustration that the paramedics in their facilities were not trained in providing child survival services.* This is understandable. The situation has seemed to improve in those areas where supervisors and paramedics have been trained. However, as the supervisor training only commenced in February 1993, and the paramedic training from April 1993, it has not been possible to assess the impact of such training on service delivery. It is in this context that the following recommendations are made.

### **STRENGTHEN THE SUPERVISORY INTERVENTIONS AT FACILITIES WHERE MEDICAL OFFICERS AND PARAMEDICS HAVE BEEN TRAINED IN ICST COURSE**

Supervisors should visit the facility at least once every two months to make observations of case and resource management skills of staff; to jointly plan with staff ways to improve child health services, as well as methods to measure the impact of ICST on these services; and to provide supportive feedback. This type of intensive, supportive supervision should continue for at least one year after the completion of ICST.

### **CONTINUATION AND EXPANSION OF TRAINING**

Continue training Medical Officers and Paramedics in the ten pilot districts until all eligible providers at FLCFs are covered. Schedule special training sessions for those providers newly transferred into the district, after maximal coverage (in terms of ICST) has been reached.

It is important to continue training in the recently-developed 10 district/divisional level CSTUs to test the feasibility of decentralized training over a longer period. This will allow CSTUs to begin training personnel from adjoining districts.

Expand to new districts by establishing additional CSTUs in a systematic manner, by following the stages developed in the PCSP: assessment, planning, and monitoring - in a phased, timely manner.

### **COORDINATE TRAINING WITH THE FAMILY HEALTH PROJECT ON AN OPERATIONAL RESEARCH BASIS FOR 1 - 2 YEARS**

For example, in the ten districts where CSTUs exist and personnel have been trained in child survival interventions, introduce the maternal health care part of on-the-job training provided by the FHP under the guidance and supervision of the District Supervisor. In those districts where the FHP is being newly initiated, train Medical Officers and Paramedics in maternal health as well as child survival services as a package; compare these two approaches for similarities and differences in cost, impact on service delivery, and supervision of tasks, as well as satisfaction of the participants.

### **STRENGTHEN FEDERAL LEVEL TRAINING SECTION**

The introduction of an integrated and job-specific training package for three levels of government health personnel is new. Therefore, it requires close supervision and monitoring for at least two to three years. Only after that period will it be possible to evaluate its contribution, and examine possibilities for application on a larger scale.

Since there is currently only one position for training at the National Basic Health Services Center, it is recommended that additional staff be assigned to assist the Assistant Director General/Training in the monitoring, supervision and evaluation of the ICST process. It is important to carefully document this experience for later use in the development of policy and standardized training guidelines.

### **REVISION OF TRAINING MANUALS, MATERIALS AND THE BASIC COURSE**

The ICST for medical officers has been initiated for approximately a year, but the paramedic and supervisor training started only in February and April 1993 respectively. All of the training manuals are printed as drafts. One more full year of training and implementation of newly-acquired skills is advised before any revision in the child survival training package be initiated. It is recommended that the ICST manuals and materials be evaluated and revised appropriately by the end of 1994.

# COMMUNICATIONS

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## INTRODUCTION

The Communications Component successfully weathered many changes in the three years of the PCSP. The Pressler Amendment required a complete revision of the communication strategy and as a result the planned marketing of ORS and iodized salt was eliminated. Coordination of the component also changed hands several times as well (See Appendix 25).

In spite of the reduced funding, the communication component was able to develop and implement a successful, cost-effective strategy for promoting child survival interventions.

## OBJECTIVES

1. To disseminate information through the mass media on the Control of Diarrheal Diseases (CDD), the Expanded Program of Immunization (EPI), Acute Respiratory Infections (ARI), and Breastfeeding and Nutrition to mothers with children under five
2. To train GOP health care providers in interpersonal communication (IPC) and counselling skills so that they can communicate more effectively with mothers who come to them for medical care
3. To introduce and reinforce the use of existing commercial resources for research and communication to complement and assist the public sector

## ACCOMPLISHMENTS AND OUTPUTS

To achieve these objectives, the Communications Component utilized the following vehicles: TV, radio, print materials, and an IPC training module. A research firm and an advertising agency were selected through a competitive bidding process to incorporate special expertise from the private sector.

For the first year of the Project, mass media activities took the form of TV and radio spots on CDD and EPI. The communication strategy emphasized the use of the "enter-educate" approach--a blend of popular entertainment and educational messages--to inform mothers about the four child survival interventions. Hence, the spots were later replaced with more entertaining and less expensive formats.

In the Interpersonal Communication strategy, three modules were developed and field tested which are now an integral part of the Integrated Child Survival Training (ICST). Separate modules were developed for medical officers, paramedics, and supervisors.

### CREATIVE BRIEFS

A "creative brief" is the document used to help bridge the gap between the knowledge gained through social science and public health analyses and the knowledge base required by a creative writer to develop scripts or other creative/artistic products aimed at influencing specific health knowledge and behavior. To achieve the best enter-educate product, the Project set out to communicate the essence of the educational messages to a very specific audience: media professionals. One of the tasks of the advertising agency was to synthesize the technical material, and adapt it for a lay person's perspective so that writers and producers could use this information to create material with accurate health messages which could affect the audience in desired ways. In this report, the product of this synthesis is referred to as a "creative brief."

A creative brief for overall child survival issues had never been developed in Pakistan. The PCSP utilized a research agency, Aftab Associates, to develop two creative briefs: one on Breastfeeding and Nutrition, and the other on CDD, EPI and ARI. These creative briefs inform the writer about the **current knowledge, attitudes, and practices** of our target audiences with respect to the key health interventions, and also about the **desired knowledge, attitudes, and practices** after the intervention. This analysis permits a writer to anchor the story development (or mention of health issues in other programming) in a solid awareness of how the program can support the target audiences' passage from the present state to the desired state.

### **Brief on Breastfeeding & Nutrition**

Work on the first creative brief on breastfeeding and nutrition began in September 1991. By February 1992, three drafts had been reviewed by the Ministry of Health, USAID, PCSP, and the Chief of the Nutrition Section, Ministry of Planning and Development. The research agency hired an eminent pediatrician and Professor of Social and Preventive Pediatrics to provide technical input for the first creative brief. Results of the qualitative research on breastfeeding attitudes and practices (sponsored by UNICEF, PRITECH, and the PCSP) were also utilized.

The final product was ready in February 1992, allowing the advertising agency to start disseminating PCSP messages on breastfeeding and nutrition in March - during the TV quiz show *Neelam Ghar*. This first brief, with a foreword by the Director General, Health was also distributed to a number of journalists.

### **Brief on CDD, EPI and ARI**

Building on the success of the first creative brief, the second creative brief was assembled in much the same way, but included more complex technical material such as vaccine-preventable diseases which made it essential that every piece of information be thoroughly checked for technical accuracy. This brief was developed in collaboration with the National Program Managers, and GOP, USAID, and PCSP representatives. A well respected national medical expert and pioneer in the "rational use of drugs" in Pakistan, was retained as a chief expert by the research agency for this brief.

All of the mass media interventions developed by the PCSP were based upon the information on child survival interventions contained in these briefs. Both creative briefs were translated into Urdu and distributed to the media in Islamabad and in all four provincial capitals.

### **PAKISTAN TV'S NEELAM GHAR**

The PCSP originally planned to use television dramas to disseminate information on the child survival interventions. When project funding was reduced, private sponsorship for the dramas was sought; however, the response from the private sector was not encouraging. Since the expense of producing TV dramas without private sponsorship was beyond the Project's financial means, other innovative and less costly enter-educate vehicles were explored. The popular TV program, *Neelam Ghar*, was chosen for its entertainment value, for the celebrity status of the anchorman -Tariq Aziz, and also because its format--that of a quiz show--was conducive to the component's enter-educate design.

The *Neelam Ghar* format is simple and direct: contestants answer questions and are given prizes by commercial sponsors. The advertising agency developed the draft messages for the anchorman and the questions/answers on breastfeeding, control of diarrheal diseases, acute respiratory infections, and immunization based upon the Creative Briefs, as well as upon additional scientific literature. The draft was reviewed for technical accuracy by a Scripts Review Group composed of members from the MOH, USAID, and PCSP. If there were questions, the National Program Managers of CDD, EPI and ARI and the Nutrition Coordinator were consulted regarding the technical veracity of the messages. The approved text was reviewed with the quiz-show host, Mr. Tariq Aziz, who then incorporated it into his show.

The PCSP *marhalla* (segment) titled "Long Live the Little Ones, Long Live Pakistan" began airing March 12, 1992, and the first two quarters, consisting of 13 weeks each, ended in September 1992. After the first four programs went on the air, a tracking survey was conducted to determine the show's exposure among the target audience and their reaction. The results showed encouraging feedback, and the PCSP *marhalla* continued.

At the end of the second quarter, the segment was discontinued while a post transmission impact analysis was conducted by the research agency in November 1992, to determine if the child survival messages had any measurable effect on the target audience. The results of the impact analysis indicated an impressive, albeit general, awareness had been inculcated in the audience through this popular communication vehicle.

According to the post transmission impact analysis of *Neelam Ghar*, at least 56 per cent of the valid target respondents both in urban and peri-urban areas (a valid target respondent was a mother, with a child under two) were watching the program and in particular the PCSP segment. An overwhelming 72% of the audience who watched the segment reported having changed their child rearing behavior for the better because of the messages on *Neelam Ghar*. When asked if they wanted this format to continue, 99 per cent answered "Yes."

In view of the results of the post transmission impact analysis, it was decided to resume the popular PCSP *marhalla* of *Neelam Ghar*, now called the Tariq Aziz Show, for another six months beginning in January 1993. The last Tariq Aziz Show with a "Long Live Little Ones..." *marhalla* went on the air September 17, 1993. *Neelam Ghar*, watched heavily by the target group of mothers with children under two, was found to be an excellent vehicle for delivering basic health messages about the four child survival interventions in a very cost effective manner.

#### **RADIO DRAMA "GHAR AYA MEHMAAN"**

The second alternative to the high cost of producing and airing television drama was to develop a radio drama. This format was selected for the following reasons.

Radio currently reaches an estimated 18 million people, or 40 percent of the Pakistani population.

Radio dramas have a long and popular history in Pakistan. While there has been some erosion of interest due to the incursion of television dramas, a loyal listenership remains.

Radio dramas have been successfully used elsewhere to promote health messages (the *radionovelas* of Latin America are well-known).

The radio drama format and content was pretested using focus groups of mothers in both rural and peri-urban settings. Synopses of thirteen episodes were developed for the pretest, in addition to the full length first episode. The changes suggested from the pretest were incorporated into the first episodes and used as guidelines for the successive drama episodes.

A total of 52 episodes of the radio drama were broadcast in six languages from ten radio stations. The four child survival interventions were dramatized using real life situations. The first episode was aired in Urdu in the second week of October 1992. The regional programs produced in five languages--Punjabi, Sindhi, Pushto, Balochi, and Seraiki--followed a few weeks later. By the end of September 30, 1993, all 52 episodes had been produced and only a few episodes remained to be aired.

In order to attract an audience, press previews were held in the provincial capitals and Islamabad; and spots promoting the series were broadcast on the television and radio. A fifteen-second commercial produced in the five regional languages, advertising the radio drama and its time was telecast on the television network. Posters in Urdu, and five regional languages featuring the photographs of the drama actors were posted in BHUs, RHCs and other places of interest.

During the broadcast of the drama series, tracking research was conducted in each of the regions where the series was being broadcast. The tracking results showed that 51% of the target respondents owned radios, 40% of them listened to the radio, and 28% of those who listen had listened to the PCSP radio drama *Ghar Aya Mehmaan* at least once.

The writer of the drama, Mr. Ather Shah Khan (a humorist and famous TV star), described his experiences with the PCSP as something totally new, posing challenges he thought were insurmountable in the beginning. He noted that prior to his involvement with the show, he could not imagine even referring to the word "diarrhea" or what it entails in his writings. It was indeed a challenging task for him, which he accomplished with the regular and able technical assistance of the MOH, in collaboration with the advertising agency.

In addition to the radio broadcasts, the first thirteen episodes of the radio drama *Ghar Aya Mehmaan* are now played on cassette recorders in the UNICEF BFHI hospitals while lactating/pregnant women wait for medical care in the wards.

### **BREASTFEEDING AND NUTRITION FLIP CHART**

The breastfeeding and nutrition flip chart was designed to be used by health workers to strengthen their interpersonal communication with pregnant and lactating women and to promote exclusive and early initiation of breastfeeding, as well as to encourage good antenatal care, including good nutrition for the mother. The flip chart encourages women to follow optimum exclusive breastfeeding practices during the first 4 to 6 months and to have family members support these practices.

The original text of the breastfeeding flip chart was based on qualitative breastfeeding research conducted in 1990-91 (see PCSP Research chapter) and on materials from UNICEF and WHO. The text was reviewed extensively by breastfeeding experts.

The finished four-color product was pretested with mothers and health care providers in actual health facilities in rural and peri-urban settings of the Punjab and NWFP. One interesting finding was that quite a few people did not have the knowledge of Urdu necessary to use the original flip chart with Urdu text. The pretest recommended drastic changes in text and illustrations. In order to avoid any kind of subjectivity that may have been invoked while pretesting, the results were shared with pediatricians, nutritionists and other health care providers. It was only after this review that the changes were incorporated into the final product.

One thousand copies of the flip chart were printed and distributed through PCSP provincial offices. Another one thousand copies were produced with funding from the Johnson and Johnson Breastfeeding Promotion Project in Pakistan. These charts are now being used by the Punjab Breastfeeding Steering Committee as an integral part of the counseling module of the Committee's Lactation Management Training.

To highlight interagency cooperative efforts in the PCSP's Communication Component, it is relevant to note here that nine of the thirteen illustrations of the flip chart were chosen by UNICEF for the production of posters for the UNICEF Baby Friendly Hospitals Initiative. Also, UNICEF plans to produce another one thousand flip charts for their BFHI in Pakistan.

### **INTERPERSONAL COMMUNICATION ACTIVITIES**

A basic Interpersonal Communication (IPC) Module was developed, based upon the Rapport, Understanding and Influencing (RUI) model. The purpose of this "RUI wheel" was to teach

basic interpersonal communication and counseling skills to the health care providers so that they might better impart medical advice in a way that will be understood and accepted.

Three modules were developed, tested and implemented one each for the paramedics, supervisors and medical officers. These modules were field tested before final incorporation into the Integrated Child Survival Training Curriculum. A total of 303 trainers, 92 supervisors, 25 HEOs, 619 medical officers, and 326 paramedics were trained using these modules.

### COMMUNICATIONS SEMINAR

Towards the end of September 1993, a seminar on "Lessons Learned in Health Education and Communication" was held in Islamabad. This seminar was attended by health professionals, media experts and representatives of NGOs and international agencies. A special publication, "Communications for Child Survival: Mixed Media for Pakistan," was produced for this occasion.

The highlights and lessons learned from the PCSP communications experience were shared with the participants. The participants were then divided into working groups to discuss ways to consolidate and sustain Health Education and Communication (HEC) activities. A representative of each of the five groups--federal government, provincial government, the media, NGOs, and international donors--reported their recommendations for sustaining HEC. A special resolution, "*Islamabad Health Education and Communication Resolution*," highlighting the importance of HEC for child survival was also discussed and passed by the participants.

### OUTPUTS OF THE COMMUNICATIONS COMPONENT

The outputs and products of the PCSP Communications component are listed below.

#### Planning and Message Development Documents

- \* Action Plan of the Communications Component
- \* Creative Brief on CDD, EPI and ARI (Urdu and English)
- \* Creative Brief on Breastfeeding and Nutrition (Urdu and English)
- \* Communications Manual "Communications for Child Survival: Mixed Media for Pakistan"

#### Media Products

- \* *Neelam Ghar* "Long Live Little Ones, Long Live Pakistan" marhallas (52 episodes)
- \* *Ghar Aya Mehmaan* radio drama series (52 episodes in 6 languages)

- \* Videos: "*Neelam Ghar* Behind the Scenes;" "Ghar Aya Mehmaan Behind the Scenes," and four English subtitled episodes of *Neelam Ghar*
- \* Fifteen-second radio drama promotional commercial
- \* Spectrum report Highlighting the Themes Covered in *Neelam Ghar* and *Ghar Aya Mehmaan*
- \* Report on Coverage of the Promotion of Radio Drama Through Press
- \* PTV and STN spots on EPI, CDD (158)
- \* Radio spots on EPI, CDD on 18 stations (18,378)

### **Interpersonal Communication Products**

- \* Interpersonal Communication Training Modules for Medical Officers, Supervisors, and Paramedics
- \* Breastfeeding Flip Chart

### **Research Reports**

- \* Report on Breastfeeding and Nutrition Flip Chart Pretesting
- \* Report on Radio Drama Pretesting
- \* Report on Tracking of *Neelam Ghar*
- \* Report on Post Transmission Impact Analysis of *Neelam Ghar*
- \* Report on Tracking of First Wave of the Radio Drama
- \* Report on the Radio Drama Awareness Survey
- \* Report on the Final Tracking of the Radio Drama

## **CHALLENGES AND CONSTRAINTS**

### **LIMITATION OF FUNDS**

As all of the components experienced, the cutback in funding due to implementation of the Pressler Amendment required the component to revise its strategy and implementation plan. Reduced funding meant that the Project could not afford the original media planned--TV spots and drama series--and had to explore alternatives which would serve the same strategic role for considerably less cost. This resulted in the use of the lower cost radio series instead of television, and the inclusion in an existing TV program. The revised component also focused more on public sector training. The marketing and promotion of ORS and iodized salt was eliminated from the project altogether.

## **CHANGES IN PERSONNEL**

The reduction in funding also necessitated changes in the component's personnel. First, the two locally-hired Specialists were reduced to one, eliminating the Specialist to be based in Karachi. Then, by the fall of 1991, it was clear that there would not be sufficient funding to retain the resident Communication Advisor. The locally-hired Specialist at this point became the Communication Coordinator and assumed additional responsibilities for mass media and IPC. Eventually this person's responsibilities were limited to the coordination of IPC training activities and became a member of the training team; and a consultant then joined the team to coordinate mass media activities. These changes in personnel created a challenge for managing the component and required more technical and managerial input from MSH and AED/Washington.

## **COLLABORATION BETWEEN PUBLIC AND PRIVATE SECTORS**

Facilitating a public-private sector relationship has been one of the major challenges for this component. Government officials are generally concerned about the high costs involved in using the private sector. And conversely, the private sector is generally wary about working with the government. The project was able to successfully mobilize a private research firm and advertising agency and to reinforce the collaboration between the GOP and the private sector.

## **SUSTAINABILITY OF HEC**

The extremely high media costs, especially of television, jeopardize the sustainability of HEC media activities. Without donor assistance, it is difficult for the GOP to afford airtime. The Ministry of Health, in collaboration with PTV2 and Shalimar Television Network (STN), is trying to communicate health messages through the new PTV2 and STN channels, but the viewership of these channels may be minimal, especially during prime time.

## **LESSONS LEARNED**

### **ENTER-EDUCATE**

The enter-educate communications approach was successfully used by the PCSP. It has proved to work effectively to communicate HEC messages, drawing encouraging feedback in the tracking surveys. But the messages must be designed very carefully and placed strategically to avoid sounding forced or contrived, yet retaining accuracy.

## **MEDIA MIX**

Both IPC and mass media are needed in HEC to complement each other's effect. The mass media plays an important role in creating popular awareness and developing a positive attitude on the part of the public towards a new idea or product. Interpersonal communication, on the other hand, can deepen an individual's understanding and acceptance of a new idea by demonstrating or personalizing the message.

## **REGIONALIZATION**

There is an urgent need to devolve communication strategies to the provincial levels. A completely centralized strategy is limited in its ability to achieve maximum behavior change. IPC, for example, can help change behaviors, especially after the initial ground breaking of mass media, if the communication is appropriate within the local cultures, in the local languages. This calls for more emphasis on culturally appropriate communication.

## **ACTIONS FOR SUSTAINABILITY**

### **CONTINUE COLLABORATIVE EFFORTS**

Part of the success of the PCSP Communications Component was the collaboration between the GOP, international donors, professional groups, NGOs, and the private sector. The National Breastfeeding Steering Committee and the Federal Communications Advisory Group should continue to function and provide technical input to the GOP or donor-sponsored HEC activities.

HEC activities should be carefully monitored to avoid duplication of materials resulting in wasteful expenditure. A central HEC clearing house could be established in the Ministry of Health to facilitate a consolidation of resources and cooperation between federal and provincial agencies involved in HEC. The sharing of HEC materials begun by the PCSP should be continued.

### **FOCUS ON INSTITUTIONALIZATION**

Available funds such as the Johnson and Johnson Breastfeeding Promotion Program should be used to develop institutional capacity whenever possible. Funds spent exclusively on media efforts will not promote institutionalization.

### **CONTINUE IPC TRAINING**

One sustainable activity of the Component is the integration of IPC modules into the ICST curriculum. The IPC training should also become a part of preservice training as well as in-service training in medical and paramedic training institutes.

The mass media communications through TV and radio could be sustained if private institutions began sponsoring media with child survival messages. For this to be practical, the media will have to be entertaining and popular as well as technically accurate.

### **CONTINUE COMMITMENT**

Commitment at all levels is a basic requirement for sustainability. The interest and commitment demonstrated at the Communications Seminar by the GOP, international donors, and NGOs is encouraging.

# DRUGS & LOGISTICS

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## INTRODUCTION

Early in the conception of the Pakistan Child Survival Project, it was realized that without assuring the availability of essential drugs in health facilities, efforts to improve child survival status in Pakistan would be in vain. For that reason the Drugs and Logistics Component was added to the original design of the Project.

Considering the limited funds for this component, an operations research approach was selected with the objective to identify cost effective interventions to improve the availability of essential drugs, especially "child survival" drugs, at government health facilities.

Since the PCSP itself is not implementing the actions recommended by the operations research, clear, brief, direct (face to face) and frequent communication of results and recommendations for relevant decision-makers has been emphasized in the strategy of the component.

## OBJECTIVES

1. To provide GOP decision-makers with the quantitative and qualitative information on drug management sufficient for making decisions on:
  - Policy changes
  - Management interventions required for improving the availability and use of child survival drugs
2. To contribute to improved prescribing patterns for diarrheal disease and ARI

## ACCOMPLISHMENTS AND OUTPUTS

### ANALYSIS OF THE MEDICAL SUPPLY DEPOT PROCUREMENT (INDENT) SYSTEM FOR ALL PROVINCES FOR 1989/90 AND 1990/91

In Pakistan, a great deal of independence is given to provinces in managing their health resources. Resources allocated to drug supply are no exception. For that reason the study focused on the provincial level drug management system. There are, however, a number of facilities in the provinces which are managed by the Federal Government. Such health facilities were not included in the analysis.

In spite of the focus on child survival drugs (CSD), the operations research had to look at the whole drug management system. For the purpose of analysis, a child survival drug was defined as "*any drug which appears in the national standard treatment guidelines for managing diarrhea or acute respiratory infection in children under 5 years old*". Antimalarial drugs were also added to the list in certain areas.

#### Drug Selection and Procurement Analysis

About 75% of the provincial budget for drugs is spent by Medical Store Depots (MSDs). The rest is spent by the health facilities themselves through direct purchases. This analysis looked only at the MSD pattern of managing its drug budget.

