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EVALUATION REPORT

Salvation Army World Service Office

PAKISTAN

Comprehensive Primary Health Care Project

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ABBREVIATIONS

AID	Agency for International Development
CPHC	Comprehensive Primary Health Care Project of Salvation Army, Pakistan
DHO	District Health Officer, Ministry of Health
EHW	Environmental Health Worker, Comprehensive Primary Health Care Project
EPI	Extended Program of Immunization, Ministry of Health
FPAP	Family Planning Association of Pakistan
GOP	Government of Pakistan
MG	Matching Grant
MOH	Ministry of Health, Government of Pakistan
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
SA	Salvation Army
SAWSO	Salvation Army World Service Office (the international development arm of the Salvation Army in the U.S.)
USAID	U.S. Agency for International Development Mission, Islamabad, Pakistan
VHW	Village Health Worker, Comprehensive Primary Health Care Project

FOREWARD

This report was written by Nicholas Danforth, MIA, EdM, Project Manager, PVO Evaluation Project, and Andrew Haynal, MD, Primary Health Care Consultant for Management Sciences for Health under a contract with the AID Bureau of Food for Peace and Voluntary Assistance. They were assisted by Doug Hill, SAWSO Project Officer for South Asia, Sue Allibone of the Salvation Army-Pakistan, and many other Salvation Army personnel in Pakistan, to all of whom the authors are very grateful. Comments are welcome and should be sent to Nicholas Danforth at MSH.

CONTENTS

	<u>PAGE</u>
I. EXECUTIVE SUMMARY	1
II. BACKGROUND	3
A. Description of this Evaluation	3
B. Salvation Army World Service Office (SAWSO)	3
C. The SAWSO Matching Grant	5
D. The Project Environment in Pakistan	5
E. Health Issues	6
F. AID Policies and Strategies	6
III. THE SAWSO MATCHING GRANT PROJECT IN PAKISTAN	7
A. The Project Development Process	7
B. Goals, Purposes, and Strategies	7
C. Inputs	12
D. Summary of Activities	13
IV. ANALYSIS OF RESULTS	14
A. Outputs by Component	14
1. General Trends	14
2. Maternity Services	15
3. Family Spacing	16
4. Vaccination	18
5. TB Screening, Treatment, and Follow-up	19
6. Well-Baby and Under-Five Clinics	19
7. Curative Care	20
8. Sanitation	21
9. Female Literacy	21
10. Handicapped Rehabilitation	22
B. Impact	23
C. Planning and Design	24
1. Project Objectives	24
2. Village Selection Criteria	25
3. Village Participation and Village Self-Financing	25
4. Expatriate Planning	26
D. Management and Staffing	26
1. The Salvation Army, Pakistan	26
2. SAWSO/Washington	29
E. Training	30

	<u>PAGE</u>
F. Information and Monitoring	31
G. Environmental Constraints	32
H. Financial Constraints	33
I. Interagency Relations	33
V. CONCLUSIONS AND RECOMMENDATIONS	36
A. General Conclusions	36
B. Special Areas of Interest	37
1. Community Participation	37
2. Benefit Distribution	38
3. Innovation and Technology Transfer	38
4. Cost-effectiveness	39
5. Sustainability	40
6. Replicability	41
7. Institution - Building and Institutionalization	42
C. Summary of Recommendations	44
1. To SAWSO/SA-Pakistan	44
2. To AID	47
NOTES	48
APPENDICES	
A. Evaluation Itinerary	53
B. SAWSO: Purposes, Goals and Objectives; Development Criteria	54
C. Details of the SAWSO Matching Grant	56
D. Map of Pakistan	58
E. Health Issues in Pakistan	59
F. Salvation Army in Pakistan: Statement of Medical Policy	63
G. Summary of CPHC Health Strategies	65
H. The Salvation Army CPHC Staff in Pakistan	68
I. Organization Structure for Primary Health Care Project and Afghan Refugee Assistance	71
J. Baseline Summary Data and Services Reported in 1983	72
K. Suggested Village and VHW Selection Criteria	73
L. Project Staff Training Programs	75
M. Medical Statistics Form	76
N. Monthly or Annual Reporting Format	78
O. Staff Planning Sheet	80
P. Operational Costs of Base Dispensaries	81
Q. Baseline Survey Form (revised)	82
R. SAWSO/Pakistan Matching Grant Expenses	83

I. EXECUTIVE SUMMARY

This report documents an evaluation of the Comprehensive Primary Health Care Project (CPHC) of the Salvation Army in Pakistan. This project is sponsored jointly by the Salvation Army World Service Office (SAWSO) and the Agency for International Development (AID). The evaluation is based on a two week field visit in March and April, 1984.

The evaluators found that the project is an innovative approach to changing the basic orientation of existing dispensaries and health workers from curative to preventive, and from one that is dispensary based to outreach. The project is managed by dedicated expatriate Salvationists who are experienced in the many problems of delivering health care in Pakistan, and are committed to reaching out from the urban dispensaries into poor rural areas.

The SA-Pakistan needs to recruit and train Pakistani managers, but faces difficulties in doing so. At the time of this field visit, none of the top full-time professional staff of the CPHC were Pakistani. (Only one of the CPHC's four Nurses-in-Charge, the part-time Project Accountant, and the full-time Administrative Assistant are Pakistani). Moreover, CPHC Village Health Workers should live in or near the villages they serve, but very few do at present, necessitating considerable commuting expense and inconvenience. Training of Village Health Workers needs improvement; project managers are now focusing their considerable energies on strengthening both training and supervision methods.

Despite these problems, most of which SAWSO and the SA-Pakistan are fully aware of and are working to solve, the project has shown foresight in demonstrating that an existing clinical health care infrastructure can be an effective base for village based PHC. Much valuable experience has been gained, and much of it should be shared with other PVO and government officials.

Communication and cooperation between the SA-Pakistan and local Ministry of Health officials is inadequate, and must be remedied if CPHC is to set an example for the MOH to follow. Both the SA-Pakistan and the MOH must work toward closer collaboration. In order for this innovative experience to be extended to a larger area, careful and accurate documentation of results is essential. The evaluators believe that insufficient progress has been made thus far toward producing this kind of information, despite the CPHC's numerous, detailed records. The CPHC should revise its information system from the village level up; further expansion should be deferred unless better results by Village Health Workers (VHWs) are documented.

Regarding the role of AID, the evaluators are concerned with its negligible role in monitoring this project. While communication with the USAID office is adequate, the evaluators believe that the project would be strengthened if USAID were able to monitor progress in a few key areas (e.g. nationalization of management) and ensure cooperation with other relevant AID projects (e.g. the

PHC project). Responsibility of AID officers in both Washington and Islamabad needs to be clarified.

In summary, it is recommended that AID continue its Matching Grant to SAWSO (preferably with five instead of three year funding), and that SAWSO and SA-Pakistan continue building on the promising beginning made in this project. But it is also recommended that the CPHC, if expanded at all, should be expanded gradually and cautiously while the problems identified in this evaluation are being solved. Both SAWSO and AID should be satisfied that approaches used in the current sites are effective in achieving project objectives (which have recently been revised) and are low enough in cost to be replicable. Eventually, if results can be documented, the Comprehensive Primary Health Care Project can be a model for expanded governmental (as well as Salvation Army) health services.

II. BACKGROUND

A. Description of this Evaluation

In February, 1984 the evaluators met at the Salvation Army World Service Office (SAWSO) office in Washington, D.C. with SAWSO's professional staff for a briefing on SAWSO in general and the Pakistan program in particular. They subsequently spent 15 days in Pakistan visiting the Territorial Headquarters of the Salvation Army (SA) in Lahore and most of the outreach areas in the Comprehensive Primary Health Care Project (CPHC). They had brief meetings with the U. S. Agency for International Development Mission (USAID) in Islamabad, and Government of Pakistan (GOP) officials in Lahore (see itinerary, Appendix A).

The evaluators were accompanied throughout the visit by the SAWSO Project Officer for South Asia, Doug Hill, and were assisted by Sister Sue Allibone, the Salvation Army-Pakistan Consultant for Field Health Training and Technical Assistance, and the six Nurses-in-Charge of the six dispensaries which will be fielding outreach program areas by the end of 1984. Four of the dispensaries were operating outreach programs at the time of the visits. Visits were very well planned and all requests for data were fulfilled quickly and accurately. The team also visited the SAWSO-funded Afghan refugee camp in the NWFP (not part of the CPHC), and one team member spent several days visiting Seventh-Day Adventist primary health care programs in the Farooqabad area and the Agha Kahn Foundation MCH outreach work in Hunza. Both of these have had activities comparable to those of The SA-Pakistan's CPHC.

The Territorial Headquarters Staff (THQ) provided detailed data to the evaluators on clinic and outreach activities, outputs, and costs. All of the facts and many of the opinions contained in this report originated directly from The SA-Pakistan and SAWSO staff who were involved in the visit. All SA staff contacted proved themselves unusually committed to improving their program through thorough, frank examination of its strengths and weaknesses. The evaluation team interviewed many of the SA-Pakistan staff and learned their views of the difficulties they face day-to-day. In a debriefing on the last day of the evaluation, the evaluators presented a summary of conclusions and recommendations to the THQ staff and four of the Nurses-in-Charge for discussion. (Many of the ideas generated at that time were acted upon soon afterwards, before this report was completed).

B. The Salvation Army World Service Office (SAWSO)

Since 1865 The Salvation Army has been one of the world's most respected charities, internationally committed to helping the poor improve their own lives through such programs as vocational training, increased productivity, and health care. The SA has over 100 years experience in developing countries and currently operates in more than 50 of them.

SAWSO, incorporated in Washington, D.C. in 1976, was founded by The SA to assist in its campaign "to establish self-help programs that attack the underlying causes of poverty in less developed nations"¹ by raising private and public funds, reporting on activities and expenditures, and by using The SA's worldwide network to create and expand development projects, institutionalizing the development process by:

- training staff, especially indigenous leaders;
- improving existing projects and replicating successful ones;
- promoting collaboration between The SA, other PVOs, governments, and local and international donor agencies.

The statement of SAWSO's purposes, goals, and objectives, and a list of "Development Criteria for Establishing Program Priorities" are in Appendix B.

SAWSO's staff in Washington includes four Project Officers responsible for Latin America and the Caribbean, Africa, South Asia and Italy, and the Far East and the Pacific. All Project Officers have substantive field and home office experience in design, management, and evaluation of development programs. In keeping with the multi-sectoral, interdisciplinary nature of most SAWSO country programs, Project Officers are carefully selected for their broad development experience; none is a specialist in public health, but all four have had administrative responsibility for field programs integrating health activities.

The development of SAWSO offers valuable insight into the evolution of a major Private Voluntary Organization (PVO) from a charity to a development agency. Initially a Development Program Grant (DPG) awarded by AID to SAWSO from 1978 to 1981 expanded SAWSO's capabilities in project planning, budgeting and monitoring and in providing training and technical assistance to SA's projects throughout the Third World. With a total of nearly \$8 million in various AID grants in 1983, SAWSO provides technical assistance in project design and evaluation to The SA in Pakistan and a dozen other developing countries. SAWSO assisted The SA in Pakistan to prepare funding requests to AID and other donors. SAWSO has assisted The SA to move beyond immediate remedies that relieve poverty's symptoms to longer-term, self-help efforts that attack poverty's underlying causes. A review of the DPG in 1979 found that:

The initiative for development projects in The SA comes from the grass roots, not the top, and the [DPG] stimulated ideas at the grass roots worldwide. All are now eager for "a piece of the action." SAWSO has experienced no difficulty in initiating change, but in containing it within manageable boundaries.²

In principle, SAWSO emphasizes local responsibility for project development. Because The SA operates as an indigenous organization in each of the developing countries where it has a presence, SA projects reflect the cultures and the needs of local societies. In almost any country or "territory", at least one of the two top SA leaders is indigenous. With respect to project planning The SA and SAWSO have no master plan imposed from the top; initiative comes from the bottom, with the local SA working in partnership with the host government and project beneficiaries. SAWSO encourages self evaluation to be built into all project designs, and, in addition, plans its own project evaluations separate from (but supporting) the self monitoring effort of local project managers.³

C. The SAWSO Matching Grant

As the DPG reached most of its objectives successfully, a matching grant proposal was developed and submitted to AID in July, 1980, seeking funding to build on that developmental experience. Pakistan was one of the developing countries designated for a sub-project under the proposed grant. Details of the proposal are provided in Appendix C.

D. The Project Environment in Pakistan⁴

Bounded by Iran to the West, Afghanistan and China to the North and India to the East, Pakistan occupies a strategic geographic position (see Map, Appendix D). Since the start of its current government in 1977, Pakistan has had relative political stability under the military junta of its President, General Zia, who sharply curtailed all political parties and activities. Pakistan has had steady economic growth during this same period, with GDP growth averaging over 6% and industrial growth about 9% annually. Agricultural growth, slower than industrial growth, has also been substantial. Pakistan is the size of California, about 800,000 sq. km.; its terrain varies from the Himalayas in the north and west to the arid plateau in the southwest and the wide plains of the Indus River in the east and south. Pakistan's four provinces are administered by governors appointed by the President (Punjab, Northwest Frontier, Sind and Baluchistan).

Pakistan is the world's seventh most populated nation, with population estimates varying from 86 to 96 million.⁵ Pakistan is overwhelmingly Muslim; Islam, mostly the Sunni branch, is the official religion of 98% of Pakistanis. (Christians and Hindus number less than two million). Urdu, the official language, is widely spoken but native to less than a tenth of the population. English is common in government and business and among the educated. Linguistic and racial differences divide Pakistan: Punjabis, the largest group, control the economy and government; other major groups are the Sindhis in Sind, Baluchis in Baluchistan, and Pathans in the Northwest.

Despite GDP growth, Pakistan is among the least developed nations. Despite a per capita annual income average around \$350,⁶ (\$100 higher than India's) Pakistan's social infrastructure is, according to AID

"grossly inadequate. Repeated sector analyses...have found that primary schooling, basic health services, clean drinking water, basic sewerage, and special maternal/child health programs reach very few among the poorest 40% of Pakistan's population.... 'Free' or 'nearly free' health and educational services have been emphasized as a means to reduce the social service gap between the poorest 40% and the wealthiest 20%; these 'free' services only succeeded in transferring even larger shares of public welfare to the better off. The poor simply have not had effective access to these programs."⁷

For example, Pakistan's literacy rate is only 25%, and less than half of primary school age children are in schools. Only 5% of rural women are literate.⁸

E. Health Issues

The major health issues in Pakistan are related to (1) inadequate health manpower, facilities, and services, particularly in rural areas; (2) poverty; (3) illiteracy; (4) a high rate of population growth; (5) high infant and maternal mortality rates; (6) a high incidence of disease particularly infectious and parasitic diseases such as gastro-enteritis and tuberculosis, and other respiratory diseases, and diarrheal and nutritional diseases. At greatest risk are children under five and mothers, and these constitute the major beneficiaries of the CPHC project. Pakistan has large numbers of physicians in urban areas, but serious shortages of health workers of all types in rural areas. Details of these health problems and Pakistan's approaches to dealing with them are found in Appendix E.

F. AID Policies and Strategies

AID has in recent years placed a high priority on Primary Health Care (PHC) projects, urging a focus on interventions which will most rapidly reduce the birth and death rates of the most vulnerable groups. Such interventions include family planning, oral rehydration therapy (ORT), vaccinations, the promotion of breast feeding, nutrition education, and malaria control. AID/Pakistan has developed major projects in response to this policy in the areas of PHC, malaria control, population welfare planning, and the social marketing of contraceptives. PVOs are actively involved in AID/Pakistan's population-related projects but little in other sectors. The Country Development Strategy Statement makes no mention of PVOs or PVO projects.

III. THE SAWSO MATCHING GRANT PROJECT IN PAKISTAN

A. The Project Development Process

The CPHC was developed in 1981 and 1982, during the first two years of SAWSO's Matching Grant, under the general coordination of The SA Development Department of the International Headquarters (IHQ) in London with technical assistance from SAWSO in Washington.

The Project evolved from The SA's dispensary based curative health program. Though The SA has operated hospitals in India and other parts of the subcontinent, The SA-Pakistan has always confined its health care program to a network of urban-based outpatient dispensaries, now numbering ten. In 1981 The SA-Pakistan decided to expand its dispensary programs to include major preventive health outreach to unserved rural areas. (A SA-Pakistan statement on this medical policy is attached as Appendix F).

The project, approved by IHQ and proposed by SAWSO to AID, was to be subcontracted to an indigenous organization, the Salvation Army of Pakistan, which had 200 active officers. These officers are career SA personnel who have had two years social service and pastoral training in SA officer training schools. In addition there are in Pakistan over 170 paid non-SA staff, a few of whom are Muslims. The SA-Pakistan operates 350 corps community centers, two schools, four hostels, and two children's homes, in addition to its ten dispensaries. The SA also provides health and sanitation services for 45,000 Afghan refugees in the Northwest Frontier Province (with support from the U.S. Bureau for Refugee Programs) and provides various services throughout Pakistan funded by the Canadian International Development Agency. The SA-Pakistan has also received about \$500,000 annually from the International Salvation Army. The detailed planning of the CPHC in Pakistan was done in 1981 and 1982 at the request of the then Territorial Commander (Commissioner Holland) by The SA-Pakistan staff with significant assistance from SAWSO.⁹

B. Goals, Objectives, and Strategies

The original goal or purpose of the CPHC project in 1982-84 was:

To decrease the incidence of maternal and infant mortality, dysentery, TB, and communicable diseases among 100,000 rural poor in Pakistan over three years.¹⁴

In the new Matching Grant (1984-86) the goal of the CPHC has been revised:

To improve the health and quality of life of the poorest of the poor targeting infants, children under five, and pregnant women living in rural villages and semi-urban slums (bustees).

The objectives of the project evolved during 1982 and 1983. The original and revised objectives for the 1981-84 project period at each targeted outreach area are as follows:

<u>Initial Objectives</u> (Aug. 1982)	<u>Revised Objectives</u> (March, 1983)
1. Provide ante-natal care to 20% of the pregnant women	1. Provide ante-natal and postnatal care, including family planning advice to 25% of those women selected
2. Immunize a minimum of 80% of the children under five	2. Immunize a minimum of 60% of children under five
3. Reduce infant mortality by 15% within three years	3. (No Change)
4. Treat a minimum of 25% of those afflicted with TB	4. Screen, treat, and do "follow-up" of 25% of those families afflicted with TB
5. Increase the preventive health knowledge, data collection, reporting and evaluation skills of a minimum of 25 Salvation Army health and social workers from all Salvation Army health and social service operations	5. (No Change)
6. To provide for the treatment and assistance toward self-support of a minimum of 100 handicapped children referred by the Salvation Army social services and to assess the incidence and cause of handicaps in the target areas	6. (Not listed as an objective in project documents after 1982, but continuously reported).

In June, 1984, following discussions with the evaluators, SAWSO approved new objectives, strategies, and targets for each of the three years (1984-86) in the renewed Matching Grant. These were as follows:

Objective #1: Reduce the infant mortality rate by 30%.

Strategies: Refer to strategy statements for objectives 2-9.

Targets at end of years 1, 2, 3: 10%, 20%, 30%.

