

WORLD RELIEF CORPORATION (WRC)/CHRISTIAN SERVICE SOCIETY (CSS)
BANGLADESH CHILD SURVIVAL VII PROJECT

Khulna, Bangladesh

MID-TERM EVALUATION

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1. **Accomplishments**

In the original (old CSP) area, the project has been operating for 69 months. In the new CSP area, the project has been operating for 24 months. The project has held 42 initial and 45 refresher training sessions in the expansion phase (CSVII), trained 366 volunteer health workers (17f CHWs; 195 TBAs), and educated 41,833 women of childbearing age,

From January 1992 to September 1993, the project created 293 women's cooperatives, with a total of 4,981 members who saved **Tk439,222 (US\$11,262)** and who obtained 1,138 loans totaling **Tk3,231,875 (US\$81,613)**. To date, 100% of cooperative loans are being paid back on time at a rate of a% weekly.

Growth monitoring and nutritional counseling is being provided for 5,829 children (0-23 months), 1,783 of whom are malnourished and 318 of whom are severely malnourished. Kitchen gardens containing vitamin A rich vegetables have been planted by 29,255 women 15-45.

Trained TBAs provided antenatal care to 3,832 women and distributed post-partum vitamin A supplement to 4,001 mothers.

Complete immunization coverage of children (1223 months) has increased from 58% to 92%, and the proportion of women 15-45 years of age who have received two doses of tetanus vaccine has increased from 37% to 55%.

The prevalence of mothers who use ORT when their children have diarrhea has increased from 47% to 99%. Sanitary latrines have been installed in 1,001 homes.

The prevalence of contraceptive use among eligible couples has increased from 34% to 56%.

The project interventions reach 4,372 infants, 15,382 children 12-71 months, and 41,833 women 15-45 years of age. This represents nearly 100% of the total beneficiary population, since the project is census based.

2. **Relevance to Child Survival Problems**

The main causes of infant and child mortality and morbidity in the project service areas are neonatal tetanus, diarrhea, malnutrition, measles, vitamin A deficiency, and acute respiratory infection (ARI). All are aggravated by extreme poverty and lack of education, and all but ALI are specifically targeted by the project. The following are the child survival interventions and health promotion activities initiated by the project:

1. **Women's** savings and loan cooperatives.
2. Community health education to promote the following:
 - a. **Immunization (EPI)**
 - b. Diarrheal disease control
 - c. Nutritional improvement
 - d. Family planning
3. Training of traditional birth attendants (TBAs).

This mix of project interventions is appropriate to address the key problems of child survival in the community, as well as the underlying poverty which aggravates them. The project is characterized by active community participation and collaboration with existing health services of the Ministry of Health and Family Planning (MOHFP).

3. Effectiveness

The percent of target populations covered by project interventions and the the percent of Year 2 objectives achieved are shown in tables on the following two pages. In general, good progress has been made toward meeting the Year 2 objectives for all interventions in both the old and new project areas, with the exceptions of tetanus toxoid immunization and growth monitoring in the old project area, and the establishment of women's cooperatives in the new project area.

4. Relevance to Development

Ignorance and poverty are the main community barriers to meeting the basic needs of its children. The outstanding characteristic of this project has been its success not only in disseminating sound health messages (and some special skills), but also in financial empowerment to put those messages into practice. In this way, the project fosters an environment which increases community self-reliance, and enables women to better address the health and nutrition needs of their families.

5. Design and Implementation

5.1 Design

The project operates within well-defined areas. In October 1991, the project expanded from its original ("old CSP") area (population 93,256) to include a new ("new CSP") area (population 111,941), for a total current project area population of 205,197. Expansion into the new CSP area has been successful, with effective application of lessons learned in the old CSP area, particularly with regard to income generation activities, as evidenced by the high rate of repayment of loans in the new CSP area. Other outcomes in the new CSP area, such as EPI coverage, use of oral rehydration therapy (ORT), and decreasing levels of malnutrition also compare favorably with the old CSP area.

The project has set measurable objectives of outputs and outcomes. An additional measurement which may be helpful in evaluating project impact would be the prevalence of night blindness.

Project management has been willing to make changes when appropriate, and the directions and strategies the project has undertaken have been justified by the needs of the community and lessons learned. However, there is an inclination to provide more direct services, such as medical care and payment of hospital expenses, which should be resisted unless a sustainable strategy can be identified and adequate precautions taken so that direct service provision does not interfere with other project activities. For example, it was observed that the presence of a treating physician at a growth monitoring session interfered with mothers' participation in nutritional counseling.