#### Methodology:

Data on the list of purchased drugs, the quantity ordered, and the unit price for each drug was collected and analyzed in all four provinces for two successive procurement cycles (Indents) for 1989/90 and 1990/91. Drugs were arranged by therapeutic class and each therapeutic class was examined for redundancy. The unit price for similar drugs within each therapeutic class was compared.

#### Summary of Findings: (See *Drugs and Logistics Summary Report Issue # 1 & 2*)

- a. Many drug items are purchased in some provinces e.g. Balochistan 1989/90 MSD Indent included more than 400 items.
- b. Many provinces are still purchasing items which are proven to be useless or even harmful, e.g. antidiarrheal drugs and Novalgin injections.

- c. Redundancy of drugs within one therapeutic category is common, e.g. 15 sedatives were included in Balochistan 1989/90 MSD Indent.
- d. Expensive items are sometimes purchased when similar cheaper items are available, e.g. Mefenamic Acid tablets, an analgesic associated with a number of adverse reactions and which costs over twice that of Paracetamol tablets, were purchased by Punjab in 1990/91 MSD Indent.

## **Drug Unit Price Comparison**

### **Methodology:**

A unit price comparison for several drugs which are commonly purchased and consume a significant proportion of MSD drug budgets was conducted. Data for this comparison was obtained from the 1990/91 MSD Indents in the four provinces.

### **Summary of Findings:** *(See Drugs and Logistics Summary Report Issue # 3)*

There is significant variation among provinces. This is partially because of the different sources of supply in different provinces. Also, some provinces are more keen than others to obtain the most competitive unit price possible.

2. District Study to Understand the Magnitude of Shortage in Child Survival Drugs at the Periphery, the Annual Consumption of Selected Drugs and the Prescribing Patterns

### **Methodology:**

Two Districts were selected: Mansehra District in NWFP; and Lesbela District in Balochistan. In each district, 10 BHUs and 5 RHCs were randomly selected. Ledger books were the source of data on the availability of drugs and the duration of shortages between October 1990 and October 1991. Ledger books also provided data necessary to calculate the average annual consumption of target drugs.

At least 60 registered prescriptions scattered throughout the year, for each target drug in the study, were selected to avoid the impact of seasonality. The ages and diagnoses of patients were also studied for selected child survival drugs. All data was analyzed using EpiInfo Software.

**Summary of Findings:** (*See Drugs and Logistics Summary Report Issue # 3*)

The study showed lower-than-expected availability of ORS packets, especially in Lesbela District. Cotrimoxazole syrup was available only 30 to 50 percent of the time. Benzyl penicillin and ampicillin injection had the lowest service levels.

Studying the average annual consumption for cotrimoxazole syrup revealed the annual treatment capacity of 70 to 80 episodes of ARI for the BHU level, and 190 to 260 episodes for the RHC level.

About one fifth of the stock of ampicillin syrup and 15% of all cotrimoxazole syrup are issued to patients above 10 years old.

In Lesbela District, malaria was the only diagnosis for 12% of the cotrimoxazole syrup prescriptions.

**COMMUNICATION OF RESULTS TO RELEVANT DECISION-MAKERS THROUGH FORMAL PRESENTATIONS AND DISSEMINATION OF THE "DRUGS AND LOGISTICS SUMMARY REPORT"**

The "*Drugs and Logistics Summary Report*" was issued to share study findings and implications with planners and decision-makers in a brief, concise format and as timely as possible. However, it has been proven in many international studies in the field of communication that "newsletters" alone are unlikely to bring about a change in practice. For that reason, the "Summary Report" was only given to targeted decision-makers in combination with a face-to-face presentation.

Presentations of the findings were also given for Drug Purchasing Committees in the four provinces, at major PCSP planning meetings, and during the National Workshop on Essential Drugs.

**NATIONAL WORKSHOP ON ESSENTIAL DRUGS TO STIMULATE THE FORMULATION OF "PAKISTAN NATIONAL DRUG POLICY" AND TO PROMOTE THE ESSENTIAL DRUGS**

The Drugs and Logistics Component organized this workshop which gathered federal and provincial policy-makers in the area of drug management for the following objectives:

- a. Review the current status of drug policies and management in Pakistan and stimulate the process of finalizing the National Drug Policy Paper, committed to the concept of essential drugs; and

- b. Present the results of the operations research conducted by PCSP and consider feasible interventions to improve the availability of essential child survival drugs.

An important outcome of the workshop was the discussion of the "National Drug Policy" and its approval by the participants. The National Drug Policy is committed to the concept of essential drugs as the most feasible intervention to focus scarce financial resources on needed drug items.

Details of the workshop are available in the Report of the *National Workshop on Essential Drugs*.

### **NEEDS ASSESSMENTS OF EPI STORAGE FACILITIES AT FEDERAL AND PROVINCIAL LEVELS**

Inputs in the area of EPI logistics management were limited to needs assessments of EPI storage facilities. Project staff then assisted provincial staff in writing proposals for refurbishment; these proposals were referred to the USAID Contracting Office for implementation.

### **COMPUTER TRAINING ON DRUG INDENT ANALYSIS**

A computer workshop for participants working in MSDs in Punjab, Sindh, NWFP and AJK was conducted. The objective of the workshop was to transfer the methodology of drug procurement and analysis to the provinces, and to show how such analysis could benefit each province.

## **CHALLENGES AND CONSTRAINTS**

### **WORKPLAN MODIFICATION**

As a result of the so-called "negative" Pressler Amendment and the subsequent decrease in our Project budget, the workplan for the Drugs and Logistics Component was modified to achieve the most impact from the limited resources available.

The resources for the component were reduced from a total of 18 months of long-term technical assistance to 13 months, and from a total of 12 months of short-term technical assistance to 6 months. This reduction led to a decision to focus the component's technical activities on improving the availability and use of child survival drugs in one selected province. Also, less emphasis was placed on providing technical assistance in the field of EPI logistics, an area already receiving attention by NIH, WHO and UNICEF.

### **STAFF LOSS**

The resignation of the component's Drugs and Logistics Specialist slowed down productivity. Furthermore, considering the short life span of the Drugs and Logistics Component, it was not possible to find a replacement.

### **LIMITED FUNDS**

EPI storage facility refurbishments could not continue through the PCSP due to a lack of funds.

### **LACK OF A WRITTEN NATIONAL POLICY**

Lack of a written national policy for drug supply selection, procurement, and prescribing contributes to major differences in the availability of essential drugs between provinces.

### **ABSENCE OF ESSENTIAL DRUG INDENT FORMULARY**

Absence of a functioning provincial or national essential drug list and formulary results in unnecessary expenditures on expensive and non-essential drugs.

### **LACK OF RELIABLE INVENTORY RECORD SYSTEM**

Lack of a reliable inventory record system, especially for drug supply makes it difficult to study the availability of child survival drug items.

## **LESSONS LEARNED**

### **MOST COST EFFECTIVE WAYS TO IMPROVE THE AVAILABILITY OF ESSENTIAL DRUGS**

Overall results of the operations research revealed the following to be the most cost effective ways to improve the availability of essential drugs:

- a. Minimize/eliminate spending on expensive and non-essential drug items;
- b. Stimulate more competitive bidding among drug suppliers to obtain better unit prices;  
and
- c. Monitor prescribing to minimize the unnecessary issuing of precious essential drugs:

### **Drug Selection and Procurement Analysis**

- a. Each drug in the list should be evaluated from the risk-benefit point of view and provinces should re-examine their drug lists to eliminate useless and harmful drugs.
- b. Within each therapeutic class, drugs should be evaluated for their cost effectiveness. Less money should be allocated for low cost effective drugs, and more money should be put into drugs with high cost effectiveness value.

### **Drug Unit Price Comparison**

- a. More competitive bidding should be stimulated by monitoring the unit prices offered by different suppliers nationwide. Information exchange between MSDs could be helpful in obtaining the best unit price.
- b. When the same drug is proposed by two different suppliers with different unit prices, the quality of the drug from each supplier should be tested to help decide which supplier to select. It should not be automatically assumed that the more expensive supplier offers the better quality.

### **STUDYING EXTENT OF SHORTAGES**

- a. Prescribing should be monitored and feedback should be given to prescribers to encourage them to limit the issue of child survival drugs in syrup form to children, and to discourage them from needless prescribing of child survival drugs where they are not indicated.
- b. The current system of distributing ORS exclusively through EPI channels should be modified to assure its availability at BHUs and RHCs.

### **PILFERAGE OF DRUGS**

Although there is no official estimate of the amount of pilferage in drugs at governmental health facilities, many officials informally state that it is a "big problem". The PCSP was not in a position to play the role of a "detective" to try to find out the extent of pilferage. However, experiences from other developing countries show a loss of up to 40% of drug stock due to pilferage.

Measures to limit pilferage include:

- a. Apply tight inventory control system including the maintenance of accurate and up-to-date stock records;
- b. Limit access to health facility's pharmacy to only authorized staff; and
- c. Put unique identifiers on governmental drug stock.

## **DRUG STORAGE AND DISTRIBUTION SYSTEM**

The Drugs and Logistics Component chose not to spend significant time investigating the storage and distribution conditions of drug supply for two reasons: first, the problems of storage and distribution are widely known; and second, effective interventions to improve the storage and distribution system require large financial resources.

### **ACTIONS FOR SUSTAINABILITY**

#### **IMPLEMENT INDENT SYSTEM**

Provincial initiatives to implement the suggested indent system of audit and feedback should be supported by the Ministry or Department of Health. Results should then be presented to provincial Procurement Committees.

#### **FINALIZE NATIONAL DRUG POLICY**

Results of the operations research and topics discussed at the National Workshop on Essential Drugs were of keen interest to the WHO Regional Office (EMRO). A follow-up workshop might be supported by WHO to finalize the draft of the National Drug Policy Paper presented by the Director General, Health during the PCSP-supported National Workshop on Essential Drugs.

#### **ASSIST PROVINCES IN COMPUTER APPLICATIONS**

Assist interested provinces in implementing some of the Workshop recommendations. For example, Balochistan showed a great desire to continue the MSD Indent monitoring for the cycle 1992/93. Also, Punjab is contemplating introducing some computer applications to its procurement system.

#### **CONTINUE PROVINCIAL TRAINING AND OPERATIONS RESEARCH THROUGH THE NETWORK**

Encourage support for the Network of Association for Rationale Use of Medication in Pakistan to continue the training of provincial staff to perform Medical Supply Depot analyses (Indent System) and operations research examining drug shortages at the periphery.

# RESEARCH

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## INTRODUCTION

Major revisions in this component were necessary as a result of the Pressler Amendment; only the basic objectives were maintained, institution capability-building and investigation of key research questions essential to child survival program activities. Given the drastic reduction in funds available to develop and implement specific research projects, the decision was made to focus on several critical research questions particularly important for the National ARI Program. In addition, close collaborative efforts with ADDR (and potentially UNICEF) would be pursued, especially in the area of protocol development and institution capability-building ventures such as data analysis workshops. In essence, the technical assistance of PCSP (particularly the COP) would be utilized in these endeavors, with most of the capital coming from ADDR and (potentially) UNICEF/other donors.

## OBJECTIVES

1. To provide MOH/NIH/National ARI Program decision-makers with information on the impact of cotrimoxazole resistance on the clinical outcome of therapy for children with pneumonia
2. To provide MOH/NIH/National ARI Program decision-makers with ethnographic information on the home management and health seeking behaviors of families with a child with an acute respiratory infection
3. To assist the ADDR/Pakistan effort in developing a set of applied research studies in key child survival interventions for diarrhea, acute respiratory infections and malnutrition

## ACCOMPLISHMENTS AND OUTPUTS

### THE IMPACT OF COTRIMOXAZOLE RESISTANCE ON THE CLINICAL OUTCOME OF THERAPY FOR CHILDREN WITH PNEUMONIA

This research was undertaken by the Pakistan Institute of Medical Sciences (PIMS), Rawalpindi General Hospital (RGH), and the National Institute of Health (NIH) to study the impact of

cotrimoxazole resistance on the clinical outcome of therapy for children with pneumonia. The Pakistan Child Survival Project was responsible for the financial support for this research, as well as providing management and technical assistance for protocol design, implementation, analysis of data, and dissemination of results. Technical and financial support was also provided by the ARI Program/WHO and the Centers for Disease Control (CDC).

The purpose of the study was to evaluate the clinical importance of *in vitro* resistance to cotrimoxazole in children with pneumonia due to *S. pneumoniae* and *H. influenzae*, and to compare the clinical efficacy of amoxicillin and cotrimoxazole. A double-blind randomized clinical trial was developed for implementation at the Children's Hospital (PIMS) and Rawalpindi General Hospital (RGH). After a pilot project, the full protocol was instituted in late 1991; field work was completed in mid-1992. Initial results were disseminated in the fall of 1992 through conference presentations. Manuscripts are in process.

### **FOCUSED ETHNOGRAPHIC STUDY OF ACUTE RESPIRATORY INFECTIONS**

This research study was proposed by the Pakistan Institute of Medical Sciences. The objective of undertaking an ethnographic study on ARI was to develop an understanding about local community perceptions and beliefs regarding the disease. The data generated would reflect the cultural views held by different ethnic communities.

PCSP worked with the National ARI Coordinator, WHO and UNICEF to initiate the development of a protocol including: budget, staffing, and adaptation of existing focused study tool. However, due to the lack of a suitable and available Principal Investigator during the prime study time — prior to the beginning of the ARI season — as well as the limited resources/funds available in the PCSP, this study could not be initiated under the auspices of the Project. The study was eventually conducted with financial support from UNICEF.

### **QUALITATIVE STUDY ON BREASTFEEDING**

In collaboration with UNICEF and PRITECH, a qualitative study on breastfeeding was performed, highlighting key behaviors and perceptions on the part of a variety of health practitioners from trained medical officers through dais and TBAs, as well as a number of women of different ages - in order to identify specific information which should be addressed in health education messages to change beliefs and behaviors regarding breastfeeding.

Three types of qualitative research methods were used:

- a. Focused group discussions for exploration of perceptions, cultural norms, images and influences;

- b. Indepth interviews for detailed information on practices and attitudes and to understand influences, advice seeking, decision making; and
- c. Observation, to validate information obtained by the first two methods

The results of this study were shared at the National Breastfeeding and Urban Breastfeeding Conferences held in Islamabad and Lahore in May 1991. In addition, a publication (entitled "Losing the Ability to Distinguish What Is Best for Pakistan's Children: Breastfeeding - A Tradition at the Crossroads") was created and distributed to health officials and agencies involved in child survival services.

### **ADDR COLLABORATION**

The PCSP provided technical input and logistical support to the ADDR Project to assist in the development of their research portfolio of applied studies in child survival interventions for diarrhea, ARI, and malnutrition. Once the ramifications of the Pressler Amendment were clear, efforts were devoted to strengthening PCSP's collaboration with ADDR and providing assistance in the implementation of their research activities, including the CDD and ARI Protocol Development Workshops.

## **CHALLENGES AND CONSTRAINTS**

### **IMPLEMENTATION ISSUES IN COTRIMOXAZOLE STUDY**

After the successful pilot phase was completed, the actual study began. The following areas required particular attention:

1. Improving patient enrollment;
2. Maintaining a medical staff dedicated to the study;
3. Delivery of microbiology reports to the hospitals;
4. Review of study records prior to data entry; and
5. Shipping of isolates to CDC.

As a result of the steady communication and hard work of all those collaborating on this study, these problem areas were overcome. Staff turnover was remedied by a revised salary structure early in the course of the project.

## **MULTIPLE DONOR SPONSORED RESEARCH**

Essential research projects such as the Cotrimoxazole Trial require intensive communications and collaboration between multiple organizations, necessitating a regular system of communication to avoid mis-interpretation and to coordinate activities. Initially, the development of such a system required a bit of time and effort, but once in place, it worked well and promoted smooth operations.

## **ETHNOGRAPHIC STUDY IMPLEMENTATION**

Due to delays in identifying a suitable Principal Investigator for the ARI Ethnographic Study, along with PCSP's limited funding capacity, this research could not be carried out under PCSP's auspices. However, PCSP actively assisted the National ARI Program to find alternative donors. The study was eventually performed in 1992 with financial support from UNICEF.

## **RESTRICTED ADDR MANDATE**

In strengthening PCSP's relationship with ADDR, its initial mandate to focus on diarrheal diseases, was an impediment to a more productive collaboration. However, later ADDR's mandate was broadened to include other intervention areas critical to child survival such as ARI and nutrition, thereby making the collaborative arrangement more effective, and allowing many of the original objectives of PCSP's Research Component to be achieved through combined efforts with ADDR.

## **LESSONS LEARNED**

### **COTRIMOXAZOLE TRIAL FINDINGS**

An increased clinical failure rate was found in:

1. Cases with *H. influenzae* compared with *S. pneumoniae*;
2. Younger children (2-11 months) compared with older children (12-59.99 months);  
and
3. Severe pneumonia compared with pneumonia.

Amoxicillin and cotrimoxazole are both effective for the treatment of pneumonia. Treatment failure was not affected by cotrimoxazole resistance for pneumonia. Treatment failure was higher with cotrimoxazole than amoxicillin in severe pneumonia. Cotrimoxazole resistance was associated with increased failure in severe pneumonia.

## **VALUE OF APPLIED RESEARCH TO ANSWER SPECIFIC PROGRAMMATIC AND POLICY QUESTIONS RELATING TO CHILD SURVIVAL**

The results of the Cotrimoxazole Trial were directly utilized by the National ARI Program Coordinator to determine national treatment policy, the cornerstone of the National ARI Program. Similarly, the determination of the treatment policy was critical for the establishment of standardized ARI training curriculum, in particular the integrated child survival curriculum of the PCSP. Finally, this research effort highlighted the utility of applied ARI research.

## **IMPORTANCE OF MULTIPLE DONOR COLLABORATION**

Although requiring the development of intensive communication systems, the coordination of multiple donor and technical agencies (UNICEF, USAID/CDC, WHO) allows larger, more costly research projects to be undertaken and ultimately promotes broader dissemination and utilization of the findings. The Cotrimoxazole Trail is a fine testimony for the success of such collaboration. Although the need for this study was recognized several years previously, technical and financial constraints prevented development and implementation until the collaboration was established through the PCSP.

## **IMPORTANT ROLE OF QUALIFIED RESEARCH IN THE DEVELOPMENT OF HEC MATERIALS**

Findings from the qualitative study on breastfeeding were directly used in the development of the Project's communication prime messages and provided essential technical background for the creative briefs and the Breastfeeding Flip Chart. Linking child survival project research with related HEC activities and interventions is not only cost effective, it results in more effective HEC products.

## **RESEARCH IS AN ESSENTIAL COMPONENT IN A CHILD SURVIVAL PROJECT**

The research component of a child survival project is an essential one which can fuel policy guidelines and direct programmatic decisions regarding intervention strategies, training and HEC. Maintaining such a component in future child survival projects should both increase the development of improved interventions and services, as well as expand national essential research capabilities.

## **ENCOURAGE COORDINATION BETWEEN USAID-FUNDED PROJECTS**

The collaboration between ADDR and PCSP has been a fruitful one which increased the productivity of both projects. Collaborations can be cost effective i.e. by "piggy-backing" logistics and administrative costs; in addition they allow each project to capitalize upon networks

and partnerships created by the other. In this case, the application of specific research findings in the development of child survival intervention strategies and related training improved the effectiveness of PCSP's activities.

## **ACTIONS FOR SUSTAINABILITY**

### **SUPPORT NATIONAL ARI PROGRAM RESEARCHERS**

Support National ARI Program researchers involved in Cotrimoxazole Trial to attend ADDR workshop on Data Analysis and Research Manuscript writing in order to enhance their skills and promote the production of publication-quality papers describing key findings of the study. Encourage WHO/CDC to continue their support for national investigators until manuscripts are completed.

### **ADDR CONTINUE ASSOCIATION WITH CHILD SURVIVAL ACTIVITIES**

ADDR should continue its activities and close association with child survival activities.

### **IMPLEMENT TREATMENT RECOMMENDATIONS**

Implement the treatment recommendations and guidelines from the Cotrimoxazole Trial.

- a. Management of severe pneumonia
  - Inpatient therapy with intramuscular benzyl penicillin

If inpatient therapy not feasible:

  - Outpatient therapy with oral amoxicillin
- b. Management of pneumonia
  - Continue use of oral cotrimoxazole
- c. The findings of this study support the coordination of current WHO and National ARI Program treatment recommendations.

# CONCLUSION

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## Conclusion

The PCSP experienced what may have been unprecedented challenges during the 3 years of its operation. Significant events adversely affecting management and implementation of its activities included: delayed start-up due to prolonged negotiations between the Governments of Pakistan and USAID about the amount of technical assistance to the Project; evacuation of the technical assistance team due to the Gulf War in January 1991; followed by drastic reductions in budgetary allocations as a result of the Pressler Amendment, which also necessitated a major overhaul of the workplan; a shortened project life - limited to the original base contract period of three years (another result of the Pressler Amendment); loss of 2 COPs - one through resignation and the second through death; changes in other critical technical assistance team members as a result of major alterations in the scope of PCSP activities; and turnover in both GOP counterparts as well as USAID Officers.

### PLANNING AND MANAGEMENT

Over the life of this project, the donor consortium and the establishment of inter-agency relationships has fostered coordinated planning and collaborative implementation of child survival activities. In addition, the federal and provincial child survival steering committees promoted ownership and encouraged coordination to maximize resources, and avoid duplication. These two forums contributed to the success of the PCSP, and its continued implementation.

### HEALTH INFORMATION SYSTEMS

As in other components, the consensus-building approach galvanized support for this component, and helped to guarantee future ownership and hence, sustainability of these activities. A thorough understanding of how the HMIS would be implemented within the complex bureaucracy was necessary for successful project design. However, in order for the restructuring effort of the Health Information Systems to have a durable effect on the quality of care delivered, other appropriate management interventions will be necessary in government health services. Nonetheless, the design and initial implementation of a nationwide HMIS for FLCF was successfully completed, including the training of end-users in how to effectively utilize data and information for decision-making and improvement of child survival services.

## **TRAINING**

By translating the training material into the local languages, and utilizing the combined expertise of national and expatriate consultants, the training team produced a unique integrated child survival curriculum which has been readily accepted by medical officers, paramedics, and supervisors. The participation of select government staff in key positions served to guarantee continuity and promote sustainability of the decentralized, integrated training curriculum provided through CSTUs. Finally, involvement of both donor and Government during the planning stages of the Project increased their support and ultimately contributed to their ownership of the training activities.

## **COMMUNICATIONS**

The experiences of the PCSP have proven that the enter-educate approach can be effective in the communication of HEC messages for child survival. Exciting public-private sector ventures in radio (drama "Ghar Aya Mehmam") and television (quiz show "Neelam Ghar") opened the way for future similar endeavors. The complementary roles of mass media and IPC were clearly illustrated and reinforced through PCSP communication activities. Incorporation of IPC within the ICST curriculum was a major step to validate the importance of IPC as a skill for primary care providers at FLCFs. The component also identified the need to devolve communication strategies to the provincial level in order to have significant impact.