Objective #2: Ensure treatment of 100% of cases of identified diarrheal diseases (an instance of diarrhea is defined as 4 episodes of loose stool within a 24 hour period).

Strategies:

- House to house screening for diarrhea cases.
- Train Village Health Workers (VHWS) and Environmental Health Workers (EHWS) to teach parents how to identify diarrheal diseases and to replace lost fluids through the preparation and use of home-made oral rehydration salts.

Targets at end of years 1, 2, 3: 100%, 100%, 100%.

Objective #3: Ensure the complete vaccination of 80% of all children under five (complete vaccination is defined as 1 dose of BCG, 3 doses of DPT, 1 dose of Measles and 3 doses of oral polio).

Strategies:

- Register all base dispensaries as Expanded Program of Immunization (EPI) Centers.
- Coordinate with GOP/WHO EPI efforts to establish either initial or mop-up vaccination programs in all outreach areas, as appropriate.
- Train at least 1 VHW in each outreach area as a vaccinator.
- House-to-house checking of vaccination records.
- EHWS and VHWS conduct small group discussions with men and women on importance of vaccinations.

Targets at end of years 1, 2, 3: 30%, 55%, 80%.

Objective #4: Reduce the number of second and third degree malnourished children under five by 30%.

Strategies:

- Maintain up-to-date "road to health" charts for all children through monthly weighing program.
- Provide regular nutrition education/food preparation classes for mothers of malnourished children.

Targets at end of years 1, 2, 3: 10%, 20%, 30%.

Objective #5: Provide treatment and follow-up on 25% of all identified pulmonary tuberculosis cases.

Strategies:

- House-to-house identification and drug treatment of TB cases.
- Screening and follow-up services for family members and other known contacts.

Targets at end of years 1, 2, 3: 15%, 20%, 25%.

Objective #6: Ensure ante-natal care for 30% of all pregnant women (ante-natal care is defined as at least 3 visits during the ante-natal period and, in addition to an initial hemoglobin estimation and 2 doses of tetanus toxoid, it includes urine, blood pressure and weight checks, abdominal palpation, and relevant advice on breast feeding, infant care, nutrition and family planning).

Strategies:

- Establish ante-natal clinics and/or home visitation program.
- Cooperate with local dais (midwives), training them in clean delivery practices and providing them with delivery kits that can be readily sterilized.

Targets at end of years 1, 2, 3: 10%, 20%, 30%.

Objective #7: Achieve a 15% rate of family spacing acceptors among women of child-bearing age (15-45 years).

Strategies:

- Train VHWS, EHWS and drivers to give family spacing advice.
- Ensure the availability of family spacing services in all outreach areas.

Targets at end of years 1, 2, 3: 5%, 10%, 15%.

Objective # 8: Ensure the availability of at least one public source of potable water.

Strategies:

- Promote the formation of village/bastee health committees (VHC) that will undertake self-help water/sanitation projects.
- Train EHWS to work with VHCs.
- Provide seed grants.

Targets at end of years 1, 2, 3: 0%, 0%, 100%. (i.e. 1 per each outreach area).

Objective # 9: Increase the literacy rate for women to 15% (literacy is defined as successful completion of levels I-IV of the basic adult literacy program which enables an individual to write name and address, construct simple sentences, and read simple health education tracts).

Strategy:

- Establish female literacy class patterned on the Gujranwala Adult Basic Education Society in all outreach areas.

Targets at end of years 1, 2, 3: 5%, 10%, 15%

Objective # 10: Ensure family application of preventive therapy in 100% of all cases of identified incipient physical handicaps resulting from poliomyelitis in children under five.

Strategy:

- ° Train VHWs to identify incipient physical handicaps and to teach families how to prevent contractures through massage therapy.

Targets at end of years 1, 2, 3: 100%, 100%, 100%.

In addition to the above, within three years the Comprehensive Primary Health Care Project will also:

Objective # 11: Expand the number of Salvation Army dispensaries offering primary health care outreach services by 250%.

Strategy:

- ° Replicate the PHC outreach methodology developed in pilot programs in Lahore, Faisalabad, Jhang and Khanewal at Salvation Army dispensaries located in Hyderabad, Qazipur, Thal, Orangi, Saddar and Azam Town.

Targets at end of years 1, 2, 3: 50%, 125%, 150%

Objective # 12: Achieve 100% Pakistani staffing in all dispensary and outreach programs from village health worker through nurse-in-charge levels.

Strategies:

- ° Recruit and train 39 Pakistanis to assume staff positions as VHWs (24), EHWS (9) and laboratory technicians (6).
- ° Upgrade the skills of 33 Pakistanis presently on dispensary and outreach staffs.
- ° Move 8 expatriate nurses-in-charge into training and advisory roles.

Targets at end of years 1, 2, 3: 90%, 90%, 100%

To implement these strategies, SA-Pakistan planned to follow the pattern of outpatient care established under the DPG. Plans were open and flexible, and would depend on the situation in each village. VHW teams would be trained and would visit each outreach village for several hours once or twice a week; village leaders would announce visits.

For a more detailed description of projects and strategies see Appendix G.

C. Inputs

The following funds (in U.S. dollars) were provided for the CPHP from August 15, 1982 to May 31, 1984:

	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>TOTAL</u>
AID	\$109,066	70,160	72,204	251,430
SAWSO	15,712	88,064	17,578	121,334
TOTAL	124,778	158,224	89,782	372,784

On a world wide basis, SAWSO's contribution in cash matches AID's contribution; in Pakistan, however, AID contributes about two-thirds of project funds, SAWSO one-third. In addition to its share of the costs of the CPHC project, SAWSO provides assistance and administrative support from its Washington office. The cost of such support to the SA-Pakistan under the Matching Grant including the refugee project from December 15, 1982 through May 31, 1984 was \$23,653.

Manpower inputs into the project can be considered to have begun with the advisors who helped in the early stages of its design, including the SA Medical Advisor, Dr. Sidney Gauntlett at IHQ. The major long term consultants and staff on the project, once it was under way, were Thomas McClure, who left SAWSO/Washington's employ in 1981 to become the SA-Pakistan's Administrator for Afghan Refugee Health Services and later became the part-time consultant for Project Planning, Implementation, Evaluation, and Training; and Sister Sue Allibone, who became Project Coordinator in October, 1982, and has served as consultant for Field Training and Technical Assistance since mid-1984. One of the four Nurses-in-Charge, a Canadian with over 20 years experience in developing countries, was recruited for the project. Three others were already at their posts, including two expatriates, one Finnish nurse who has worked in Khanewal area for over 17 years, and one British nurse, a young officer on a two year contract. The fourth Nurse-in-Charge was the only Pakistani supervisory staff person in the CPHC during its first two years (and the only one of the four Nurses-in-Charge who was not a Salvation Army Officer).

Other consultants, trainers and evaluators who provided inputs to the project during the first two years included advisors in TB treatment, EPI, infant mortality, survey design, adult literacy, rehabilitation of the handicapped, and others.

Additional full time, continuous manpower input has been the work of the 15 Pakistani women designated as Village Health Workers and the Pakistani men designated as Village Environmental Health Workers. The outreach teams (the Nurses-in-Charge and the health and sanitation workers) are supported by the lab technicians, drivers, and other dispensary support staff as well as the professional advisors and administrators previously mentioned from THQ, IHQ and Washington, most of whom were interviewed by the evaluators (see Appendix H).

Material inputs to the project include standard supplies and equipment for outreach work including portable vaccine containers, infant scales, all basic medications and contraceptives, and razor blades, cord ties and cotton wool for the dais (traditional midwives). Two new laboratories were established and equipped and one laboratory was upgraded under the Matching Grant to handle the increased demand for laboratory tests. Training materials were obtained (flannel graphs, the book Where There Is No Doctor in Urdu, health education booklets, Medex training materials). One vehicle was purchased.

D. Summary of Activities

All strategies were implemented during the period being evaluated. An organizational structure for the management of the CPHC project was set up (for its most recent revision, see Appendix I). Staff were recruited from overseas and in Pakistan to manage the project and train VHWs. Recruiting, selecting, training and orienting over 20 VHWs was undertaken, largely under the supervision of the four Nurses-in-Charge and the Project Coordinator. Ten outreach areas were selected consisting of poor, unserved, rural villages (one of them peri-urban) with a total population over 25,000. These villages had received no government health services except a few visits by government EPI teams. Two additional villages which had initially been selected were dropped in the early months of implementation because of difficulties (discussed below) with project staffing or local participation.

Most outreach areas had preliminary baseline surveys performed by March 1984 to determine total population, population under five and under age one, the number under age five who were immunized (usually not defined clearly), and the numbers of people who were literate (also not defined). Four surveys were done either before outreach had begun or during the first few months. The surveys are summarized in Appendix J. Survey questions and information gleaned often differed from village to village.¹⁰

Implementation of most outreach strategies had begun in only seven of the ten outreach villages during the 20 month period. (The three villages not generally covered were in Jhang.) In two of three villages, actual services had begun only recently. The basic primary health care interventions combined curative services, general health and nutrition education, ante-natal care, treatment for undernourished babies, TB screening and follow-up, family planning, and some rudimentary environmental sanitation improvements. Literacy programs were implemented in eight of the ten outreach areas, with over 300 students completing their first year (the standard for literacy recognised by Pakistan's Adult Basic Education Society). One pilot program for the rehabilitation of handicapped children and youth was implemented in the Peshawar area; it was not related to the four outreach programs in the Punjab. These outputs are analysed

IV. ANALYSIS OF RESULTS

A. Outputs by Component

1. General Trends

To determine the outputs of the project, the standard measurements of whether the project is reaching its objectives, regular reports from outreach villages must be compared to baseline data. Both the reports and the baseline must be reasonably accurate and complete to draw conclusions about the project. In a pilot project like this, with less than two years of operational experience, there are the usual omissions and inaccuracies in reporting which make it necessary to look more at general trends and patterns than at detailed statistics. Despite this limitation, the CPHC output data analyzed by the evaluators for each type of outreach activity do indicate some of the strengths and weaknesses which have emerged during the first stage of this project. For this analysis the evaluators studied reports of outreach services provided during 1983; services for 1984 have undoubtedly improved and increased in number. A table summarizing 1983 services is in Appendix J.

Major differences in outputs were reported in 1983 between the four outreach areas. Jhang dispensary, with three outreach areas including a population of about 6,000, reported outreach visits in only five of twelve months, with negligible results reported. Jhang's Nurse-in-Charge was also responsible for a girl's hostel at the SA compound in Jhang and was unable to devote as much time to outreach work; moreover, transport to the outreach areas, one of them 38 miles from Jhang, was by a costly rental vehicle which was not always available. For this analysis, therefore, only services provided in the seven active outreach areas, excluding the three Jhang areas, will be considered.¹¹

Even in the seven active areas, the reported numbers of outreach services varied widely in 1983. In Khanewal, for example, five outreach workers provided services for nearly 14,000 people while the four outreach workers in Faisalabad provided the same services to less than 2000 people. Assuming that an average of two work days per week was spent on outreach activities, reports indicate that the Khanewal team provided an average of well over 20 services per worker per day, the Lahore team about 14, and the Faisalabad team fewer than five. The Khanewal outreach team assisted over 180 "undernourished" children (not defined), while the Faisalabad and Lahore teams assisted fewer than 30 each.

Generally low output levels in Faisalabad may have resulted from three factors: first, the population of its two outreach areas is less than half that of Khanewal and Lahore; second, the Nurse-in-Charge decided to focus primarily on curative work at the base dispensary and did not believe the outreach activities

should have as high a priority. Third, the Khanewal and Lahore outreach teams were larger than the team in Faisalabad. Therefore, the number of outreach services provided by the four outreach workers to the 3,200 people in the Faisalabad outreach areas averaged less than half the number of services provided at the base dispensary. At Khanewal and Lahore, by contrast, many more services were provided by the outreach teams (numbering five and six members respectively) than at the base dispensaries.

Traveling time was consistently mentioned as a major obstacle to providing outreach services, but the 1983 data seem to show that the distance from the base dispensary to the outreach area did not significantly affect outputs. There is no question that transport of staff is expensive and a serious problem for the project, but it ranks among several problems which must be overcome for the program to be widely replicated.

Another trend apparent from the 1983 data was the tendency of outreach teams to provide services in village meeting places, not in home visits. While some monthly reports show home visits, those which did show very few. This may explain why some of the most difficult cases (such as adult "no-shows" from ante-natal, TB, or family planning programs) did not seem to be followed up, because VHVs simply waited for them to reappear at public clinics. This may also explain why few women seek ante-natal care and few couples seek family planning services: both services might be seen by potential acceptors to require personal, confidential counselling unlikely in crowded public clinics or small group discussions. Mothers of malnourished children may also feel some embarrassment appearing in a public setting, particularly in families respecting strict purdah traditions which isolate women.

Again, it is clear that the data collected in 1983 was not complete and cannot be relied on with confidence to draw final conclusions about the quality of the CPHC, particularly because outputs have probably increased steadily since then. But the data do allow speculation. The numbers of services provided during the twelve-month sample period may indicate some potential problems which can be guarded against in future and which relate specifically to each type of service, as follows.

2. Maternity Services

According to the 1983 records, relatively few pregnant women utilized ante-natal services in the four base dispensaries. At the dispensaries only Faisalabad averaged more than 40 ante-natal visits per month, or two per work day. Khanewal reported about 20 per month (one per day), while Lahore reported only seven ante-natal visits per month on average, respectively, and Jhang only one per month. The outreach teams provided practically no ante-natal care, according to 1983 reports: although over 600 women were likely to have been pregnant during the year, only 46 women were reported to have received ante-natal care in

all outreach areas. Even Khanewal, the most active in this service, provided for only 40 women out of an expected 180 to 200. These results are poor considering that ante-natal care is the first of the program's objectives and should not be as difficult to provide as some other services. Several explanations are possible for this low attendance (even assuming that the 1983 reports contains some inaccuracies). In some outreach areas with predominantly Moslem populations there has been resistance to Christians providing health services.¹² Also, there have been some indications that the VHWs, generally young women from the city, none of whom lives in the outreach villages, are not fully trusted and accepted as experienced in maternity care by village women. Of the 15 VHWs working in the CPHC in April, 1984, half had almost no training in health; five were dais, and two were registered midwives. Therefore, the local dais, older married women with children who have lived in the villages and delivered many local children, continue to do nearly all deliveries under the CPHC (except the few reported to hospitals.) Understandably, village women who have relied on those local dais are slow to accept advice from newcomers from outside, even from the CPHC dais.

Some women, as mentioned previously, may object to the public exposure of group ante-natal discussions. Others may not be able or willing to pay the Rs 5-10 per pregnancy. Nevertheless, they are still seen. None are turned away. Attendance at clinics was erratic; even some women who paid the fee did not attend some of the clinics scheduled. Finally, it is also possible in larger areas that many families have not been informed of the services provided by The SA; some village leaders do not appear to cooperate fully in publicizing the teams' visits. Also, identification of pregnant women in baseline surveys was incomplete, and priority was apparently not given by VHWs to home visits to homes of those identified as pregnant.

3. Family Spacing

The CPHC strategy is to offer voluntary family spacing information and services as an integral part of ante-natal or post-natal care. While the SA has no formal policy on family spacing, it considers voluntary spacing and limiting pregnancies to be an important part of maternal and child health care. In the CPHC, however, before June 1984, there was no specific output targeted for the number of women who would accept family spacing in each area. The CPHC allowed each of the Nurses-in-Charge to decide independently whether to stress family spacing in each outreach area. Just as only a small proportion of women accepted ante-natal services, even fewer women accepted family spacing (only 35 acceptors were reported for all four areas in 1983).

Because of the independence allowed each area to determine its own strategies, the level of family spacing acceptance varied widely from area to area. In both Khanewal and Lahore outreach, areas with similar sized populations, about half the number accepting ante-natal services accepted family spacing: in 1983 there were 21 acceptors reported in Khanewal but only three in Lahore. In Faisalabad outreach, with a population half the size of Khanewal, there were half as many acceptors (11). In Jhang outreach, no acceptors were reported. The four areas may have produced different outputs because of their different strategies, because of differing levels of commitment to reporting or because of the limited availability of certain contraceptives.

In Khanewal, base for the outreach areas reporting the most acceptors, all acceptors chose voluntary sterilization. This is because the Nurse-in-Charge there believes strongly in sterilization for women who have completed child-bearing, and apparently supports tubal ligation exclusively. She opposes contraception for both cultural and health reasons. In one outreach area (Shantinagar), a village of 7,000, where she had worked for 13 years before taking charge of the Khanewal dispensary, she has recruited 125 women over the years for tubal ligation; she takes five women at a time in her car to the nearest hospital (Multan) for the surgery and brings them back. This level of acceptance, unusually high for a single village, undoubtedly results not only from this highly qualified expatriate nurse's singular personal commitment to recruiting and assisting women desiring an end to child-bearing, but also from her respected position in the village where she has lived for so long, from the proximity of good surgical care, from free transport, and from the government stipend of Rs 20 to each woman sterilized.

In contrast, most of the 11 women in Faisalabad outreach using family spacing services appear to have chosen Depo-Provera, the three month injectable contraceptive favored by the Nurse-in-Charge. Depo-Provera is also the preferred contraceptive among the more than 300 women who received family planning services directly from the Faisalabad base dispensary. Providing protection for three months, the injection method provides no indication to others--including husbands--that the woman will not conceive and requires no planning; it costs at least Rs 50 from the bazaar but when obtained through the Family Planning Association of Pakistan (FPAP) a nominal charge of Rs. 1 is made. Again the key determinants of this relatively high acceptance of one type of family planning service are the personal commitment of the Nurse-in-Charge to that method, and ease of availability. In both the Lahore and the Jhang outreach villages (as well as at the two base dispensaries), the Nurses-in-Charge did not encourage any family planning; neither considered it an important part of maternal health. Therefore, the Lahore dispensary reported only four users in 1983 (including three in outreach villages) and Jhang dispensary reported no acceptors in either the dispensary or in outreach.

The level of commitment of the Nurses-in-Charge and the outreach teams to family spacing only partly explains usage levels; the supply of contraceptives is also important. All Nurses-in-Charge complained that chronic shortages of supplies occur; no dispensaries had adequate supplies of contraceptives. In particular the evaluators found an acute scarcity of condoms and oral contraceptives. None of the base dispensaries provide intrauterine devices. Several dispensaries rely on FPAP for contraceptive supplies, but they claim that the FPAP often runs short of supplies. None of the dispensaries use the local government family planning agency (District Family Welfare Offices) for supplies. The FPAP headquarters in Lahore say that they do have adequate supplies; all they require from the SA is a record of distribution which is given when supplies are from the Family Planning Association of Pakistan. FPAP often require a member of the clinic team to undergo a week's training before they give supplies.

4. Vaccination

Most of the vaccination outputs of the CPHP could not be measured in this evaluation, neither in terms of the frequency of vaccination clinics held in outreach areas nor in terms of numbers of children effectively immunized. Such data had been reported by SA teams to the GOP Expanded Program of Immunization (EPI) but was not available to the evaluators. The sole records available for 1983 were from the Lahore dispensary, which put a major emphasis on vaccination in outreach villages: it reported over 1,300 vaccinations in outreach plus 100 at the dispensary. Faisalabad, with a population less than half that of Lahore, reported a total of fewer than 1,200 vaccinations. (These figures apparently refer to individual inoculations given, not children fully immunized.)