WORLD RELIEF/CSS CHILD SURVIVAL OBJECTIVES
Percent of Target Population Covered by CSP Interventions

Fiscal Year: 1993/Fourth Quarter: July-September, 1993

	OBJECTIVES	Year-to-Date		Year 2 Target Pop.		% Target Pop. Covered	
		OLD	NEW	OLD	NEW	OLD	NEW
1.	Children 12-23 months completely immunized	1,423	1,869	1,441	2,133	98.8%	87.6%
2.	Women 15-45 immunized with two doses Tetanus Toxoid	12,087	10,931	19,613	22,220	61.6%	49.2%
3.	Mothers of children 0-23 months who administer ORS/ORT when their children have diarrhea	98.8%	99.0%	N/A	N/A	98.8%	99.0%
4.	Mothers of children 0-23 months who know to give greater amounts of fluids to a child with diarrhea	K&P	K&P	N/A	N/A	N/A	N/A
5.	Mothers of children 0-23 months who know to seek help when a child has signs of dehydration	K&P	K&P	N/A	N/A	N/A	N/A
6.	Mothers who exclusively breastfeed their children through the fourth month	K&P	K&P	N/A	N/A	N/A	N/A
7.	Mothers who know to introduce weaning foods at five months	K&P	K&P	N/A	N/A	N/A	N/A
8.	Children 0-23 months weighed bimonthly	2,663	3,166	3,344	4,602	79.6%	68.8%
9.	Women 15-45 who have a kitchen garden in their homes	15,109	14,146	19,613	22,220	77.0%	63.7%
10.	Children 12-71 months who had two 200,000 IU doses of Vit A within last 12 months	7,002	8,380	8,305	9,289	84.3%	90.2%
11.	Mothers who received 200,000 IU Vit A in first month postpartum	2,156	1,845	3,649	2,319	59.1%	79.6%
12.	Able couples using a modern contraceptive method	9,764	10,608	16,849	19,314	51.6%	54.9%
13.	Pregnant women who consult a TBA during first trimester of pregnancy	84.2%	76.2%	N/A	N/A	84.2%	76.2%
14.	Pregnant women who eat more than usual during pregnancy	K&P	K&P	N/A	N/A	N/A	N/A

Note: Objectives 4, 5, 6, 7 and 14 will be assessed through the K&P and not the HIS.

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WORLD RELIEF/CSS CHILD SURVIVAL VII OBJECTIVES - YEAR 2 SUMMARY SHEET

PERCENT OF YEAR 2 OBJECTIVES ACHIEVED

Fiscal Year: 1993/Fourth Quarter. July - September, 1993

Prepared by: Hassain Bhai

OBJECTIVES	Year-to-Date		Year 2 Goal		YR2 % Realized		END OF PROJECT (EOP)					
	OLD	NEW	OLD	NEW	OLD	NEW	Project to Date		EOP Goal		EOP % Realized	
	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	NEW
1. Children 12-23 months completely immunized	1,423	1,869	1,081	1,852	131.6%	100.9%	1,423	1,869	1,561	2,025	91.2%	92.3%
2. Women 15-45 immunized with two doses Tetanus Toxoid	12,087	10,931	14,710	11,110	82.2%	98.4%	12,087	10,931	16,082	15,943	75.2%	68.6%
3. Mothers of children 0-23 months who administer ORS/ORT when their children have diarrhea	98.8%	99.0%	50%	50%	197.6%	198.0%	99%	99%	60%	60%	164.7%	165.0%
4. Mothers of children 0-23 months who know to give greater amounts of fluids to a child with diarrhea	K&P	K&P	K&P	K&P	K&P	K&P	K&P	K&P	60%	60%	K&P	K&P
5. Mothers of children 0-23 months who know to seek help when a child has signs of dehydration	K&P	K&P	K&P	K&P	K&P	K&P	K&P	K&P	60%	60%	K&P	K&P
6. Mothers who exclusively breastfeed their children through the fourth month	K&P	K&P	K&P	K&P	K&P	K&P	K&P	K&P	65%	65%	K&P	K&P
7. Mothers who know to introduce weaning foods at five months	K&P	K&P	K&P	K&P	K&P	K&P	K&P	K&P	80%	50%	K&P	K&P
8. Children 0-23 months weighed bimonthly	2,663	3,166	2,675	1,381	81.9%	229.3%	2,663	3,166	2,811	2,830	78.2%	111.9%
9. Women 15-45 who have a kitchen garden in their homes	15,109	14,146	14,710	13,332	91.2%	106.1%	15,109	14,146	16,082	14,804	93.9%	95.6%
10. Children 12-71 months who had two 200,000 IU doses of Vit A within last 12 months	7,002	8,380	6,229	6,967	112.4%	120.3%	7,002	8,380	6,914	8,568	101.3%	97.8%
11. Mothers who received 200,000 IU Vit A in first month postpartum	2,156	1,845	1,789	1,509	120.5%	122.3%	2,156	1,845	1,845	2,127	116.9%	86.7%
12. Able couples using a modern contraceptive method	9,764	10,608	10,109	8,691	96.6%	122.1%	9,764	10,608	11,226	10,888	87.0%	97.4%
13. Pregnant women who consult a TBA during first trimester of pregnancy	84.2%	76.2%	40%	30%	210.5%	254.0%	84%	76%	50%	40%	168.4%	190.5%
14. Pregnant women who eat more than usual during pregnancy	K&P	K&P	K&P	K&P	K&P	K&P	K&P	K&P	50%	40%	K&P	K&P
15. CHWs trained	80	91	78	87	102.6%	104.6%	80	91	78	87	102.6%	104.6%
16. TBAs trained	94	99	85	97	110.6%	102.1%	94	99	85	97	110.6%	102.1%
17. Women's cooperatives established	169	124	172	220	98.3%	56.4%	169	124	172	220	98.3%	56.4%
18. CHCs functioning	78	88	78	87	100.0%	101.1%	78	88	78	87	100.0%	101.1%