## **DRUGS AND LOGISTICS**

Operations research proved to be an effective strategy given the resource and time constraints of this component. Analyses of the provincial medical supply depot procurement systems and a district study to understand the magnitude of shortage of child survival drugs at the periphery resulted in cost effective recommendations to improve the availability of essential child survival drugs.

## **RESEARCH**

The PCSP experience confirmed that research is an essential component of child survival projects, one which increases the development of improved interventions and services, as well as expanding national research capabilities. The importance of multiple donor collaboration to support child survival research such as the Cotrimoxazole Trial was illustrated. The results of this research were directly used by the National ARI Program and had implications for both policy and treatment guidelines. This Trial demonstrated the value of applied research to answer specific programmatic and policy questions related to child survival. Finally, PCSP urges coordination between donor-funded projects such as that displayed by ADDR and the PCSP, in order to maximize resource utilization.

**In Summary**

The Pakistan Child Survival Project is living testimony that adversity may foster collaboration and cooperation; which ultimately can maximize output, despite crippling constraints. It is truly an example of effective team work and collaborative partnerships, not only within the technical assistance team, but also between counterparts and colleagues in the GOP (both federal and provincial levels). Lastly, the PCSP made use of the experience of preceding USAID projects and the MOH to better direct its limited resources to the most effective interventions to strengthen and institutionalize child survival programs.

## Appendices

1. Chronological Summary of Critical Management Events
2. Project Administrative Organigram (PCSP-Internal)
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8. PCSP Consortium
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10. List of All GOP Counterparts
11. List of all STTA and Brief Description of their SOW and Dates of Assignment
12. List of PCSP Documents and Products Available
13. Planned and Actual Timelines of Key Activities per Component
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15. Draft PCSP Technical Outputs by Component
16. PCSP Contract Demobilization Plan (Revised)
17. Planning & Management: Revised Management Plan
18. Planning & Management: PCSP Monitoring System
19. Planning & Management: Cost Analysis of PCSP Workshops
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22. Training: List of Training Material at CSTUs
23. Training: CSTUs Established at Teaching Hospitals/District Headquarter Hospitals
24. Training: DTU Training Report
25. Communications: Staff Transition at the PCSP
26. Communications: Cost Analysis

**APPENDIX 1**

**Chronological Summary of Critical Management Events**

## Appendix 1

# CHRONOLOGICAL SUMMARY OF CRITICAL MANAGEMENT EVENTS 1988-1993

### 1988

- August:** Original Project Grant Agreement signed with Govt of Pakistan
- June:** First members of technical assistance team arrive; activities initiated
- July:** Dr. Arfeen replaces Dr. Ahmed Zafar as GOP Project Director-PCSP
- August:** Complete technical assistance team in country; central office established at Basic Health Services Cell block
- October:** USA assistance to Pakistan suspended due to the failure of certification required under the Pressler Amendment of the Foreign Assistance Act
- First Annual Workplan Review Meeting

### 1991

- January:** Technical assistance team evacuated to USA because of security concerns due to the Gulf War
- Dr. Mustaq Chaudhry replaces Dr. Arfeen as GOP Project Director
- Dr. Dennis Mull, Chief of Party resigns; Dr. Diana Silimperi assigned Acting COP
- February:** 5-year workplan approved
- March:** Ramifications of the "negative" Pressler Amendment applied to PCSP; Program budget decreased by 73% (from 62 million for life-of-project to 17 million) and limited the length of the MSH contract to approx. 3 years (Sept 30, 1993)
- Technical assistance team begins to return to Pakistan (full team not back until April)

- May:** Dr. Atta Mangi replaces Dr. Mustaq Chaudhry as GOP Project Director
- USAID PCSP Officer-in-Charge Dr. Heather Goldman replaced by Dr. Lois Bradshaw
- June:** First PCSP Provincial Office established
- July:** Dr. Atta Mangi transferred; Dr. Mustaq Chaudhry appointed as GOP Acting Project Director
- August:** All Provincial Offices established
- September:** Dr. Duane Smith, new COP assumes duties in Islamabad
- Second Annual Workplan Review Meeting takes place; significant revisions in scope of activities necessary secondary to reduced budget and length of Project

## 1992

- January:** Dr. Qazi Abdus Saboor appointed GOP Project Director
- April:** Dr. Malik Manzoor replaces Dr. Saboor as GOP Project Director
- September:** Sudden, tragic death of Dr. Duane Smith, Chief of Party; Acting Chief of Party appointed (Dr. Theo Lippeveld)
- October:** Decision made not to send new COP but to work with existing technical assistance team
- November - December:** New management plan developed and implemented given loss of full-time COP
- Third Annual Workplan Review Meeting held

## 1993

- March:** Dr. Rushna Ravji assumes responsibilities from Dr. Bradshaw as USAID PCSP Officer-in-Charge
- July:** Project Evaluation
- September:** MSH/PCSP Concludes

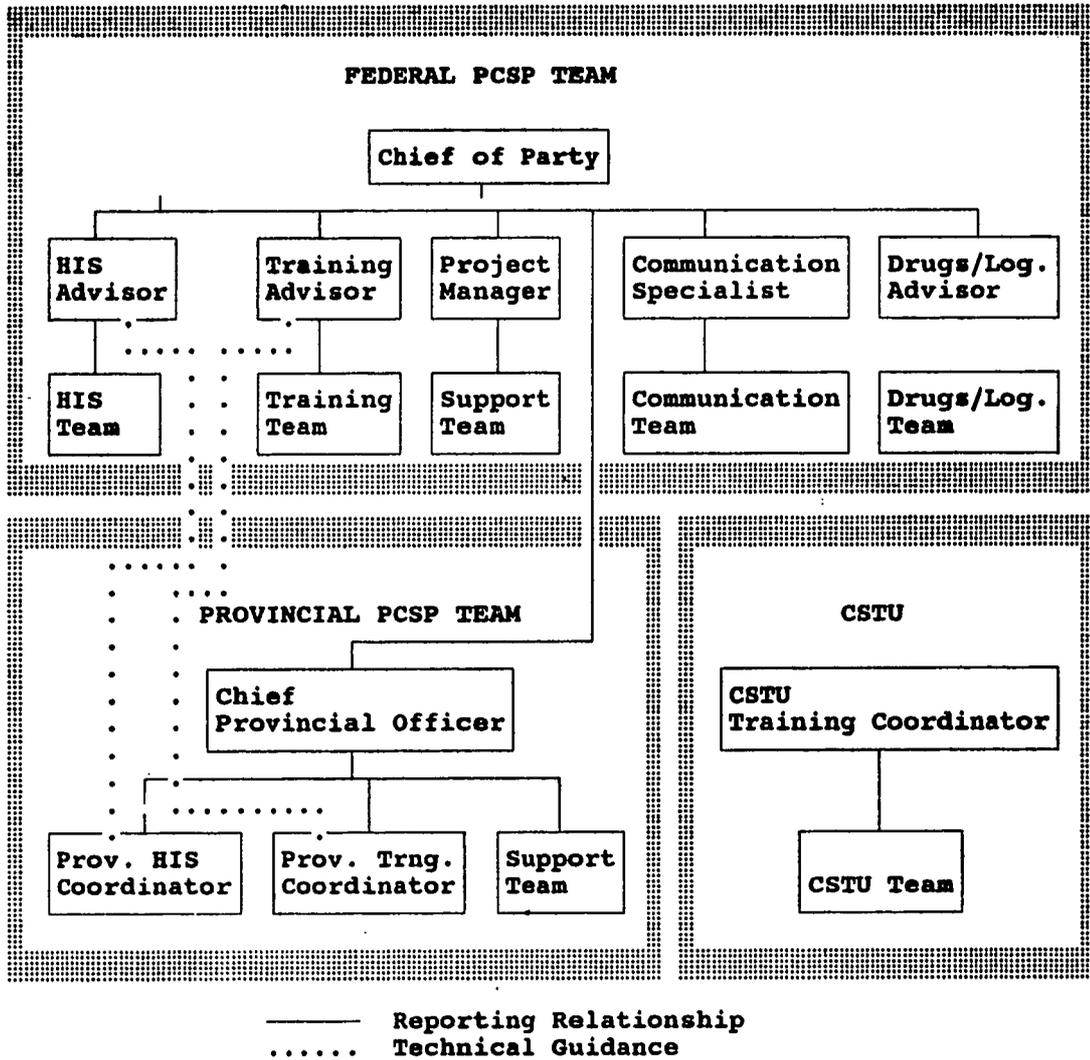
**APPENDIX 2**

**Project Administrative Organigram (PCSP-Internal)**

Appendix 2

PROJECT ADMINISTRATIVE ORGANIGRAM

PCSP-Internal



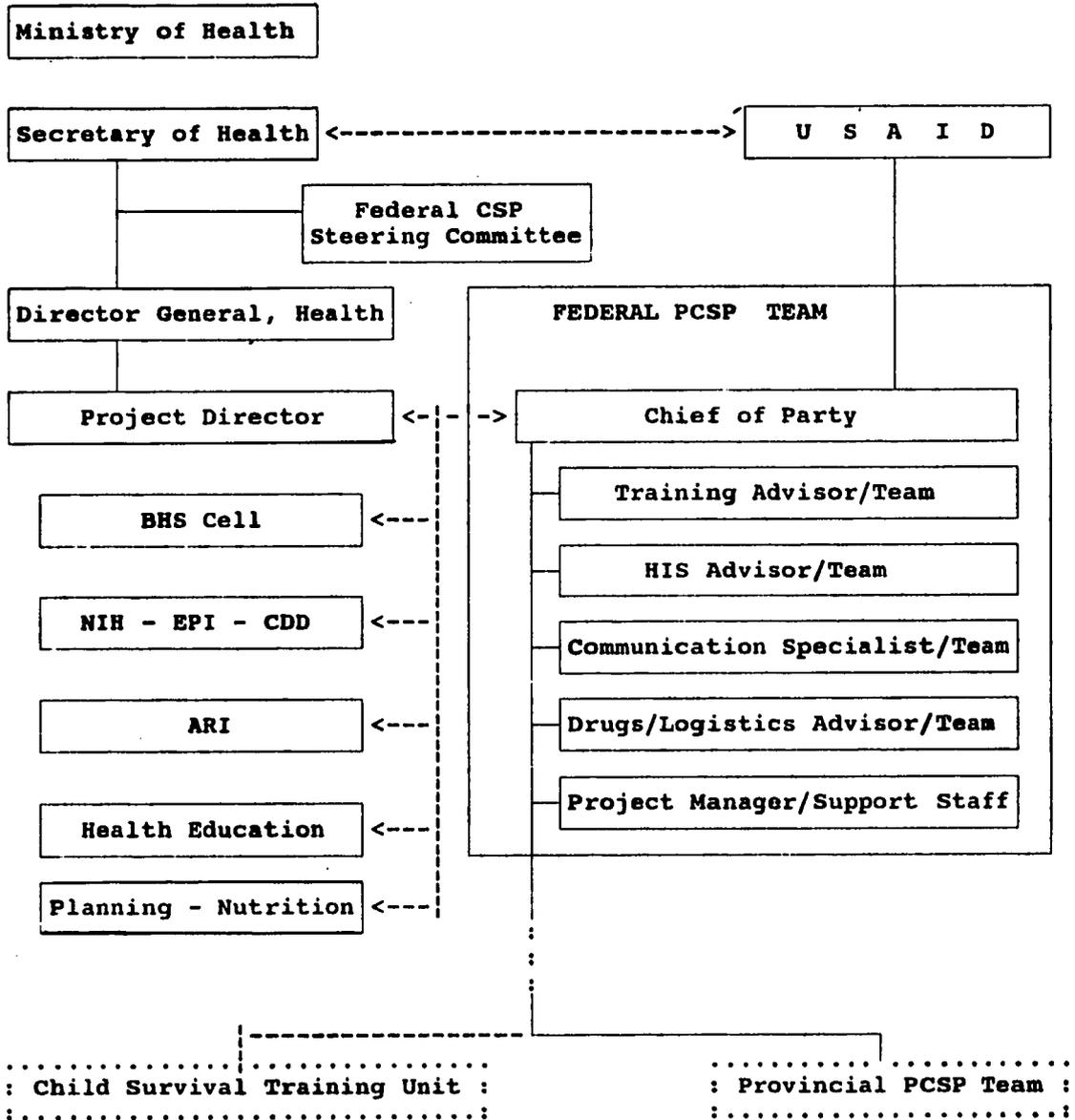
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APPENDIX 3

**Project Administrative Organigram (PCSP-Federal MOH)**

# PROJECT ADMINISTRATIVE ORGANIGRAMS

## Federal Level

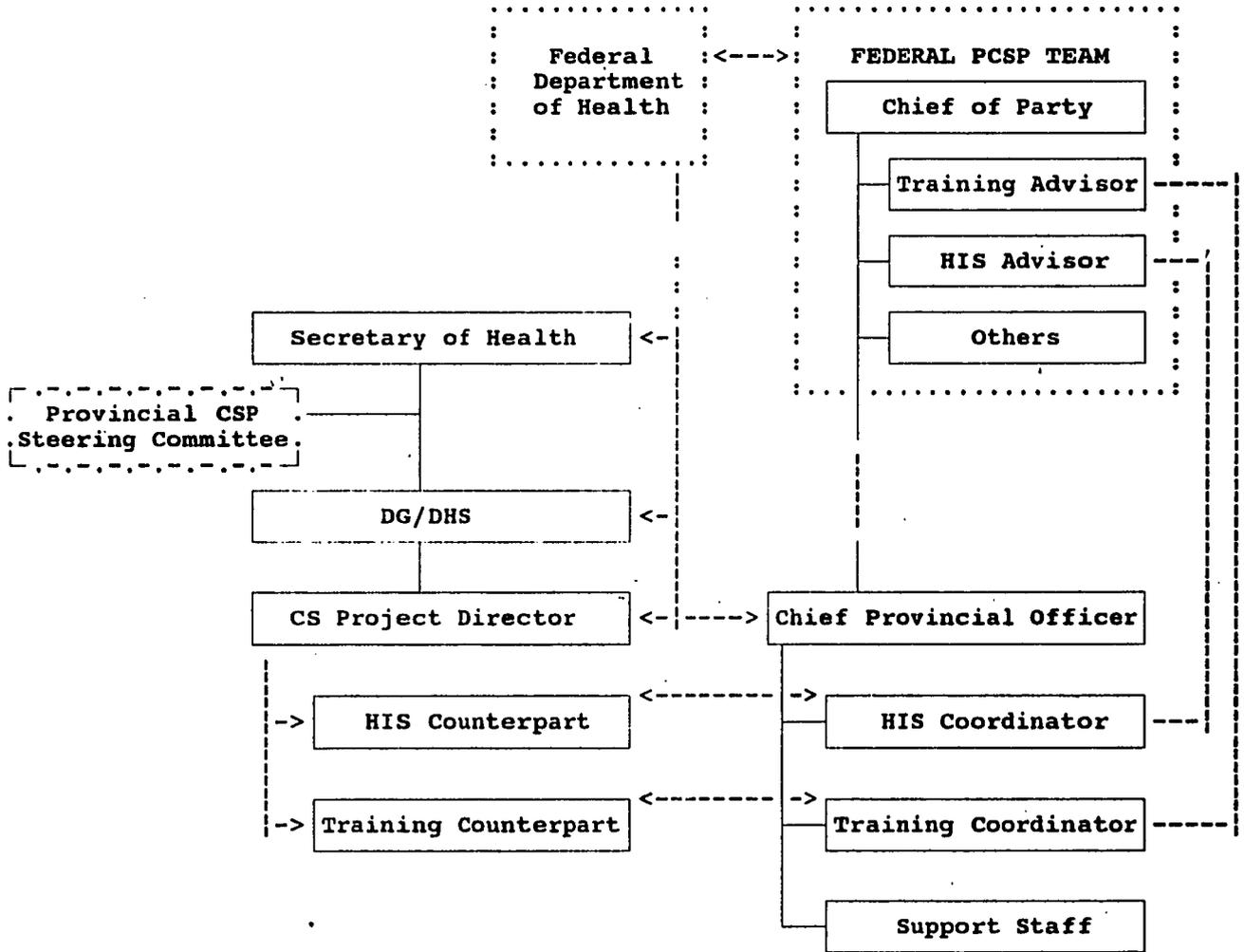


**APPENDIX 4**

**Project Administrative Organigram  
(PCSP-Provincial Health Department)**

PROJECT ADMINISTRATIVE ORGANIGRAMS

Provincial Level



**APPENDIX 5**

**Original 5-year PCSP Objectives**

## Appendix 5

### OBJECTIVES OF THE PAKISTAN CHILD SURVIVAL PROJECT

This appendix specifies the objectives which are targeted during the five years period representing Phase 1 of the Pakistan Child Survival Project. Maintaining the design of earlier documents which describe the project, the objectives are delineated in two dimensions: by intervention and by component. The combined impact of these objectives is to decrease the Infant and Child Mortality Rates by 25 percent, subject to the caveats specified in the Monitoring and Evaluation section of the workplan.

#### **A: GENERAL**

To strengthen the capability of the federal and provincial health institutions of the Government of Pakistan and the private sector for the following child survival interventions:

- A. Control of Diarrheal Diseases
- B. The Expanded Program of Immunization
- C. Management of Acute Respiratory Infections
- D. Nutritional Interventions

#### **B. SPECIFIC OBJECTIVES BY INTERVENTION**

By the end of a five year period, the Child Survival Project will have attained the following objectives for each of the specified Interventions:

##### **1. Control of Diarrheal Diseases**

- a. To strengthen case management of diarrhea including nutrition counselling, management, and interpersonal communications through establishment of a network of Diarrhea Training Units and ORT comers.
- b. To establish fully functioning and effective Oral Rehydration Therapy Units and/or comers in eighteen Diarrhea Training Units (DTUs), approximately 48 District Headquarter Hospitals and approximately 80% of Pakistan Rural Health Centres and Basic Health Units; and concurrently, to train the staff of these health facilities in correct case management of diarrhea.
- c. To ensure proper treatment and dietary management, including correct management in the home to at least 80% of diarrhea cases reporting to government health facilities.
- d. To provide seminars or other forms of training on Control of Diarrheal Diseases

- to at least 50% of registered private sector physicians.
- e. To assist in the design and coordination of a communications and marketing strategy for oral rehydration salt (ORS) using public and private resources to increase demand, supply and correct use of these products.
  - c. To incorporate EPI screening in the training of 50% of registered private sector physicians.
  - d. To further refine a coordinated multi-targeted communication strategy and plan of messages and media to increase demand and use of Tetanus Toxoid and other EPI vaccinations.
  - e. To strengthen and institutionalize Pakistan's Expanded Program of Immunization so that a coverage rate of 80% of all infants 0 - 11 months is sustained for BCG and the complete DPT-Polio series; also, 70% of infants 9 - 11 months receive measles inoculations. By the end of the project, these rates are to be sustained regularly, annually, and permanently.
  - f. To develop and implement a routine, regular program for immunization with tetanus toxoid so that 70% of women of child bearing age, including pregnant women, are vaccinated to protect newborns from neonatal tetanus.

#### 4. Nutrition

- a. To assist the government in preparing a strategy to improve nutrition of children under five year of age.
- b. To integrate nutritional training into DTUs and ATUs.
- c. To train the staff of eighteen DTUs and ATUs, approximately 48 District Headquarter Hospitals, and approximately 80% of Pakistan Rural Health Centre and Basic Health Units in correct case management and correct infant feeding practices.
- d. To ensure that 50% of the government health facilities record the weight of children under three years seen for curative or preventive problems and arrange for follow-up of those children recorded as malnourished.
- e. To ensure that 50% of the government facilities provide individual nutritional education activities. Training will focus primarily on preventive and secondarily on curative strategies. Training and teaching materials approved by WHO will be used.

- f. To assess and use existing resources to improve the knowledge, awareness, and use of iodized salt within the Iodine Deficiency Diseases (IDD) target population areas via the use of communication and marketing strategies, starting from the existing program.
- g. To develop, pretest, and communicate research-based nutrition message to mothers, families, and providers to improve the nutritional status of the children and their families.

### **C. SPECIFIC OBJECTIVE BY SUPPORT COMPONENT**

In order to attain the broad benchmark specified for each of the Project Interventions, framework of six support components has been adopted which delineates the explicit operational objectives to be followed.

#### **1. Programme Planning and Management**

- a. To set up National and Provincial Steering Committees in charge of policy direction and financial and program planning of the PCSP
- b. To set up a computerized Project Monitoring System in order to measure project progress over time.
- c. To assist the government in the development of a comprehensive plan for child survival interventions, including: Control of Diarrheal Disease (CDD), Acute Respiratory Infection (ARI), Expanded Program of Immunization (EPI) and nutrition in the government health services.
- d. To strengthen lines of management and communication within the government health services in order to improve the delivery of the focused child survival interventions.
- e. To assist the government to design and start implementation of more recent child survival interventions: ARI and nutrition.
- f. To help increase the involvement of private sector resources in the design and the delivery of child survival intervention.

## 2. **Training**

### a. **Out of Country Training**

- i) To facilitate identification and enrollment of twenty candidates (ten from the public sector and ten from the private sector) in MPH programs by academic year 1991-92.
- ii) To assist eight medical colleges to send one team of three persons (obstetrician, pediatrician, and nurse) from each college to lactation management course in 1991, and a further ten colleges by 1993.

### b. **In Country Training**

- i) To assist provincial departments of health to develop a one, three, and five-year training plan on child survival intervention areas with a final goal to establish a continuing education section.
- ii) To assist provincial department of health to plan for appropriate funds in their recurrent budget for an institutionalized continuing education program for all MBBS and paramedics.
- iii) To help establish training units in 18 medical colleges and 48 district headquarters hospitals to provide case management training on CDD, ARI, and nutrition (especially preventive) by the end of three years.
- iv) To incorporate WHO curriculum on case management of nutrition for MOs and paramedics, including adaptation to Pakistani situation, into training for other child survival programs.
- v) To coordinate with WHO for supervisors' training in EPI and CDD.
- vi) To train trainers for eight new DTUs and 48 district headquarters hospitals on CDD, ARI, and nutrition.
- vii) To train 8,000 MOs and 6,000 paramedics on case management of CDD, ARI, and nutrition.
- viii) To train approximately 230 DHOs and ADHOs and CDD and nutrition case management, including one-half day of skills training in interpersonal communication.

- ix) To offer training on appropriate case management in child survival intervention areas to 50% of registered private physicians in coordination with Pakistan Medical Association, Pakistan Medical and Dental Council, Pakistan Medical Association, Pakistan Pediatric Association, and PCSP Communications team.
- x) To train at least 60% of existing WMO and female paramedics in government health services in case management of CDD, ARI, and nutrition.

### **3. Health Information Systems**

- a. To improve existing and/ or develop new management information systems that can provide the necessary information to increase efficiency and effectiveness of the planned child survival interventions.
- b. To improve existing and/ or develop new surveillance systems so they can provide the necessary information to monitor and evaluate changes in diseases patterns related to the planned child survival interventions.
- c. To computerize these systems at the appropriate levels in the health system and provide the necessary staff with computer training.
- d. To provide training in data collection for these systems to the health personnel of 3200 health facilities.
- e. To provide training in the use of the information for improved decision making in the management of child survival interventions to 300 provincial and district level supervisors.
- f. To provide out of country training in epidemiology and data analysis to five provincial health officials.