In some villages the GOP handles vaccinations in or near the village so the CPHC is not very active. However, a major factor limiting vaccinations in some CPHC outreach programs was the nature of the relationship between the SA and the Pakistan Government's expanded immunization program (EPI). Only in Lahore and Faisalabad has a good working relationship been developed with local EPI officers permitting SA personnel to give vaccinations in project villages. Elsewhere, vaccination is confined to base clinics, and everywhere staff complained of shortages of vaccines, making it impossible to carry on a continuing immunization program for all target diseases. SA project personnel complained about uncooperativeness of district EPI officials in supporting SA immunization efforts and unwillingness or inability to provide the vaccines on a consistent basis.

Conversations with Punjab State EPI officers indicated that they welcome help from village level workers in SA project areas to see that missed or absent children are identified for make-up inoculations and "mop-up" operations, but the military

nature of the campaign precludes giving SA personnel authority to actually give the vaccinations in the project villages. The EPI authorities are willing to share information on their registers with project staff, but will not give them copies. They denied shortages of vaccines and affirmed availability of all vaccines to base clinics in the SA project.

In both Hyderabad (where outreach under the Matching Grant began after the evaluation visit) and Faisalabad, SA workers reported good cooperation with the district EPI program and good supplies of vaccines for the base clinics. In Shantinagar, an outreach area of Khanewal, and in Jhang the SA found that in 1984 district EPI staff did not wish to provide supplies of vaccines, even to the base clinics. (The best situation was found in the SA refugee camp operations near Peshawar, where an EPI vaccinator was assigned full-time to the SA program to do the vaccinations, keep the records, and make the regular reports). Relationships with EPI depends to some extent on the local District Health Officer. Some are extremely cooperative and helpful, there are not.

5. TB Screening, Treatment, and Follow-up

Among the services most frequently provided to adults in the CPHC base dispensaries are TB screening, treatment, and follow-up. In 1983 about twice as many TB treatments (of individuals and/or families) were provided by the dispensaries as ante-natal services. In the three outreach areas (excluding Jhang, which reported none), about 360 TB treatments were reported. Assuming that approximately 25% of the Pakistani population suffers from TB, over 6,000 patients in the outreach population should be receiving regular treatment; outputs reported were therefore much less than might be expected. However, The SA-Pakistan does not have adequate funds for purchasing drugs for TB patients; funds raised by fees from patients or donations to the Dispensaries are far below the level required.

6. Well-Baby and Under-Five Clinics

Infants and children under age five are the population most at risk. In half the outreach villages they were reported most likely to receive CPHC services. The best example was in Khanewal, where over 600 children per month, on average, attended the well-baby or under-five clinics that are held once or twice a week. This is equal to half the number of children under five in the Khanewal outreach areas. In the other areas, reports for 1983 were disappointing. In Lahore the average attendance was 55, only 5% of the number of children under five. Faisalabad, reported only 23 "undernourished babies" and three "under-fives" receiving services in 1983, while Jhang reported none. In Khanewal, and to a lesser extent in Lahore, these

levels of activity are encouraging, for they are the project outputs most likely to lead toward lower infant mortality.

Unfortunately the project did not report the number (or weight for age) of children participating in each outreach village, only the number of services. Thus it is not clear from the 1983 data how often each child attended a clinic, whether the number of children attending under-five clinics in Khanewal and Lahore indicate high levels of malnutrition, or whether instead better nourished children less in need of nutrition services are also participating simply to get free food.

Therefore it is not possible to draw conclusions about the effectiveness of under-five nutrition programs. About 1,200 children under five live in the two Khanewal outreach areas, according to the baseline survey of December, 1982. Assuming that half the children in the average Pakistani village suffer some degree of malnutrition, then 600 children should have attended these weekly clinics in those areas; in that case, over 30,000 "services" would have been reported in 1983. Instead, only about 7,000 services were provided in the under-five clinics. It appears that about half the malnourished children (300) attended the clinics twice monthly; thus, 600 services are reported on the average.

Over 200 "undernourished babies" services were provided in 1983 in all three active outreach areas, where about 500 infants under one year were living. If half those infants (250) attended monthly clinics, 3,000 services would have been reported. Thus, too few infants were reported to be receiving services. In any case, no conclusion can be reached without collecting weight-for-age data over time. Reports of the numbers of services delivered will not demonstrate impact on malnutrition.

7. Curative Care

The Nurse-in-Charge of each base dispensary visits each outreach area at least one afternoon each week. She is accompanied by an assistant and a driver, and uses the dispensary vehicle. Satisfying the high demand for curative care in all villages is essential to the success of preventive services, and each Nurse-in-Charge has much of that responsibility. "Laboratory tests" are reported frequently, primarily for diagnosis of TB, and many people are reported "referred for hospital" each month (referral reports do not separate outreach areas from base dispensaries). CPHC staff agree that providing diagnoses of illness, first aid, hospital referrals, and laboratory tests is necessary to interest villagers in health education, ante-natal, well-baby, vaccination, and other preventive services. For example, the level of interest and output in curative services is consistently far higher than in sanitation services.

8. Sanitation

Concern about sanitation and polluted water had been raised in the outreach areas. After October, 1983, Environmental Health Workers (EHWs) were selected to organize village sanitation projects. But few written records have been kept of sanitation improvements in outreach villages since then, and in most villages inspected by the evaluators little or no sanitation work was evident. In a few villages no sanitation worker had been appointed. Some standing water had apparently been eliminated and some villages may have begun to dig simple drainage ditches, but most village sanitation projects were still in the planning stage. The one notable exception was the village of Shantinagar where eleven drainage culverts are under construction. All labor and half of the cost of construction materials have been donated by the community. An SA seed grant covers the other half of the material costs.

The village committees concerned with the CPHC, made up of male leaders, had frequently discussed the need to improve water and solid waste disposal and water supplies; this may have been a result of an increased awareness created partly by the CPHC health education activities. But volunteer labor, technical expertise, and materials are required in the villages before such improvements as drainage ditches, garbage dumps, latrines, or water supplies can be both built and maintained by villagers. The CPHC's recently appointed EHWs did not seem to have adequate knowledge, technical training, experience or community support to initiate such improvements and make them lasting ones.

9. Female Literacy

A major cause of poor maternal and child health, and ignorance about nutrition, hygiene, and sanitation, is female illiteracy. In an innovative attempt to increase literacy, health knowledge, and healthy behaviors in young women, literacy classes were organized in eight of the ten outreach villages. Twenty-seven teachers, supervised by three administrators (including one expatriate) had instructed over 600 students as of March, 1984; over 300 of them had completed their first year, the recognized national standard for literacy, and are being replaced by new students.

The evaluators found these classes well attended by very enthusiastic youth. Unfortunately, during the first year about 27% of the students, nearly all young women aged 10-20, have dropped out, 25% during the first six months. This occurs normally in literacy courses in Pakistan, and results from the students losing interest, moving, or having objections raised by their husbands (who must approve their participation).

Another problem noted at the time of the evaluation was that very few of the booklets used to practice reading in the more advanced literacy classes were health-related. Most of them were for simple reading and writing practice, arithmetic, and the geography and history of Pakistan. The few health-related readings covered such topics as keeping a clean home, personal hygiene, simple child care and home remedies, home budgeting, and home gardening, but they did not receive special emphasis in these classes as they should. The health-related readings did not mention many of the CPHC's major health issues (ante-natal care, family planning, immunization, TB, or oral rehydration), and the students were not tested at any time for health knowledge or behavior. The classes were lacking any special emphasis on health and had no methods for measuring effects on health.

However, The SA-Pakistan has reported that it has rectified these deficiencies in recent months by increasing the emphasis on health readings and availability of health booklets. Influential women in CPHC areas are given sets of health booklets so that they can pass on information to women in newly formed literacy classes. To test student's health knowledge, health-related questions are now incorporated in 3rd and 4th grade tests. Project staff report observing improvements in the cleanliness of homes and compounds of students, in the numbers of students' children immunized, etc.

10. Handicapped Rehabilitation

No rehabilitation activities have been undertaken at the four base dispensaries under the Matching Grant. However, from August 1982 to February 1984, a small portion (about \$5,600) of CPHC funds were spent on a rehabilitation program for handicapped children in the Peshawar area. During that time nearly 100 handicapped children were assessed and screened; about 20 were selected for a program of regular physical therapy and prosthetic aids at an SA dispensary in Peshawar, and another 15 received assistance weekly at outlying dispensaries near the city.

The program is located in Peshawar to take advantage of the skills of an expatriate Salvation Army Officer, Captain Irene Ogilvie, a trained physiotherapist, who is the founder and enthusiastic force behind the program. She runs the therapy activities in the dispensary once a week, spends two days a week in outlying clinics and one day in home visitations to instruct mothers in preventive therapy and to do further screening. Her three major concerns are (1) to teach mothers of infants with potential handicaps (80% from polio, some from meningitis and other diseases) how to prevent disabilities through exercises and massage; (2) to help children with moderate handicaps--"those needing minor surgery, leg braces, calipers,

and in some cases an artificial limb;" and (3) to demonstrate low cost, appropriate technologies for rehabilitation using locally available, simple prosthetic devices and methods.

The GOP and several non-government organizations in Peshawar and elsewhere have had a variety of residential and non-residential rehabilitation programs for the handicapped, but some are under-funded, lack prosthetic equipment, and, as a group, fall far-short of satisfying demand. In addition to providing limited rehabilitation services and demonstrating low cost methods. The SA-Pakistan sought to assess the public and private resources available for rehabilitation in Pakistan so that it can enable the handicapped to use those services in the future.

B. Impact

It is not possible to estimate objectively the impact of the CPHC in the outreach areas because of the limitations of project information. In order to measure impact in terms of meeting project objectives, it is necessary to know the health conditions which existed in the outreach villages before the program began; however, many of those conditions were not recorded in the CPHC baseline surveys from 1982 to 1984. For example, the surveys did not show the numbers of:

- total population in some areas;
- pregnant women; maternal deaths
- women receiving ante-natal, post-natal, and family planning services;
- underweight-for-age children
- children fully immunized
- TB patients being treated, screened, diagnosed and cured;
- births, infant deaths, and deaths under-five;
- existing knowledge and skills of selected SA staff.

The reported outputs of the project do provide an intermediate indicator of its impact by illustrating the type and frequency of activities and the numbers of beneficiaries. For example, it appears that in one of the four outreach areas (Jhang) there was a negligible impact in 1982 and 1983; few children received services and few outputs are recorded. In the Faisalabad outreach program, where the target population is a third to a half that of the other areas, there were also few outputs reported and impact would appear to have been minor. In Khanewal and Lahore, however, thousands of childrens' services and hundreds of TB services were provided which seem to indicate a significant impact in the five outreach villages in those two areas. As a follow-up to this evaluation, a new survey form was developed by the SAWSO Project Officer in conjunction with local staff which will indicate impact more reliably; this form is shown in Appendix Q.

C. Planning and Design

Since its inception, the basic concept behind the CPHC has been to reach out from the urban dispensary to underserved villages to provide vital primary health services including ante-natal and TB care, family planning, immunization and nutrition. This concept is understood and generally accepted by the local SA staff. Many senior officers of The SA-Pakistan, health staff in particular, have been committed to the goal of preventing disease by bringing PHC to the people who need it most, in their villages, even into their homes. This basic plan and the staff's commitment to it is impressive and serves as a model for other health-sector PVOs which face the challenge of converting from curative hospital-based medical services to village-based educational and preventive services.

The design of the project was all the more significant because it evolved from the needs of The SA-Pakistan and the people it serves, not from the need to satisfy donor requirements. It has faced squarely the limitations of its clinically-trained staff and seeks to learn skills in PHC. The SA's primary concern is for those most at risk and for those whose lives can be saved most efficiently--infants and children under five, pregnant women, and TB sufferers.

Despite these attributes, it appears that several aspects of the CPHC plan were not adequately thought out or tested during the project's first year and a half. One important reason for this is that during the first half of the project The SA-Pakistan was unaware of SAWSO's requirements and had no guidelines to follow. Most of these design problems are now understood by the CPHC staff and are likely to be remedied in the next MG period (beginning June, 1984). But they illustrate important issues which affect many PVOs and are discussed below even though the SA staff is currently correcting most of them. The most important problems in design include the unclear nature of the project's initial objectives; inadequate baseline data; its lack of criteria for village and VHW selection; inadequate staff training and job descriptions; lack of plans for community participation; lack of plans or experiments to test methods for increasing community financing; and the lack of involvement of host country nationals in planning and monitoring.

1. Project Objectives

A major planning difficulty in PHC planning, for staff, donors, and outside evaluators alike, is the clear definition of the most important yet achievable and measurable objectives. Neither the objectives of the CPHC nor the project's strategies for achieving them were sufficiently clear at the outset. Although SAWSO policy under the MG is to support projects with "measurable objectives, attainable within a specific time with the identified resources", the original project objectives and their first

modification in 1983 were, for the most part, imprecise, did not take into account the health conditions before project activities started, and confused means with ends. Some project activities (e.g., literacy, sanitation) had no corresponding project objectives. New objectives and related strategies, suggested by the evaluators and refined by the SAWSO Project Officer in conjunction with local staff subsequent to the evaluation team's departure, are likely to prove more useful to the health workers as they attempt to prioritize activities and assess their effects.

2. Village Selection Criteria

Village selection appeared to be unsystematic; no clear criteria were set up to determine which village characteristics were important in this pilot project (except that villages had to be less than 40 miles from the base dispensary). Villages might have been selected, for example, either to ensure success or to test different characteristics to determine their importance. Positive attitudes of village leaders and organizations, a willingness among adult males to work voluntarily on sanitation or contribute money toward a clean water supply, the existence of a village health committee, or the participation of women in project planning could have been considered requirements for village selection. Other potentially important features might be the distance to the village from the base dispensary, the provision of adequate space for CPHC activities and storage, or the availability of village health workers within the village--both of which could have serious consequences on the cost and the effectiveness of outreach. Possible criteria for village selection were suggested by the evaluation team (see Appendix K) and adopted by local staff for the second matching grant period (1984-87).

The design of each VHW's training and job descriptions were left to the Nurses-in-Charge, who differed in their emphases on the CPHC's objectives. However, they were encouraged to use sample job descriptions prepared in collaboration with the Lahore and Khanewal Nurses-in-Charge. The training and tasks of the EHWs were also designed by the Nurses-in-Charge and varied in each outreach area. New VHW selection criteria, suggested by the evaluators and adopted by the CPHC, are also shown in Appendix K.

3. Village Participation and Village Self-Financing

Self-sufficiency of health services is the basic objective of AID's health programs. Both villager participation and self-financing are important issues to be considered in this project, yet the evaluators believe that both were neglected in planning and design. No specific plans for involving village men and women in project planning and implementation or in contributing money or voluntary labor to the CPHC have been stated by project designers. Community participation is necessary

for project success, institution-building, replicability, and eventual self-support, but it has not been adequately addressed by project planners to date. Similarly, no deadline had been set for the outreach project to become self-financing; no new methods of cost-recovery to supplement collections of fees for service have been tested; and no local VHWs, who might be paid from funds raised locally, have been selected.

4. Expatriate Planning

Finally, it is notable that four expatriates--no Pakistani staff of The SA, government officials, or consultants--were involved in planning the CPHC. Most of the planners had many years of outstanding experience in health planning in Pakistan, but no host country nationals were involved. Even if an effective design could be drawn up without local input, host country officials from the community level up to the central government level are less likely to support, replicate, or learn from a project in which they have played no planning role. Several villages where the CPHC was introduced at first did not support the project and had to be dropped from it. It is possible that an increased role for regional and community leaders in the design stage would have prevented this problem.

D. Management and Staffing

1. The Salvation Army, Pakistan

The major reason for the high quality and potential of this project is its excellent management team, both in Pakistan and in Washington. The officers, Salvationists, and other staff who manage the CPHC in Pakistan seemed to the evaluators to be experienced, committed, competent, and hard-working. In the relatively brief period since the project began in late 1982, these managers have obviously spent many long hours revising plans, writing and reviewing reports, analyzing costs, interviewing job candidates, inspecting villages, testing equipment, discussing problems and so on--all with a remarkably high level of energy and devotion to making this project work. While they are well aware of the project's shortcomings, they are fully confident that most of them can be solved, given enough time and support. (Seeing them in action, the evaluators could not help to share their confidence and their optimism). They have created a sound, well-designed structure for overseeing and implementing the new SA health outreach policy.

Top management of the CPHC has been the responsibility of two volunteer and two paid expatriates, based at the SA Territorial Headquarters in Lahore, under the overall direction of the Territorial Commander who is also a volunteer (see Appendix I). The two volunteer managers are the Social Secretary and the Financial Secretary; the two paid managers (until mid-1984) were the full-time Project Coordinator and the one-third time Program Development and Management Consultant (used during the two year

start-up period, but not continued in the new project after June 1984). Since mid-1984 the Project Administrator has had direct responsibility for the project, and he is assisted by the former Project Coordinator whose new title is Consultant for Field Training and Technical Assistance (see organization structure chart, Appendix I). Both are expatriate public health specialists with nursing degrees and several years' experience in Pakistan.¹³ The planning and supervision of the health and sanitation teams is the responsibility of the four Nurses-in-Charge; the literacy project is managed in Lahore by the Territorial Commander's wife; and the handicapped project is managed by the physiotherapist in Peshawar.

Direct supervision of the project's main outreach activities is the job of the four Nurses-in-Charge of the base dispensaries. These four women have the most immediate and powerful influence on the work actually accomplished by the VHWs and EHWs in the outreach villages. They are willing to work long hours under difficult conditions often in poor rural areas; all speak Urdu; one has been in Pakistan for 17 years. More than other managers in the CPHC, their actions and attitudes determine the priorities, activities, and results of the project on the ground. Specifically, it is their job to:

- select VHWs and EHWs;
- help provide initial orientation and training and in-service training to health workers;
- supervise the outreach work of all health workers by observing activities, spot-checking daily records and monthly reports, discussing issues with village leaders;
- select outreach villages by discussing the CPHC with villagers and comparing villages;
- coordinate local project activities with the DHO, EPI representatives, other GOP officials;
- supervise EPI program where authorized.

These and many other tasks must be performed for the CPHC in addition to their normal heavy schedule of clinical activity both in the base dispensaries and in each outreach village at least one half day per week. It is a major feat that most of these nurses not only keep up this fast pace but also seem to do their work very well.

In future, village level activities are likely to be more effective in meeting project objectives because the Consultant for Field Training and Technical Assistance and the Nurses-in-Charge are working together to establish clear assignments and specific job descriptions for the outreach workers. To date these workers do not appear to have firm objectives and deadlines in mind. The instruments used in outreach villages to help the Nurses-in-Charge to plan and report activities of outreach workers are not as useful to managers as they could be (see "Information Systems" below). Nonetheless, the Nurses-in-Charge appeared to the evaluators to be in close communication with

the health workers and sensitive to both the needs of the villagers and the obstacles confronting the CPHC. They are all highly concerned about finding ways to improve supervision, productivity, and reporting of outreach teams.