Note: Objectives 4, 5, 6, 7 and 14 will be assessed through the K&P and not the HIS.

5.2 Management and Use of Data

Most project data is collected by **CHWs using a community** registry. The registry is simple and well-understood by **CHWs**. Data collection appears to be complete.

Some indicators need to be added, and others refined. For example, **prevalence** of nightblindness should be added and the number of malnourished children who do not improve should be monitored. Currently, only the prevalence of malnourished children is being monitored. Follow-up of 15 severely malnourished children before project interventions were implemented found that only 4 had improved.

The balance between qualitative and quantitative data collection is appropriate in principle, but in practice qualitative data collection, such as that obtained by supervisory checklists to evaluate operations at growth **monitoring** centers, has been **relatively** neglected.

A baseline 30-cluster knowledge and practice survey was done in October-November 1991 in the new CSP area, and a similar survey was done in March-May 1992 in the old CSP area. Baseline data were used to establish project priorities and to design project interventions. For example, 50% of children had had an episode of diarrhea in the two weeks preceding the survey and less than half received oral rehydration solution (ORS). Diarrhea prevention and treatment with ORS were made project priorities and appropriate education to prevent and treat diarrhea, as well as recognize signs of dehydration, was implemented.

An example of data-based decision making was the decision to limit **participation** in loan cooperatives to women only, as the default rate on **individual** loans to men was unacceptably high. Since the expansion phase of the project is only three years, surveys are conducted only at the **beginning** and end of the project. Rather, census-based family registry data are **collected** bimonthly to be used for decision making. However, CSP staff did not appear to be **utilizing** these data to influence decision making.

The project's routine health information system (the family registry system mentioned above) is somewhat lacking in quality control. Although there are **provisions** for **supervisory** spot checks to confirm accuracy of **data** collected by **CHWs**, we found these spot checks were not always, **being** routinely conducted according to protocol, and the **results** of spot-checking were not **being** adequately monitored. Local staff have the management and technical **capacity** to maintain the health information system, but they need to be more **systematic** in its operation.

Feedback and distribution of health information also needs to be improved. Data collectors, project staff, counterparts and community members (especially Community Health Committees) all would benefit by being **more** fully informed of community health problems and the impact of project **activities**.

Reporting of summary data is bimonthly, This is adequate, but **USAID** requires **quarterly (trimonthly)** reports. Because many factors affecting **child survival in Bangladesh** are seasonal or epidemic in nature, we hope that **bimonthly tabulation of data will** continue in order to maintain timely **surveillance**.

Headquarters and local field staff have documented and institutionalized lessons learned, but little effort has been made to share them, particularly with other **NGOs** in the area. More cooperation with other child survival projects would benefit all.

5.3 **Community Education and Social Promotion**

The CSS **CS** project is a health promotion/social mobilization project which supports the activities of **MOHFP**. For the most part, service provision is only provided in cases where the **MOHFP** is not providing service delivery such as growth monitoring, or where there is lack of access to **MOHFP** services. The balance is appropriate given the need for sustainability of project activities and education is linked to all available government services.

Community education is being carried out by volunteer community health workers (**CHWs**) selected by each community, ladies' attendants and **TBAs** who are trained by the **CSP** in EPI, diarrhea control, breastfeeding, nutrition, growth monitoring, vitamin A, birth spacing and maternal care.

The **CHWs** make home visits bimonthly to each family in their village at which time health messages and demonstrations are given. The **CHW** also holds monthly mothers' group meetings. At each mothers' meeting a particular **CS** topic is discussed.