### **4. Communications/ Marketing**

#### **Communications**

- a. To design, develop, implement, and improve a long-term communication strategy and specific campaigns to effectively and efficiently inform and motivate PCSP target populations to adopt and continue PCSP preventive and curative practices.
- b. To utilize existing knowledge and to develop additional communication research knowledge regarding the target audience in order to create, produce, and provide more attractive, compelling message in the most appropriate languages via the most cost effective media combinations for child survival priority areas such as

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EPI, ORS/ORT, nutrition, iodized salt, and breast-feeding. ARI and weaning foods will also be included over time.

- c. To institutionalize Health Education communication (HEC) research including KAP studies and pretesting, monitoring, impact evaluations, and cost/benefit studies of Information Education and Communication (IEC) methods and materials through the Health Education Cells, private sector, and university resources, and to encourage other organizations to support and conduct communications research, including mass media of Pakistan and distribution plans for materials.
- d. To provide a six months (1 October, 1990 31 March, 1991) continuation of the previous mass media (television and radio) campaign in order to maintain public awareness messages for CDD and EPI while the PCSP selects its communications and research agencies, develops its strategies and plans, and begins to implement these plans in 1991 including additional new messages for CDD, EPI and nutrition.
- e. To utilize private sector communications, advertising, and research resources to serve public health and child survival needs for strategic planning, message development, media selection, and pretesting, monitoring and evaluation and to increase existing public sector health education capabilities at the federal and provincial levels by the demonstrated use of the commercial communication and research resources.
- f. To coordinate and encourage improved private-public synergy between private sector communication resources and the public sector federal and provincial health education resources and needs, utilizing PCSP Advisory Boards with participation by commercial, NGO, and government sector members.
- g. To employ regional/local languages for HEC messages and materials in order to maximize understanding of mothers, grandmothers, and siblings who care for young children.
- h. To increase interpersonal communication skills among 14,000 health service providers by utilizing half-day nutrition/EPI/CDD modules such as "Talking with Mothers" in CDD training.
- i. To institutionalize Health Education/Communication training by popularizing the HEC component in the DTU training for final year medical students and reviewing other existing curricula of relevant health training program and improve or initiate a health education component within them.

- j. To assist the GOP to define roles and strengthen the Health Education Cells at the federal and provincial levels by supporting the development of existing positions and, where appropriate, new GOP staff positions. Health education resources are proposed to be expanded through manpower development plans of the Asian Development Bank's plans to assist and encourage this development process, especially the creation of two BHSC Health Education Officer positions and the establishment of a Health Education Resource Centre.
- k. To provide funding for short-term and long-term training in HEC.
- l. To stimulate creative and innovative programming for HEC on radio and television. To promote child survival through initiating a quarterly newsletter, subscription to and distribution of scientific publications, and participation in various in-country meetings of professional associations.
- m. To develop direct and regular interaction with the Ministry of Information and Broadcasting and other relevant GOP, NGO, and commercial communication organizations.

### **Marketing**

- a. To inform and motivate public health sector officials about practical marketing concepts and techniques for their use in designing and developing public health products and programs, such as ORS, iodized salt, and other interventions.
- b. To provide marketing technical assistance for child survival health needs, especially ORS and iodized salt.
- c. To stimulate and promote private sector marketing of all child survival-related products and services.
- d. To seek and identify organizational "partners" (e.g. pharmaceutical companies, firms, associations, pharmacists, hakims, etc.) to expand marketing and distribution of child survival intervention products in hard-to-reach rural and urban areas.
- e. To provide marketing and pricing technical assistance to the Ministry of Health (MOH)\* and the Ministry of Planning for alternative cost recovery schemes in the governmental health services and to optimize ORS pricing strategies for consumers, manufacturers, and trade, permitting both affordable product pricing and freedom for higher priced products in the market.

**5. Research**

- a. To identify ways to improve the effectiveness and sustainability of child survival intervention and the delivery of these services.
- b. To enhance independent research capability in Pakistan's scientific community so as to ensure sustainability of research efforts undertaken during the Child Survival Project.
- c. To increase individual and institutional understanding of the value of research and its benefits to client, providers, and institutions.

**6. Drugs and Logistics**

- a. To provide MOH decision makers with quantitative information on drugs and EPI logistics management sufficient for making decision on:
  - \* Policy changes, and
  - \* Management interventions required for improving the quality of care for CDD, ARI, and EPI.
- b. Conduct a comprehensive assessment of drugs and EPI logistics, ordering, storage, and distribution systems.
- c. Contribute to improved prescribing patterns for diarrheal disease by introducing the ORSMAP program in the existing DTUs. ORSMAP is a menu-driven program which combines database and graphics functions, produces standard tables and graphs, and summarizes prescribing for diarrheal diseases. Initially ORSMAP will be installed in two DTUs and following favorable experience, will be expanded to ten DTUs.

**APPENDIX 6**

**Strategy Support by Component**

## Appendix 6

### STRATEGY SUPPORT BY COMPONENT

#### I. PROGRAM PLANNING AND MANAGEMENT

PCSP seeks to assist the GOP in the development of simple, effective management systems to support the provision of high quality preventive and curative health care, specifically those relating to child survival programs. Program Planning and Management activities are thus aimed at providing comprehensive strategies for improving the delivery of coordinated child survival interventions (preventive and curative). The Project promotes coordinated planning and implementation of programs in the four targeted intervention areas: ARI, CDD, EPI, and Nutrition - through the establishment of Child Survival Steering Committees at the federal and provincial level. In addition, the establishment of a Donor Consortium promotes integrated and coordinated donor planning and implementation of child survival related activities.

Funds are also programmed to improve the sustainability of child survival programs through analyses of health care financing schemes and budgeting for recurrent costs. PCSP activities require the coordinated efforts of the National Ministry of Health, Provincial Departments of Health, donors and, to some extent, the private health sector.

#### II. HEALTH INFORMATION SYSTEMS

In spite of many efforts to revise and improve the health information systems (HIS) over the last twenty years, a general consensus exists that the present systems are inadequate to meet the planning and management needs of the health system in general, and child survival interventions in particular. Rather than create a new HIS, the PCSP will assist the GOP in replacing inefficient HIS with relevant and sustainable alternatives. Priority will be given to the routine system in first level care facilities (FLCF). Although it is recognized that the disease surveillance system is also of critical importance, with the revised scope and mandate of the PCSP, it is not possible to focus on both routine systems in FLCF and specialized disease surveillance systems. Thus, this Project will lend its support to WHO, in revising the disease surveillance system, but not be primarily responsible for such revisions.

Implementation of the revised FLCF health and management information systems (HMIS) will be accompanied by training in the use of the information generated for planning and management purposes. The revised systems will be computerized at appropriate levels to improve the efficiency of standardization, data processing, and feedback systems.

As in the training component of the PCSP, limited time and funding will not allow country-wide implementation of the revised HIS. Thus, critical plans for extension of the PCSP effort have already been initiated, but will be cemented during the next year. However, in contrast to training, HIS cannot be successfully implemented in only ten or even half of the districts in the

country, and still be an effective system. If such an endeavor is undertaken, it must be implemented within &U provinces and districts for the nation to have a functional HMIS. Thus, it is critical that coordinated donor and GOP efforts be mobilized to extend the implementation (and associated training) of this system to all remaining districts which are not completed at the conclusion of the PCSP.

### III. TRAINING

Children make up 45% of Pakistan's population, yet Pediatrics has only recently been made a compulsory subject (and not yet implemented) for the MBBS degree. As a result of the insufficient training in Pediatrics and Public Health provided in standard medical curricula, in-service training for health workers has been an important necessity. Over the last 5-10 years, much donor agency efforts have been directed towards such training for primary health care personnel.

To the extent that these training activities have proliferated on an ad hoc basis, and have relied on non-standardized lectures, their impact on changing case management practices of health care providers has been less-than-optimal (although there have been only a limited number of evaluation studies). Some of the contributing factors to this situation include: the lack of provincial training plans; an overlap of course topics; disruption of the delivery of health services due to transfers and long absences for training of the PHC staff; a lack of technical supervision and follow-up post-training; the lack of a standardized curriculum; and the lack of essential support materials/equipment to implement newly-acquired knowledge and skills.

Thus, although training is a major component of the PCSP, it will focus primarily on the implementation of an integrated (ARI, EPI, CDD and Nutrition) child survival curriculum. Case management techniques and methods will be the core of the CDD and ARI training, but child-focused, rather than disease-focused, training will assure that appropriate evaluative skills are developed which can be applied in any of the four key intervention areas. The development of the integrated curriculum for MOs and adaptations for paramedics, as well as urban physicians serving in secondary or tertiary level care facilities will be major tasks this year.

Decentralized training is critical for full implementation of the integrated curriculum. Thus, gaining at district or divisional headquarter hospitals, with the establishment of 'master trainers' in each of these facilities, will allow a larger number of RHC and BHU primary care medical officers and paramedics to attend, while simultaneously minimizing their time absent from posts. Master trainers will also be established in all eighteen (18) teaching hospitals, so that integrated child survival treatment services in the 4 intervention areas can be provided more effectively. In addition, during this next year, up to ten of those facilities will be established as CSTUs for the training of the district level master trainers. (Not every teaching hospital will automatically participate as a CSTU, teaching district "master trainers". Involvement will depend on the district selected in- the provincial plans noted below.)

With this approach, the teaching hospital trainers will be able to focus on medical students and their own house staff. Hence, PCSP training activities will at least begin to address the essential issue of pre-service training, through the establishment of its integrated child survival curriculum in teaching hospitals.

During this year, individual provincial training plans will be developed (determining which teaching hospitals will be involved in district level training, as well as selecting district or divisional facilities). Provincial counterparts have been (or will soon be) chosen. The training staff, including the CSTU Coordinators and master trainers, will be part of the GOP, rather than exist as part of a parallel, outside training project.

Such an integrated curriculum, as well as the institution of decentralized training will require careful monitoring and evaluation. This will be essential so recommendations can be made about effectiveness and wisdom of extending these activities to the remaining districts in the country.

An integrated case management curriculum for supervisors will also be developed (and implemented) focusing on those who currently possess supervisory responsibilities for MOS and paramedics practicing in BHUs and RHCs - the District Health Officers and Assistant District Health Officers. Materials will be developed to assist these individuals in providing more meaningful supervision, specifically directed at child survival services.

#### IV. COMMUNICATION

The Government of Pakistan has acknowledged the importance of health education and communication (HEC), and has made achievements in increasing the coverage of immunization of children, as well as the use of ORS, through its utilization of communications and marketing. However, there is still a need to build upon this experience and to provide an HEC component in all child survival interventions, especially in training the manpower involved, and to strengthen the research base for HEC.

After major revision, the PCSP has adopted a communication strategy focusing on selected "enter-educate" mass media interventions (targeting decision-makers and, to some extent, urban-dwellers), as well as interpersonal communication (IPC) training in all 4 child survival intervention areas, as part of the integrated child survival curriculum taught in the CSTUS. Appropriate research will also be done to determine market audience information; pretesting of all HEC material will be institutionalized; and selected operational studies will be performed.

#### V. DRUGS AND LOGISTICS

Pakistan has an effective procurement and distribution system for EPI, an uneven system for ORS, and an overall pharmaceutical and medical supply system that is somewhat problematic. Most RHCs and BHUs are chronically short of essential drugs, despite relatively high levels of

spending on "emergency" drugs. While some progress has been made in each province to establish essential drug lists, the preponderant role played by hospitals results in lists of essential drugs that are exhaustive. Furthermore, RHCs/BHUs which need large quantities of a small number of drugs are instead stocked with a wide variety of drugs, many of which are not useful.

With an overall goal to improve the availability and use of priority drugs, vaccines, and supplies pertinent to child survival interventions, recommendations will be provided to the MOH to rationalize drug and commodity procurement related to child survival interventions. During the next year, the procurement assessments of child survival drugs will be completed and information distributed to all provinces. Focused studies on the availability and utilization of child survival priority drugs will also be performed, and EPI storage site refurbishments will be initiated.

## VI. RESEARCH

The PCSP will have three elements to its research strategy, including: institution capability-building, promoted primarily through workshops on protocol development and analysis of data; answering critical or essential research questions important for the development and implementation of national child survival programs and associated interventions; and the transfer of technology and/or use of critical research data by decision-makers, again through workshops and the establishment of a subcommittee focused on essential national child survival research.

Like many developing countries, Pakistan lacks a tradition of strong medical and public health research. Not surprisingly, applied research for management decisions is also uncommon. The USAID-funded Applied Diarrhoeal Diseases Research (ADDR) Program began to develop research capacity (focused on diarrhoeal diseases) in Pakistan. The PCSP, in close collaboration with ADDR, will extend such activities to include other child survival intervention areas, particularly nutrition and ARI. With the post-Pressler alterations in Project activities, the PCSP now relies heavily on collaboration with ADDR (and, potentially, other international agencies such as UNICEF) to develop and implement protocols pertinent to improving child survival interventions.

The overall goal of this strategy will thus be to build research capacity and problem solving skills, and to answer research questions critical for child survival program policy and related services. During the next year, the Project will support two ADDR workshops, one for proposal development focusing on ARI and nutrition, and a second for data analysis targeting those individuals implementing protocols selected after the 1991 Proposal-Development Workshop. Approximately 14 diarrhoeal disease protocols have been selected from those participating in the 1991 workshop, and will be fielded this next year. An additional 6 to 8 will be supported in ARI and nutrition, following the 1992 Protocol-Development Workshop. In addition to the collaborative activities with ADDR, the PCSP will implement two essential research projects: a clinical trial and ARI ethnographic research. Development of a Donor Research Consortium, as well as a subcommittee on Essential National Child Survival Research also will be initiated.

**APPENDIX 7**

**PCSP Technical Assistance Team**

## Appendix 7

### PCSP TECHNICAL ASSISTANCE TEAM

Dennis Mull	Chief of Party	MSH
Diana Silimperi	Chief of Party (A)	MSH
Duane Smith	Chief of Party	MSH
Theo Lippeveld	Chief of Party (A)	HIID
Stephen Sacca	Deputy Chief/Project Manager	MSH
Najam Saeed	Project Manager	MSH
Theo Lippeveld	HIS Advisor/Epidemiologist	HIID
Tara Upreti	Training Advisor	HIIL
Jim Messick	Communications Advisor	AED
Yasmeen Gul	Communications Specialist	JBL-AED
Zahid Hussein	Communications Coordinator	MSH
Youssef Tawfik	Drugs & Logistics Advisor	MSH

Note: Chief of Party also served as Research Component Advisor.

**APPENDIX 3**

**PCSP Consortium**

## Appendix 8

### PCSP CONSORTIUM

#### I. Management Sciences for Health, Boston, MA

1. Peter Huff-Rousselle      Technical
2. Diana Silimperi      Technical, Management, Supervision
3. Louis Bucciarelli      Management, Administrative

#### II. Academy for Educational Development, Washington, DC

1. Mark Lediard      Technical, Communications Component
2. Andrea Usiak      Technical, Management, Communications  
Component

#### III. Harvard Institute for International Development, Cambridge, MA

1. Richard Cash      Technical
2. Jon Simon      Technical, Administrative
3. Johannes Sommerfeld      Technical, Administrative

**APPENDIX 9**

**List of All National PCSP Staff**

## Appendix 9

### List of All PCSP Staff

NAME OF EMPLOYEE	POSITION TITLE	LOCATION	JOINING DATE	LEAVING DATE	
<b>PCSP Employees:</b>					
<b>Islamabad: Professional Staff</b>					
Yasmeen Gul	Comm Specialist	Islamabad	01-09-91	30-11-91	
Zainab Barlas	Systems Manager	Islamabad	23-09-91	07-09-92	
Shafat Sharif	Computer Specialist	Islamabad	26-01-91	30-09-93	HMIS extension
Zahida S. Mir	Trng Educ. Splst	Islamabad	20-08-91	31-08-93	
Ayub Salariya	Trng Educ. Splst	Islamabad	30-04-91	31-08-93	
Nasim Haque	HIS Coordinator	Islamabad	14-11-92	30-09-93	HMIS extension
Rashid Q. Khan	Field Oper. Coord	Islamabad	01-07-90	12-04-92	
Ayaz Gul Kiani	Drugs & Log. Spec	Islamabad	04-08-91	25-05-92	
Azra Hashmi	CSTU Physician	Islamabad	01-09-90	31-03-92	
Farhat Naseem	CSTU LHV	Islamabad	01-07-90	31-03-92	
Malika Yasmeen	CSTU LHV	Islamabad	01-07-90	21-10-91	
<b>Islamabad: Administrative Staff</b>					
Khalid M. Butt	Fin. & Admin Splst	Islamabad	22-06-92	30-09-93	HMIS extension
Naseem Khan	Operations Superv.	Islamabad	01-07-90	30-09-93	HMIS extension
Tina D'Souza	Executive Secretary	Islamabad	01-07-90	05-01-91	
Sonia James	Office Manager	Islamabad	01-07-90	15-08-92	
Gohar L. Khilji	Comp/Info Assistant	Islamabad	17-07-91	30-09-93	HMIS extension
Sultana Ruby	Secretary	Islamabad	14-09-91	10-05-92	
Sadiah Alam	Secretary	Islamabad	10-06-91	15-08-91	
Sadiah Alam	Secretary	Islamabad	16-06-92	31-08-93	
Shahnaz Farooq	Secretary	Islamabad	08-06-91	30-09-93	HMIS extension
Arif Ullah	Typist	Islamabad	01-07-91	30-09-93	HMIS extension
Farrah Fredrick	Recep/Comm Asst	Islamabad	01-06-91	31-08-93	
Mohammad Nawaz	Driver	Islamabad	04-08-90	31-08-93	
Iftikhar Abbasi	Driver	Islamabad	19-12-91	30-09-93	HMIS extension
Tariq Mahmood	Driver	Islamabad	01-07-90	31-08-93	
Saqlain Akhtar	Driver	Islamabad	01-07-90	30-09-93	HMIS extension
Mohammad Aslam	Driver	Islamabad	01-07-90	31-08-93	
Tariq Mughal	Driver	Islamabad	01-07-90	09-12-91	
Liaquat Ali	CSTU Driver	Islamabad	01-07-90	31-08-92	
Mohammad Younus	Office Aide	Islamabad	01-07-90	30-09-93	HMIS extension
Tahir Naseem	Office Aide	Islamabad	21-09-92	31-08-93	
Maqbool Ahmed	Chowkidar	Islamabad	13-10-90	31-08-93	
Mehrban Khan	Chowkidar	Islamabad	04-08-90	13-10-90	

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NAME OF EMPLOYEE	POSITION TITLE	LOCATION	JOINING DATE	LEAVING DATE	
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**Lahore: Professional Staff**

S.M. Mursalin	Chief Prov Officer	Lahore	07-10-91	30-09-93	HMIS extension
Mahmooda Nasreen	Prov Trng Coord	Lahore	12-09-91	31-10-92	
Mubeen Aslam	Prov Trng Coord	Lahore	18-01-93	31-07-93	
M. Amin Gul	CSTU Physician	Lahore	01-07-90	31-03-92	
Obaidullah Shaiki	CSTU Physician	Lahore	01-07-90	31-03-92	
Khalid I. Tahir	CSTU Physician	Multan	01-07-90	31-03-92	
Amir M. Jomezai	CSTU Physician	Quetta	01-07-90	31-03-92	
Ijaz Ahmed	CSTU Physician	R. Pindi	01-07-90	31-10-91	
Khalida Adeeb	CSTU LHV	Lahore	01-07-90	31-03-92	
Tahira Manzoor	CSTU LHV	Lahore	01-07-90	31-03-92	
Mercy Robina Khan	CSTU LHV	Multan	01-07-90	31-03-92	

**Lahore: Administrative Staff**

Mohammad Sakhi	Provincial Secretary	Lahore	05-11-91	30-09-93	HMIS extension
M. Amin Khan	Provincial Driver	Lahore	31-10-91	30-09-93	HMIS extension
Rafiq Masih	Provincial Driver	Lahore	01-09-91	31-07-93	
Ghulam Rasool	CSTU Driver	Multan	01-07-90	31-01-92	
Aga Sadat Rizvi	CSTU Driver	Lahore	01-07-90	31-08-92	
Anthony Francis	CSTU Driver	Lahore	01-07-90	31-08-92	

**Quetta: Professional Staff**

Akhtar H. Khan	Chief Prov Officer	Quetta	06-08-91	31-07-93	
Tasleem Paracha	Prov Trng Coord	Quetta	01-07-90	31-08-92	
Riffat Iftikhar	Prov Trng Coord	Quetta	01-09-92	31-07-93	

**Quetta: Administrative Staff**

Shazia E. Qazi	Provincial Secretary	Quetta	10-12-91	30-09-92	
Ansar A. Naqvi	Provincial Secretary	Quetta	23-01-93	31-07-93	
Abdul Jalil	Provincial Driver	Quetta	01-09-90	31-07-91	
Zahoor Ahmed	Provincial Driver	Quetta	26-08-91	31-07-93	
Waheed-ur-Rehman	Provincial Driver	Quetta	26-10-91	31-07-93	
Mohammad Akram	CSTU Driver	Quetta	15-07-90	31-08-92	

**APPENDIX 10**

**List of All GOP Counterparts**

## Appendix 10

# List of Government of Pakistan Counterparts

### PLANNING & MANAGEMENT

#### Federal:

Director General	Prof. A.J. Khan	1986 to 1989
	Prof. Ali Ahmed Ansari	1990 to 1991
	Dr. Mohsin Ali	1991 to-date
Project Director	Dr. M. Zafar Ahmad	1988 to Jul 1990
	Dr. Shamsul Arfeen	Aug 90 to Dec 90
	Dr. Ata Mohammad Mangi	Jan 91 to Dec 91
	Dr. Mushtaq Ahmad Chaudhry	Jan 91 - Jun 92
	Dr. Malik Manzoor A. Khan	Jul 92 to-date
National ARI Coordinator PIMS Chief Planner, Nut Cell P&D Dep EPI/CDD Coord NIH,	Prof Dr. Mushtaq Khan	1988 to-date
	Dr. Mushtaq Khan	1988 to-date
	Col. (R) Dr. M. Akram Khan	1988 to 1993
	Dr. Lodhi	1993 to-date

#### Provincial:

Director General: Balochistan:	Dr. Iqbal	Oct 90 - Mar 91
	Dr. Abdur Rehman	Mar 91 to-date
NWFP:	Dr. Sardar Ali Khan	Jul 87 to Jan 91
	Dr. Nadir Khan	Jan 1991 to-date
Punjab:	Dr. Hashini	1990 to 1992
	Dr. Riaz Mustafa Sayed	1993
	Dr. Ghulam Qadir Khan	1993 to-date
Sindh:	Dr. Sajjan Memon	1988 to-date
Project Director: Balochistan:	Dr. Haseeb Sheikh	1990 to 1992
	Dr. Rashid Tareen	1992 to 1993
	Dr. Ali Ahmed	1993
	Dr. Ajmal Latif	1993 to-date
NWFP:	Dr. Nisar Ahmad	1984 to Feb 1991
	Dr. Zortalab Khan	Feb 91 to Mar 92
	Dr. Taj M. Khan Afridi	Mar 92 to Jan 93
	Dr. Saifur Rahman	Jan 93 to-date
Punjab:	Dr. Rauf Beg Mirza	1990 to 1992
	Dr. Yaqoob Jaffer	1992 to 1993
Sindh:	Dr. Nisar Siddiqui	1990 to 1993
	Dr. A.K. Mangnejo	1993 to-date