The SA officers are aware of the lack of adequate representation of Pakistanis at the top and mid levels of the project staff. For its first 18 months, the project was planned and managed without senior Pakistani staff. Only one Pakistani currently works full-time on the project (as Program Assistant to the Social Services Secretary); she plays a central role in meeting villagers and helping to interpret their concerns to the staff. A Pakistan-trained Palestinian physician, with two years research experience in primary health care, has assisted the CPHC as a consultant in the design of survey and reporting instruments which will be of major importance to managers in monitoring outputs and results in outreach villages. Another Pakistani doctor will be a full-time medical officer to the project beginning mid 1984. The part-time Project Accountant is also Pakistani. But The SA is concerned about recruiting and training Pakistanis at all levels who should eventually be able to assume responsibility for the project in its entirety.

Another limitation the project managers wish to overcome is inadequate communication between and among top and middle management. There have not been enough opportunities for senior staff in Lahore to exchange ideas, review progress and problems, and revise plans with the Nurses-in-Charge and other outreach staff. (As one illustration, a meeting held for all Nurses-in-Charge and project management staff with the evaluators in April 1984 was the first time since 1982 that the participants had been together). Given the relatively large number of top level managers and consultants, the predominance of expatriates at upper levels, and the distance (both geographical and cultural) between Lahore and the outreach villages, it is apparent to the SA leadership that closer communication between the THQ, the base dispensaries, and the village health teams is important.

Sanitation workers (EHWs) present a particular problem. Between October, 1983, when sanitation activities were approved, and this evaluation, less than five out of 20 positions had been filled. Their training had been even less (in time and substance) than the VHWs' and their role has not been well defined. Some often operate without any plans or supervision, keep few if any records, and have no technical skills or equipment. Except in Shantinagar, little progress was visible in most villages visited by the evaluators; only a few village men had actually worked voluntarily. The SA-Pakistan staff and SAWSO/Washington are duly concerned. An important task for the consultant for Field Training and Technical Assistance will be to organize improved training, job descriptions, and supervision systems of EHWS in 1985.

Another problem in field staffing concerns the systematic selection of VHWs. There seems to be no involvement of villagers in VHW selection. Some VHWs are inexperienced; only half have had previous health or dais experience. Few if any of the 15 VHWs were found to be residing in the village to which they were assigned. Several live in nearby villages and commute relatively short distances, but a larger number live either in the base city or some other community a considerable distance from their work. Consequently, much time is consumed in travel by bus, Suzuki wagon, tonga or bullock cart, with greater expense incurred. In one location (Chak 180), the environmental worker spends three hours travelling each way from his residence in Jhang to Chak 180, 38 miles away on bad roads. Though the roads were passable at the time of this evaluation, serious delays occur during the flood season. This certainly adds up to irregularity in attendance to village duties and is a serious deterrent to progress. More serious is the fact that although it is often necessary to assign workers from distant areas to work in project villages, they remain strangers if they do not relocate to the villages in which they work.

2. SAWSO/Washington

The SAWSO/Washington office has consistently received high praise from the Salvation Army and the AID mission in Pakistan, and from the project officers at AID/Washington for its careful, timely guidance of the Pakistan project. The Project Officer responsible for Pakistan, Doug Hill, PhD, despite heavy involvement in several other projects, has remained in close contact with the project staff, knows important details about this complex project, and carefully monitors all project data. He has had extensive preparation in development theory and practical experience in program administration, and specializes in both project planning and evaluation and cross cultural communications. He has averaged one visit to the project every six months since joining the SAWSO staff in June, 1983. The SA Pakistan staff generally encourages and appreciates his involvement, solicits his assistance, and follows his advice.

There is no sign of the headquarters staff vs. field staff communication problems often found in international development programs; instead The SA-Pakistan staff have accepted gracefully the often difficult requirements of an AID Matching Grant (see "Financial Constraints"). They have made an impressive effort to transform their health care system into a model preventive health experiment which meets their own goal of Christian witness while meeting SAWSO's and AID's development goals at the same time. This smooth integration of different means and ends has been due in no small part to the deft management (and the frequent overtime hours) of both the SAWSO and the SA-Pakistan staff.

E. Training

A serious weakness in the CPHC to date has been inadequate training of field staff, primarily VHWs and EHWs. Training is the project's greatest need, and presents a problem well known to the SA staff.¹⁴ The few training courses held for CPHC staff to date are shown in Appendix L. Though most project staff have completed basic technical training in their disciplines, some, particularly the EHWs, have either no training or the training they have does not relate to their current jobs. For example, of the 15 VHWs in the four outreach areas, eight have had basic training--five as dais, two as registered midwives, and one as a nurse aide. The remaining seven had had no pre-employment health-related basic training. The environmental workers are not trained sanitarians, and most are new to the work. Some were given brief observation training at a Christian missionary health training program in Sialkot, and there are plans to give others similar training. A two-day seminar for EHWs was held in 1984 for the purpose of orienting them to community planning techniques and to test materials for future training and use. The Government of Pakistan is training sanitarians in several places around the country, but no arrangements had been made for nominees from the CPHC to be enrolled in this formal training prior to assignment.

One of the CPHC's newest and most dynamic programs, based at the SA dispensary in Hyderabad, will pick up USAID funding under SAWSO's second Matching Grant in mid-1984. Under the direction of a Nurse-in-Charge, who recently completed PHC training in England (Captain Monica Punter), this dispensary would lend itself to additional service as a center for in-service training for most if not all CHPC staff. (See Recommendations). Rotating staff from all CHPC areas for a week or so of training out of this dispensary would, we believe, stimulate more rapid and efficient development of a broad spectrum of primary health care services. This is particularly important in light of two important lessons learned about training by The SA-Pakistan leadership, which they have stated in writing for this report. First, "we have learned that more training needs to be given in the actual work situations, on site--that large group sessions are not as effective as consultation and training with individuals and small groups where they work." Second, "more medical expertise (for instance, doctors) needs to be programmed into our project at the local level to back up and advise our field and clinic nurses. We especially want more formalized arrangements with a qualified doctor from the local clinic area who will provide regular assistance in making diagnoses and prescribing treatment and evaluating the progress of certain patients, in taking referrals and in conducting a doctor's clinic on a periodic basis in the villages we are serving." Both can be achieved in Pakistan, where nurses, more than doctors, are difficult to recruit.¹⁵

F. Information and Monitoring

The project's quarterly reports to SAWSO and SAWSO's annual reports to AID have been informative and thorough, yet succinct. Reports of outreach activities and outputs have been used as management tools: for example, SAWSO had already recognized and sought to address the low outputs at Jhang and Faisalabad.

However, one difficult aspect of management of the CPHC outreach activities has been the accurate monitoring and reporting of the health workers. The Nurses-in-Charge help outreach workers plan their work and check whether plans are carried out. Nurses-in-Charge should ideally spot check the work of the VHWs, visiting them both with and without advance notice. They should check diaries often, and even visit village households chosen at random from VHWs reports. In reality, however, Nurses-in-Charge are unable to visit the outreach villages more than once a week, during which time they are generally very busy providing curative services. They have little time to train workers or analyze reports. Therefore they depend largely on the accuracy and completeness of the health workers daily and weekly reports in compiling their monthly reports of "Medical Statistics". Examples of the monthly reports used before the evaluation are shown in Appendix M; a revised format for statistical reporting was developed by SAWSO subsequent to the evaluation visit and presented as Appendix N. These reports are submitted to THQ on a monthly basis and are used in the quarterly project reports to SAWSO.

The quality of the project's entire information system, therefore, depends primarily on the quality of reports by village health and sanitation workers. Prior to 1984, these reports (reviewed by the evaluators) were voluminous but inadequate. "We need assistance with the collection and analysis of program data, especially as toward accomplishment of project objectives", stated a recent SA memo.¹⁶

The keys to this effort are the daily records or diaries kept by the VHWs (most EHWS did not appear to use them) and the "Staff Planning Sheet" (see example from Faisalabad outreach in Appendix O.) Ideally these should be used both to focus the team's work plans and to review what has been accomplished. In fact the VHWs' daily records (spot-checked by the evaluators) did not appear to be a very useful tool to help VHWs plan and report on their activities. Diaries were often neither up to date nor complete. They did not specify which families or individuals needed to be rechecked or monitored regularly; they did not flag emergency cases or record numbers of people attending clinics. Some of these same shortcomings apply to the Staff Planning Sheet. Unlike the sample in Appendix O, many sheets were not filled out completely and do not specify deadlines, locations, or persons responsible. Such documents are a good, early attempt to improve supervision techniques, but they are not yet as practical a tool as they should be.

For purposes of monitoring or evaluation the existing information system has largely failed to document the project's outputs prior to 1984. Although good work was apparently done in some outreach areas, little of it has been recorded in a way that demonstrates the results, efficiency, or effectiveness of the project or illustrates lessons to be learned.

VHWS records are apparently not being used to monitor VHWS performance; they were not used to reward outstanding performance, to change job priorities, or to design in-service training. For example, VHWS who reliably report low infant or maternal mortality in a village could be rewarded for their success or could be transferred to a village where their services are in greater demand--or both. There is a need to use more data in management and training, not a need for more data.

All health workers, including the Nurses-in-Charge, complained that they they are required to spend too much time filling out various reports, forms, and they find little time to use them. Indeed an enormous amount of data has been collected, but little of it is used.¹⁷ There are several specific weaknesses in the reporting system; some were being remedied by SA staff prior to this evaluation.¹⁸

The home office of SAWSO in Washington has been careful to offer suggestions and support for eliminating such gaps and for improving data collection without adding more paperwork to already overloaded work schedules. Additional efforts can improve the information system so that the CPHC's accomplishments can be better documented and disseminated both within the CPHC, to encourage and inspire staff with reports of progress and to correct deficiencies, and to share lessons learned outside the SA.

G. Environmental Constraints

A variety of economic, social, cultural, and political obstacles which are largely beyond the control of SA have made it more difficult to introduce PHC care in villages which already have major health obstacles to overcome. Economic constraints in particular affect all aspects of the CPHP: poverty and illiteracy in the outreach villages leads to a lack of food, clean water, latrines, and solid waste systems resulting in malnutrition and the spread of disease. Poverty also means few resources are available in outreach villages to support VHWS (even though many poor are able to compensate dais and other traditional practitioners).

The challenge to VHWS is to demonstrate to villagers that there is much they can do for themselves despite their poverty, but social and cultural barriers between health workers and villagers must be overcome before villagers will listen and act. Hospitality is important in Pakistan, but religion is vital. A major cultural obstacle to the CPHC's acceptance in some communitites is its Christian identity, as nearly all

staff are Christians. Several local leaders in at least three outreach villages objected to the presence of Christian health workers in the first two years of the project, particularly where purdah (confinement of wives) is strictly observed.¹⁹

In some outreach villages the project also faces moderate political constraints. Some DHOs and EPI staff are not helpful in authorizing vaccinations by SA workers, or in providing GOP-supported family planning services. Some offer little assistance in publicizing or supporting SA activities, possibly because they believe that village-based health care should be a GOP responsibility. In Shantinagar village the GOP refuses to allow the CPHC to vaccinate even though the GOP has failed to complete the vaccination program it began.²⁰ In most cases, however, DHOs support the CPHC and have provided The SA-Pakistan nurses with vaccines; they are only too well aware that the GOP needs all the assistance it can get, particularly in poor villages.

H. Financial Constraints

The outreach costs of the CPHC have not been separated out from the overall costs of the project, including the cost of base dispensary operations (see Appendix P), so it is difficult to comment on the adequacy of MG funds (and on cost-benefit ratios). In general, the level of MG funding appears to have been appropriate for the first three year funding period to test the new outreach approach in several pilot areas. However, four kinds of financial constraints have been of major concern to project staff: (1) funds are not committed for a long enough period to attract job applicants; (2) drugs paid for with AID funds must be purchased from American suppliers, but they are much more costly than locally available drugs; (3) compared to SA-Pakistan's experience with handling both private (SA) and other public (CIDA) funds, the reporting and administrative requirements of AID-funded projects are unusually complicated and time consuming; and (4) cash flow problems between AID/SAWSO and SAWSO/SA-Pakistan.

I. Interagency Relations

On a national level, The SA-Pakistan is very much welcomed by the GOP, and its work in health accepted and appreciated by the Ministry of Health. The SA has proven its commitment to Pakistan continuously for a century (while the continuity of AID programs has been less reliable) and has a formal agreement with the GOP to work in health in general and provide health care in refugee camps. The MOH has supported the SA by providing training opportunities to health staff. For example, a WHO-sponsored course on diarrheal disease control sponsored by the MOH regional office for the Punjab was attended by SA staff. The GOP's EPI program has authorized the SA to provide its vaccines and has trained staff to do vaccinations. The government-supported

Family Planning Association of Pakistan has provided some training to SA staff and makes available limited supplies of contraceptives to SA dispensaries. The MOH and FPAP have made available to the SA some of their health and family planning education materials.

The SA-Pakistan maintains that its ties to national and local government officials are adequate, although it acknowledges room for improvement. "We often get the fullest cooperation from these organizations," it writes; "the contact has been made and it is growing" (letter to evaluators, November, 1984). However, in spite of generally cooperative relationships on the national and regional level between the SA and the MOH, the evaluators felt that some local CPHC staff prefer to act independently from counterpart GOP programs, viewing the latter as frequently inefficient and occasionally corrupt. They focus their energies on those they serve directly and do not make enough effort to communicate or cooperate with the local, district, or national government officials.²¹

The distance maintained between the SA and the GOP relates to the role which the SA perceives for itself in Pakistan. Most SA-Pakistan personnel appear to see the CPHC as an end in itself. To the extent that they see it as a pilot project, The SA-Pakistan's staff interest is in replication by The SA-Pakistan, not the GOP. Their priority is providing service to meet immediate health needs, not long term institutionalization of rural PHC systems by the MOH.

Other SA-Pakistan staff are more sympathetic to the goal of helping the MOH, and indeed some progress is being made to encourage collaboration in places. For example, in Faisalabad the MOH has asked the SA to train dais throughout the area. The SA is correctly cautious about publicizing its programs, not wishing to promote approaches which have not been proven cost-effective. Nonetheless, the evaluators believe that the SA can do more to coordinate CPHC planning with the MOH. The SA can also work more closely with MOH counterparts who might eventually replace some of the expatriates. Other PVOs in Pakistan, including a Moslem PVO visited by one of the evaluators,²² have demonstrated methods of cooperating with the MOH without significant duplication. Similar methods have not been used by the SA to date.

SA relations with the USAID mission in Islamabad are very good. The mission was not involved in planning the CPHC project, but SAWSO/Washington and THQ staff have met with USAID staff once or twice a year since the project started, and USAID representatives have visited THQ and observed VHW training sessions. In some respects the mission has been unable to monitor the CPHC project as closely as some AID mission officers

would like, because of heavy schedules, other priorities, and staff turnovers, but mission staff report that both communication with the CPHC staff and overall project management (in both Lahore and Washington) have been exemplary.

V. CONCLUSIONS AND RECOMMENDATIONS

A. General Conclusions

SAWSO's participation in AID's MG program appears to be having a major beneficial impact on the health programming of the Salvation Army. In less than two years of operation, despite a difficult work environment, The SA-Pakistan has demonstrated that clinic based nurses can be reoriented toward village based activities emphasizing preventive health, family planning, nutrition, sanitation and health education as well as outpatient curative services. In the words of an earlier evaluator, "despite a shortage of staff trained in public health...considerable efforts were being made to develop and promote preventive health."²³ In this process The SA-Pakistan has shown flexibility, energy, and great dedication to improvement.

It has also been very realistic about its many difficulties. Most of the obstacles facing the CPHC which are discussed in this evaluation are already well known to The SA-Pakistan managers. In particular, they are quick to explain that the transition to PHC "is easier said than done! It has taken longer than expected to do what we wanted to do."²⁴ Nonetheless the evaluators believe the SA has generally made a good start, using good management to build on its extensive local experience and infrastructure in order to demonstrate improved PHC in several outreach areas.

The evaluators concur with most of the SA's own conclusions and lessons learned from its internal evaluation in September/October 1983. Specifically, The SA-Pakistan needs:

- a restructuring of CPHC management (reorganization was being completed at the time of this evaluation) which will allow THQ management to improve project planning, training, recruiting, supervision and support of VHWS and EHWS, data analysis, etc.);
- improved collection and analysis of program data, particularly data related to the new project objectives;
- more and improved training, including in-service seminars for small groups of VHWS and EHWS in villages (the reorganization under way enables Sister Allibone, the highly skilled former Project Coordinator, to move into a full time training role as Consultant for Field Training and Technical Assistance);
- improved training and strategies for environmental sanitation activities; more specialized trainers need to be utilized; EHWS need to be selected, trained, and supervised more carefully; SAWSO has already allocated funds for a water and sanitation consultant from 1984-87.

- increased recruitment and involvement of Pakistani staff at all levels (a Pakistani physician and one Pakistani consultant have been hired, and a new draft project objective calls for 100% Pakistani staff by the end of the next project phase in 1987);
- improved management training ("we will be implementing an intensive Management Development Program for those in our territory who will have future responsibility for project oversight and operations").

In spite of general agreement with the SA on most major issues, the evaluators are concerned about plans to replicate the outreach program in four more curative oriented dispensaries in 1985-87. The evaluators believe that The SA is making progress in the initial four outreach areas, and they agree with the decision already under way to incorporate outreach from Hyderabad and Qazipur dispensaries where the situation seems highly favorable for effective outreach into the CPHC in 1984-85. However, they firmly believe that until the problems raised in this evaluation have been solved and achievement of objectives has been documented, expansion beyond that point would be premature (see "replicability" below).

B. Special Areas of Interest

1. Community Participation

Community participation in all its projects is a concern of the SAWSO staff in Washington, and a growing concern among CPHC staff in Pakistan, but for a Christian PVO in a Moslem culture, such participation takes time and sensitive effort. A common problem in some CPHC villages has been the people's lack of participation in planning and supporting the project.

In some areas villagers assist the CPHC by providing space, announcing clinics, forming village health committee, contributing money or labor for sanitation projects, and generally welcoming the CPHC staff.²⁵ But in several others there are mutual communication barriers, misunderstandings, and suspicions which separate the CPHC workers from village leaders. The SA-Pakistan staff need to make a much greater effort to work with all community leaders, including religious and governmental officials, as well as women and others who unofficially influence public behavior. The maulvi (religious leaders), lumberdar (local official), dais (traditional midwives), and hakims (traditional doctors), as well as Union Council members, should all have regular contact with the SA to plan, review, and expand project activities. Volunteer labor by villagers should be a condition of all sanitation projects.

There is no easy answer to the problem of where to recruit and assign the VHWS and EHWS. If lengthy training is provided (e.g. the two year PHC course provided by the Seventh Day

Adventists in Pakistan), The SA-Pakistan believes that VHWS will not communicate as effectively with local villagers, and it is "nigh impossible" for them to go back to their villages. Nonetheless, the evaluators believe that brief yet intensive training, recruitment of trainees from project villages, and requiring VHWS and EHWS to live in (not commute to) project villages will strengthen project effectiveness.