Mothers were randomly selected and interviewed in both the old and new **CSP** areas, as well as in the rural union and city slums of Ward 15. During these interviews evidence was given that the **CHWs** are regularly making home visits, conducting mothers' group meetings, growth monitoring and other necessary duties. All mothers interviewed except one knew their **CHW** and attested to the home visits that had been made and education given. All mothers questioned knew about the mothers' group meetings, but only about half said they attended these meetings. Most mothers said that they enjoyed the meetings because they can share and learn from the **CHW** and other mothers. Attendance records kept by the project show that 56% attend the group meetings.

Interviews with **CHWs** and mothers revealed that most of the project health messages were adequately being transmitted, especially those on **EPI**, the use of **ORS/ORT**, breastfeeding and general nutrition. Messages that need to be strengthened are feeding a child two extra meals for a week after diarrhea, that vitamin A and vitamin A rich foods prevent night blindness and to space births by at least two years for the health of the mother and child.

Community education is also given to women's income generation cooperatives during monthly meetings. These cooperative meetings are conducted by ladies' attendants that are trained and salaried by the **CSP**. The poorest mothers of children under 6, especially mothers of malnourished children, are selected for the women's cooperatives where small loans are given to enable them to start small businesses. During cooperative meetings mothers learn how to save money, start businesses, read and write, and they are given training on the health of their child.

Finally, most **TBA**s who are not already included in the MOHFP training program are being trained by the CSP in prenatal care; how to conduct safe, clean deliveries; referral of complicated pregnancies; proper nutrition for the newborn and mother; and distribution of post-partum vitamin A.

Interviews with the **TBA**s revealed that they were well trained in all areas. There were, however, several health messages which need to be strengthened in the TBA training: 1) a previous history of complicated delivery is an important risk factor for women, 2) women above age 35 should be considered high risk, 3) births should be spaced by 2 years for the health of the mother and child, and 4) post-partum vitamin A is given to women for the health of the child and to prevent nightblindness.

The CSP utilized knowledge and practice data from the baseline survey and in-depth interviews with mothers to develop the health messages for the writing of the DIP. Project staff participated in focus groups conducted by Dr. Gretchen Berggren during her consultancy on October 15-28, 1992 to refine the health messages and project strategy and to help the project better understand mothers' beliefs and practices with regard to nutrition. All of the project health messages have been written in the CHW register which the CHW carries to every home visit and mothers' group meetings to ensure that health messages given by the CHWs are consistent. However, CSS does not have a system in place to test whether or not the messages to mothers are consistent. Tests are not given during initial or refresher training sessions to supervisors, CHWs, or TBAs. Supervisory checklists for CHW training sessions have not yet been put into place as described in the 1st Annual Report.

Printed materials are not being distributed by the project, since the MOHFP does not have materials which can be distributed and the CSP budget does not have sufficient funds for this. The primary mode of education for the communities is nonformal, since only 26% of mothers in the CSP area read. Thus, use of printed materials was not considered a priority strategy for the project.

The project lacks creativity in its approach to community education. All training sessions which were observed (with the exception of the TBA training which used demonstrations and practiced procedures) employed a question and answer format. In all training sessions the evaluation team observed, the supervisors questioned the CHWs who would stand and respond. The remainder of each session was conducted as a lecture. Very few visuals, such as flip charts or posters, were used and those used were too small for all to see. The project should explore the use of culturally appropriate forms of participatory education such as the use of songs, drama, stories or practical demonstrations. In addition, problem solving discussions should be held in each refresher training, whereby the CHWs and TBAs could discuss problems and solutions. No assessment of the level of learning has occurred in the project with regard to educational methods used.

6.4 Human Resources for Child Survival

There are a total of 64 persons working in this child survival project, excluding volunteers. The numbers and mix of staff are adequate to meet the

technical, managerial, and operational needs of the project, with one notable exception. The project would be improved by the addition of a full-time health educator who is well-versed in interactive methods for community health education and the training of trainers. No such person has yet been identified, and consideration should be given to training up someone already associated with the project.

Two physicians are currently on trial with the project, but only one has been actively involved to date. His involvement has largely consisted of direct service delivery, which has created increasing demand for services from the community, but which is beyond the scope of the project and raises serious concerns about sustainability. Direct service delivery would best be included in project activities only if it could be sustained without outside assistance, possibly with financial support coming from the women's cooperatives. Project staff have local counterparts in the MOHFP with whom they enjoy excellent relations.

Of the total project staff, 364 (85%) are community volunteers. Volunteers are either CHWs (171) or trained TBAs (193). CHWs receive allowance (Tk300/month; US\$7.58) sufficient to cover little more than their transportation costs. TBAs receive Tk50 (US\$1.26) for each training session attended only. All volunteer health workers are multi-purpose and are trained to provide all project health messages. CHWs refer mothers to trained TBAs for prenatal and maternity care. The workload for CHWs is higher than for most TBAs, but it appears to be reasonable for all. All but one of the approximately 20 mothers interviewed in widely scattered locations during the evaluation stated they had been visited by a CHW at least within the past 4-6 weeks.