## TRAINING

### Federal:

Dr. Abdul Saboor Qazi, ADG Federal BHSC	Jun 90 to Apr 92
Dr. Talat Rizvi, ADG, Federal BHSC	May 1992 to-date

### Provincial:

Dr. Mushtaq Gardezi, TRG Counterpart, AJK	1993 to-date
Dr. Eiffat Iftikhar, TRG Counterpart, Balochistan	1992
Dr. Masood Noshervani, TRG Counterpart, Balochistan	1993 to-date
Dr. Nasir Idrees, TRG Counterpart, NWFP	1992 to-date
Dr. Arshad Awan, TRG Counterpart, Punjab	1992 to 1993
Dr. Mobeen, TRG Counterpart, Pujab	1993 to-date
Dr. Khawar S. Jamali, TRG Counterpart, Sindh	1992
Dr. M. Ilyas Khan, TRG Counterpart, Sindh	1992 to 1993

## HEALTH MANAGEMENT INFORMATION SYSTEM

### Federal:

Dr. Zahid Abbas, ADG, Federal BHSC	June 1990 to Dec 1990
Dr. Munir Abro, ADG, Federal BHSC	Jan 1991 to Jan 1992
Dr. Riaz A. Malik, ADG, Federal BHSC	Feb 1992 to-date

### Provincial:

Ch. Mohammad Sharif, HIS Counterpart, AJK	1991 to-date
Dr. Muneer Khawaja Khel, HIS Counterpart Baloch	1991 to-date
Dr. Sher Wali Khan, HIS Counterpart NA	1991 to-date
Dr. Sharif A. Khan, HIS Counterpart, NWFP	1991 to-date
Dr. Naeemuddin Mian, HIS Counterpart Punjab	1991 to-date
Dr. M.B. Bhurgari, HIS Counterpart Sindh	1991 to-date

## COMMUNICATIONS:

### Federal:

Mr. Sattar Chaudhry, Health Educ Advisor, FBHSC	1988 to-date
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APPENDIX 11

**List of all STTA and Brief Description  
of their SOW and Dates of Assignment**

## Appendix 11

### PAKISTAN CHILD SURVIVAL PROJECT SHORT-TERM TECHNICAL ASSISTANCE July 1990 to Sep 1993

CONSULTANT	PERIOD	BRIEF SCOPE OF WORK
<b>Planning &amp; Management</b>		
Dr. Zafar Ahmed	23 Jul-31 Dec 90	Program Policy & Planning
Mr. Randy Wilson	2-8 Nov 1990	Project monitoring system
Mr. Peter Huff-Rousselle	5-18 May 1991	Program Planning & Management
Dr. Duane Smith	30 Jul-2 Aug 91	Program Planning & Management
Mr. Stephen Sacca	18 Oct-4 Nov 91	Program Planning & Management
Dr. Diana Silimperi	25 Nov-4 Dec 91	Program Planning & Management
Dr. Diana Silimperi	1-2 May 1992	Program Planning & Management
Mr. Peter Huff-Rousselle	18-26 Sep 1992 27 Nov-22 Dec 92	Program Planning & Management
Mr. Louis Bucciarelli	4-23 Oct 1992	Program Planning & Management
Mr. Stephen Sacca	4-23 Oct 1992	Program Planning & Management
Dr. Diana Silimperi	11-22 Dec 1992	Program Planning & Management
Mr. Louis Bucciarelli	Feb 93	Program Planning & Management
Dr. Diana Silimperi	July 93	Program Planning & Management
Mr. Louis Bucciarelli	August 93	Program Planning & Management
Dr. Diana Silimperi	Sep 93	Program Planning & Management
<b>Health Information System</b>		
Dr. Michel Garenne	30 Dec 1990 to 12 Jan 1991	Study on child mortality and morbidity data
Dr. M. Akram Parvez	30 Dec 1990 to 12 Jan 1991	Study on child mortality and morbidity data
Dr. M. Akram Parvez	25-31 May 1991	Advisor to 1st National HMIS Workshop
Mr. Randy Wilson	1-7 Jun 1991	Design of computerized data processing systems
Dr. Michel Garenne	May-Jun 1991	Assessment of child mortality data in Pakistan
Ms. Sarah Zaidi	May-Jun 1991	Assessment of child mortality data
Mr. Randy Wilson	10 Sep-7 Oct 91	Design of computerized data processing systems
Dr. M. Akram Pervez	18-24 Jan 1992	Advisor to 2nd National HIS Workshop
Vincent DeWit	15 Feb-31 Aug 92	Development of MCH Data Collection Instruments
Khatidja Hussein	15 Feb-31 Aug 92	Development of MCH Data Collection Instruments
Mr. Randy Wilson	26 Mar-25 Jun 92	Design of computerized data processing system

Mr. Randy Wilson	17 Sep-8 Oct 1992	Development of computerized data processing system
Mr. Imtiaz Khalid	7 Oct 1992 to 31 Jan 1993	Training methodology (HMIS/FLCF Master Trainers)
Dr. Abdul Bari	Oct-Nov 1992	Urdu translation of HMIS/FLCF Instruction Manual
Mr. Randy Wilson	5-23 Mar 1993	Development of computerized HMIS/FLCF feedback system
Mr. Imtiaz Khalid	Apr-Sep 1993	Training methodology (HMIS/FLCF Master Trainers)
Mr. Randy Wilson	6-20 July 1993	Development of computerized HMIS/FLCF feedback system
<b>Training</b>		
Mr. Abdul Sattar Chaudhry	Jul-Sep 1991	Development of Nutrition curriculum
Dr. Fakharun-Nisa	Jul-Sep 1991	Development of Nutrition curriculum
Dr. D.S. Akram	Jul-Sep 1991	Development of Nutrition curriculum
Dr. Tasleem Akhtar	Jul-Sep 1991	Development of Nutrition curriculum
Dr. Fozia Qureshi	Jul-Sep 1991	Development of Nutrition curriculum
Dr. Mushtaq Khan	Jul-Sep 1991	Development of Nutrition curriculum
Mr. Imtiaz Khalid	May-Jul 1992	Training methodology for Integrated CS Training
Katherine Dickin	1-30 Nov 1991	Development of Nutrition curriculum
Anne Taylor	1-30 Nov 1991	Editing of English manuals
Katherine Dickin	30 Mar-14 Apr 92	Development of Nutrition curriculum
Rita Wall	27 Oct-5 Dec 91	Editing of English manuals
Dr. Karen Peterson	22 Jun-25 Jul 91	Nutrition curriculum development
Suzanne Brandt	Nov-Dec 1992	Editing of English text for Supervisor's training materials
Dr. Abdul Bari	Aug-Oct 1992	Development of training materials for paramedics and translation in Urdu
Dr. Nazir-ul-Haq	Jul-Aug 1992	Development of training materials for supervisors.
<b>Communications:</b>		
Mr. Mark Lediard	17 Jul-2 Dec 91	Program Planning & Development
Ms. Andrea Usiak	1-17 Oct 1991	Program Planning and Marketing
Mr. Mark Lediard	21 Jan-8 Feb 92	Program Planning and Management
Mr. Zahid Hussein	1 Feb-30 Jun 92	Mass Communications
Scriptwriters (up to 5)	15 Oct 1992-Sep 1993	PTV2 and STN health education campaign
Liaison Consultants	15 Oct 1992-Sep 93	Spectrum and Aftab's day to day activities

<b>Drugs &amp; Logistics</b>		
Mr. James Bates	5-20 Sep 1990	Supply Management
Dr. Zafar Ahmed	1-30 Jun 1991	Policy Advise
Dr. Zafar Ahmed	1 Jul-30 Aug 91	Policy Advise
Mr. Jim Bates	11 Aug-21 Sep 91	Computerized Drug Management
Dr. Zafar Ahmed	1 Feb-30 Jun 92	Policy Advise

**APPENDIX 12**

**List of PCSP Documents and Products Available**

## Appendix 12

### LIST OF PCSP DOCUMENTS

#### MANAGEMENT COMPONENT: PRIMARY DOCUMENTS

1. PCSP flyer
2. Annual Workplan 1991-1992
3. Annual Workplan 1992-1993
4. Five Semi-annual Reports (1990-1993)
5. Project Monitoring Documents (1991-1993)

#### MANAGEMENT COMPONENT: SECONDARY DOCUMENTS

6. Trip Reports
7. Consultant Reports
8. Minutes from Donor Consortium Meetings, Staff Meetings and Steering Committees
9. Qualitative Study on Breastfeeding Report
10. National Breastfeeding and Urban Breastfeeding Conference Documents (1991)
11. ARI Protocol - "The Impact of Cotrimoxazole Resistance on the Clinical Outcome of Therapy for Children with Pneumonia"
12. Initial Findings from ARI Protocol
13. Management and Personnel Documents including Employee Handbook and fiscal monitoring systems

## HEALTH MANAGEMENT INFORMATION SYSTEM: PRIMARY DOCUMENTS

1. Overview of HIS Activities (May 1991-September 1993).
2. Assessment Study on HIS - PCSP, April 1991.
3. Estimates of Child Survival in Pakistan by Michel Garenne and Sarah Zaidi, Sept 1991.
4. Report on First National Workshop - HIS-PCSP, May 28-30, 1991.
5. Expected Outcomes: Design of HMIS/FLCF Workdocument for 2nd National HMIS Workshop, Jan 20-21, 1992.
6. Consensus on Design of HMIS/FLCF: Report on the 2nd National Workshop on HMIS, Jan 20-21, 1992.
7. Workdocument: for Third National Workshop on HMIS, July 7-8, 1992.
8. Data Collection Instruments of HMIS/FLCF - Report on the 3rd National Workshop on HMIS, July 7-8, 1992.
9. Recurrent Cost Study HMIS/FLCF by EDC for UNICEF, Jan 31, 1993.
10. Trainers Manual: Training in HMIS/FLCF Use, District Level Workshop, Feb 28, 1993.
11. Training Materials: Training in HMIS/FLCF Use, District Level Workshop, Apr 5, 1993.
12. Instruction Manual for FLCF Staff - HMIS/FLCF, May 1993.
13. Instruction Manual for FLCF Staff (Urdu version) - HMIS/FLCF, April 1993.
14. Computer Implementation Plan: October 1991.
15. Trainer's Manual - Specific Computer Training in HMIS Monthly Report Application, Nov 26, 1992.
16. User's Guide - Monthly Report Module (Ver 1).
17. User's Guide - Health Institutions Database (Ver 2.0).

## HEALTH MANAGEMENT INFORMATION SYSTEM - SECONDARY DOCUMENTS

1. Information Needs and Indicators, Workdocument for National Health Program Managers, July 1991.
2. Information Needs and Indicators, Workdocument for First Series of Provincial Workshops, September 1991.
3. Structuring the System, Workdocument for Second Series of Provincial Workshops, November 1991.
4. Report on the Second Punjab Workshop on HMIS Structure for FLCF, Lahore Nov 10-13, 1991.
5. Report on Second Balochistan Workshop on HMIS Structure for FLCF held at Quetta, Nov 24-27 1991.
6. Report on Second NWFP Workshop on HMIS Structure for FLCF held at Peshawar, Dec 1-4, 1991.
7. Report on Second Sindh Workshop on HMIS Structure held at Karachi, Dec 8-11, 1991.
8. Report on Second Workshop on HMIS Structure for FLCF of Federal Health Services AJK and NA held in Islamabad, Dec 15-18, 1991.
9. Minutes of the National HIS team meeting held in Islamabad, July 4, 1991.
10. Minutes of the National HIS team meeting held in Islamabad, Nov 4, 1991.
11. Minutes of the National HIS team meeting held in Islamabad, Jan 13-14, 1992.
12. Minutes of the Workshop for Provincial HIS Teams held in Islamabad, Apr 29-30, 1992.
13. Minutes of the Vth National HMIS Team Meeting held in Islamabad, Jul 5-6, 1992.
14. Minutes of the VIth National HMIS Team Meeting held in Islamabad, Jan 19-20, 1993.
15. District Coverage Plan Workdocument.
16. Design of Data Collection Instruments, Workplan.
17. Field Testing of Data Collection Instruments.
18. Results of Field Testing Facility based data collection instruments.

19. Newsletter for Master Trainers.
20. District Level Data Collection Instruments, Instructions during Field Testing.
21. Computerized Feedback tables.
22. Feedback Analysis Report-1990, PHC Monitoring System.
23. Summary report of Training Sessions, District level workshops on HMIS/FLCF Use.

#### HEALTH MANAGEMENT INFORMATION SYSTEM - CONSULTANT REPORTS

1. Report on levels and causes of Infant and Child deaths in Pakistan by Michel Garenne and Akram Parvez, January 12, 1991.
2. Estimates of Child Survival in Pakistan by Michel Garenne and Sarah Zaidi, Sept 1991.
3. First National Workshop on HMIS, Assignment Report by Dr. Mohammed Akram Parvez, May 28-30, 1991.
4. Second National Workshop on HMIS, Assignment Report by Dr. Mohammed Akram Parvez, Jan 20-21, 1992.
5. MIS Consultancy Trip Report by Randy Wilson, November 28, 1990.
6. MIS Consultancy Trip Report by Randy Wilson, June 6, 1991.
7. MIS Consultancy Trip Report by Randy Wilson, October 21, 1991.
8. MIS Consultancy Trip Report by Randy Wilson, April 27, 1992.
9. MIS Consultancy Trip Report by Randy Wilson, June 25, 1992.
10. MIS Consultancy Trip Report by Randy Wilson, October 27, 1992.
11. MIS Consultancy Trip Report by Randy Wilson, May 2, 1993.
12. Report on HMIS/FLCF Training Consultancy by Imtiaz Khalid, Jan 1993.
13. Final Consultant Service Report to HIID from the Aga Khan University Team, for Mother and Child Health Care and Family Planning, October 1992.

## TRAINING COMPONENT: PRIMARY DOCUMENTS

### I. Medical Officers

1. Training Methodology
2. Nutrition Trainers Manual
3. Nutrition Participant's Manual
4. Nutrition Readings
5. Integrated Trainer's Manual
6. Integrated Participant's Manual
7. Book on Diarrhoea (Supervisory Skills)
8. Readings on Diarrhoea
9. ARI (Blue Book)
10. Immunization Book

### II. Supervisors

1. Participant's Manual
2. Trainer's Manual

### III. Paramedics

1. Participant's Manual
2. Trainer's Manual

## TRAINING COMPONENT: SECONDARY DOCUMENTS

1. First National Workshop April 1991
2. PCSP Coordinated Curriculum Content Approval Meeting July 1991
3. Orientation Meeting December 1991

4. Overview of Training Activities April 1991 - September 1993
5. Overview of Training Activities April 1992
6. Training of Trainers' Workshop on Integrated Supervision Training Course February, 1993
7. Provincial Training Committee Reports NWFP/Balochistan/Sindh/Punjab

#### COMMUNICATION COMPONENT - PRIMARY DOCUMENTS

1. Action Plan of the Communications Component
2. Creative Brief on CDD, EPI and ARI (Urdu and English)
3. Creative Brief on Breastfeeding and Nutrition (Urdu and English)
4. Report on Breastfeeding and Nutrition Flip Chart pretesting
5. Report on Radio Drama Pretesting
6. Report on Tracking of *Neelam Ghar*
7. Report on Post Transmission Impact Analysis of *Neelam Ghar*
8. Report on Tracking of First Wave of *Neelam Ghar*
9. Report on the Radio Drama Awareness Survey
10. Spectrum Report Highlighting the Themes Covered in *Neelam Ghar* and Radio Drama
11. Breastfeeding Flip Chart
12. Videos: *Neelam Ghar* Behind the Scenes; *Ghar Aya Mehmaan* Behind the Scenes, and Four English Subtitled Episodes of *Neelam Ghar*
13. Fifteen Seconds Radio Drama Promotion Commercial
14. Report on Coverage of the Promotion of Radio Drama Through Press
15. A Set of 9 Breastfeeding Posters Printed by UNICEF from PCSP Breastfeeding & Nutrition Flip Chart.

16. Precise Description of the Radio Drama "Ghar Aya Mehmaan"
17. Communications Manual "Communications for Child Survival: Mixed Media for Pakistan"
18. Report on Special Training Program for Health Education Officers, Interpersonal Communication Trainers, by Imtiaz Khalid, 1993.

#### COMMUNICATION COMPONENT - SECONDARY DOCUMENTS

##### (BREASTFEEDING REPORTS)

1. National Breastfeeding Steering Committee, Results from In-depth Interviews, March 1991.
2. A summary of interviews and discussion with Family Members and Health Care Providers, Losing the ability to distinguish what is best for Pakistan's children: Breastfeeding - A Tradition at the Crossroads, July 1991.
3. What and How to Communicate to the Public, Breastfeeding and Nutrition, Guidelines for Broadcasters, Producers, Writers, Journalists and Educators.

#### DRUGS AND LOGISTICS - PRIMARY DOCUMENTS

1. Report of National Workshop on Essential Drugs, June 3-4, 1992.
2. Drugs and Logistics Summary Report #1, August 1991.
3. Drugs and Logistics Summary Report #2, March 1992.
4. Drugs and Logistics Summary Report #3, September 1992.
5. Progress report of Dr. M. Zafar Ahmed, STTA Consultant, 1-28 Feb 1991.

## RESEARCH COMPONENT - PRIMARY DOCUMENTS

1. Organization Chart of the Cotrimoxazole study team.
2. The Impact of Cotrimoxazole Resistance on the Clinical Outcome of therapy for Children with Pneumonia, June 10, 1991.
3. Orientation of MOs from PIMS and RGH on the purpose and procedures and obtaining nasal pharyngeal swabs and their primary inoculation on selective media, Laboratory Training, July 30, 1991.
4. Microbiological Methods for Clinical and surveillance study by Nasreen K. Nomani, NIH, 1991.
5. Program for control of ARI application for collaborative research projects, July 12, 1988.
6. Trip Report Pakistan by Walter L. Straus, 6 Nov - 11 Dec 1991.
7. Copy of transparencies: the impact of Cotrimoxazole Resistance on the Clinical Outcome of Therapy for Children with Pneumonia.
8. Draft Protocols, Cotrimoxazole Study, July 3, 1991.

## HEALTH FINANCING & SUSTAINABILITY PROJECT

1. Report on the Workshop on Policy options for Financing Health Services in Pakistan, 16-17 Feb 1993.
2. Policy Options for Financing Health Services in Pakistan, A compendium of reports and technical notes, June 1993.

## GENERAL BACKGROUND DOCUMENTS

1. Pakistan Statistical Yearbook 1990.
2. Situation Analysis of Children & Women in Pakistan, UNICEF Pakistan, 1992.
3. Health in Pakistan, CIDA, January 1988.
4. Seventh Five Year Plan 1988-93 & Perspective Plan 1988-2003.
5. Pakistan Demographic and Health Survey, 1990/1991.
6. Pakistan Population and Health Sector Report, the World Bank, June 28, 1988.
7. Family Health Project Reports

**APPENDIX 13**

**Planned and Actual Timelines of Key Activities per Component**



## Training ACTIVITIES TIMELINE

ACTIVITIES	1990												1991												1992												1993																	
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep														
<b>I. PLANNING &amp; DEVELOPMENT PHASE</b>																																																						
<b>A. National Level</b>																																																						
1. Work Plan Development	ppppppp ppppp aaaa aaaa aaaa																																																					
a. Initial Work Plan Development (1990)	ppppppp ppppp aaaa aaaa aaaa												ppp ppppppp ppppp aaaa aaaa aaaa																																									
b. Work Plan Revision # 1 (1990)	pppppppp aaaa aaaa																																																					
c. Work Plan Revision (Pressler) # 2													ppppppp ppppp ppppppppp aaaa aaaa aaaa aaaa aaaa																																									
d. Work Plan Review Meeting (1991 - 92)													pppp aaaa																																									
2. Dialogue with Health Officials	ppppppp pppp ppppp ppppppp pppp aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppppp pppp ppppppp pppp ppppp ppppp pppp ppppp ppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
3. Dialogue with National Program Coordinators	ppppppp pppp ppppp ppppppp pppp aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppppp pppp ppppppp pppp ppppp ppppp pppp ppppp ppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
4. National Training Committee																																																						
a. National Training Committee													p												p												p																	
b. Nutrition Subcommittee Meeting													p												p												p																	
5. Curriculum Development																																																						
a. Adaptation of WHO (CDD, ARI and EPI) Currcul for MOs													ppppppp pppp ppppp ppppp aaaa aaaa aaaa aaaa aaaa aaaa																																									
b. Development of Nutrition Curriculum													ppppppp pppp ppppp aaaa aaaa aaaa aaaa aaaa aaaa																																									
c. Integration of Nutrition with CDD, ARI & EPI													ppppppp ppppp aaaa aaaa aaaa aaaa																																									
d. Final Format and Editing - CB Curriculum for MOs													pppp pppp aaaa aaaa																																									
e. Development of Supervisors Curriculum													pppp pppppppp												pppp												aaaa aaaa aaaa aaaa aaaa aaaa																	
f. Development of Paramedic Curriculum													pppp pppppppp												pppp												aaaa aaaa aaaa aaaa aaaa aaaa																	
6. Coordination with Donor Agencies																																																						
a. WHO	ppppppp ppppp ppppppp pppp ppppp pppppppp aaaa aaaa aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
b. UNICEF	ppppppp ppppp ppppppp pppp ppppp pppppppp aaaa aaaa aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
c. CIDA	ppppppp ppppp ppppppp pppp ppppp pppppppp aaaa aaaa aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
d. World Bank	ppppppp pppp ppppppp ppppp ppppp aaaa aaaa aaaa aaaa aaaa aaaa aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp aaaa aaaa												ppp ppppppp pppp ppppp ppppppp pppp ppppp aaaa aaaa																	
	p - Planned												1990												1991												1992												1993					
	a - Actual												Jun Jul Aug Sep Oct Nov Dec												Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec												Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec												Jan Feb Mar Apr May Jun Jul Aug Sep					

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ACTIVITIES	1990					1991					1992					1993																									
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep													
<b>B. Provincial Level</b>																																									
1. Dialogue with Health Officials						pppppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
2. Dialogue with Programme Coordinators						pppppppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
3. Dialogue with Principals of Medical Colleges						pppppppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
4. Dialogue of MIS of Hospitals						pppp ppppppp pppp ppppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
5. Selection of Provincial Training Coordinator Counterpart						pppppppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
6. Training Committee Meeting											p p p p p																														
7. Development of Province-Specific Training Planning											pppp ppppppp																														
a. Punjab											p																														
b. Sindh											p																														
c. NWFP (include NA)											p																														
d. Balochistan											p																														
e. AJK & Federal											p																														
f. Selection of District/Divisional Hospitals											pppppppp					pppppppp																									
8. Assessment of Teaching Hospitals (New Sites)																																									
a. Punjab						pppppppp pppp ppppp																																			
b. Sindh						pppp																																			
c. NWFP						pppp																																			
d. Balochistan						pppp																																			
9. Establishment of CSTU at Teaching Hospitals																																									
a. Punjab											pppp pppp					pppp pppp																									
b. Sindh											pppp pppp					pppp pppp																									
c. NWFP											pppp pppp					pppp pppp																									
d. Balochistan											pppp pppp					pppp pppp																									
10. Development of Cont. Education Plan and Implementation						pppp ppppppp					ppp ppppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp					ppp ppppppp pppp ppppp ppppppp pppp ppppp ppppppp																									
<b>C. District/Divisional Level</b>																																									
1. Establishment of CSTUs											pppppppp pppp ppppp																														
a. Assessment of Hospital						pppppppp pppp p					pppp pppp																														
b. Selection of Training Coordinator						pppppppp pppp ppppp					pppp pppp pppp																														
c. Selection of Master Trainers						pppppppp pppp ppppp					pppp pppp pppp																														
d. Refurbishments/Establishments						pppp ppppppp																																			
p - Planned														1990					1991					1992					1993												
a - Actual														Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep

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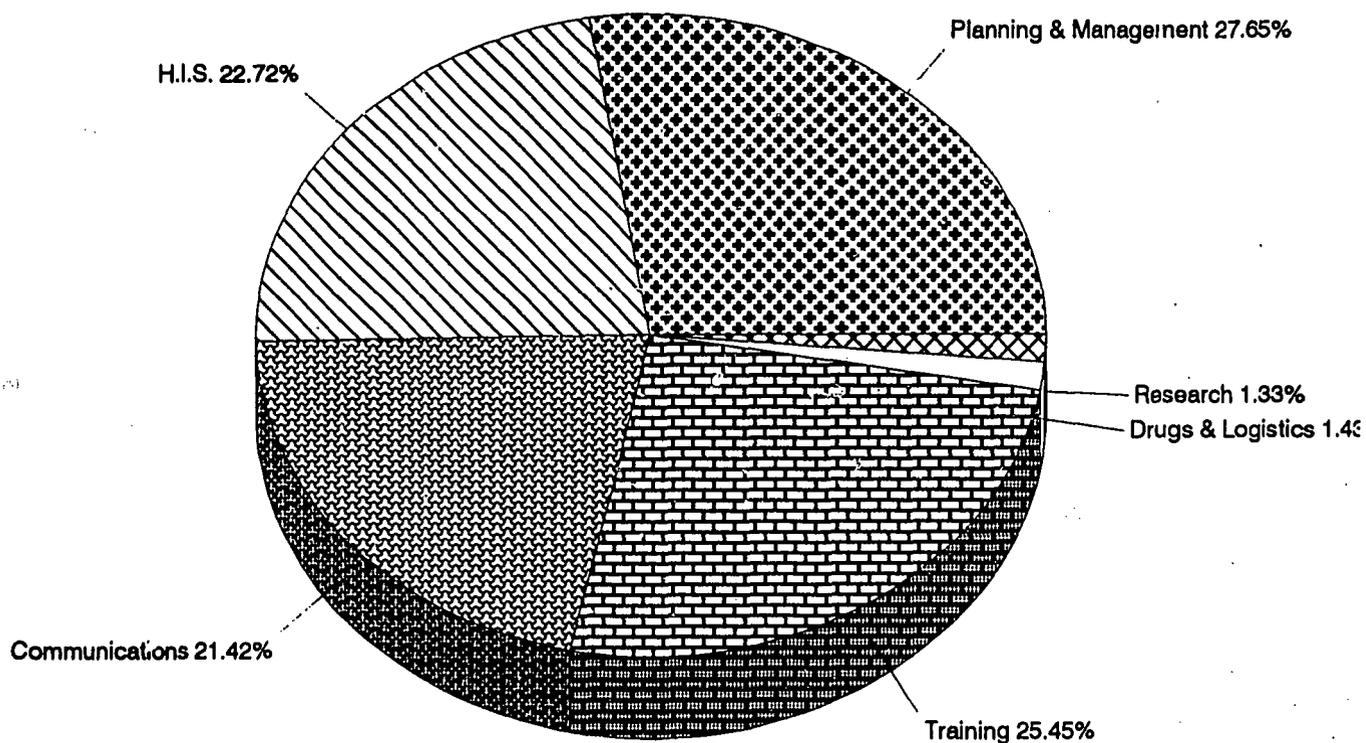
**APPENDIX 14**

**Final Budgetary Allocations per Component**

Appendix 14

Final Budgetary Allocations per Component

MSH/HIID/AED

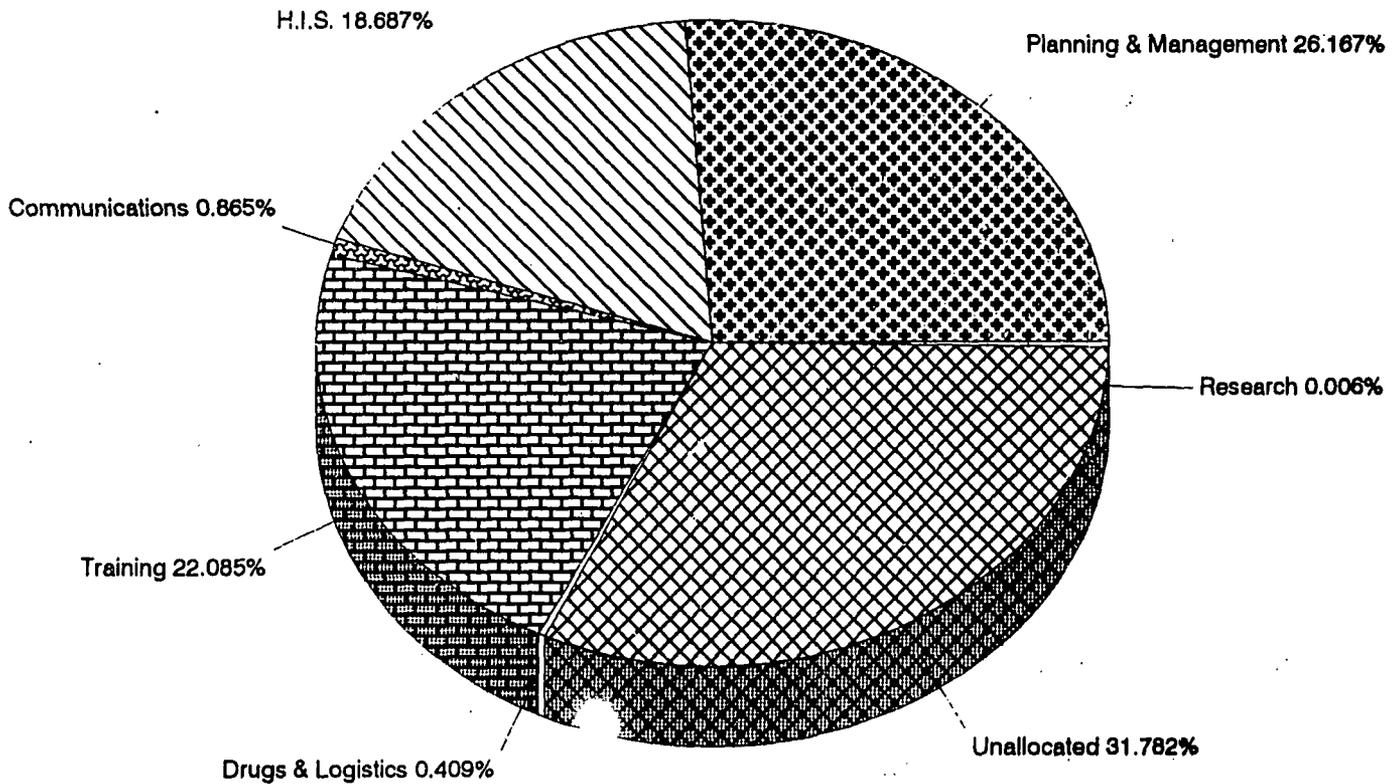


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# Actual JBL Expenditure under Different Components of PCSP

As of September 15, 1993

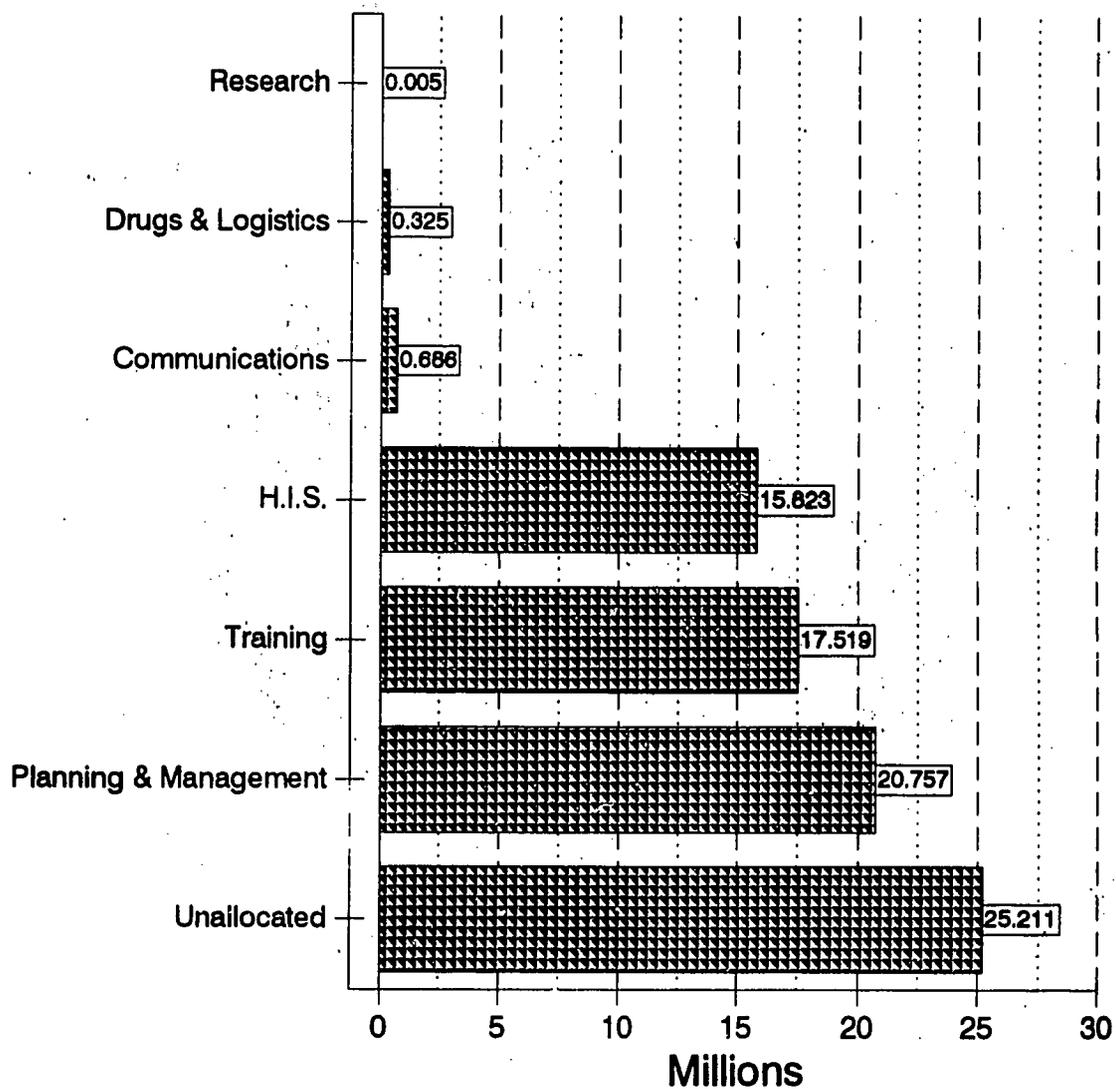
(Rs. 79,324,601)



# Actual JBL Expenditure under Different Components of PCSP

As of September 15, 1993

(Rs. 79,324,601)



**APPENDIX 15**

**Draft PCSP Technical Outputs by Component**

## Appendix 15

## DRAFT PCSP TECHNICAL OUTPUTS BY COMPONENT

COMPONENT	TECHNICAL OUTPUT	FORMAT/PRODUCT	WHO	WHEN	AVAIL FUND
COMMUNICATIONS	Media Results (TV, Radio)	Case Study	AED	Jul/Aug	+
		Subtitles for TV Spots	AED	August	+
		Radio Wrap-up	J&J	June/July	+
		Showcase of Outputs - Workshop	AED	Jul/Aug	-
	Pretest/Monitoring/Evaluation	Key Results Report	AED	Jul/Aug	+
	Creative Briefs	Reports	AED	Completed	
	BF Flip Chart	Flip Chart, and UNICEF posters and illustrations	AED/ UNICEF	Completed	
	Early Media Interventions	TV spots	AED	Completed	

RESEARCH	ARI Clinical Efficacy Study	5 publication quality papers	CDC/WHO/ MSH	Draft by Sept.	+
		Karachi Presentation	CDC/WHO/ MSH	Completed	
	Support of CDD Workshops				
	ARI Surveillance Study	Publication quality papers	CDC/ UNICEF/MS H	Draft by September	+
	Ethnographic Study	Protocol Plans	WHO/MSH	Completed	
	Other	BF Publication	MSH	Completed	

COMPONENT	TECHNICAL OUTPUT	FORMAT/PRODUCT	WHO	WHEN	AVAIL FUND
RESEARCH - ADDR	OTHER	Policy and Case Study	MSH/ ADDR	Mid 1994	+
		BF Publication	MSH	Completed	+
		Federal Dialogue Research/Policy Paper	MSH/ ADDR	mid 1994	+
		28 Ongoing Studies	ADDR	mid 1994	+
		Process paper Organizational link of CS and Research	MSH	December	+
		Meta-Analysis ADDR experience in Pakistan	ADDR	mid 1994	+
		Data Analysis Workshop June/October	ADDR	June/Oct	+

HIS	Assessment Study	Report	HIID	Completed	
	Planning and Development Workshops	Reports	HIID	Completed	
	Forms	Forms	HIID	Completed	
	Computer Training Documents	Manuals	HIID	Completed	
	Computer Network	Computer Network	HIID	September	
	Initiate Implementation of System	Summary report to date	HIID	September	+
	Other	Monograph on HIS in Pakistan	HIID	June 1994	+

COMPONENT	TECHNICAL OUTPUT	FORMAT/PRODUCT	WHO	WHEN	AVAIL FUND	
TRAINING	Workshops	Monograph on Training in Pakistan	HIID/ MSH	September	+	
	Curriculum	Integrated Curriculum Developed	HIID/ MSH	Completed		
		Nutrition Curriculum	HIID/ MSH	Completed		
		Supervisor Curriculum	HIID/ MSH	Completed		
		Interpersonal Communication Curriculum	HIID/ AED	Completed		
		CSTUs/DTU	Potential DTU/CSTU Evaluation	MSH	July/Sept	?
		BF Workshops /Lactation Mngmnt	Reports	MSH	Completed	

DRUGS & LOGISTICS	Workshops	Workshop Reports	MSH	Completed	
	Provincial Assessments (Essential Drugs)	Reports/Newsletters	MSH	Completed	
	Research	Utilization Study	MSH	Completed	

COMPONENT	TECHNICAL OUTPUT	FORMAT/PRODUCT	WHO	WHEN	AVAIL FUND
MANAGEMENT	Steering Committee (Provincial and Federal)	Report	MSH	September	+
	Donor Committee	Minutes	MSH	Completed	
	Project Monitoring Systems/Manual	Workbook/Manual	MSH	July-Sept	+
		PCSP Management Monograph	MSH	July-Sept	+
	Management Reports	Five Year Workplan	MSH	Completed	+
		1992 Workplan	MSH	draft	+
		1993 Workplan	MSH/ HIID	Completed	+
		Semi-Annual (7-12/90)	MSH	Completed	+
		Semi-Annual (1-6/91)	MSH	Completed	+
		Semi-Annual (7-12/91)	MSH	Completed	+
		Semi-Annual (1-6/92)	MSH	Completed	+
		Semi-Annual (7-12/92)	MSH/ HIID	Completed	+
		Final Report (1/93-9/93)	MSH/ HIID	Sept.	+
		1991 Annual Inventory	MSH	Completed	+
		1992 Annual Inventory	MSH	Completed	+
		Trip Reports	MSH/ HIID/ AED	Completed	+

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**APPENDIX 16**

**PCSP Contract Demobilization Plan (Revised)**

## PCSP CONTRACT DEMOBILIZATION PLAN (REVISED)

CATEGORY	DESCRIPTION OF ACTION	ACTION TAKEN BY	ESTIMATED DATE OF COMPLETION
1. HOUSING	House to be vacated (2)	MSH	September 30, 1993
	Settle all telephone bills with PTC and produce evidence to GSO mat time of check-out and identify an individual at post responsible for payment of remaining telephone bills. Settle all utility bills (see below)	MSH	August 30, 1993
2. PROPERTY	Conduct inventory of household effects (2) (household furnishing, appliances, etc.), preparation of PIL for auction.	MSH	September 1, 1993
3. PERSONAL VEHICLE AND PROPERTY	Sign all required forms and submit to GSO to obtain permission from CCI&E and NOC from State Bank of Pakistan or customs to sell POV or other personal property.	MSH	August 1, 1993
	Clear reverse accommodation exchange with FM, settling gain issue if any.	MSH	September 15, 1993
	Commodities to be transferred to USAID/GSO(e.g. household furnishings, appliances)	MSH	September 30, 1993
4. TELEPHONE BILLS	Settle Telephone bills (for the office) with PTC and produce evidence to HPN/MOH at time of check-out	MSH	September 15, 1993
	Identify individual at post responsible for payment of remaining telephone bills	MSH	September 30, 1993
	Transfer telephone lines to MOH	MSH	September 15, 1993
5. UTILITY BILLS	Settle Utility bills (for the office and residences) with WAPDA, SUI, and CDA	MSH	September 15, 1993
	Identify individual at post responsible for payment of remaining utility bills	MSH	

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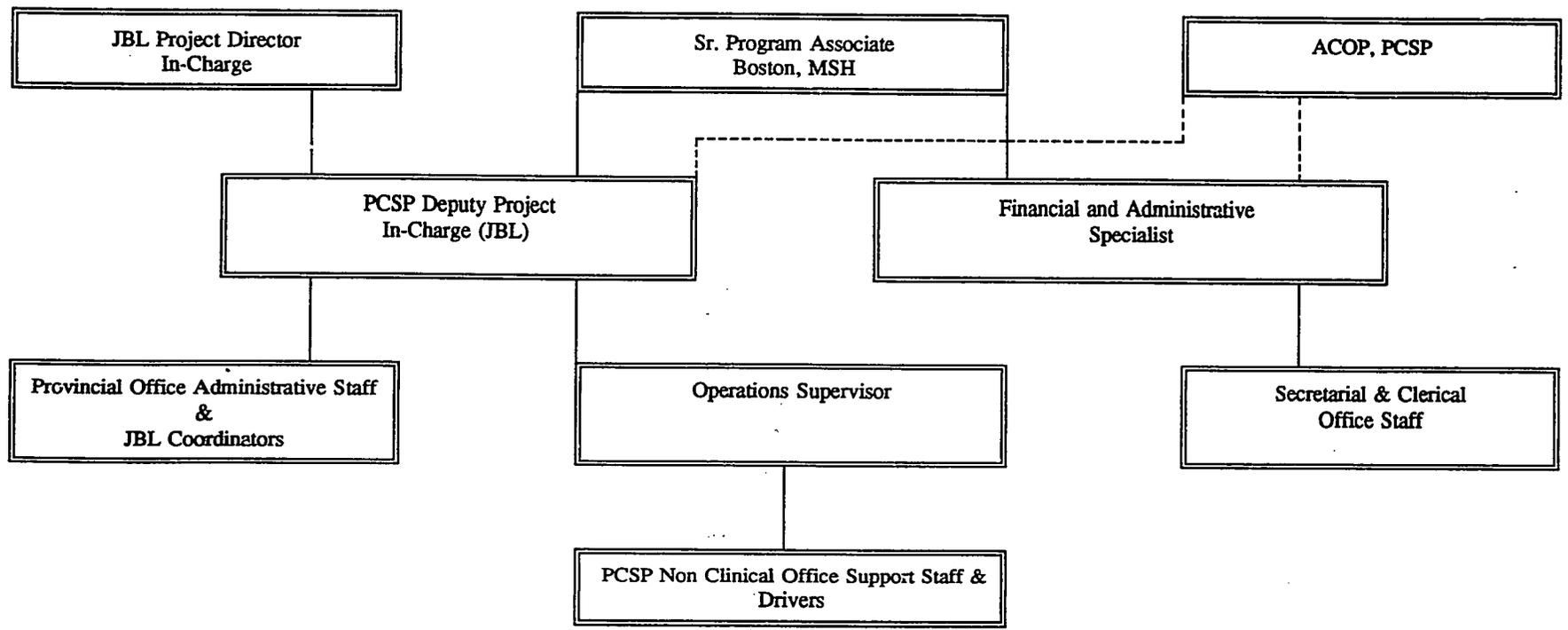
CATEGORY	DESCRIPTION OF ACTION	ACTION TAKEN BY	ESTIMATED DATE OF COMPLETION
6. SHIPMENT OF HOUSEHOLD EFFECTS (SHIPMENT OF POV NOT APPLICABLE)	Arrange for local packer, set packing date	MSH	August 1, 1993
	Complete all customs forms and have employees' HHE and POV shipped	MSH	September 1, 1993
SHIPMENT OF OFFICE RECORDS	Arrange for local packer, set packing date	MSH	September 1, 1993
	Complete all customs forms and have all records shipped	MSH	July 1, 1993
PROJECT VEHICLES AND PROPERTY	Complete a final inventory of these commodities	MSH/USAID/GOP	July 31, 1993
	All commodities transferred to GOP and receive receipts of transfer	USAID/MSH	August 31, 1993
	Commodities to be transferred to USAID	USAID/MSH	September 10, 1993
8. PERSONNEL	Obtain clearances from offices listed on check out sheet and return to FSD	USAID/MSH	September 15, 1993
9. C & R	Provide mail forwarding instructions to C & r	MSH	September 15, 1993
10. PROCUREMENT	N / A	N / A	N / A
11. CONTRACTOR BILLINGS	Designate Home Office Contact Person	MSH	September 15, 1993
12. CONTRACT REPORTS	Submit Final Project Report, End of Tour Reports	MSH	September 30, 1993

MS

**APPENDIX 17**

**Planning & Management:  
Revised Management Plan**

### REVISED ADMINISTRATIVE MANAGEMENT ORGANOGRAM



**APPENDIX 18**

**Planning & Management:  
PCSP Monitoring System**

## Appendix 18

### Planning and Management

# PAKISTAN CHILD SURVIVAL PROJECT (PCSP) MONITORING SYSTEM

Revised August 20, 1992

## 1. INTRODUCTION

An essential component of the PCSP implementation strategy is the development of a monitoring system to track accomplishment of targets for quantifiable inputs and outputs as well as resource utilization. While meeting the projects immediate management requirements, this system should also be capable of being adapted to Ministry of Health (MOH) use for monitoring ongoing health programs as a component of the larger Health Management Information System (HMIS) for Pakistan.

In addition to providing project-component specific breakdowns of resource utilization and achievement of targets (i.e Training, Communications, HIS, Drugs & Logistics), the system will map data against the existing health infrastructure which benefits from project interventions. It is hoped that careful attention paid to geographic coding of health resources data will permit sensible aggregation of data at the province, district and even tehsil levels.