2. Benefit Distribution

The CPHC is unquestionably reaching poor and remote outreach villages in the Punjab. Some CPHC health workers move house to house and use word of mouth to locate sick or undernourished children; they usually provide free or low cost care (such as ORT instruction) to the destitute who cannot pay the normal patient fees. An improved system for mapping and identifying households would ensure more complete coverage nonetheless.

The SA is discovering that outreach to poor villages can be very costly. It has led to "increased transportation costs for supervising personnel, an inability to recruit readily qualifiable VHWS locally, and minimal cash or in-kind contributions" from beneficiaries.²⁶ CPHC planners must carefully analyze such cost-effectiveness issues in selecting villages, VHWS, and future project strategies if they are to improve or replicate benefit distribution.

3. Innovation and Technology Transfer

Several new PHC technologies--primarily immunization, oral rehydration therapy, and family spacing--are being introduced into outreach area households with mixed success. Some VHWS did not know the proper mix for ORT, but all those interviewed knew the importance of ORT and can easily learn the correct mix. Sugar and salt seemed to be available in all but the poorest households to increase ORT use, but the availability of premixed ORT packets varied widely.

The concept of introducing health education through teaching literacy is innovative, as is the attempt in the rehabilitation program in Peshawar to educate mothers to use massage and exercise to prevent handicaps in high risk children. However, no specific information was available to measure the effectiveness of either of these techniques.

The evaluators believe that CPHC resources should be focused primarily on innovative activities like ORT and immunization which have proven to be cost-effective. However, they also recognize that untried, unusual approaches to PHC such as health education through female literacy training should also be tested on a small scale--if they are designed to demonstrate measurable outputs and impact. Such experiments

are particularly justifiable if their costs are low (as in the literacy program). The small expenditure on rehabilitation of handicapped children is harder to justify because it affects so few children. An equal expenditure on immunization to prevent handicaps would appear to be more cost-effective. Unfortunately the CPHC faces major obstacles in obtaining vaccines to provide such immunizations. AID does not allow MG funds to purchase vaccines locally, only from the USA. However, The SA-Pakistan usually does not buy vaccines from the USA because purchasing costs are much higher; costs of packing, shipping, and customs are high; breakage and pilferage is common; and the cold chain is often broken. Improved relations between the CPHC and the MOH, which often does have vaccine available and has often relied on The SA-Pakistan to provide it in rural areas, may be the project's highest priority in this regard.

4. Cost Effectiveness

A general review of project costs indicates that they are for the most part comparatively low: salaries of CPHC health workers, for example, are minimal, and SA facilities and support services are available to the MG program at low cost. The costs of the entire MG project through March 1984 were less than \$215,000 (see Appendix R). The operating costs of the four base dispensaries appear to be particularly low, averaging less than \$900 per month per dispensary (see Appendix P) or about one quarter of project costs. The costs reported by the Project Accountant through March 1984 of the rehabilitation work in Peshawar (under \$5,000) and of the literacy program (under \$4,000) are also extremely low in light of the fact that they are both innovative experiments which might lead to significant lessons.²⁷

The SA struggles to economize, and has controlled most costs effectively, but it is unfortunate that the SA does not keep more data on cost-effectiveness in its outreach activities. The CPHC project budget is not used effectively as a management or planning tool. For example, the Literacy Program is estimated to cost about \$90 per student completing a year's course; how does that compare with the costs of rehabilitation, immunization, or health education interventions? The SA-Pakistan has not sought to clarify its priorities by studying cost effectiveness; it might, for example:

- compare the costs and the numbers of beneficiaries between different base dispensaries, outreach areas, or outreach workers;
- estimate the per capita cost of each outreach or rehabilitation "service" provided;
- compare the SA's costs with those of other PVOs or the MOH;

- estimate the proportion of project costs recoverable from sale of medicines, patient fees, contributions, etc.
- compare costs of preventive and curative services to indicate cost-effectiveness of various activities.

5. Sustainability

Projects which can become self-sustaining, without external funding, are a priority for SAWSO. In the past, many of the Salvation Army's clinical health programs overseas have indeed been largely self-sustaining, recovering recurrent costs by charging fees for services and medicines. In very poor developing areas like those served by the CPHC, however, where emphasis on health programs is shifting from curative to preventive, cost recovery is far more difficult. SAWSO reports that "decreased reliance on prescriptive medicines has reduced large and costly drug inventories, while income from fees has been reduced." In Pakistan, the SA has no plans to become fully self-sustaining. Although it is working to control and recover its costs by charging fees to those who can pay, the SA always aims to serve the poorest of the poor; those who cannot pay are served for free. It will take years for a stable, self-supporting PHC program to develop under SA auspices, just as it is taking many years for the government to develop its own viable PHC system. (The MOH has only recently accepted the need to charge patients for services).

The rehabilitation program is working to cut expenses (e.g. by making low cost prosthetic devices in the Afghan refugee camps) but will not be able to sustain itself without external inputs. The literacy program might eventually collect fees and sell its publications. Neither of these programs, however, will become completely self-supporting for some time.

In spite of these acknowledged obstacles to cost recovery, the evaluators encourage The SA-Pakistan to continue its search for ways to build self-reliance in the target areas. Improved relations with local leaders, religious institutions, traditional practitioners and the private sector generally, cooperatives and other income generation activities, as well as local government officials can help in the search for economic viability.

At the same time the Salvation Army's energetic efforts in international fund-raising should be recognized. The SA-Pakistan has carefully monitored the recurrent costs of maintaining the CPHC and has initiated imaginative new approaches to raising funds from overseas and from businesses and civic groups in Pakistan. As long as funds from outside the target areas are needed to sustain the CPHC, it is hard to imagine any organization more likely to get national and international support than the well known and highly respected Salvation Army.

6. Replicability

The CPHC is potentially a PHC model which can be replicated throughout rural Pakistan. Wherever its base dispensaries are staffed and equipped adequately to train, supply and support VHWs and EHWs, and wherever villages demonstrate enough will to support and participate in a PHC program, The SA-Pakistan could eventually create networks of community-based outreach workers. The key word here is "eventually": although the evaluators believe the CPHC will be replicable in time, they do not think it is advisable for the SA to expand the project too rapidly now, before substantial improvements can be documented and institutionalized in the base dispensaries which they visited. The CPHC should be expanded to the remaining four dispensaries, as planned for the 1985-87 period, mainly because only when there is sufficient evidence that project objectives are being achieved.

Though the project was launched in December 1982, there was considerable delay in conducting baseline surveys in some areas, one of which had not been completed at the time of the evaluation visit in March, 1984. In addition, most of the first baseline surveys did not provide the data necessary for measurement of progress toward achievement of several of the objectives. Thus it has become necessary to revise and re-do baseline surveys, and rethink objectives, indicators of impact, strategies, training methodologies, etc.

In some areas, several planned activities are not yet under way, and some may not be before the expansion begins. Absence of trained health and sanitation workers has also set back project implementation in some areas. It appears that at best most planned activities will at least be under way in the target areas, and that an initial training program will have been tested by the end of 1984. In the light of these delays it would be overly optimistic to think that sufficient experience has been gained to justify the proposed increase to all ten project areas. Careful attention should be paid to demonstrating replicability in the six current areas before significant expansion is attempted given the lack of hard data proving the effectiveness of the VHWs, EHWs, the literacy program, and rehabilitation.

It would also be a mistake to expand the CPHC without a better understanding of the lessons learned in the initial phase. Many findings are not adequately understood or documented: why do some villages support the project while others don't? Can outreach be sustained despite costly commuting? Why do some outreach workers report higher output levels? Why are certain services, such as immunization and family planning, in greater demand in some areas? Many vital questions should be answered before unrecognized errors are repeated elsewhere. The SA transition to PHC has just begun; it should move ahead only as rapidly as it can be tested and institutionalized.

7. Institution-Building and Institutionalization

Matching Grant activities should have lead to two major types of institution-building. First, the Salvation Army of Pakistan should have begun to develop its internal capability in the management of preventive health programs, and it has done so with some success. As previously mentioned, this development has not been easy: few full-time SA health staff in Pakistan are experienced or trained in public health, community health education, community participation, outreach worker management, and the like. Moreover, any Christian PVO involved in sensitive activities (such as nutrition and family planning education) faces inevitable barriers in Moslem cultures. Nonetheless, the SA has devoted itself resolutely to developing this public health management capability and is succeeding, slowly but steadily.

Second, the Matching Grant should help build an indigenous organization, staffed by Pakistanis, which will be capable of managing its own affairs without expatriate staff. In this quest, the Salvation Army has made little progress because of the great difficulty in finding trained nurses and midwives. Many of the best ones go to the Middle East to work and return money to their families. Yet The SA-Pakistan is well aware of the need to create a viable, indigenous institution staffed by Pakistanis with basic organization and planning skills and sufficient technical expertise. It plans to recruit and train 39 Pakistanis as VHWS, EHWS, and lab technicians, and upgrade the skills of 33 current Pakistani staff. The evaluators fully support this major initiative, which will enable the eight expatriate Nurses-in-Charge to move into training and supervisory roles where they are sorely needed. This change should be completed by 1987 at the latest.

The training of Pakistanis to take over all health worker and Nurse-in-Charge positions is a necessary but not, in the longer run, a sufficient step toward full institutionalization. Eventually the entire top management staff of the CPHC should be Pakistanis. A plan for eventual managerial control of SAWSO activities in Pakistan by Pakistanis (perhaps including non-Salvationists and non-Christians) is needed to fulfill SAWSO's mandate to "institutionalize the development planning process through training of administrative and project staff, especially indigenous leaders." This change would bring Pakistan closer to the pattern established by the Salvation Army in other developing countries where indigenous officers often play a more central role than in Pakistan. Local leadership is also more likely to appeal to donor agencies (which can support SAWSO programs) and to the GOP (which can support SAWSO's projects and integrate them into national programs).

Institutionalization of the CPHC will ultimately be achieved when the CPHC system has proven to be both effective and self-financing and can be adapted for application in other countries by the Salvation Army and in Pakistan by other organizations

providing PHC. In the long run the CPHC should become one arm of Pakistan's national PHC program, currently being developed with AID funding. True institutionalization of SA health, sanitation, family planning, literacy, and rehabilitation activities will occur when they are thoroughly integrated into a national system which provides services to all communities, not just to a few demonstration areas as is true today. The SA needs to document and share the lessons learned from the CPHC if that integration and replication is to take place efficiently.

C. Summary of Recommendations

1. To SAWSO/SA-Pakistan

a. General

- Recognize that some CPHC activities (e.g. MCH, sanitation) will prove to be more cost effective than others (e.g. literacy, TB treatment, rehabilitation); use resources (staff time, funds) accordingly.

- Confine the project to the current six areas until outreach work from these dispensaries is far enough along to give clear indication that approaches used are adequately documented and clearly replicable.

- Establish and maintain as close coordination and effective working relationships as possible with the GOP, and particularly with the district health officers, and EPI and family planning officers.

- Formulate clear assignments and specific job descriptions for all workers in the project.

- Develop an improved mechanism for selection of VHWS and EHWS.

- Strengthen the role of the EHW through community participation, organization, and sanitation techniques.

- Make possible more rapid nationalization of the staff.

b. Training

- Focus SAWSO resources on training of all staff, particularly VHWS and EHWS. (This can be done better at least with respect to the VHWS now that Sister Allibone is concentrating full time on training.)

- In planning future training make good use of the lessons learned from baseline surveys and outreach work thus far.

- Write new objectives calling for recruiting, training, deploying and supervising Pakistani workers.

- Send selected nurses and VHWS to WHO sponsored training sessions on ORT and immunization, and EHWS to courses in sanitation run by the MOH or the Memorial Christian Hospital in Sialkot.

c. Information systems

- Document project achievements in terms of extent to which project objectives are being achieved.

- Share project information effectively among all project workers. Managers especially need to meet often to help each

other and stay abreast of new methods.

- Ensure systematic collection of birth and death data on a continuing basis in all outreach villages so that at any given time the field worker knows exactly how many births and deaths have occurred that year.

- Document what appears to be an unusually low maternal mortality rate in most if not all outreach villages.

- Document changes in weight-for-age of under-fives.

d. Funding

- In future plans and proposals, show methods and schedules for phasing out AID support, including methods for increasing community financing and local government collaboration;

- Seek funding for five years if possible; less time is insufficient to show results.

- Focus AID funds on activities that most directly relate to primary health care, phasing out peripheral activities such as rehabilitation and literacy work which can be supported from other sources.

- Develop specific objectives and test methods for recovery of recurrent costs.

e. Immunization

- Take initiative at all levels toward fullest cooperation with the EPI.

- In each outreach area the VHW should keep independent records of the vaccination status of each child under five. This should include immunizations done by EPI and private doctors as well as those done by project staff.

- Arrange a more intensive promotional/educational program in all outreach villages, seeking more widespread understanding of the benefits of vaccination and motivating all parents of under fives to have their children fully immunized.

- Arrange for the VHW to be in the outreach village when the EPI team is there in order to gain access to EPI records and help bring in previous "no-shows".

f. ORT

- Standardize instructions for preparation of rehydration solutions in the home from locally available ingredients. (Every worker should know these by heart.) Coordinate this activity with DHO.

- Even if providing at least an initial supply of prepackaged ORT solution emphasize home preparation with water, sugar and salt to ensure constant treatment even when packets are unavailable.

- Keep better records of ORT activity; it is likely to be the single most effective service provided by the VHW in lowering infant mortality.

- Arrange more and repeated demonstrations of ORT preparation in the home. This is most effectively done by the VHW working with the individual mother in her own home, or with very small groups.

g. Ante-natal care

- Arrange for and insist on systematic follow-up of all pregnant women identified as such in baseline surveys and home visitations. This can only be done by home visitation, urging each woman to accept ante-natal care and later adequate delivery care.

- Require that each VHW give highest priority to followup in the home as well as in the clinic of all pregnant women.

- Provide immunization against tetanus to all pregnant women in outreach villages.

- Integrate family planning and introduction to its methodology into all ante-natal care.

h. Contraceptive supplies

- High priority should be given to ensuring an abundant, regular supply of all conventional contraceptives to all clinics and field workers. This is an important responsibility of senior project staff, in contacting either the GOP or the Family Planning Association of Pakistan (FPAP) and personally procuring the supplies and transporting them where needed.

i. Reporting Systems

- Map each village, identify each household, and standardize VHW reporting.

- Standardize the monitoring of VHW report so the same information is obtained in all project areas, thereby facilitating analysis and drawing of comparisons.

- Secure help from selected villagers in obtaining accurate baseline information.

j. Village selection

- Formulate and utilize formal criteria for future outreach village selection.

k. Field worker's residence

- Require that at least one project worker (VHW or EHW) reside in the outreach village in which she or he works.

l. Relations with the Government

- Encourage appropriate project staff to make regular courtesy calls on the DHO, keeping him informed of their activities, sharing copies of selected reports (such as on immunization or family planning) seeking his advice on technical matters, and occasionally inviting him to visit the project areas. (The SA is aware that this must be done tactfully, without threatening the DHO with its presence.)

m. Relations with the FPAP

- Maintain close communication with FPAP to remedy shortage of contraceptives, and educational materials, and to seek advice on family planning education methods.

2. To AID

- Continue to support the Salvation Army-Pakistan's CPHC project through the SAWSO/USAID Matching Grant, and, if possible, authorize project funding for a full five year period.

- Use increased vigilance in monitoring both planning and implementation of the project.

- Encourage communication between the staffs of USAID/Pakistan's Primary Health Care project and the SA-Pakistan's CPHC project.

- Remove stifling U.S. source and origin constraints on purchase of drugs and vehicles with USAID funds. Greater flexibility in local purchasing would be welcomed by local staff and well-advised.

NOTES

1. SAWSO, "Matching Grant Proposal to AID," July, 1980.
2. AID memo on SAWSO review, December, 1979.
3. Ibid.
4. From AID, "Pakistan Country Development Strategy Statement, FY 1986 (CDSS)" Washington, D.C., 1984, and AID Office of Disaster Relief, "Pakistan, A Country Profile," Washington, D.C., 1983.
5. AID's 1982 estimate is 86 million; the UN estimates 96 million--see Population Reference Bureau, "1983 World Population Data Sheet" (PRB) Washington, D.C., 1983.
6. PRB
7. AID, CDSS.
8. GOP, National Education Policy and Implementation Programme, 1979.
9. Planning assistance by SAWSO included advice from two American staff members, Thomas McClure, Administrator of the Afghan Refugee Project, and Alex Costas, who revised the original proposal. They worked with a member of The SA-Pakistan staff, Captain David Burrows, a nurse who had managed the Faisalabad and Jhang dispensaries consecutively for eight years. (Captain Burrows subsequently relocated to Peshawar to supervise the SA's refugee work in the NWFP and in mid-1984 was named Administrator for both the CPHC and Afghan projects.) They were assisted by the Nurses-in-Charge of the Khanewal dispensary, Major Alina Vanninen, and the Faisalabad dispensary, Sister Sue Allibone, and others in the field and home office. All had quite different perspectives on what the outreach activities funded by the AID grant should focus on. Eventually initial project objectives were agreed upon and four clinics, all in areas surrounded by poor, underserved villages, were selected to begin the transition from strictly curative clinic based services to combined curative and preventive, clinic and outreach programs. Outreach staff recruitment began when AID funds were received in October 1982 though the actual grant period began August 15, 1982.

It is important to underline that SAWSO's Washington staff played a key role in project design, contributing important ideas to the design and management of the MG operation, particularly in its early stages. Special assistance was provided by Alex Costas, Joan Robinson, and Doug Hill. The SA-Pakistan management considers their input to be a significant aspect of the Matching Grant (letter to the evaluators, November 14, 1984).