Days of training received by project CHWs and TBAs are shown below for both the old and new CSP areas,

	Old CSP		New CSP	
	CHWs	TBAs	CHWs	TBAs
days of initial training	10	10	10	10
days of refresher training	40	4	29	4

Training needs of candidate volunteers were objectively evaluated as part of the selection process before embarking on initial training, but no objective evaluation is used to evaluate training needs before refresher training.

Training would be improved by incorporation of more interactive methods. That a dedicated health educator is needed to achieve this was evident when we

found a detailed diarrhea curriculum jointly developed by local and headquarters staff had not been incorporated into the training program. There is also a need for more objective evaluation of the volunteers' knowledge and practice. Periodic combined refresher training sessions with both CHWs and TBAs would improve coordination of their activities. Such a session was recently necessary in response to failures of communication between CHWs and TBAs in the field. With recommended changes in training methodology, the length of training is certainly sufficient to prepare the volunteers for their assigned tasks.

5.5 Supplies and Materials for Local Staff

The only educational manual which has been distributed to the CHWs is the HIS manual, which gives instructions on how to fill out the family register and which outlines project objectives and health messages. There are some educational materials in a health library in each of the service centers. CHWs interviewed responded that they find the materials in the libraries helpful and that they use them regularly.

The materials given to CHWs are appropriate for the CHWs' job, but materials such as a CHW manual which describes educational methods for each of the project interventions may also be helpful. In addition, one CHC member mentioned that materials that would be very helpful to the CHW would be a bag for the CHW register and an umbrella for home visits.

5.6 Quality

Local staff enjoy an excellent relationship with area mothers and provide appropriate counseling and support; however, we found some minor deficiencies in their technical knowledge and skills. General health messages were well-understood, but details were sometimes lacking. These deficiencies did not seriously alter the impact of the project, but reflected more a need for fine tuning of the training methods and curricula.

5.7 Supervision and Monitoring

Supervision and monitoring of CHWs is carried out by salaried field supervisors (one per every five CHWs). This is accomplished by random spot-checking to confirm the validity of information reported by CHWs, by consultations in the field, and by participation in refresher training sessions. As noted above (sections 5.2 and 5.4) spot-checking tends to be haphazard and evaluation in training sessions is subjective at best. Still, supervisors appear to be accessible to field staff and refresher sessions are well attended. From January through June 1993, however, CHW refresher sessions were cancelled due to the unavailability of supervisory staff, Ramadan, flooding, and an epidemic of diarrhea. Refresher sessions are now being held monthly to make up for those missed.

Field supervisors are supervised and monitored by union officers who are in turn supervised and monitored by the project coordinator, with overall direction from the child survival director.

Supervision and monitoring of TBAs is done by maternal health trainers, of which there is now only one, via consultations and bimonthly refresher training sessions. Monitoring of knowledge and practice (but not services) is subjective, but the knowledge of the trained TBAs appeared to be excellent. This may be the result of the interactive training methods which were much more in evidence than in the CHW sessions. Ultimate supervision and monitoring of TBAs is also the responsibility of the child survival director.

The child survival director is available only half-time. As a result, supervision and monitoring at all levels has not been as thorough, systematic, and objective as it could be.

From the viewpoint of the health workers, most of the supervision is counseling/support and on-the-job education, with little performance evaluation or administration.

Monitoring and supervision for the remainder of the project would be improved by use of objective evaluations of health workers' knowledge, more interactive training methods, and the addition of a full-time health educator to work directly under the child survival director.

5.8 Use of Central Funding

Administrative monitoring from the WRC central office has been appropriate in terms of timing, frequency and needs of the field staff. Technical support has been generous, but has not been sufficient to assure adherence to training curricula and quality control. This is because there is no local, full-time, qualified health educator in the field to assure integration of technical information from headquarters into the project operations.

5.9 PVO's Use of Technical Support

The project has had need of and received external technical assistance in health education, particularly in the nutrition and vitamin A interventions; in conducting the 30 cluster knowledge and practice (K&P) surveys; in the health information system, especially in regard to supervision of field staff; and in how to organize and facilitate problem solving through Community Health Committees.