This geographic coding should also provide the links to population survey data generated by the DHS and Census, greatly facilitating analysis of coverage, resource allocation and the identification of health related outcomes.

## 2. OBJECTIVES

The PCSP Monitoring System is being developed to provide means for tracking:

- a. **Project input indicators** for accountability purposes.
  - e.g. \* Child Survival commodities
  - \* vehicles provided
  - \* computer equipment provided
  
- b. **Project output indicators** and comparing them with targets:
  - e.g. \* training sessions held and associated costs
  - \* workshops held
  - \* number of staff trained
  - \* number of CSTU units established

- c. **Indicators related to the quality of case management** in each of the Child Survival interventions. These will serve as proxy measures of project impact indicators for which data collection is very complicated and costly.
- d. **Provincial/district-wise variation** in project activities, process indicators and resources to identify gaps or inequitable spread of project interventions. Similarly, this geographic coding will enable speculation on health outcomes/project impact in districts covered by project interventions by providing a link to data generated by the DHS and other population based surveys.
- e. **Recurrent vs capital investment expenditures:** This will permit more accurate cost projections for identifying cost implementations and eventual sustainability of project interventions by the MOH.

### 3. MONITORING INDICATORS

The tables in Annex 1 of this document contain proposed indicators to monitor the project's status. They include a blend of process and output indicators which have been identified as useful for management purposes and in quantifying the attainment of project objectives.

It should be noted that the targets set for the indicators in Training and in Health Information Systems assume the identification of additional funding for the Child Survival Project. USAID will therefore be provided with a list of indicators for which the targets have been modified taking into account the present funds available to USAID and to the MSH contract.

### 4. SYSTEM STRUCTURE

The system will consist of a number of data files built around a comprehensive health institution data file. This will be the back bone of the system which will provide the denominator information for many of the performance indicators being used as well as the geographic coding required for preparing regional/district breakdowns of the data. It will also be used operationally for personnel and health facility planning and management by the MOH.

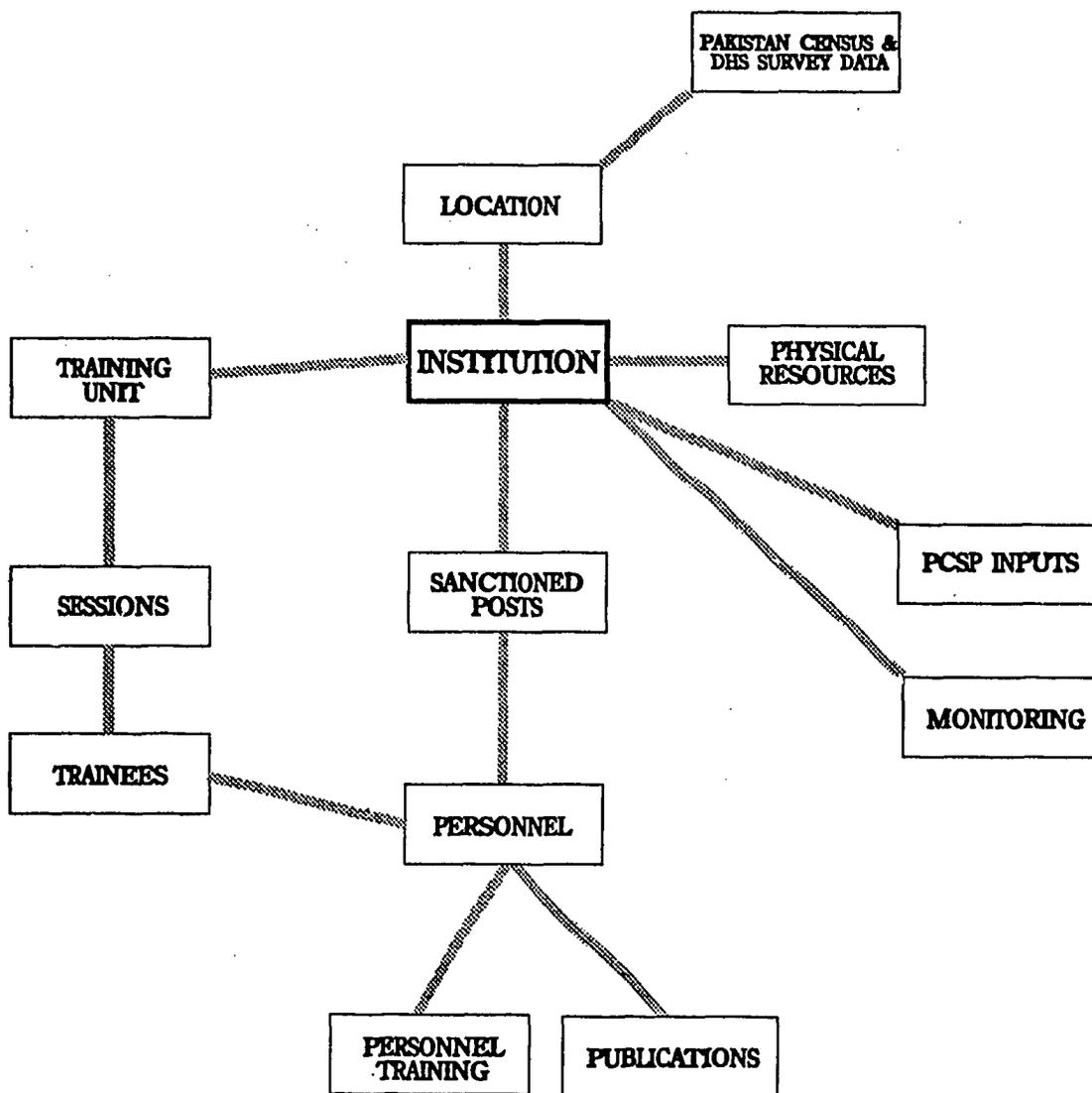
Figure 1 illustrates the general structure of the system.

### 5. DATA SOURCES

- a. **Institution data:** This data does not appear to be available in any comprehensive form

Figure 1

# DATA DIAGRAM FOR PCSP MONITORING SYSTEM



at the Federal Level. As a result a comprehensive effort will need to be made through Provincial Health Services to build up this inventory of government health facilities. A simple register type form should be developed for this purpose initially. Later the actual data maintenance will become a provincial function, with data sent to the Federal level on disk for incorporation into a national system.

Not only clinical facilities will be included in the facility data base. Each administrative unit of the Federal MOH and of the Provincial MOHs will be considered as a separate facility (e.g the Basic Health Service Cell of the Federal MOH).

- b. **Personnel data:** Once again, provincial health ministries seem to be the only source of data on health personnel, as they are responsible for post assignment. The federal HMIS and PCSP monitoring system will need to rely on provincial updates of this data. Because of the large number of personnel involved, it may be most practical to begin data acquisition by entering the names of personnel who have actually been trained or have otherwise received PCSP support.
  
- c. **Training Data:** This will come from standardized reports similar to those currently used by the DTUs. The key data entry documents will be:
  - a. Trainee summary list
  - b. Training session financial summary
  - c. Training session evaluation summary
  
- d. **Child Survival Interventions Monitoring Data:** Because the final data collection system for this data will only come after the HMIS system for first level care facilities is designed, an interim methods will need to be designed for gathering this data:

#### 1. Facility Based Surveys (FBS)

Somewhat of a cross between a supervisory checklist and a sample survey, this should also serve as a useful means to help pre-test some of the concepts to be introduced in the HMIS Supervisory Checklists (HMIS/SCKL). The FBS will include the following information:

- a. Employment Status of personnel
- b. Quality and quantity of child survival related services delivered
- c. Stock situation of priority essential drugs/equipment

## 2. Household Based Surveys (HBS)

For certain indicators, household level data will have to be collected (e.g. correct home use of ORS). Rapid Assessment Methods will be tested out for this purpose. Their use on an institutionalized basis will be promoted under the new HMIS (HMIS/RAM).

- e. **PCSP Material Inputs:** This will be entered at the PCSP office from delivery challans produced by Jaffer Brothers Limited and from JBL's accounts (i.e for refurbishment costs paid out on behalf of PCSP).
- f. **PCSP Financial Data:** This data will be generated from computerized accounts maintained by Jaffer Brothers or, for expatriate TA and travel expenses, from MSH/Boston accounting office.

**Table 1. PCSP MONITORING INDICATORS**

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
<b>I. INTERVENTIONS</b>						
<b>A. CONTROL OF DIARRHEAL DISEASES</b>						
1. Proportion of diarrhoeal disease cases receiving proper treatment in trained government facilities (averaged)		70%	80%	23% <sup>1</sup>	HMIS/SCKL <sup>2</sup>	HMIS/SCKL
2. Correct home ORT use for diarrheal cases in catchment areas of trained government facilities (only for children under five who visited during the last year)				46% <sup>3</sup>	HBS <sup>4</sup> HMIS/RAM <sup>5</sup>	HMIS/RAM

<sup>1</sup> CDD household survey, NIH 1991

<sup>2</sup> HMIS/SCKL = Health Management Information System / Supervisory Checklist

<sup>3</sup> WHO/CDD Health Facilities Survey, 1991

<sup>4</sup> HBS = Household Based Surveys

<sup>5</sup> HMIS/RAM = Health Management Information System / Rapid Assessment Methods

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## I. INTERVENTIONS (Continued)

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
<b>B. ACUTE RESPIRATORY INFECTIONS</b>  Proportion of ARI cases receiving proper treatment in trained govt facilities (averaged)		70%	80%	0	FBS HMIS/SCKL	FBS HMIS/SCKL
<b>C. EXPANDED PROGRAM OF IMMUNIZATION</b>  1. Proportion of children aged 0-11m in government health facilities where personnel trained who receive proper EPI case mgmt. (averaged)  2. Proportion of WCBA in government health facilities where personnel trained who receive proper EPI case management (averaged)		70%	80%	0	FBS HMIS/SCKL	FBS HMIS/SCKL

I. INTERVENTIONS (Continued)

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
<b>D. NUTRITION</b>						
1. Proportion of children under 5 years in government facilities where personnel trained who receive proper nutritional screening, education and follow-up (averaged)		70%	80%	0	FBS HMIS/SCKL	HMIS/SCKL
2. Proportion of pregnant and lactating women in government health facilities where personnel trained who receive proper nutritional screening, education and follow-up (averaged)		70%	80%	0	FBS HMIS/SCKL	HMIS/SCKL
3. Proportion of children under 4 m in catchment area of government health facilities where personnel trained receiving exclusive breastfeeding (only for children who visited the health facility at least once during the past year) (averaged)		50%	60%	25% <sup>11</sup>	HBS HMIS/RAM	HMIS/RAM

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
5. Proportion of children of 6 m or more in catchment area of government health facilities where personnel trained receiving adequate supplementary feeding (only for children who visited the health facility at least once during the past year) (averaged)		60%	70%	39% <sup>6</sup>	BS HMIS/RAM	HMIS/RAM

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
<b>II. COMPONENTS</b>						
<b>A. PROGRAM PLANNING &amp; MANAGEMENT</b>						
1. Functional Steering Committees	in place				Semi-annual Progress Report	Final Rpt.
2. Computerized Project Monitoring System	in place				Semi-annual Progress Report	Final Rpt.
<b>B. TRAINING</b>						
1. Continuing education section established federal & provincial level	---	---	Plan exists		Semi-annual Progress Report	Final Rpt.
2. Continuing education program funded in provincial recurrent budgets	---	---	Plan exists		Semi-annual Progress Report	Final Rpt.
3. Integrated training program for MOs and paramedics	---	available			Semi-annual Progress Report	Final Rpt.
4. Integrated supportive supervision & mgmt. training program for district supervisors in CS intervention areas	---	available			Semi-annual Progress Report	Final Rpt.
5. Establishment of CSTUs at Teaching Hospitals.	10	18	18	10	PMS	PMS
6. Number of Teaching Hospital trainers trained	---	90	180	0	PMS	PMS

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## II. COMPONENTS (Continued)

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
7. Establishment of CSTUs at District level.	---	5	10	0	PMS	PMS
8. Number of District Hospital trainers trained	---	50	100	0	PMS	PMS
9. Number of Medical Officers and Paramedics trained in CS interventions in DHQ/CSTUs.	---	150	800	0	PMS	PMS
10. Number District Supervisors trained	---	30	100	0	PMS	PMS
11. Proportion of female staff trained in CS interventions in trained government health facilities	---	30%	50%	0	PMS	PMS
12. Curriculum MBBS/LHV/HT	---	---	revised		Semi-annual Progress Report	Final Rpt.
13. Malnutrition case management curriculum	---	---	available		Semi-annual Progress Report	Final Rpt.
14. Proportion of trained government facilities demonstrating proper case management in all 4 CS areas	---	70%	80%		FBS HMIS/SCKL	HMIS/SCKL

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II. COMPONENTS (Continued)

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
<b>C. HEALTH INFORMATION SYSTEM</b>						
1. Analysis of existing health information systems and of morbidity/mortality data	completed				Semi-annual Progress Report	Final Rpt.
2. HMIS/First Level Care Facilities	225 <sup>7</sup>	225 <sup>7</sup>	2,000	300	PMS	PMS
3. Provincial/District Supervisors trained in use of MIS	30 <sup>7</sup>	30 <sup>7</sup>	200	10	PMS	PMS
4. Proportion of trained facilities reporting regularly			80%		PMS/HMIS	PMS/HMIS
5. Computerized dataprocessing cells set up at provincial & divisional level	4	11	20	4	PMS	PMS
<b>D. COMMUNICATIONS</b>						
1. Number of Medical Officers and Paramedics trained in Interpersonal Communication at DHQ/CSTUs	---	320	1180	0	PMS	PMS

<sup>7</sup> Trained by PHC Project

## II. COMPONENTS (Continued)

INDICATORS	TARGET			BASELINE	DATA SOURCE	
	1 YEAR (Thru Sep.30, 1991)	2 YEARS (Thru Sep.30, 92)	3 YEARS (Thru Sep.30, 93)		MONITO- RING	EVALUA- TION
2. Percent of trained facilities demonstrating interpersonal communications skills	---	70%	80%		HBS HMIS/RAM	HBS HMIS/RAM
3. Average number of communications activities per district per year	---	to be estimated	to be estimated		HBS HMIS/RAM	HBS HMIS/RAM
<b>F. DRUG &amp; LOGISTICS SUPPLY SYSTEMS</b>						
1. Need assessment for priority drugs	---	---	completed		Semi-annual Progress Report	Final Rpt.
2. Assess of procurement and distribution of drugs, vaccines and cold chain equipment	---	---	completed		Semi-annual Progress Report	Final Rpt.
3. Assess prescribing practices	---	---	completed		Semi-annual Progress Report	Final Rpt.

**APPENDIX 19**

**Planning & Management:  
Cost Analysis of PCSP Workshops**

## COST ANALYSIS OF PCSP WORKSHOPS

COORDINATED BY JBL

WORKSHOP	Average # of Participant	Average Unit Cost in Rupees
<b>Health Information System</b>		
National HIS Team Meeting	32	119,438
Training in Computer Workshop	11	32,320
Master Trainers Workshop	36	261,461
District Orientation Meeting	20	41,059
Peripheral Workshop (Punjab)	52	67,120
Peripheral Workshop (NWFP)	56	66,383
Peripheral Workshop (Sindh)	48	41,894
Peripheral Workshop (AJK)	55	77,724
Peripheral Workshop (Balochistan)	30	53,112
Peripheral Workshop (Northern Areas)	52	90,657
Peripheral Workshop (Federal)	42	50,346
<b>I.C.S.T.</b>		
	18	131,877
<b>TRAINING OF TRAINERS</b>	17	59,420
<b>TRAINING OF MEDICAL OFFICERS</b>	18	38,944
<b>TRAINING OF PARAMEDICS</b>	22	148,130
<b>TRAINING SUPERVISORS</b>		

**APPENDIX 20**

**Health Information Systems:  
Listing of Training Workshops**

## Appendix 20

Name of the event	V e n u e	District	Province	Date
<b>HEALTH INFORMATION SYSTEMS</b>				
Computer Training	Health Directorate	Quetta	Baluch	12-Dec-92
Computer Training	BHSC	Islamabad	Federal	15-May-93
Computer Training	Health Directorate	Peshawar	NWFP	16-Jan-93
Computer Training	Health Directorate	Peshawar	NWFP	26-Dec-92
Computer Training	Health Directorate	Lahore	Punjab	09-Jan-93
Computer Training	DGHS Office	Hyderabad	Sindh	10-Jul-93
Computer Training	Health Directorate	Hyderabad	Sindh	23-Jan-93
Computer Training (TOT)	BHS Cell	Islamabad	Federal	28-Nov-92
District Orientation Meeting	Muzaffarabad	Muzaffarabad	AJK	20-Apr-93
District Orientation Meeting	Turbat	Turbat	Baluch	20-Apr-93
District Orientation Meeting	Loralai	Loralai	Baluch	01-Nov-92
District Orientation Meeting	Gilgit	Gilgit	NA	27-Apr-93
District Orientation Meeting	Hotel Royal Palace	Swat	NWFP	16-Nov-93
District Orientation Meeting	Dean's Hotel	Peshawar	NWFP	26-Apr-93
District Orientation Meeting	Avari Hotel	Lahore	Punjab	11-Nov-92
District Orientation Meeting	Serena Hotel	Faisalabad	Punjab	20-Jul-92
District Orientation Meeting	Health Directorate	Hyderabad	Sindh	18-Apr-93
District Orientation Meeting	Hotel Forum Inn	Sukkur	Sindh	07-Dec-92
HMIS/FLCF workshop	Mirpur	Mirpur	AJK	07-Jun-93
HMIS/FLCF workshop	Mirpur	Mirpur	AJK	22-May-93
HMIS/FLCF workshop	Mirpur	Mirpur	AJK	09-May-93
HMIS/FLCF workshop	Dera Bugti	Dera Bugti	Baluch	17-May-93
HMIS/FLCF workshop	Sibi	Sibi	Baluch	03-May-93
HMIS/FLCF workshop	Sibi	Sibi	Baluch	26-Apr-93
HMIS/FLCF workshop	Kohlu	Kohlu	Baluch.	01-Feb-93
HMIS/FLCF workshop	Islamabad	Islamabad	Federal	03-May-93
HMIS/FLCF workshop	Gilgit	Gilgit	NA	13-Jun-93
HMIS/FLCF workshop	Gilgit	Gilgit	NA	23-May-93
HMIS/FLCF workshop	DHQ Chitral	Chitral	NWFP	18-Jul-93
HMIS/FLCF workshop	DHQ Chitral	Chitral	NWFP	11-Jul-93

HMIS/FLCF workshop	Mardan	Mardan	NWFP	26-Jun-93
HMIS/FLCF workshop	Mardan	Mardan	NWFP	20-Jun-93
HMIS/FLCF workshop	Nowshera	Nowshera	NWFP	19-Jun-93
HMIS/FLCF workshop	Nowshera	Nowshera	NWFP	14-Jun-93
HMIS/FLCF workshop	Mardan	Mardan	NWFP	13-Jun-93
HMIS/FLCF workshop	DHQ Hospital	Charsada	NWFP	23-May-93
HMIS/FLCF workshop	Civil Hospital Topi	Swabi	NWFP	22-May-93
HMIS/FLCF workshop	Civil Hospital Topi	Swabi	NWFP	17-May-93
HMIS/FLCF workshop	DHQ Hospital	Charsada	NWFP	15-May-93
HMIS/FLCF workshop	RHC Shahkot	Malakand	NWFP	18-Apr-93
HMIS/FLCF workshop	RHC Shahkot	Malakand	NWFP	12-Apr-93
HMIS/FLCF workshop	DHQ Hosp, Timergara	Dir	NWFP	15-Feb-93
HMIS/FLCF workshop	Timergara	Dir	NWFP	07-Feb-93
HMIS/FLCF workshop	DHQ Hosp, Timergara	Dir	NWFP	24-Jan-93
HMIS/FLCF workshop	DHQ Hospital, Khar	B. Agency	NWFP	10-Jan-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	25-Apr-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	11-Apr-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	15-Feb-93
HMIS/FLCF workshop	Sahiwal	Sahiwal	Punjab	15-Feb-93
HMIS/FLCF workshop	Lahore	Lahore	Punjab	08-Feb-93
HMIS/FLCF workshop	Attock	Attock	Punjab	08-Feb-93
HMIS/FLCF workshop	Multan	Multan	Punjab	07-Feb-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	07-Feb-93
HMIS/FLCF workshop	H.T.School, Attock	Attock	Punjab	01-Feb-93
HMIS/FLCF workshop	Lahore	Lahore	Punjab	31-Jan-93
HMIS/FLCF workshop	H.T. School, Attock	Attock	Punjab	25-Jan-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	24-Jan-93
HMIS/FLCF workshop	Multan	Multan	Punjab	24-Jan-93
HMIS/FLCF workshop	Sheikhupura	Sheikhupura	Punjab	23-Jan-93
HMIS/FLCF workshop	Sheikhupura	Sheikhupura	Punjab	17-Jan-93
HMIS/FLCF workshop	Multan	Multan	Punjab	11-Jan-93
HMIS/FLCF workshop	Sheikhupura	Sheikhupura	Punjab	10-Jan-93
HMIS/FLCF workshop	DHS Rawalpindi	Rawalpindi	Punjab	10-Jan-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	10-Jan-93

HMIS/FLCF workshop	DHS Rawalpindi	Rawalpindi	Punjab	04-Jan-93
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	03-Jan-93
HMIS/FLCF workshop	Multan	Multan	Punjab	28-Dec-92
HMIS/FLCF workshop	Gujranwala	Gujranwala	Punjab	28-Dec-92
HMIS/FLCF workshop	Badin	Badin	Sindh	24-Jul-93
HMIS/FLCF workshop	Badin	Badin	Sindh	10-Jul-93
HMIS/FLCF workshop	Dadu	Dadu	Sindh	26-Jun-93
HMIS/FLCF workshop	DHO Office	Mirpurkhas	Sindh	21-Jun-93
HMIS/FLCF workshop	Dadu	Dadu	Sindh	14-Jun-93
HMIS/FLCF workshop	DHO Office	Mirpurkhas	Sindh	13-Jun-93
HMIS/FLCF workshop	Nursing School	Thatta	Sindh	07-Jun-93
HMIS/FLCF workshop	Thatta	Thatta	Sindh	23-May-93
HMIS/FLCF workshop	Pub. Health School	Hyderabad	Sindh	16-May-93
HMIS/FLCF workshop	Pub. Health School	Hyderabad	Sindh	09-May-93
HMIS/FLCF workshop	Pub. Health School	Hyderabad	Sindh	02-May-93
HMIS/FLCF workshop	Distt Council Hall	Mithi	Sindh	25-Apr-93
HMIS/FLCF workshop	Office of DHO	Sukkur	Sindh	11-Apr-93
HMIS/FLCF workshop	Office of DHO	Sukkur	Sindh	28-Mar-93
HMIS/FLCF workshop	Sukkur	Sukkur	Sindh	15-Feb-93
HMIS/FLCF workshop	Khairpur	Khairpur	Sindh	08-Feb-93
HMIS/FLCF workshop	Khairpur	Khairpur	Sindh	01-Feb-93
HMIS/FLCF workshop	Naushero Feroze	N. Feroze	Sindh	24-Jan-93
HMIS/FLCF workshop	Khairpur	Khairpur	Sindh	10-Jan-93
HMIS/FLCF workshop	Naushero Feroze	N. Feroze	Sindh	03-Jan-93