10. For example, most surveys attempted to count people being treated for TB, but fewer than 70 cases could be traced among the total population. A few surveys tried to count those cases needing treatment, but numbers were small and unreliable. A few women in each village (one to three dozen) were registered as receiving ante-natal care (not defined), but no data was collected on the number of pregnant women in each village, the level of post-natal care, the prevalence of malnutrition, or the rate of infant mortality.
11. Two additional dispensaries at Hyderabad and Qazipur have begun to provide outreach, under the new matching grant, since June, 1984; these sites were visited by the evaluators but data from them was not included in this analysis because they were not included in the matching grant at the time of this evaluation

"Services" include all contacts with individuals, either as patients, recipients of feeding programs, or participants in health education lectures or literacy classes; one lecture to 70 people, in other words, is counted as 70 "services". Many services were provided repeatedly to the same client, e.g. well-baby clinics (growth monitoring, feedings), TB follow-up, vaccination services, or family planning.
12. In one area near Lahore (Sadhoke), a Moslem village leader objected to the SA services because he believed they were a cover for the distribution of contraceptives; he went so far as to arrange for several standard medications, including chloroquin, to be analyzed by a pharmacist for hidden contraceptive ingredients.
13. The former was in charge of the Jhang dispensary from 1977 to 1981 and the refugee operations from 1981 to present; the latter was in charge of the Faisalabad dispensary from 1976 - 1982. Like most of The SA-Pakistan staff, both speak Urdu and have made a long-term commitment to primary health care work with the SA.
14. SAWSO, Matching Grant Report, December 1, 1982.
15. "Recruitment of professional nursing staff is difficult. We have found that most nurses interviewed for Faisalabad and Jhang want more permanent employment than the one year or less that we are able to offer with this project at present." Memo to evaluators, March 1984.
16. Ibid.
17. For example, the following particulars are to be collected regarding members of a family receiving CPHP services; not all of them seem necessary:

- Indications of disease in under-fives
- Immunizations (BCG, DPT, Polio, Measles, Tetanus)
- Names of people who have had/not had TB treatment
- Names of pregnant women in the family (present)
- Unmarried, widowed, divorced
- Education
- Age, Sex
- Relationship with head of family
- Names of the family members

18. Data collected should include the following:

- Define the categories and criteria for reporting, e.g., the reporting of "services" which often do not show the number of new and repeat visits, the numbers of people served, the numbers of clinics held, etc. For example in one village (Christian Basti) where there are only 75 children under five (in the baseline), 270 children were reported as having "monthly weight checks". In Khanewal outreach over 3,000 "new" children were served in 1983, but the population under five (1982) totalled only 1,242. Faisalabad outreach reported no ante-natal services in 1983, and only 11 of its many family planning services. Were the baseline surveys so inaccurate? Were children from other areas coming in for services? Were the categories of data not defined or understood? In any case, these records are simply too inaccurate to be helpful to managers.
 - Show the percentage by village of the total target group (e.g. pregnant women) receiving appropriate (e.g. ante-natal) services (forms are being tested for this);
 - Highlight and trade high risk or urgent cases requiring follow-up (e.g. dehydrated infants) in VHWS' diaries and report results;
 - Report on births and infant deaths (a new form for this is being tested);
 - Have VHWS and EHWS participate in surveys (so they will know firsthand where the problems are);
 - Have outreach village and base dispensary report uniformly, using the same categories and criteria for data collection;
 - Document VHWS' problems in relating to village leaders, religious groups, DHOs, etc.
19. In another village (Nizampura) where the CPHC was later discontinued, Moslems (1,000) outnumbered Christians (180) and discriminated against them frequently. Few Christian children

attend GOP schools because of discrimination. CPHC staff were not allowed into Moslem homes; an initial house-to-house survey was completed only in Christian homes, and nutrition education classes were given only to Christians because of "opposition due to superstition over certain foods and feeding of infants". (Reported by David Aston, D.C., R.N., C.P.H., "Project Evaluation, Preventive Health Project", SAWSO, Nov. 17, 1983).

In other villages some people apparently believed that the goal of the CPHC was to convert Moslems to Christianity (even though there is no evidence of any CPHC staff attempting to proselytize; even in literacy courses, readings from the Koran are given to Moslem students while Biblical readings are given to Christians). In Essen Sherif the CPHC health worker, a married woman with children who lives in the village all week, was not accepted by Moslem families at first, but came to be accepted after successfully arranging treatment and providing follow-up of several TB cases (Ibid).

Even where religious suspicion of the staff was not expressed, some villagers apparently distrusted the women sent from the city to work in their village, enter their homes, and discuss traditionally personal matters such as hygiene, diet, childbirth, contraception, and human waste disposal. Such female Christian outsiders sometimes did have a difficult time adjusting to sensitive village cultures, particularly because women are not accepted as authorities and are not allowed to speak to the men's groups who make the major policy decisions for the village. Others are like the more mature VHW in Essen Sherif mentioned above who has been able to win the support of Moslem leaders and has "achieved considerable success in her program by sheer perserverance and dedication to her work." Through careful selection and training of VHWs and EHWS, and improved community involvement strategies, cultural or religious constraints can be minimized.

20. The GOP EPI teams have not only failed to completely immunize some village's children, but have also vaccinated improperly. Dr. Aston reported that "many injection absesses are currently seen due to poor injection technique."
21. On the community level, some CPHC personnel have poor or non-existent relationships with the Chokidar, the village official responsible for reporting births, deaths, and other vital statistics to the government, and with the Union Council, the leading representative body in the community. On the district level, these staff do not relate well to either the DHO, to EPI teams, or to local FPA workers, some of whom they consider to be at best irrelevant and at worst an obstacle to the their skilled and dedicated work. In a few villages, relations between CPHC teams and local leaders have been so poor that the CPHC has discontinued operations (see bottom of Appendix I).

22. One evaluator visited Hunza in the high Karakoram where the Agha Khan Foundation (a Moslem PVO) is operating a highly effective MCH program. Four fixed clinics serve the total Hunza population of 30,000. He visited two of these clinics and learned that care is provided only to mothers and children, and is delivered by lady health visitors and midwives. Services include ante-natal and postpartum care, immunizations, treatment of common ailments, and some nutrition education, all clinic based. The EPI has turned over immunization work in this area to the Agha Khan staff and a high degree of success is reported. Government health activities are confined to hospitals, each with one doctor and a few paramedicals. These facilities are poorly equipped and supplies are minimal. No electricity was available for the four months preceding the visit. The work of the Agha Khan Foundation in Hunza is a good example of cooperation with Government without duplication.
23. Aston, op. cit.
24. SAWSO, Memo to evaluators, March 1984.
25. The evaluators observed particular community support in Shantinagar, Chak 180, Hari Singh Wallah, Toluwalla and Qazipur (a future outreach area near Peshawar).
26. SAWSO, Matching Grant Report, April, 1984.
27. It is estimated by the rehabilitation project that fully half of its expenses were on behalf of one young woman patient. However, the CPHC recognizes the high cost of this type of rehabilitation and will not continue to support it. The effort at comprehensive surgical and physical rehabilitation services for this individual was undertaken specifically for the purpose of identifying and comparing costs between this approach and the less intensive interventions piloted in Peshawar. (It should be mentioned, however, that the CPHC funds expended were more than matched by the Government of Pakistan and a private hospital providing the surgical services). The effort was beneficial as a learning experience, aptly demonstrating the time and money required for comprehensive treatment of the severely handicapped, and dramatizing the cost-effectiveness of expanded immunization programs.

APPENDIX A

EVALUATION ITINERARY

- 3/25 Evaluation team arrives, meets THQ staff, Lahore
- 3/26 Team to Multan and Khanewal, Shantinagar (outreach, and literacy), Chak 86 (outreach), overnight at Khanewal Dispensary.
- 3/27 To Jhang Dispensary, Chak 180 (outreach), Christian Basti (Jhang) to observe literacy class. Overnight at Jhang Dispensary.
- 3/28 To Faisalabad Dispensary, Galilabad (outreach), return to Lahore.
- 3/29 A.M. writing. P.M. to Sadhoke (outreach and literacy). Overnight, Lahore.
- 3/30 A.M. writing. P.M. to Toluwalla (outreach and literacy) Overnight, Lahore.
- 3/31 Writing, Lahore. To Peshawar for overnight.
- 4/1 Peshawar (handicapped rehabilitation.) Tour Afghan refugee camp near Qazipur, observe dispensary and future outreach village at Qazipur. Overnight, Islamabad.
- 4/2 Meetings at USAID mission, Islamabad. Overnight, Lahore.
- 4/3 Writing, Lahore.
- 4/4 A.M.: Meetings with senior THQ staff.
P.M.: Debriefing with full THQ and field staff of project, including Nurses-in-Charge. Overnight, Lahore.
- 4/5 To Karachi and Hyderabad, overnight.
- 4/6 Visit Hyderabad Dispensary, Jacob's Tank and Hur Camp (planned outreach) Overnight, Karachi.
- 4/7 Writing. Overnight Karachi.
- 4/8 Depart Karachi.

APPENDIX B

The Salvation Army
WORLD SERVICE OFFICE
Matching Grant Report
April, 1984

Purpose, Goals and Objectives
Of
The Salvation Army World Service Office (SAWSC)

PURPOSE

TO BUILD THE KINGDOM OF JUSTICE AND PEACE

GOALS

- I. To assist in meeting Salvation Army development goals.
- II. To assist in meeting Salvation Army relief and reconstruction goals.
- III. To work in partnership with the disadvantaged in meeting their basic human needs for food, shelter, work, health, education, and a sense of fulfillment and self worth.

OBJECTIVES

- I. To work in the program areas of public health, income generation, food production and preservation, vocational training, housing, non-formal education, environmental stewardship.
- II. To engage only in programs which are based on the principles of beneficiary participation, self-help, cooperation, and mutual respect.
- III. To engage only in programs which benefit the disadvantaged.
- IV. To train indigenous Salvation Army officers and personnel in program skills, planning, management and evaluation.
- V. To facilitate interchange of program/technical information and evaluations among Salvation Army territories.



WORLD SERVICE OFFICE

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Development Criteria for Establishing Program Priorities

The program should:

- assist the disadvantaged to influence the forces affecting their economic, political and spiritual well being
- respond to community identified needs and be initiated, designed, implemented and evaluated in conjunction with the intended beneficiaries
- emphasize the role and importance of women in the development process
- promote community "ownership"/sustainable development by anticipating an initial and increasing commitment of resources by beneficiaries
- involve only culturally, institutionally and environmentally appropriate interventions and inputs
- embody a commitment to "extending the gift" thus encouraging beneficiaries to become agents of change
- be an opportunity for Christian witness, not a vehicle for sectarian purpose
- focus resources on program content, not physical structure. An investment in construction is never approached as an end in itself but as a means for providing an essential physical setting for self-help development efforts
- maximize limited resources and avoid duplication of efforts by encouraging collaboration and cooperation with other agencies and churches
- promote local self management/sustainable development by providing appropriate training and skills transfer

APPENDIX C

Details of the SAWSO Matching Grant

The proposal for a Matching Grant was submitted to AID in July 1980, just before the termination of the DPG in September 1980. The goal of SAWSO's Matching Grant was "to improve the quality of life of the poorest people in less developed countries." Its purposes were (1) to expand SAWSO's activities in LDCs by creating new projects and expanding existing projects, and (2) to improve the effectiveness of SAWSO's LDC activities in comprehensive health vocational training, and employment by upgrading project staff skills, facilities, and equipment. Another important purpose was to "assist staff in developing and utilizing host country expertise and resources to achieve matching grant project self-sufficiency."

The strategy to be used by SAWSO in providing health care, "comprehensive health services for the underserved poor," included "nutrition, family planning, small-scale food production, rehabilitation, water supply, etc." SAWSO planned two types of assistance to health (as well as vocational training) projects: financial allocations and technical assistance. The financial allocations were restricted to projects which met certain criteria. Projects must, for example:

- increase outreach to the poor in underserved areas;
- have measurable objectives, attainable within a specified time with the identified resources;
- have a detailed work plan and a specified time frame up to three years;
- have a full time "or at least primarily" dedicated manager and staff;
- have a realistic program to achieve self-sufficiency;
- as far as possible, serve (in order of priority) women, youth, and the elderly.

Technical assistance under the Matching Grant would be provided in AID-approved LDCs to:

- formulate, monitor, or evaluate projects;
- provide "resource development assistance and appropriate technology information";
- improve indigenous project management capability.

The outputs of the Matching Grant in all countries by the end of year three would be

- 45 projects (15 new projects created and 30 ongoing projects expanded) serving more than 1.5 million people;
- upgrading the health, vocational training, or management skills of matching grant project staff, numbering 150 by the end of year three;
- upgrading project facilities (e.g. sanitation facilities, laboratories, clinic supplies), 30 facilities by the end of year three;
- providing technical assistance to 150 project staff "to develop and utilize host country expertise and resources with the aim of achieving self-sufficiency."

In February, 1981, after two years of negotiations with SAWSO, AID approved funding of \$3,750,000 to SAWSO in support of 51 projects in ten developing countries. Of that total, 23 projects in six countries were to be health-related, involving community health, water supplies, nutrition, family planning, and health worker training. Seventeen of these projects were new, 44 were existing projects to be upgraded. All project designs were updated in mid-1981 and finally approved for implementation by SAWSO's trustees in November 1981. The SA raises over \$3,000,000 annually from private sources in the United States; over \$1,260,000 of that amount has been earmarked each year as SAWSO's contribution to match the AID grant. SAWSO is responsible for the selection, funding, administration, management and evaluation of all matching grant projects.

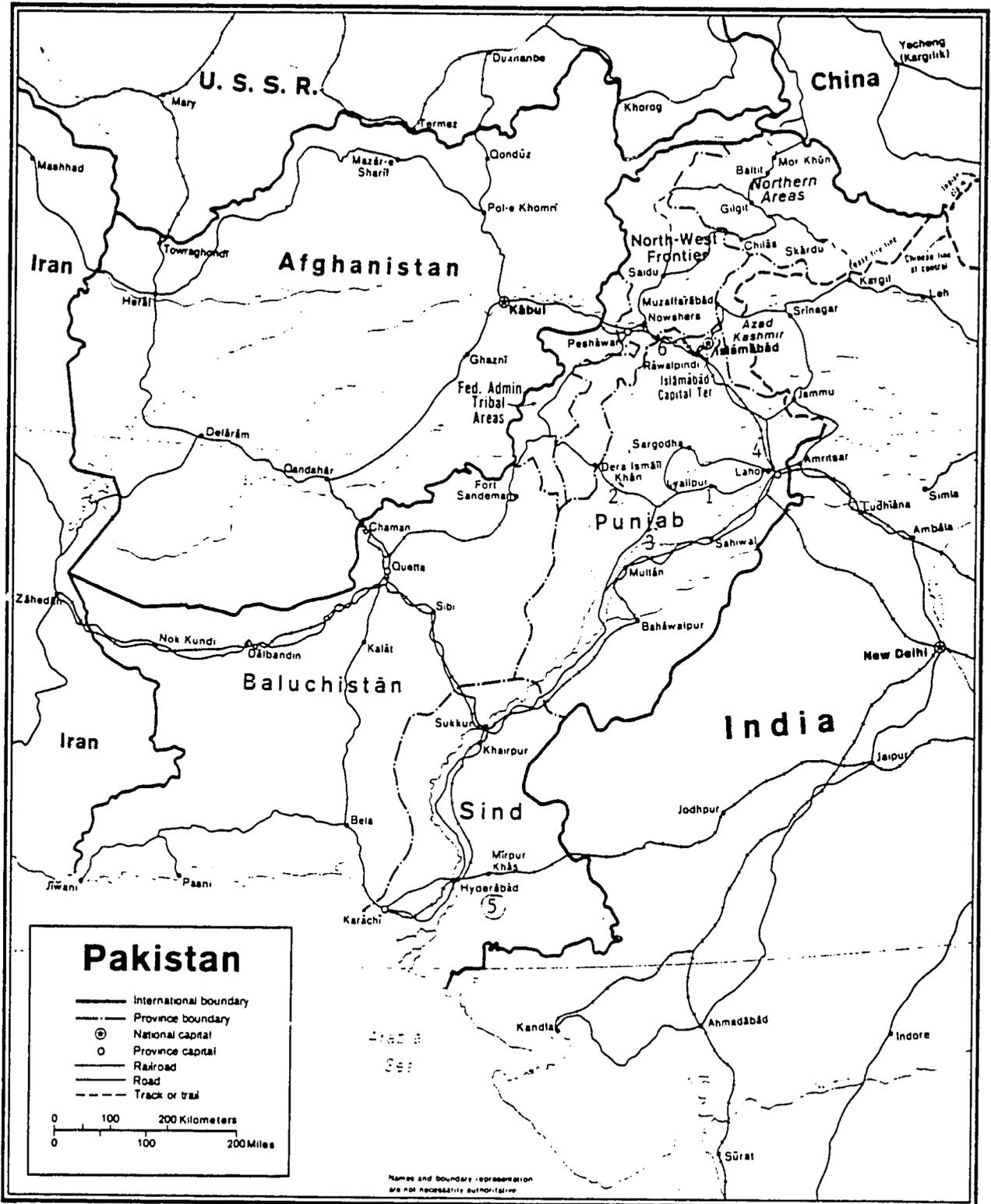
AID's matching grant has played a key role in building SAWSO's development assistance impact, in several respects* For example,

- in the past year, 1983-84, 35 SAWSO projects, involving over 100 impact areas, directly benefitted about 111,000 people;
- matching grant funds could be used for vital pre-project planning activities by project officers to prepare proposals for future projects - expenditures not permitted before the grant;
- annual funding could be provided for the first time to both small (\$10,000) and large (\$130,000) projects, and for pilot projects in several countries.

* SAWSO, "Program Report on the Matching Grant Awarded by AID", April 1984.

APPENDIX D

MAP OF PAKISTAN



Base 504018 1-79

Matching Grant Project Base Dispensaries

1. Faisalabad (ex Lyallpur)
2. Jhang
3. Khanewal
4. Lahore
5. Hyderabad
6. Gazipur

APPENDIX E

Health Issues in Pakistan

1. Inadequate Rural Health Systems

In Pakistan, as in most developing nations, over 70% of the health budget is spent on building hospitals, providing hospital care, and training doctors--none of which are accessible to most Pakistanis, who are poor and rural. Pakistan's 600 teaching, district, and "tehsil" hospitals are nearly all in urban areas or large towns. Because the majority of people (72%) live in rural areas or villages (under 5000 population) and cannot afford hospital care, in 1977 the GOP designed the Basic Health Services Project (BHS), supported by AID for four years, to provide primary health care by paramedics to rural villages and link them with health centers and hospitals in a nationwide service and referral system. (See BHS Project System chart, below, p. 87.) The GOP has also encouraged cost recovery, management efficiency, and a broader private health sector role.

Although over 4,000 doctors graduate each year from Pakistan's medical schools and at least three new medical schools are being developed, over one thousand doctors are unemployed. Only 500 new doctors a year can afford to set up a private practice; they join the 6,000 doctors with Western training already in private practice. USAID/Pakistan estimates that 80% of Pakistan's 16,000 doctors and 6,000 nurses, and 50% of 14,000 auxiliaries and 40,000 traditional practitioners* are in cities and towns, 19% of the rural population live more than five miles from any health facility. Despite the number of unemployed doctors in Pakistan, a 1978 survey found two-thirds of all GOP posts for doctors in rural areas were vacant; 19% of all MCH centers in the Punjab had been closed for lack of staff. (To remedy this, the GOP requires two years of rural service of doctors graduating after July, 1983.) This shortage of manpower in many areas is exacerbated by the imbalance in the health manpower hierarchy: there are substantially more

* The 1982 Statistical Pocket Book of Pakistan estimates nearly 27,000 registered physicians and 10,000 registered nurses, but may not take account of dropouts, deaths, and emigrants. Auxiliaries include lady health visitors and dispensers (who are considered PHC workers) and Medical Technicians; 18,000 additional health workers not considered PHC workers and not included in this discussion are called auxiliaries by the GOP (midwives, pharmacists, lab technicians, malaria workers, etc.) Traditional practitioners include hakims, homeopathic physicians, and "unani" pharmacists. From "Pakistan-PHC Project Paper," AID September, 1982.

doctors (mostly male) in Pakistan than all the types of medical auxiliaries added together, and nearly three times more doctors than nurses. In short, because of limited trained manpower and budgets, modern health services extend to perhaps as little as 5% of the rural population.

The GOP's health services are provided at the federal, provincial, and municipal levels; the Ministry of Health and Social Welfare (MHSW) in Islamabad plans and controls health programs, while provincial services are organized on a divisional and district basis, with the District Health Officer in charge of basic health units. Besides facing problems of trained manpower, budget, and supply shortages and manpower maldistribution, GOP health services also suffer from administrative difficulties related to functions and responsibilities at various levels. For various reasons the GOP and the people of Pakistan have for many years relied heavily on the private sector, including both private doctors, traditional practitioners, and PVOs for a substantial share of the nation's health and family planning services.