The following external technical assistance has been given to the project:

1. Dr. **Ciro Franco** of Johns Hopkins University and Dr. Muriel Elmer of WRC visited the project from October 19 - November 4, 1991 to train field staff on how to conduct 30 cluster K&P surveys for the final evaluation/baseline survey in the old-CSP area and the baseline survey in the **new-CSP** area.
2. Ken Graber, WRC Microenterprise Specialist gave training to CSS staff on income generation from February 30, 1992.
3. On August 23-24, 1992, Ms. Munsura **Begum**, a consultant from Helen Keller International visited the CSP to evaluate the vitamin A

component of the project. On September 7-9 and again October 11-13, 1993 Ms. Begum returned to the CSP to conduct training for union officers, supervisors, maternal health trainers and ladies group attendants. Subjects covered in training included vitamin A deficiency, vitamin A supplementation for treatment and prevention, vitamin A rich foods, and the integration of vitamin A with other child care activities.

4. October 15-28, 1992, Dr. Gretchen Berggren of the Harvard School of Public Health and Dr. Muriel Elmer of WRC conducted an assessment of the nutrition component of the project and a training workshop on findings and recommendations for all CSP staff.
5. Technical support was given by Lisa Filoramo, CS Administrative Coordinator and Dr. Muriel Elmer, CS Director of WRC for the writing of the proposal, DIP and First Annual Report. Ms. Filoramo and Dr. Elmer developed the new HIS with the help of Dr. Sally Stansfield, HIS consultant. WRC staff visits were made to the field on October 19 - November 4, 1991 for the baseline surveys; February 3-9, 1992 for DIP preparation; February 28 - April 12 for writing of the DIP, reconducting the baseline survey in the Old-CSP area and preparation of the diarrhea curriculum; August 23 - September 3, 1992 for the writing of the First Annual Report and training on the new HIS; and February 17-24, 1993 for preparation for the mid-term evaluation and management of malnourished children.
6. Technical assistance was given by MOHFP throughout the project. Training sessions were given to CSP staff on various interventions.

External technical support has adequately addressed the needs of the field. However, follow-through on recommendations made by external consultants has not been carried out sufficiently. Further need for technical assistance in the next six months should be focused on participatory educational techniques and management systems (supervision). The amount remaining in the budget for staff training (\$3,297) is not adequate to address these needs through external consultants. However, this money would be sufficient for local consultants from NGOs, such as BRAC or Save the Children, who could provide support in health education techniques. Another possibility would be to utilize this money to allow the WRC CS Director, who has a Ph.D. in nonformal education, to make a field visit and conduct a workshop on educational techniques. Finally, hiring a full-time health educator may adequately address this need without hiring a consultant.

5.10 Assessment of Counterpart Relationships

The chief counterpart organization to this project is the MOHFP. MOHFP staff have provided instruction to project field staff, they work side by side with project staff during EPI sessions (where project growth monitoring and nutritional counseling also take place), they coordinate with project staff to provide vitamin A and contraceptives, and they provide referral services for project area patients.

The project provides transportation and meals to EPI staff for immunization sessions. The project has also occasionally paid for treatment required by

project area patients referred to **MOHFP** facilities. The **MOHFP** provides vitamin **A** capsules to project **TBAs** for post-partum **administration**, and there is some concern that **communication** between project **TBAs** and **MOHFP** staff may not be adequate to prevent an accidental overdose.

There is no other **exchange** of money, materials or human resources between the project and the **MOHFP**.

Based on discussions with **MOHFP** **thana** directors and the Khulna civil surgeon, the **MOHFP** in Batiaghata has the capacity to continue EPI and other services. However, in the other CSP unions in Tala and Ward 15 the **MOHFP** cannot maintain the high levels of EPI and other coverage without the community motivation provided by the CSP.

Dialogue between the project and the **MOHFP** is open and mutually supportive.

5.11 Referral Relationships

As in most areas of Bangladesh, referral facilities in the project areas are woefully inadequate. Access is difficult and service quality **is** limited by lack of resources. There is only one maternity care center, with about 30 beds, in Khulna city, operated by the municipality. This facility can handle only very minor complications of pregnancy and patients are required to pay for medicines and treatments such as IV fluids. Any **complications** requiring surgical delivery are referred to a 250 bed hospital in **Khulna**. Pediatric referral care for project areas in Khulna city is provided by a private non-profit pediatric hospital **which** treats mostly common infectious diseases and has **no surgery**. Project areas outside of Khulna city refer all patients to the nearest **MOHFP** **thana health** complex, which can provide treatment of common infectious **diseases**, minor pregnancy complications, and (in some cases) severe malnutrition.

The project's relationships with area referral sites are excellent. **Access** to referral sites is facilitated by project staff who accompany referred patients to assure they are attended to, and who occasionally pay for treatment and transportation costs. The project has not taken any steps to **strengthen** services at the referral sites, and it is difficult to see how this may **be** accomplished. The state of referral services emphasizes the importance of the Project's disease control and prevention activities,

5.12 PVO/NGO Networking

There is little evidence of effective networking with other **PVOs** or **NGOs** working in health and child survival. This is at least partially due **to an** inappropriate sense of **competition** with other projects. This project would benefit greatly and could offer significant contributions through increased contact with other **PVOs** and **NGOs**.