\* Includes trainers

\*\* Includes trainer's allowance

**APPENDIX 21**

**Training:  
Listing of Training Workshops**

Appendix 21

Name of the event	V e n u e	District	Province	Date
<b>TRAINING</b>				
ICST - Paramedics	Public Health School	Quetta	Baluch	17-Jul-93
ICST - Paramedics	CSTU Khuzdar	Khuzdar	Baluch	05-Jul-93
ICST - Paramedics	CSTU Khuzdar	Khuzdar	Baluch	21-Jun-93
ICST - Paramedics	CSTU Zhob	Zhob	Baluch	12-Jun-93
ICST - Paramedics	CSTU	Khuzdar	Baluch	03-May-93
ICST - Paramedics	F. H. T. School	D. I. Khan	MWFP	11-May-93
ICST - Paramedics	DHQ Hospital	Swat	NWFP	17-Jul-93
ICST - Paramedics	Swat	Swat	NWFP	22-Jun-93
ICST - Paramedics	Swat	Swat	NWFP	14-Jun-93
ICST - Paramedics	Swat	Swat	NWFP	05-Jun-93
ICST - Paramedics	F. H. T. School	D. I. Khan	NWFP	23-May-93
ICST - Paramedics	F.H.T. School	D. I. Khan	NWFP	02-May-93
ICST - Paramedics	DHQ Hospital	R. Y. Khan	Punjab	20-Jul-93
ICST - Paramedics	DHQ Hospital	D. G. Khan	Punjab	17-Jul-93
ICST - Paramedics	DHQ Hospital	R. Y. Khan	Punjab	03-Jul-93
ICST - Paramedics	DHQ Hospital	Jhelum	Punjab	03-Jul-93
ICST - Paramedics	DHQ Hospital	Jhelum	Punjab	19-Jun-93
ICST - Paramedics	DHQ Hospital	D. G. Khan	Punjab	19-Jun-93
ICST - Paramedics	DHQ Hospital	R.Y. Khan	Punjab	08-Jun-93

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ICST - Paramedics	CSTU/DHQ Hospital	Jhelum	Punjab	04-May-93
ICST - Paramedics	CSTU Sukkur	Sukkur	Sindh	17-Jul-93
ICST - Paramedics	CSTU Mirpurkhas	Mirpurkhas	Sindh	03-Jul-93
ICST - Paramedics	CSTU Mirpurkhas	Mirpurkhas	Sindh	19-Jun-93
ICST - Paramedics	CSTU Mirpurkhas	Mirpurkhas	Sindh	05-Jun-93
ICST - Paramedics	CSTU	Mirpur Khas	Sindh	22-May-93
ICST - Paramedics	CSTU	Sukkur	Sindh	04-May-93
Training of Medical Officers	CSTU/DHQ Hospital	Khuzdar	Baluch	13-May-93
Training of Medical Officers	DHQ Hospital	Zhob	Baluch	18-Apr-93
Training of Medical Officers	DHQ Hospital	Khuzdar	Baluch	18-Apr-93
Training of Medical Officers	CSTU/DHQ Hospital	Khuzdar	Baluch	10-Feb-93
Training of Medical Officers	CSTU/DHQ Hospital	Zhob	Baluch	24-Jan-93
Training of Medical Officers	Civil Hospital	Quetta	Baluch.	03-Oct-92
Training of Medical Officers	DHQ Hospital	Swat	NWFP	03-Jul-93
Training of Medical Officers	DHQ Hospital	D. I. Khan	NWFP	10-Apr-93
Training of Medical Officers	DHQ Hospital	D.I. Khan	NWFP	28-Mar-93
Training of Medical Officers	DHQ Hospital	D. I. Khan	NWFP	06-Feb-93
Training of Medical Officers	Saidu Group of Hosp	Swat	NWFP	17-Oct-92
Training of Medical Officers	DHQ Hospital	Jhelum	Punjab	17-Jul-93
Training of Medical Officers	DHQ Hospital	D. G. Khan	Punjab	03-Jul-93
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	19-Jun-93

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Training of Medical Officers	DHQ Hospital	D.G. Khan	Punjab	06-Jun-93
Training of Medical Officers	DHQ Hospital .	D. G. Khan	Punjab	15-May-93
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	08-May-93
Training of Medical Officers	DHQ Hospital	D. G. Khan	Punjab	10-Apr-93
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	03-Apr-93
Training of Medical Officers	DHQ Hospital	Jhelum	Punjab	03-Apr-93
Training of Medical Officers	CSTU/DHQ Hospital	R. Y. Khan	Punjab	06-Feb-93
Training of Medical Officers	DHQ Hospital	Jhelum	Punjab	06-Feb-93
Training of Medical Officers	CSTU/DHQ Hospital	D. G. Khan	Punjab	30-Jan-93
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	09-Jan-93
Training of Medical Officers	DHQ Hospital	D. I. Khan	Punjab	09-Jan-93
Training of Medical Officers	DHQ Hospital	Jhelum	Punjab	12-Dec-92
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	28-Nov-92
Training of Medical Officers	DHQ Hospital	R. Y. Khan	Punjab	17-Oct-92
Training of Medical Officers	H. T. School	Mirpurkhas	Sindh	17-Jul-93
Training of Medical Officers	CSTU Sukkur	Sukkur	Sindh	12-Jun-93
Training of Medical Officers	CSTU/Civil Hospital	M.P. Khas	Sindh	10-Apr-93
Training of Medical Officers	CSTU/Civil Hospital	Mirpurkhas	Sindh	06-Feb-93
Training of Medical Officers	CSTU/Civil Hospital	Sukkur	Sindh	06-Feb-93
Training of Medical Officers	CSTU/Civil Hospital	Sukkur	Sindh	16-Jan-93
Training of Medical Officers	CSTU/Civil Hospital	Mirpurkhas	Sindh	09-Jan-93

Training of Medical Officers	CSTU/Civil Hosp.	Sukkur	Sindh	28-Nov-92
Training of Medical Officers	CSTU/Civil Hospital	Mirpurkhas	Sindh	28-Nov-92
Training of Medical Officers	CSTU/HT School	Sukkur	Sindh	17-Oct-92
Training of Supervisors	Hotel Gul's Inn	Quetta	Baluch	10-Apr-93
Training of Supervisors	F. H . T. School	Hayatabad	NWFP	08-May-93
Training of Supervisors	Hotel Sindbad	Multan	Punjab	22-May-93
Training of Supervisors	Hotel Forum Inn	Sukkur	Sindh	24-Apr-93
Training of Trainers	Civil Hospital	Quetta	Baluch	28-Dec-92
Training of Trainers	H.S.T. Hospital	Peshawar	NWFP	23-Jan-93
Training of Trainers	DHQ Hospital	D.I. Khan	NWFP	13-Dec-92
Training of Trainers	Sir Ganga Ram Hosp	Lahore	Punjab	10-Jul-93
Training of Trainers	RG Hospital	Rawalpindi	Punjab	15-May-93
Training of Trainers	Nishtar Hospital	Multan	Punjab	05-Dec-92
Training of Trainers	R.G. Hospital	Rawalpindi	Punjab	14-Nov-92
Training of Trainers	CSTU/Civil Hospital	Karachi	Sindh	19-Dec-92
Training of Trainers	N.I.C.H.	Karachi	Sindh	14-Nov-92
Training of Trainers (PMs)	Health Svcs Academy	Islamabad	Federal	17-Apr-93

\* Includes trainers

\*\* Includes trainer's allowance

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## Integrated Child Survival Training Course

### January — September 1992

Workshop No.	Location	Date	No. of Participants Trained		
			Trainers	MO/WMO	HEO
1	Allied Hospital, Faisalabad (Orientation)	Jan 5 - 14th	11	X	X
2	Allied Hospital, Faisalabad (Orientation/pretest)	Jan 25 - Feb 5	X	21	X
3	Allied Hospital, Faisalabad (TOT)	Feb 22 - Mar 5	23	X	X
4	Civil Hospital, Karachi (TOT)	May 16 - 28	12	X	2
5	Allied Hospital, Faisalabad (TOT)	May 23 - Jun 4	10	X	1
6	Civil Hospital, Karachi (TOT)	Jun 20 - Jul 2	16	X	2
7	DHQ Hospital, Abbottabad (TOT)	Jun 20 - Jul 2	10	X	1
8	DHQ Hospital, Jhelum (MO)	Jul 13 - 25	X	10	1
9	Saidu Group of Hospital, Swat (TOT)	Jul 13 - 25	11	X	1
10	DHQ Hospital, Sukkur (MO)	Jul 18 - 30	X	10	1
11	Civil Hospital, Quetta (TOT)	Aug 1 - 13	10	X	2
12	Mayo Hospital, Lahore (TOT)	Aug 1 - 13	12	X	2
13	DHQ Hospital, Swat (MO)	Aug 15 - 27	X	11	1
14	Civil Hospital, Karachi (TOT)	Aug 15 - 27	12	X	2
15	NICH, Karachi (TOT)	Aug 22 - 31	12	X	1
16	DHQ Hospital, Rahimyar Khan (MO)	Aug 22 - Sept 2	X	12	1
17	DHQ Hospital, Sukkur (MO)	Aug 29 - Sept 9	X	12	X
18	Civil Hospital, Mirpurkas	September 12 - 23	X	13	1
19	DHQ Hospital, Khuzdar	September 15 - 27	X	11	1
20	Saidu Group of Hospitals, Swat	September 19 - 30	X	12	X
<b>TOTAL</b>			139	112	20

October — December 1992

Workshop No.	Location	Date	No. of Participants Trained		
			Trainers	MOs	HEO*
BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO SEPTEMBER 30, 1992.			139	112	20
21.	Quetta (MO)	Oct 3 - 14		12	
22.	DHQ Hospital Sukkur (MO)	Oct 17 - 28		11	
23.	Swat (MO)	Oct 17 - 28		13	
24.	Rahimyar Khan (MO)	Oct 17 - 28		11	
25.	RGH, Rawalpindi (TOT)	Nov 14 - 26	10		
26.	NICH, Karachi (TOT)	Nov 14 - 24	15		1
27.	DHQ Hospital, Rahim yar Khan (MO)	Nov 28 - 9 Dec.		9	
28.	Civil Hospital, Mirpurkhas (MO)	Nov 28 - 9 Dec.		12	
29.	DHQ Hospital, Sukkur (MO)	Nov. 28 - 9 Dec.		11	
30.	Nishtar Medical College, Multan (TOT)	Dec. 5 - 17 Dec.	12		1
31.	DHQ, Jhelum (MO)	Dec. 12 - 23 Dec.		7	1
32.	DHQ, D. I. Khan	Dec. 13 - 24 Dec.		12	
33.	Civil Hospital, Karachi (TOT)	Dec. 19 - 31 Dec.	16		2
34.	LMCH, Hyderabad (MO)	Dec. 12 - 24 Dec.		17	
35.	Civil Hospital Quetta (TOT)	Dec. 28 - Jan. 9	15		
TOTAL			207	227	25

**January — March 1993**

Workshop No.	Location	Date	No. of Participants Trained			
			Trainers	MOs	Supervisors	HEO
<b>BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO SEPTEMBER 30, 1992.</b>			<b>207</b>	<b>227</b>		<b>25</b>
36.	LMCH, Hyderabad	Jan 2 - 14		11		
37.	DHQ, MirpurKhas	Jan 9 - 21		13		
38.	DHQ, D. I. Khan	Jan 9 - 20		12		
39.	DHQ, Rahimyar Khan	Jan 9 - 20		9		
40.	DHQ, Sukkur	Jan 16 - 28		10		
41.	Hayat Shaheed, Peshawar (TOT)	Jan 23 - 4 Feb	10			
42.	LMCH, Hyderabad	Jan. 23 - 4 Feb		12		
43.	DHQ, Zhob	Jan. 24 - 4 Feb.		8		
44.	DHQ, D. G. Khan	Jan. 30 - 10 Feb.		10		
45.	DHQ, Rahim Yar Khan	Feb. 6 - 17		12		
46.	DHQ, Jhelum	Feb. 6 - 17		7		
47.	DHQ, D.I. Khan	Feb. 6 - 17		13		
48.	DHQ, Mirpur Khas	Feb. 6 - 17		12		
49.	DHQ, Sukkur	Feb. 6 - 18		10		
50.	LMCH, Hyderabad	Feb. 6 - 18		15		
51.	DHQ, Khuzdar	Feb. 10 - 21		12		
52.	HSA, Islamabad TOT, Supervisor's	Feb. 13 - 18	18			
<b>TOTAL</b>			<b>235</b>	<b>393</b>		<b>25</b>

## April 1993

Workshop No.	Location	Date	No. of Participants Trained			
			Trainers	MOs	Supervisors	HEO
BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO MARCH 1993			235	393		25
53.	DHQ, D. I. Khan (MO)	March 28 - 8 April		13		
54.	DHQ, Jhelum (MO)	April 3 - 14		8		
55.	DHQ, Rahim Yar Khan (MO)	April 3 - 14		11		
56.	DHQ, D. I. Khan (MO)	April 10 - 21		12		
57.	DHQ, D. G. Khan (MO)	April 10 - 21		10		
58.	Quetta (Supervisors Trg.)	April 10 - 15			20	
59.	DHQ, Zhob (MO)	April 17 - 28		12		
60.	DHQ, Khuzdar (MO)	April 18 - 29		12		
61.	DHQ, Mirpurkhas (MO)	April 10 - 21		11		
62.	HSA, Islamabad (Paramedics TOT)	April 17 - 25	18			
63.	DHQ, Sukkur (Supervisors Trg.)	April 24 - 29			20	
TOTAL			253	482	40	25

May 1993

Works hop No.	Location	Date	No. of Participants Trained				
			Trainers	MOs	Supervisors	Paramedics	HEO
BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO APRIL 1993			253	482	40		25
64.	DHQ, D.I. Khan (Paramedics)	May 2 - 10				15	
65.	Hayat Shaheed Hosp. Peshawar (Supervisors)	May 8 - 13			17		
66.	DHQ, D.I. Khan (Paramedics)	May 11 - 19				13	
67.	DHQ, D.I. Khan (Paramedics)	May 22 - 30				12	
68.	DHQ, Khuzd (Paramedics)	May 3 - 11				13	
69.	DHQ, Sukkur (Paramedics)	May 4 - 13				12	
70.	DHQ, Hyderabad (MO)	May 8 - 19		15			
71.	DHQ, Jhelum (Paramedics)	May 4 - 13				11	
72.	DHQ, R. Y. Khan (MO)	May 8 - 19		8			
73.	DHQ, Khuzdar (MO)	May 13 - 24		7			
74.	DHQ, D. G. Khan (MO)	May 15 - 26		11			
75.	DHQ, Multan (Supervisors)	May 22 - 27			17		
76.	RGII, Rawalpindi (TOT MOs)	May 15 - 27	13				
77.	DHQ, Mirpur Khas (Paramedics)	May 22 - 30				12	
TOTAL			266	523	74	88	25

## June 1993

Workshop No.	Location	Date	No. of Participants Trained				
			Trainers	MOs	Supervisors	Paramedics	HEO
BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO MAY 1993			266	523	74	88	25
78.	DHQ, Mirpur Khas (Paramedics)	June 5-14				12	
79.	DHQ, D.G. Khan (MO)	June 6 - 17		11			
80.	DHQ, Sukkur (MO)	June 12 - 24		14			
81.	DHQ, R.Y. Khan (MO)	June 19 - 30		6			
82.	DHQ, Mirpurkhas (Paramedics)	June 19 - 27				12	
83.	DHQ, Jhelum (Paramedics)	June 19 - 28				13	
84.	DHQ, Swat (Paramedics)	June 5 - 13				15	
85.	DHQ, Swat (Paramedics)	June 14 - 22				11	
86.	DHQ, R.Y. Khan (Paramedics)	June 8 - 16				9	
87.	DHQ, D.G. Khan (Paramedics)	June 19 - 27				12	
88.	DHQ, Swat (Paramedics)	June 22 - 30 Jul				12	
89.	DHQ, Khuzdar (MO)	June 21 - 29		11			
90.	DHQ, Zhob (Paramedics)	June 12 - 20				11	
TOTAL			266	565	74	195	25

July 1993

Works hop No.	Location	Date	No. of Participants Trained				
			Trainers	MOs	Supervisors	Paramedics	HEO
BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO JUNE 1993			266	554	74	206	25
91.	DHQ, Mirpur Khas (Paramedics)	July 3 - 12				10	
92.	DHQ, Jhelum (Paramedics)	July 3 - 12				14	
93.	DHQ, Rahimyar Khan (Paramedics)	July 3 - 12				12	
94.	DHQ, Khuzdar (Paramedics)	July 5 - 13				14	
95.	DHQ, Swat (MOs)	July 3 - 14		11			
96.	DHQ, D.G. Khan (MOs)	July 3 - 14		8			
97.	FJMC, Lahore (TOT - MOs)	July 10 - 22	12				
98.	DHQ, Rahimyar Khan (Paramedics)	July 20 - 28				12	
99.	DHQ, Swat (Paramedics)	July 17 - 25				12	
100.	DHQ, D. G. Khan (Paramedics)	July 17 - 25				15	
101.	DHQ, Jhelum (MOs)	July 17 - 29		12			
102.	DHQ, Quetta - for Zhob (Paramedics)	July 17 - 25				18	
103.	DHQ, Sukkur (Paramedics)	July 17 - 26				12	
104.	DHQ, Mirpur Khas (MOs)	July 17 - 29		13			
105.	DHQ, Mirpur, A/ & K (MOs)	July 28 - August 8		10			
TOTAL			278	619	74	314	25

**August 1993**

Workshop No.	Location	Date	No. of Participants Trained				
			Trainers	MOs	Supervisors	Paramedics	HEO
<b>BALANCE BROUGHT FORWARD FROM WORKSHOPS HELD FROM JANUARY 1992 TO JULY 1993</b>			<b>278</b>	<b>608</b>	<b>74</b>	<b>336</b>	<b>25</b>
106	DHQ, Mirpur, AJ & K (Paramedics)					12	
107	Lake View Motel, Islamabad (Supervisors)				18		
<b>TOTAL</b>			<b>278</b>	<b>619</b>	<b>92</b>	<b>326</b>	<b>25</b>

**Note:** Some of the Health Education Officers are also MOs - all HEOs are trainers.

**APPENDIX 22**

**Training:  
List of Training Material at CSTUs**

## Appendix 22

### TRAINING: LIST OF TRAINING MATERIALS AT CSTUs

#### I. Medical Officers

1. Training Methodology
2. Nutrition Trainers Manual
3. Nutrition Participant's Manual
4. Nutrition Readings
5. Integrated Trainer's Manual
6. Integrated Participant's Manual
7. Book on Diarrhoea (Supervisory Skills)
8. Readings on Diarrhoea
9. ARI (Blue Book)
10. Immunization Book

#### II. Supervisors

1. Participant's Manual
2. Trainer's Manual

#### III. Paramedics

1. Participant's Manual
2. Trainer's Manual

**APPENDIX 23**

**Training:  
CSTUs Established at Teaching Hospitals/  
District Headquarter Hospitals**

## Appendice 23

### TRAINING: CSTUs ESTABLISHED AT TEACHING HOSPITALS/DISTRICT HOSPITALS

#### I. CSTUs ESTABLISHED AT TEACHING HOSPITALS

##### PUNJAB

1. K.E.M.C/MAYO HOSPITAL\*
2. NISHTAR MEDICAL COLLEGE\*
3. PUNJAB MEDICAL COLLEGE
4. QUAID-E-AZAM MEDICAL COLLEGE - BAHAWALPUR
5. RAWALPINDI MEDICAL COLLEGE\*
6. FATIMA JINNAH MEDICAL COLLEGE

##### SINDH

7. DOW MEDICAL COLLEGE\*
8. SIND MEDICAL COLLEGE/NICH\*
9. LIAQUAT MEDICAL COLLEGE
10. NAWABSHAH MEDICAL COLLEGE
11. CHANDKA MEDICAL COLLEGE

##### NWFP

12. KHYBER MEDICAL COLLEGE\*
13. AYUB MEDICAL COLLEGE
14. LADY READING HOSPITAL - POST GRADUATE INSTITUTE

##### BALUCHISTAN

15. BOLAN MEDICAL COLLEGE\*

#### II. CSTUs ESTABLISHED AT DISTRICT HOSPITALS

##### PUNJAB

1. JHELUM
2. RAHIMYAR KHAN
3. D.G. KHAN

##### SINDH

4. SUKKUR
5. MIRPURKHAS

**NWFP**

6. SWAT
7. ABBOTTABAD
8. D.I. KHAN

**BALUCHISTAN**

9. KHUZDAR
10. ZHOB

**AJK**

11. MIRPUR

\* DTUs CONVERTED TO CSTUs

**APPENDIX 24**

**Training:  
DTU Training Report**

Appendix 24

TRAINING:

DTU TRAINING REPORT		
	JULY - DEC 1990	JAN - JUNE 1991
Regular DTU Courses	36	37
People Trained in Regular Courses	303	268
Health Facilities	149	100
Special Courses	20	11
People Trained in Special Courses	345	154
Grand Totals Courses	56	48
Grand Totals People Trained	648	422

**APPENDIX 25**

**Communications:  
Staff Transition at the PCSP**

## Appendix 25

### COMMUNICATIONS: STAFF TRANSITION AT THE PCSP

1. Mr. James Messick, resident advisor for Communications from July 1990 returned to the U.S. in September 1991.
2. Ms. Yasmeen Gul Sheikh joined the Component as Communications Specialist in September 1991, and left in January 1993.
3. Mr. Zahid Hussein joined the Component in February 1992 and worked full time till May 13, 1993 as an MSH consultant.
4. Between October 1, 1992 and September 30, 1993, Mr. Zahid Hussein put in a total level of effort of 60 man-days on approximately a one day a week basis. His assignment, as Consultant to MSH, was to take care of mass media activities of the Component. Mr. Hussein was with the Project till September 30, 93.

**APPENDIX 26**

**Communications:  
Cost Analysis**

## Appendix 26

### COMMUNICATIONS: COST ANALYSIS FOR SUSTAINABILITY

1. The TV program *Neelam Ghar* can be sustained through Rs. 150 million available with the Educational TV. The total cost for one year's programs is just Rs. 2,100,000.
2. Private sponsors can pick up the radio drama. The air time cost for the drama was only 2 million rupees. Since the drama can be replayed, private companies can insert their own commercials. However, care should be taken that no pharmaceutical, baby formula or junk food (candies, chewing gums) manufacturers are allowed to sponsor the drama.
3. Flip Charts, reprinted at a cost of Rs. 140 per chart, can be reproduced by the MOH through their own funding. The films and layouts can be obtained from Spectrum for reprints.
4. UNICEF is ready to run an additional reprint of 1,000 Breastfeeding and Nutrition Flip Charts. MOH and UNICEF can sit together and chalk out a joint distribution strategy.
5. At least one aspect of child survival activities, Breastfeeding Promotion, is being taken care of by the MOH/Johnson and Johnson Breastfeeding Promotion Project in the Punjab. This activity, with US\$ 1 million funding will continue until the middle of 1997.