Recurrent costs are a major budgetary problem for the GOP, and one with which AID is currently assisting in its Primary Health Care Project (1982-1985). The GOP spends under \$1.50 per capita for recurrent health costs,* even though most Pakistanis do not use government health services; nonetheless existing national and provincial health budgets are inadequate, particularly for drugs, but also for salaries, transportation, and maintenance of facilities. GOP per capita real recurrent health expenditures increased at an annual rate of 1.2% between 1977 and 1982; at that rate of growth, even including AID's contribution to health, it will take over 30 years to provide PHC to only half the rural population. Clearly action is needed to build recurrent cost recovery mechanisms while improving GOP health services.

It appears that two or three times more is spent for private health care than the total GOP recurrent health expenditure. Traditionally people have expected the government to provide free health services even though they have always paid for both allopathic (western) and traditional care; now patient fees are being introduced (Rs 1.00 in the Punjab and 25 paise per patient elsewhere). Even with 100% population coverage, this income would not amount to more than 5% of recurrent costs. Any increase in fees will require improved GOP services; the AID supported PHC Project is currently testing various promising approaches to both improving services and recovering recurrent costs.

* FY/1981/82 recurrent GOP and Provincial Health Budgets totalling Rs 1,736,000,000. AID (PP).

2. Health Problems

Pakistan vividly demonstrates the complex Third World problem of high infant mortality combined with high birth rates. Its population of about 90 million, over 70% rural and 44% under age 15, is growing 2.8% a year; it is likely to grow to nearly 200 million around the year 2020. Pakistan's crude birth rate is 48 per thousand (one of the world's highest), its crude death rate 15 per thousand. About 15% of the crude death rate is from the deaths of children: infant mortality is estimated between 105 and 126 per thousand live births. About 20% (over 700,000) of Pakistani children born each year will die before age five.* Most of these deaths (as well as many unwanted births) can be easily prevented.

In rural areas the GOP estimates that two-thirds of all deaths are due to infections and parasitic diseases (other than malaria) such as gastro-intestinal diseases, tuberculosis and other respiratory diseases, fevers, skin disease, birth injury, and complications of pregnancy. Many of these deaths are preventable with MCH and family planning services. The primary killers of children are diarrhea (50%) and respiratory disease including tuberculosis (32%), exacerbated by malnutrition, which accounts for three-fifths of all infant deaths. Eighteen percent of deaths are from diseases preventable by immunization. Polio accounts for 80% of all disabilities, which affect up to 20% of Pakistani children. (SAWSO estimate). Most disease in Pakistan results from poor environmental sanitation, dirty water, poor nutrition, and poor hygiene. Potable water is available to between 5% and 15% of the rural majority; only one to six percent use latrines.** The FAO finds one of four Pakistani children malnourished; national per capita protein intake is about half of daily requirements. Protein-calorie malnutrition is therefore a major contributor to morbidity and mortality, particularly in dehydrated infants. Malnutrition estimates are 43% for first degree, 10% for second degree, and 7% for third degree.*** These problems are central to AID strategy in Pakistan.

* GOP, Planning Commission, Primary Health Care in Pakistan for Children's Survival, June 24, 1982. Cited in AID, Pakistan Primary Health Care Project Paper (PP), Washington, D.C., September, 1982.

** Estimates from 1977 and 1981 from AID (PP) and AID Office of Disaster Relief, "Pakistan, A Country Profile," Washington, D.C. 1983.

*** GOP, "Micro-Nutrient Survey Report 1976-77", quoted in SAWSO MG Proposal, Draft, June 1984.

GOP Basic Health Services Project

<u>Level</u>	<u>Client Population</u>	<u>Staff, Facilities</u>
Village	1,000	one male, one female community health worker (CHW)
Basic Health Unit (BHU)	10,000	one doctor, 2-3 health auxiliaries
Rural Health Centers (RHC)	100,000	three doctors, 8 auxiliaries 10/20 beds

NB: The three tiers shown above comprise one Integrated Health Complex

Tehsil Hospitals	380,000	two doctors, surgical, lab, x-ray
District Hospitals	1,160,000	Main specialties
Teaching Hospitals	Province	All modern facilities

APPENDIX F

Statement of Medical Policy - The Salvation Army In Pakistan

Christian medical work in developing countries, like every other facet of missionary service, must fit in with the needs of the country and this has to be true in two senses.

First, it has to be seen as an essential part of our witness for Christ and the Christian Gospel as was Christ's own ministry of healing.

Second, it should not duplicate or in any sense be in competition with the medical service already developed within the country.

Here, in Pakistan, there are usually adequate numbers of doctors and other medical workers in the towns and even in the rural areas there are some medical facilities and more developed medical centres exist in not-too-distant towns or cities. These, in the main, provide a curative service. In the past, our ten dispensaries, through the dedicated services of our nurses and staff, have provided such a curative service, mainly for the poor.

The years of experience in the medical work of this and other developing countries, has shown that many of the main, and often dangerous diseases that plague the people can be prevented and so much suffering avoided. A preventive medical service is not yet well developed in Pakistan in the urban or rural areas, and it is therefore our intention in the future, as a matter of policy for our medical work, to concentrate upon health education, preventive medical service and a public health programme. We shall aim to help the people to keep healthy and for the children to grow up healthy, and not just to treat sickness when it comes.

This effort will be directed in particular toward children, pregnant women and the very poor, which are the most vulnerable groups within the population. This will be in keeping with medical policies being developed throughout the world. This does not rule out completely, curative services. A balance between preventive and curative services can be maintained in keeping with current concepts of primary health care.

This new emphasis will be launched through a project funded by the Salvation Army World Service Office (SAWSO) and our medical programme in the future will consist mainly of clinics for children under five, to treat sick children and to teach parents how to care for their children, as well as providing preventive inoculations; the care of pregnant women to ensure safe childbirth and the treatment of such infectious diseases as tuberculosis. In addition, there will be an intensive effort

in teaching health education - the right diet, especially for children and the sick, standards of cleanliness and hygiene and better sanitation and the importance of early treatment in illness.

We feel a growing concern about the dependence upon so many drugs for treatment of minor illnesses by our people, and believe that a greater effort to help the people to achieve positive health of body, mind and spirit will enable them to find the joy, peace and usefulness that God intends for His children, without so often resorting to artificial means like chemical drugs.

APPENDIX G

Summary of CPHC Health Strategies

1. Maternity

Each outreach program is to provide at least one ante-natal clinic each week conducted by a midwife and assisted by VHWs for pregnant women in the village. If there is a fee, it is Rs. 2-3 per woman per pregnancy. At the ante-natal clinic pregnant women have their blood pressure and weight checked, undergo an external examination to ascertain fetal position and fetal heart sounds, and blood (haemoglobin) and urine tests. Tetanus toxoid vaccinations are given from the seventh or eighth month of pregnancy. Complicated pregnancies are referred to the nearest hospitals for delivery. Iron, calcium and vitamin tablets are provided. Local dais (midwives) perform actual deliveries; most have no training, but it is anticipated that the dispensaries will provide them basic kits containing razor blades, cord ties, and swabs.

Post natal services would be provided as group clinics or individual visits by VHWs, counselling mothers on breast feeding, growth monitoring, weaning foods, and family spacing, often integrated with well-baby clinics.

2. Family Spacing

Family spacing services, an objective added in 1983, are to be discussed with pregnant women during ante-natal and post-natal sessions. Outreach workers take supplies of contraceptives (when they are available from the base clinic) on outreach visits along with other basic supplies. In Faisalabad, where the numbers of family planning acceptors are higher than other areas, the contraceptive supplies available also include Depo-Provera, an injectable contraceptive available from the Family Planning Association of Pakistan or from the many pharmacies and street vendors. Depo-Provera is in great demand in Faisalabad.

3. Vaccinations

In some outreach areas, the GOP has approved the CPHC for participation in the official Expanded Program of Immunization (EPI). VHWs have been trained as vaccinators. Refrigerators for clinics and portable vaccine carriers for outreach were purchased. The EPI calls for vaccination of all children under five with three doses of DPT, one of BCG, one of measles, and three doses of oral polio. Vaccinations are recorded on "Road to Health Cards" and in VHW reports and reported to the District Health Officer (DHO). In some outreach areas, however, the project's VHWs were not authorized to vaccinate because government's EPI teams claimed they were covering these areas and the EPI wished to avoid duplication.

4. TB Screening, Treatment, Follow-up

The project objective "to screen, treat, and do follow-up of 25% of those families afflicted with TB" did not specify the nature of treatment or follow-up. Screening in the project normally consists of Mantoux testing and collecting sputums from suspected cases and analyzing them in the lab at the base clinic. Treatment includes medication prescribed by the Nurse and given for a month at a time; a small charge for medicine is made when possible by the Nurse-in-Charge. The VHWS also trace and screen patient contacts. Follow-up consists of seeking out "defaulters" who have not maintained medication.

5. Well Baby and Under Five Clinics

This component is the major effort to "reduce infant mortality." Most outreach visits at all ten sites include a well baby or "under five" clinic which, along with general health education discussions, are the most numerous of the VHW's services. Topics discussed include primarily nutrition education, with demonstrations of local vegetable dishes and powdered milk for supplementary feeding, oral rehydration, vaccinations, hygiene, family planning and growth monitoring using Road to Health cards. At some clinics, powdered milk is given to those infants and children requiring it. A small charge of Rs. 2 per half a kilo is made where possible. When malnourished or underweight children are found a feeding schedule is to be agreed on with the mother.

6. Curative Care

A strategy essential to all other project activities, and required to accomplish the project objectives, was the continued provision of purely curative services. The nurse-in-charge of each dispensary is to visit each village at least one half day a week. To promote the health of the outreach communities and to increase the public's interest in preventive activities, diagnosis and treatment of diseases take up all of the nurses' time. While strictly curative, these activities serve to enhance the role of the outreach teams and allow them to increase public awareness about prevention as well as cure. A few people are referred to a hospital during each outreach visit. Laboratory tests are arranged, to be reviewed with the patient during the next visit. Home visits to the sick and to TB patients for follow-up are sometimes undertaken by the nurses, but the VHWS do most preventive home visits (for ante-natal, post-natal, family planning, sanitation services).

7. Sanitation

Poor sanitation and the lack of potable water is widely known as a major cause of disease in Pakistan and was approved in October 1983 as a CPHP activity (although not mentioned among original project objectives.) Village leaders frequently

complain of dirty water and unsanitary village conditions, particularly the many pools of stagnant water in streets without proper drainage, and lack of latrines. They are aware that these conditions help spread communicable diseases and that muscle, not medicine, must remedy them; village leaders often request SA help in the form of technical advice, equipment, and seed money. A key strategy for improved health in the outreach areas would be to assist villagers in digging drainage ditches and eliminating standing water, building latrines, preparing proper garbage dumps, and supplying clean water. These responsibilities fell to the Environmental Sanitation Worker, the sole male member of the outreach team, who is supposed to work with village leaders to help them organize and finance such projects, usually using local volunteer manpower.

APPENDIX H

THE SALVATION ARMY

Comprehensive Primary Health Care Project
List of Staff Contacted by Evaluators in Base
Dispensaries and Outreach Villages

The Territorial Headquarters Management and Administration of
the Project

Territorial Commander & Project Director	Colonel Gordon Bevan
Chief Secretary	Lieutenant Colonel A. Pilley
Social Services Secretary	Major Rosemary Haines
Financial Secretary	Captain K.A. Middleton
Projects Administrator	Captain David Burrows
Project Accountant	Kris Khan
Consultant For Field Health Training and Technical Assistance	Sue Allibone
Consultant for Program Planning and Management	Thomas McClure
Assistant Co-ordinator	Juliette Iqbal
<u>Health Related Literacy Training</u>	
Co-ordinator	Mrs. Colonel G. Bevan
Supervisor	Mr. Emmanuel Khadem
<u>Supervisor of Services to the Handicapped</u>	
	Captain Irene Ogilvie
<u>Lahore Dispensary</u>	
Nurse-in-Charge	Major Eva Cosby
Grade-A Nurse/Midwife	Miss Margaret Taj Din

Laboratory Technician	Mr. Prem Arthur
Dispenser	Mr. Younas
Translator/Aid	Mrs. King
Helper	Mrs. Theresa Samuel
Driver/Helper	Mr. John B. Mall
Village Health Worker	Miss Sakina Abdullah (Sadhoke)
Village Health Worker	Mrs. Perveen (Essen)
Village Health Worker	Mrs. Greene (Essen)
Village Health Worker	Mrs. Shaamshad (Toluwalla)
Village Health Worker	Miss Akhtar Sultana
Community Health Supervisor	Mrs. Hina Akhtar Bhatti
 <u>Jhang Dispensary</u>	
Nurse-in-Charge	Sister Razia Sultana
Environmental Health Worker	Mr. Asif Maqsood
Literacy Teacher	Mr. Asif Maqsood (Jhang Central)
Literacy Teacher	Mr. Mehnga Masih (Chak 92)
Village Health Worker	Miss Zeenat (Chak 180)
Village Health Worker	Mrs. Naseem (Chak 180)
Village Health Worker/Midwife	Miss Ruth William (Chak 92)
Village Health Worker/Midwife	Miss Nasreen (Chak 92)
 <u>Khanewal Dispensary</u>	
Nurse-in-Charge	Major Alina Vanninen
Aid Nurse/Helper/Dispenser	Miss Asha
Aid Nurse/Helper	Miss Nasreen
Aid Nurse/Helper	Miss Josephine
Community Health Supervisor/Nurse	Miss Seraphine Bashir

Laboratory Technician	Mr. Rehmat Jalal
Village Health Worker	Mrs. Mable Sardar (Shantinagar)
Village Health Worker	Mrs. Naseem (Shantinagar)
Village Health Worker	Miss Mariam Rashid (Chak 86)
Village Health Worker	Miss Sabina Rose (Chak 86)
Driver/Helper	Mr. David Paul
Environmental Health Worker	Mr. Khazan Masih

Faisalabad Dispensary

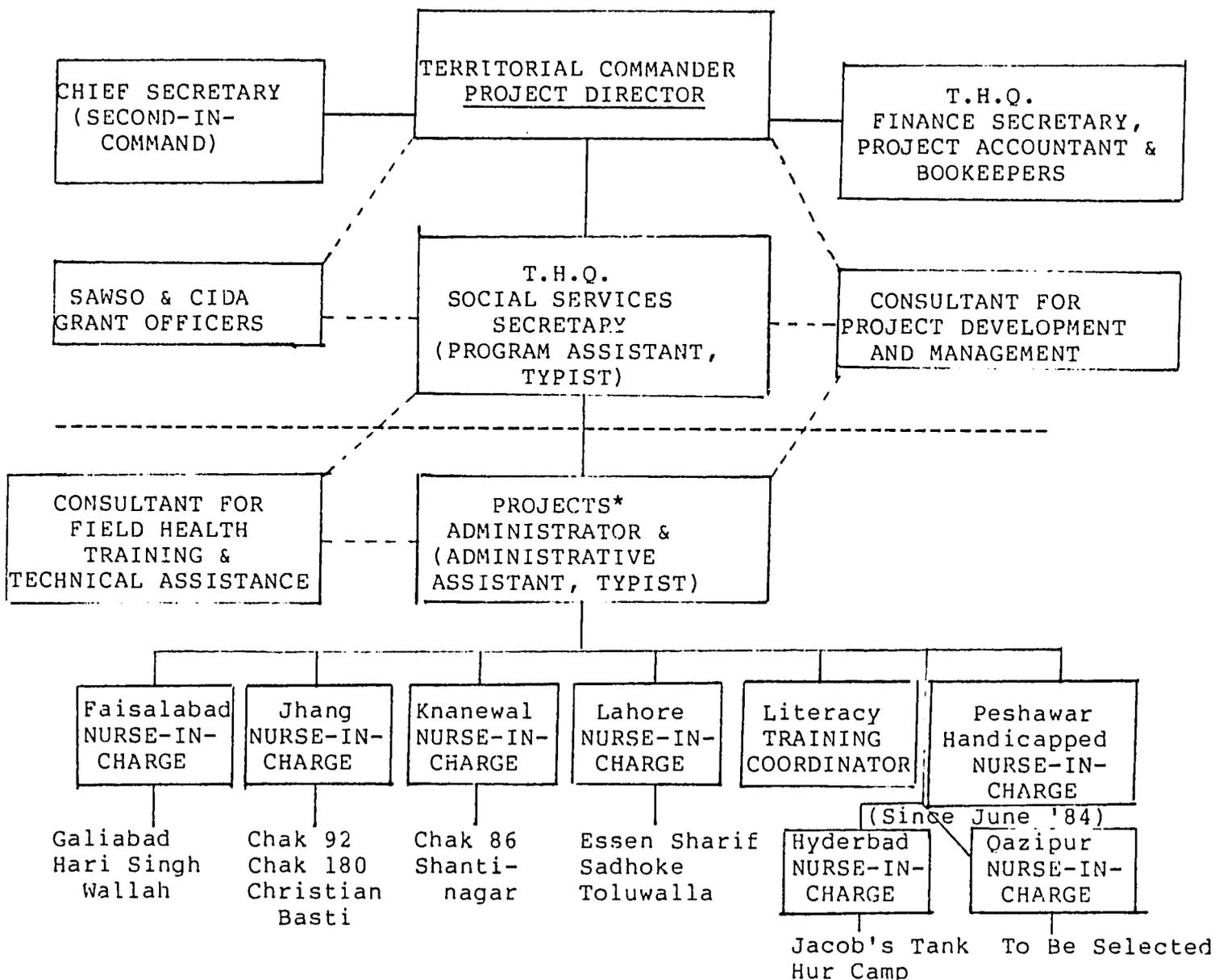
Nurse-in-Charge	Captain Margaret Barron
Staff Nurse	Miss Nagina
Aid Nurse/Helper	Mrs. Zarina William
Dispenser	Mr. William
Laboratory Technician	Mr. Albert William
Outreach Assistant	Mr. Warris Javaid
Driver/Helper	Mr. Mushtaq
Environmental Health Worker	Mr. Shafqat
Village Health Worker	Mrs. Mariam Shafqat (Hari-Singh Wallah)
Village Health Worker	Mrs. Majeeda Begum (Galilabad)

Appendix I

ORGANIZATION STRUCTURE FOR COMPREHENSIVE PREVENTIVE

HEALTH CARE PROJECT*

(AND AFGAN REFUGEE ASSISTANCE)



Discontinued: Chak 418 Arianagar Nizampura

* Full-time staff shown below horizontal dotted line (except Project Administrator, who works half-time on Afgan refugee project.)