One lesson learned 'from another NGO was the value of establishing community health committees.

5.13 Budget Management

A summary financial report for field expenses is shown in Appendix A. The rate of field expenditures as of September 30, 1993 is according to budget in most major line items and on the overall budget. However, the personnel line item is currently underspent by \$8,082 AID funds and \$1,720 WRC funds. The personnel line item is underspent because CSS has had difficulty hiring a full-time MPH. Professor Rahim, MPH has been working in the project on a half-time basis.

Another reason why this line item is underspent is due to the fact that only one of the two maternal health trainer positions has been filled since December, 1992. CSS will need to make more of an effort to hire another qualified nurse for this position,

In contrast, the services line item and the international travel line item will be overspent by the end of Year 3 because they were underbudgeted. The original budget did not include funds for the WRC CS Director to accompany the nutrition consultant to Bangladesh so that lessons learned could be adequately incorporated into all WRC CS projects. However, there are sufficient funds in other line items to cover these expenses without overspending on the grant.

The HQ budget is slightly underspent at this point in the project by \$1,842 AID and \$2,310 WRC funds based on yearly budget projections.

The headquarters project pipeline analysis is shown in Appendix B.

The budget has been managed in a responsible and flexible manner. Budget shifts have been justified by CSS and WRC in writing in the DIP and in the first annual report. Year 2 expenditures closely follow the budget that was laid out in the annual report and all expenditures are in accordance with the cooperative agreement.

The project should not have difficulty achieving its objectives with the remaining funding. It is unlikely that the budget will be underspent, especially if the project locates a full-time health educator and a maternal health trainer.

6. Sustainability

This project has a high probability of sustainability for some of the project activities due to its successful income generation component. Once the women's cooperatives have matured, a portion of income earned from interest on loans could support some of the other child survival activities. Those other child survival activities are low cost due to their utilization of volunteers and their effective integration with sustainable MOHFP services. Sustainability would be more difficult if the project were to expand into direct service delivery.

Incentives received by community volunteers, project staff, and counterparts are meaningful, as judged by the high level of commitment. The project has seen only 2% attrition in their volunteer staff per year. The monetary incentives derived from project funds are also minimal and could feasibly continue after AID funding ends. Incentives derived through participation in the women's savings and loan

cooperatives may be **substantial**, and are self-sustaining due to a very low delinquency rate in loan repayments.

Community health committees exist to nominate and support each **CHW**. These committees are made up of established residents who are prominent **in their** communities. They have enthusiastically supported the project as an effective contribution to the welfare of their communities, and they and the MOHFP have both expressed a desire for the project activities to be sustained.

This project is organized and managed by a local NGO (**CSS**) with long-term involvement and commitment to the community. They **intend** to continue **child** survival activities for as long as **possible**, and **will apply** their experience **with income** generating activities to the problem of sustainability.

Conversations with local MOHFP officials revealed strong support for this project. Although the MOHFP plans to continue to provide services to project area residents, they have no plans to continue any of the project activities after funding ends.

7. Recurrent Costs and Cost Recovery Mechanisms

CSP managers have a good understanding of the human, material and financial inputs **required** to sustain effective CS activities. A total of \$120,696 per year will be needed to cover recurrent costs associated with maintaining project **activities** at current levels.

The **community** is not currently paying for any of the cost of the preventive and promotive **health** services and the government is not prepared to pay any of the costs.

The CSP **has** employed a modest cost recovery mechanism through the income generation loans given to the women's cooperatives. Each of the **loans** given to the cooperatives is **paid back** with 16% interest which will be used to facilitate sustainability **after USAID** funding stops. The loan surcharge (4% of the interest) will be used toward **payment** of the salary of one CHW per union who will act as a liaison between the **MOHFP** and the community. The other 12% may be used to pay for work incentives for MOHFP employees to work in the communities, such as transport of MOHFP EPI workers to vaccination sites or other recurrent costs. At **this point**, a total of \$5,169 has been recovered on interest which will be used toward **sustainability**. Given the amount of revolving funds being loaned out each year at 100% repayment, a total of \$7,581 would be recovered each year through interest. This is not sufficient in itself to pay for all recurrent costs.

Another cost recovery mechanism employed is the organization of **community** health committees which could **possibly** pay for transport costs to the **hospital** or other costs. However, the **CHCs** have not been currently functioning in **this** capacity.

The current annual cost per each of the 62,989 potential beneficiaries (excluding costs of external assistance) based on Year 2 expenditures is \$3.05, including **field** costs, headquarters costs, AID and WRC funding. The AID cost per **potential** beneficiary is \$2.43. This rate is reasonable and appropriate given the poor

economic condition of Bangladesh and the ability the **project** has shown to cover the beneficiary population with this cost/beneficiary rate in the past. Costs not likely to be sustainable at the end of the project are stipends to the **CHWs**, salaries for the CSP staff, transportation costs, **HIS** maintenance costs and training costs for **CHWs** and **TBAs**.

8. **Recommendations**

1. Addition of a local full-time health educator with training in and commitment to interactive teaching methods and **quality** control would **improve** the quality of training and **supervision, and** assure **utilization** of technical support from headquarters. **Because** of difficulty in recruiting such a person, consideration should be **given** to training up someone already associated with and committed to the project.
2. Increased networking with other **PVOs/NGOs** working in Child Survival would benefit all.
3. The income generation **program** should continue to be expanded and include participation by both **CHWs** and **TBAs**. The feasibility of the income generating component of the project sustaining itself and the other Child Survival activities in the long-term should be explored,
4. Training of health workers should include more interactive teaching methods and **periodic objective** evaluation of individual knowledge, practice and training needs. A **CHW** manual describing educational methods for the project interventions may also be 'helpful.
5. Biannual joint refresher **training** sessions could improve coordination of activities between **CHWs** and **TBAs**.
6. Adherence to established **procedures** for spot-checks of registry information needs **to be** improved, with bimonthly reporting of the findings. Utilization of supervisory checklists also needs to be consistent.
3. The prevalence of nightblindness should be added to the information recorded in the health information registries to monitor the impact of vitamin A **distribution and** nutritional counseling.
8. A sample of severely malnourished children should be followed prospectively to evaluate the impact of project interventions.
9. Feedback of bimonthly summary health information to data collectors, **project** staff, and Community Health Committees could improve data quality, **health** worker performance, and community participation.
10. Community support for the project could be furthered **by** increased involvement **with** the **Community** Health Committees (**CHCs**) through regular meetings and joint activities. This could be an important component for long-term sustainability. Effective methods of increasing **CHC** involvement **could** be learned from other area **NGOs** with more established programs.

11. A reliable system to assure no double-dosing of post-partum mothers with vitamin A needs to be developed and consistently applied by project and MOHFP staff. Simply asking the mother if she had received an earlier dose is not sufficient.
12. The temptation to provide direct medical services should be resisted unless a sustainable strategy can be implemented and adequate precautions taken so that direct service provision does not interfere with other project activities.

9. Summary

The midterm evaluation team consisted of W. Gary Hlady, MD, MS (Chief of Party), former Country Director for Global 2000 in Bangladesh; Lisa Filoramo, MSPH, Child Survival Administrative Coordinator for World Relief Corporation; and A. M. Md. Fazlur Rahim, MPH, Child Survival Director for the Christian Service Society (CSS). The team visited project sites from September 27 through October 3, 1993 in the company of Md. Hussain Bhal, CSS Administrative Coordinator, and Md. Abdul Baten, CSS Child Survival Project Coordinator at a total cost of \$10,127.

The team visited all project areas and observed 3 CHW training sessions, 3 TBA training sessions, 2 growth monitoring sessions, 2 mothers' group meetings, and 2 women's cooperative meetings. They also visited 2 thana health complexes, a family welfare center, and a district health center, interviewing MOHFP officials in charge of health, family planning, and EPI activities at each of those sites. Additional municipal and non-governmental referral sites were also visited. The team met with the urban EPI consultant to UNICEF for Khulna Division and also conducted numerous interviews of project supervisors and trainers, volunteers, and mothers in widely scattered randomly chosen locations.

Information on project accomplishments and measurable outcomes was obtained from the health information system and verified when possible through interviews of volunteers and project area mothers, and by examination of health registers, growth charts, and other available records. Overall, the project has made good progress toward meeting its Year 2 objectives. In both old and new project areas, over 90% of objectives had been realized by September 1993 in the areas of childhood immunization, diarrhea treatment, kitchen gardens, vitamin A distribution to children, post-partum vitamin A distribution, contraceptive use, prenatal care, training of health workers, and establishment of functioning Community Health Committees. In addition, the new project area has achieved over 90% of Year 2 goals in tetanus immunization of childbearing women, and infant and child growth monitoring; and the old project area has achieved over 90% of Year 2 goals in the formation of women's cooperatives. The project is also distinguished by its success in income generation and potential for sustainability.

Concerns reflected in the team's recommendations include the need for improved training methods, addition of a professional health educator, improved quality control of health information, expanded income generation with development of a sustainability strategy, increased networking with other NGO/PVOs, and avoidance of non-sustainable direct service activities. The team's findings were discussed with project representatives in Khulna on October 4.