Appendix J

BASELINE SURVEY DATA¹ (Outreach Areas Only)SERVICES REPORTED IN 1983²

Outreach Area	Total Pop.	Pop. Under 5	Pop. > one	# under 5 Immunized	Date of Survey	% Literate	Miles from Base Dispensary	"New" Children Served ³	TB ⁴	Under Nourished Babies ⁵	Under 5a ⁶	Ante-Natal	Family Plan ⁴
FAISALABAD	3200	400 (est)	119	0				265	26	23	3	-	11
Galilabad	500	62	18	?	9/83	?	10						
Hari Singh Wallah	2700	?	101		Not Done	28	25						
JHANG	6000	483	146	58				-	-	-	-	-	-
Chak 92	1500	185	59	42	2/84	19	?						
Chak 180	2500	223	74	16	10/83	29	38						
Christian Basti	2000	75	13	0	2/82	?	?						
KHANEWAL	8700	1242	189	5				3379	114	183	7395	40	21
Chak 92	1700	482	95	4	12/82	15	16						
Shantinagar	7000	760	94	0	12/82	?	7						
LAHORE	7950	988	210	372				1959	221	28	665	6	3
Essen Sharif	1720	300	60	227	3/84	15	40						
Sadhake	5000	444	93	25	12/82	?	15						
Toluwalla	1230	244	57	120	2/84	17	?						
TOTAL	25,850	3113	664	435				5613	361	234	8063	46	35

¹ Provided by SA, Lahore ² Summarized from reports provided by SA, Lahore. "Services" refers to numbers of contacts including attendance at health education/nutrition classes. ³ Children attending for the first time. ⁴ Includes repeat patients. ⁵ Not defined. ⁶ Clinic services for children under age 5.

Appendix K

Suggested Village and VHW Selection Criteria

A. Preliminary Village Selection:

1. Unity: No political/tribal religious factions quarreling with each other or vying for control.
2. Economic Potential: Ability to contribute cash or kind for development work. Not completely destitute.
3. Past Evidence of Community Participation: In projects benefitting the entire village.
4. Enlightened Leadership Present: Headman, teacher, health worker, etc. have demonstrated vision, interest, support.
5. Project Workers Resident in Village: Minimal community distance for VHWs.
6. The village is already getting some help from the Union Council or other external source.
7. Size: Small enough to permit easy mapping, surveying coverage by home visitation. (Roughly 1,000-2,000 population)
8. Accessibility: Not so distant from main arteries of travel, communication as to discourage regular supervision visits, interested visitors, etc.
9. Replicability: Sufficiently average to give best chance of duplication.

B. Final Village Selection:

1. Approval of village council after discussion about program.
2. Approval of women's groups.
3. Space to be provided free by village for PHC program, including safe storage of supplies and equipment.
4. Maulvi's approval and assistance in announcing services (e.g. loud speaker in Mosque announces PHC services).
5. Local funds contributed.
6. Volunteer labor contributed.

7. At least one Village Health Worker in PHC program lives in or near village.

C. Village Health Worker Selection Criteria

1. Residence: Preferably lives in or near village.
2. Sex: Female VHW to work mostly with women and children; male VHW to work with village leaders, sanitation, family planning.
3. Married: Married (preferably to each other) and with children (ideally using family planning!)
4. Education: Has at least basic literacy; also basic training in health, preferably as trained dais or midwives (women) or as sanitarians (men).
5. Maturity: Experienced enough to gain respect of villagers.

APPENDIX L

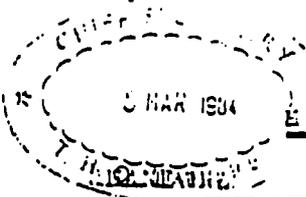
Project Staff Training Programs

<u>Staff</u>	<u>Program</u>	<u>Dates</u>
All Dispensary and Outreach Staff	Preventive Health Seminar - Territorial Headquarters, Lahore	November 29 - December 2, 1982
Nurses-in- Charge	Nurses Fellowship Seminar, Lahore	December 3 - December 5, 1982
EHWs and Nurses-in- Charge	Rural Health Care Project, Sialkot Seminar on Rural Sanitation	July 17 - July 20, 1983
VHWs and EHWs (Urdu)	Workshop for Health Workers Organized by the Christian Hospitals Association-Pakistan. (In English & Urdu Separately)	October 20 - October 27, 1983 October 28 - November 4, 1983
Nurses-in- Charge (English)	Nurses Fellowship Seminar, Lahore	December, 1983
EHWs	Environmental Health Workers' Seminar	February 20 - 21, 1984

- On-site staff training was carried out in all outreach areas with the Village Health Workers. Teaching sessions have been held at the base dispensaries.

APPENDIX M

THE SALVATION ARMY - PAKISTAN



M E D I C A L S T A T I S T I C S

DISPENSARY

SECRETARY
Month ending 2/2 1964

1964

DISPENSARY

PATIENTS	New	Repeat	Total
Ante-natal	5	55	60
Children	193	117	310
Men	160	113	273
Women	337	126	463
TOTALS	696	441	1137

Included in PATIENTS figures:-

- (a) T.B. Patients 77 (47)
- (b) Under-nourished babies
- (c) Family Planning 3

MOBILE CLINICS and/or PREVENTIVE HEALTH OUTREACH

No. of centres 2 *Shandiana - 21/66*

PATIENTS	New	Repeat	Total
Ante-natal	5	5	10
Children	56	45	101
Men	33	23	56
Women	70	41	111
TOTALS	164	114	278

Included in MOBILE or PREVENTIVE HEALTH figures:-

- (a) T.B. Patients 19 (7)
- (b)

CHILDREN'S CLINICS: No. held 45 No. of children 951
Percentage underweight for age 122

VACCINATION 30

TEACHING CLASSES: No. held 42 Attendance 779

FAMILY PLANNING 5 consultation in Hutton

HOME VISITS FOR FOLLOW-UP Shandiana 66 about 7/12 172

OTHER SERVICE IN VILLAGE (Please specify) Under-14s and bridge building

MIDWIFERY: Normal deliveries 2 Abnormal deliveries 3
Total deliveries 5 Total inpatients 6

LABORATORY TESTS 90 MEDICAL EXAMINATIONS -

PHYSIOTHERAPY -

VACCINATIONS (other than Prev. Health above) -

FREE TREATMENT (not including Prev. Health) 108

TOTAL PATIENTS REFERRED TO HOSPITAL 10

MEETINGS (other than morning prayers):
No. held 1 Attendance 6 Seekers -

Please turn over.....

STAFF	Consultants	Doctors		Nurses		Physio-therapist	Health S/visor	Comm. Hlth Worker	Village Hlth Wkr	Lady Hlth Visitor	Lab. Techn.	Dispenser	Finance/Admn.	Others	Non-skilled
		Part time	Full time	Qual-ified	Aides										
Officers				1											
Salvationists					2		1								
Other Christian				1				1	4		1				
Non-Christian															
TOTAL STAFF	11	(16)													

DISPENSARY ACCOUNT FOR MONTH

INCOME	Rs.	Ps.	EXPENDITURE	Rs.	Ps.
	Balance forward:	45528		96	Balance forward:
Medical Income (inc. registration)	9601	75	Current expenses	9665	47
T.E.Q. Grants	-		Charity		
Other S.A. Grants	1471	23	Special expenses		
Donations	4028	-	Other	50	-
Miscellaneous	162	-			
Balance (deficit)			Balance (surplus)	51082	47
TOTAL	60797	94	TOTAL	60797	94

PREVENTIVE HEALTH ACCOUNT FOR MONTH

20.2.84

INCOME	Rs.	Ps.	EXPENDITURE	Rs.	Ps.
	Balance forward:	20089		70	Balance forward:
Project grants	23218	25	Current expenses	9211	70
Other grants			Special expenses		
Donations - <i>Kitche charges</i>	460	-	Other - <i>Kitche charges</i>	32	30
Balance (deficit)			Balance (surplus)	34523	75
TOTAL	43767	95	TOTAL	43767	95

Note: These sections should agree with cash books.

Date 1/3/84 (Signed) C. P. M...
NURSE-IN-CHARGE

A copy of this form must reach T.E.Q. by the 10th of each month.
11/83

COMPREHENSIVE PRIMARY HEALTH CARE PROJECT - MONTHLY REPORTING FORMAT

PD 270, 273 - 276

YEAR ONE: MONTH OF _____		BASE DISPENSARY _____		OUTREACH AREA _____	
OBJ. NO.	(a)	(b)	(c)	(d)	(e)
1.	Number of Infants born: _____	Number of Infants who died: _____	Rate of Infant Mortality: $(b \times 1000) \div a$ = _____ /1000	Target Rate, i.e., 10% reduction in Rate established in Base-Line Survey: (Base-Line Rate = 90) $\div 100$ = _____ /1000	Number of Infant deaths that should have been averted to reach Target: $\frac{(c - d) \times (a)}{1000}$ = _____
2.	Number of cases of Diarrhoeal disease identified in children under FIVE: _____	Number of cases treated: _____	Treatment Rate: $(b \times 100) \div a$ = _____	Target Rate: 100%	Additional number of cases that should have been treated to reach Target: a - b = _____
3.	Number of children under FIVE in Base-Line Survey: _____	Total number of children under FIVE completely Vaccinated to date: _____	% Completely Vaccinated: $(b \times 100) \div a$ = _____ %	Target: 30%	Number yet to be completely Vaccinated to reach Target: $\frac{(a \times 30)}{100} - b$ = _____
4.a.	Number of 3 ^o Mal-nourished children under FIVE in Base-Line Survey: _____	Number of under FIVES who have improved from 3 ^o to 2 ^o to date: _____	% of children under FIVE suffering from 3 ^o Malnutrition: $\left\{ \frac{(a - b)}{a} \times 100 \right\} \div a$ = _____ %	Target: 10% decrease in number suffering from 3 ^o : $\left\{ \frac{(\% \text{ of under FIVES suffering from } 3^o)}{100} \right\} \times 90$ = _____ %	Additional number that must move from 3 ^o to 2 ^o to reach Target: $\frac{(c - d)}{100} = a$ = _____
4.b.	Number of 2 ^o Mal-nourished children under FIVE in Base-Line Survey: _____	Number of under FIVES who have improved from 2 ^o to 1 ^o or better to date: _____	% of children under FIVE suffering from 2 ^o Malnutrition: $\frac{(a - b)}{a} \times 100 = a$ = _____ %	Target: 10% decrease in number suffering from 2 ^o : $\left\{ \frac{(\% \text{ of under FIVES suffering from } 2^o)}{100} \right\} \times 90$ = _____ %	Additional number that must move from 2 ^o to 1 ^o or better to reach Target: $\frac{(c - d) \times a}{100}$ = _____

-78-

APPENDIX N

CNJ. NO.	(a)	(b)	(c)	(d)	(e)
5.	Current number of cases of Pulmonary T.B. : _____	Number of cases of Pulmonary T.B. receiving Treatment/ Follow-up _____	Rate of Treatment/ Follow-up $(b \times 100) \div a$ = _____ %	Target : 15 %	Additional number of cases that should have been treated/ followed-up to reach Target : $\frac{(a \times 15)}{(100)} - b =$ _____
6.	Number of women pregnant during reporting period : _____	Number of women receiving Ante-Natal care : _____	% receiving Ante-Natal care : $(b \times 100) \div a$ = _____ %	Target : 10 %	Additional number of pregnant women that should have received Ante-Natal care to reach Target : $\frac{(a \times 10)}{(100)} - b =$ _____
7.	Number of women aged 15 - 45 in Base-Line Survey : _____	Number of Family Planning acceptors (Can be either woman or her partner) : _____	% Family Planning acceptors : $(b \times 100) \div a$ = _____ %	Target : 5 %	Additional number of Family Planning acceptors needed to reach Target : $\frac{(a \times 5)}{(100)} - b =$ _____
8.	Number of public sources of potable water in Base-Line Survey : _____	_____	_____	Target : 1	Number needed to reach Target : $1 - a =$ _____
9.	Number of females aged 12 or over : _____	Number of literate females aged 12 or over : _____	% literate females $(b \times 100) \div a$ = _____ %	Target : 5 %	Additional number of females who must achieve literacy to reach Target : $\frac{(a \times 5)}{(100)} - b =$ _____
10.	Total number of children under FIVE with existing or incipient physical handicap during reporting period : _____	Number of children under FIVE with existing or incipient handicap whose families are applying preventive therapy : _____	% of children whose families are applying preventive therapy : $(b \times 100) \div a$ = _____ %	Target : 100 %	Additional number of children whose families must apply preventive therapy to reach Target : $a - b =$ _____

APPENDIX N (continued)

SANSD PREVENTIVE HEALTH: STAFF PLANNING SHEET.

FOR MONTH OF: ^{2, 1984} ~~FEBRUARY~~ ³¹ ~~MARCH~~ 1984 DISPENSARY: Faisalabad (HARISINGHWALA VILLAGE)

- OBJECTIVES: a) To improve health in selected areas
 b) Immunisation Programme
 c) Reduce Infant and Maternal Mortality

TASK PARTICULARS	BY WHEN (Date)	RESPONSIBILITY	REMARKS	Date Completed
1. COMPLETE SURVEY OF VILLAGE	MARCH 7	MR. SHAFIAT MS. SHAFIAT MR. MATI DUN (KARWAL) MR. AHLEEDD		
2. TABULATION OF SURVEY	MARCH 10	MR. & MS. SHAFIAT MS. AHLEEDD		
3. SEVERAL MEETINGS WITH VILLAGE COUNCIL AND WORK WITH THEM ON PLANNING OF SANITATION & DRAINAGE.	BETWEEN 27.2.84 AND 19.3.84	MR. SHAFIAT		
4. TO WORK WITH FAMILIES AND MOTIVATE CLEANLINESS AND HYGIENE IN THE HOME.	DAY TO DAY BASIS	MR. & MS. SHAFIAT	Delay for 4 months until accepted by village.	
5. TO CONTINUE EFFORTS IN MOTIVATING MOTHERS REGARDING IMMUNIZATION OF CHILDREN	DAY TO DAY BASIS.	MS. SHAFIAT		
6. TO ASSIST DIST. HOSPITAL WITH MOBILE CLINIC AS NEEDED.		MS. DARR		

SUBMITTED BY SHAFIAT ON 21-2-84 DATE
 REVIEWED BY _____ ON _____ DATE
 RECEIVED BY PROJECT DIRECTOR ON _____ DATE

NOTE: COPY OF THIS FORM TO BE SUBMITTED BY EACH DISPENSARY-IN-CHARGE TO PROJECT CO-ORDINATOR BY THE END OF EACH MONTH.

APPENDIX P

Operational Costs of Base Dispensaries (8/82-2/84)

<u>Dispensary</u>	<u>Total* (\$US)</u>	<u>Wages</u>	<u>Light Fuel</u>	<u>Officers Allowance</u>	<u>Medicine</u>	<u>Travel</u>	<u>Repairs Replace</u>	<u>Post Stat'n.</u>	<u>Feeding Pgme.</u>	<u>Oversight & Ambulance</u>	<u>Sundries</u>
Khanewal	287,261 (15,119)	61,923	12,319	24,196	72,083	6,526	19,011	2,863	---	64,000	24,340
Lahore	199,760 (10,513)	16,221	---	20,274	46,858	1,893	1,436	7,169	10,378	64,000	31,531
Faisalabad	322,286 (16,962)	45,817	10,847	28,579	89,555	21,654	6,367	3,361	3,889	64,000	48,217
Jhang	120,147 (16,324)	15,860	3,082	---	9,503	1,212	15,549	2,640	2,067	64,000	6,234
Peshawar	<u>75,086 (5,603)</u>	<u>15,745</u>	<u>---</u>	<u>11,535</u>	<u>25,833</u>	<u>8,334</u>	<u>---</u>	<u>1,639</u>	<u>---</u>	<u>12,000</u>	<u>---</u>
TOTAL	1,004,540 (64,521)	155,566	26,248	84,564	243,832	39,619	42,363	17,672	16,334	268000	110,322

* Shown in Rupees: \$1.00 U.S. = Rs. 13.4

COMPREHENSIVE PRIMARY HEALTH CARE PROJECT - BASE-LINE SURVEY FORM

Name of Surveyor سرورے کنندہ کا نام		Name of Informant اطلاعات کنندہ کا نام		Household Religion گھرانے کی مذہب	Block No. بلاک نمبر	House No. مکان نمبر	Name of Village/Basti گاؤں/بستی کا نام		Date تاریخ	Form No. فارم نمبر		
Is a family Planning acceptor	Is Suffering from 1 ^o malnutrition	Is Suffering from 2 ^o malnutrition	Has Commenced TB treatment	Has TB	Has had tetanus toxoid	Is Pregnant	Is Literate	Sex	Age	Relationship with head of Household	Name of Household Members	Sr. No.
کیا خاندانی منصوبہ بندی کو قبول کرتا/کرتی ہے	کیا تیسرے درجہ کی غذائی کمی ہے	کیا دوسرے درجہ کی غذائی کمی ہے	کیا تپ دق یا آئی بی کا علاج شروع کیا ہے	کیا تپ دق کا مریض ہے	کیا قینچ یا کوڑھ لائیکرنگ چکایا ہے	کیا حاملہ ہے	کیا خواندہ ہے	جنس	عمر	رکن اہل خانہ کے ساتھ رشتہ	گھرانے کے افراد کے نام	نمبر شمار
												1
												2
												3
												4
												5
												6
												7
												8
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												13
												14
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												16

APPENDIX Q

No. of infant deaths (age 0-12 months) in household during last year	Measles	VACCINES RECEIVED									BCG	Has Some existing/ incipient physical handicap	نمبر شمار	
		Polio			DT			DPT						
		3	2	1	3	2	1	3	2	1				
کئیہ میں گزشتہ سال کے دوران چھوٹے بچوں کی اموات ریسفر سے بارہ ماہ تک شہر کی ترازو	خسرہ	وصول کروا جانا چاہیے									ہا۔ کی۔ جی	کیا کوئی ابتدائی ریپرائٹنگ، جسمانی منہدی ہے		
		پولیو ویکسین			ڈی۔ ٹی۔ ویکسین			ڈی۔ پی۔ ٹی۔ ویکسین						
		۳	۲	۱	۳	۲	۱	۳	۲	۱				
													1	
														2
														3
														4
														5
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Appendix R

SAWSO Pakistan Matching Grant Expenses

(Total: 1982-1983 in U. S. Dollars)

	<u>FIELD</u>	<u>HOME</u>	<u>TOTAL</u>
SALARIES	50,794.83	11,168.20	61,962.43
Fringes		493.66	493.66
Professional Fees	5,341.79	3,374.94	8,716.73
Travel	17,650.25	2,313.90	19,964.15
Publications	855.42	301.38	1,156.80
Occupancy	4,181.35		4,181.35
Telephone Telegram	663.66	947.66	1,611.32
Equipment Rental	1,647.50		1,647.50
Office Supplies & Expen.	5,269.94		5,269.94
Repairs & Maintenance	4,843.83		4,843.83
Postage	136.17		136.17
Printing & Xerox	1,703.37	80.89	1,784.26
Bank Charge	20.09	15.00	35.09
Project Equipment	26,600.81		26,600.81
Freight	1,256.24		1,256.24
Conference Fees	2,718.59		2,718.59
Medical	42,641.18		42,641.18
Miscellaneous			
Training Materials	5,632.31		5,632.31
Construction	1,073.27		1,073.27
Project Supplies			
Loss (Gain) on Exchange	32.25		32.25
Support on Individuals	3,150.29		3,150.29
Food	2,440.37		2,440.37
Total Direct Cost	178,588.41	18,691.63	197,284.04
Indirect Cost			17,662.08
TOTAL COST			214,946.18