# Dinajpur SafeMother Initiative
# Final Evaluation Report

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# ACRONYM LIST

| | |
|---|---|
| ACPR | Associates for Community and Population Research |
| ANC | Antenatal Care |
| BP | Birth Planning |
| CARE | Cooperative for Assistance and Relief Everywhere, Inc. |
| CBO | Community Based Organization |
| CmSS | Community Support System |
| C-Section | Cesarean Section |
| DH | District Hospital |
| DSI | Dinajpur SafeMother Initiative |
| EmOC | Emergency Obstetric Care |
| EPI | Epidemiology |
| FP | Family Planning |
| FT-CM | Field Trainer-Community Mobilization |
| FT-N | Field Trainer-Nurse |
| FWA | Family Welfare Assistant |
| GoB | Government of Bangladesh |
| HA | Health Assistant |
| ICDDR,B | International Centre for Diarroheal Diseases & Research, Bangladesh |
| IP | Infection Prevention |
| MIS | Management Information System |
| MoHFW | Ministry of Health and Family Welfare |
| MoU | Memorandum of Understanding |
| NGO | Non-governmental Organization |
| OJT | On-the-job Training |
| OPD | Outpatient Department |
| OR | Operations Research |
| PNGO | Partner Non-governmental Organization |
| PP | Postpartum |
| QCC | Quality Compliance Coefficient |
| QoC | Quality of Care |
| RH | Reproductive Health |
| RMO | Resident Medical Officer |
| TBA | Traditional Birth Attendant |
| TT | Tetanus Toxoid |
| UH | Union Health |
| UHC | Upazila Health Complex |
| UHFPO | Upazila Health and Family Planning Officer |
| UNICEF | United Nations Children's Fund |
| UNO | Upazila Nirbahi Officer |
| UP | Union Parishad |
| VAW | Violence Against Women |
| WFHI | Women Friendly Hospital Initiative |

# EXECUTIVE SUMMARY

Cooperative for Assistance and Relief Everywhere (CARE), in collaboration with the Government of Bangladesh (GoB) and UNICEF, have implemented the three-year (1999-2001) operations research initiative, the Dinajpur SafeMother Initiative or DSI – "a community mobilization initiative for addressing the three delays for reducing maternal mortality" in Birampur Upazila of Dinajpur district. **The purpose of this initiative** is to examine the effectiveness of defined community mobilization interventions and approaches to improve the quality of basic emergency obstetric care (EmOC) provided at the Upazila Health Complex (UHC), as well as to increase access to women to quality care, particularly those with obstetric complications, who are subjected to violence. Basic EmOC consist of assisted vaginal delivery, manual removal of the placenta, oxytoxics, anticonvulsants, and antibiotics. Basic EmOC does not include Cesarean section and blood transfusion services which are available only in facilities providing comprehensive EmOC services.

DSI is a community- and facility-based longitudinal study with an intervention area and two comparison areas, as shown in Table 1. DSI aims to reduce maternal mortality and morbidity through identifying and removing barriers that lie between women and EmOC service facilities. The two main objectives of DSI are to:

- increase utilization of obstetric care services in the facilities within the intervention sub-district from 16% to 50%; and

- ensure quality services for all women subjected to violence that seek services of the UHC in Birampur.

**Table 1. DSI Final Results Summary of EMOC Utilization at Sub-district Level by Service Context**

| *DATA* | *Intervention Area Birampur* | *Comparison Area A: Bochaganj* | *Comparison Area B: Debiganj* |
|---|---|---|---|
| Population (Final) | 164,000 | 166,000 | 183,000 |
| Estimated Number of births (CBR 29) | 4756 | 4814 | 5307 |
| Expected number of pregnancy related complications[1] | 713 | 792 | 796 |
| Raw numbers of complications | N=59(Baseline)<br>N=144(Final) | N=45(Baseline)<br>N=92(Final) | N=44(Baseline)<br>N=48(Final) |
| UHC | UNICEF-GoB upgraded basic EmOC services (assisted vaginal delivery, manual removal of placenta, oxytoxics, anticonvul-sants, and antibiotics): trained staff, provided equipment and drugs CARE facilitated partnerships & trained staff and stakeholders in BP, CmSS, VAW, QoC. | not upgraded | |
| Referral hospital | Dinajpur (53 km away from Birampur UHC and 30 km from Bochaganj UHC) UNICEF-GoB upgraded to provide comprehensive EmOC (basic EmOC plus C-section and blood transfusion). | Panchagarh<br>not upgraded | |
| Community mobilization | CARE-GoB DSI | none | none |

[1] *Estimated as 15% of pregnancies. Complications include: pre-eclampsia, eclampsia, antepartum hemorrhage, septic abortion, non-septic abortion, obstructed/prolonged labor/cephalopelvic disproportion, postpartum hemorrhage, retained placenta, puerperal sepsis, ectopic pregnancy, ruptured uterus, and other conditions, including pregnancy with heart disease, diabetes, anemia, jaundice, post-maturity, etc.*

**The key interventions** that have been implemented through DSI are:

- promotion Birth Planning (BP) to recognize danger signs and enhance the household decision-making process regarding pregnancy and birth;
- development of community support systems (CmSS) such as community loan funds to pay for transportation to EmOC facilities and related EmOC expenses should the need arise;
- improvement in Quality of Care (QoC) at the service facility through the creation of Stakeholder Committees to build rapport between the community and the health care system and through the enhancement of GOB health service provider capacity; and
- advocacy for access for all women subjected to violence, particularly those with obstetric complications, to quality services at the UHC in Birampur.

The **DSI hypotheses** being tested are as follows:

- Community interventions such as BP and CmSS can make a valuable contribution to increase met need for EmOC service which is a proxy for maternal mortality.

- Implementing these interventions (BP, CmSS, QoC) would more effectively to increase met need for EmOC then solely upgrading service.

- If adding community mobilization interventions increases met need more than solely upgrading services, the cost of adding these components is relatively inexpensive and makes the interventions cost effective.

**Main Accomplishments of the DSI Project** include the following:

- The percent of women with obstetric complications using EmOC facilities increased dramatically from 16 percent to 39.8 percent in the intervention area during the DSI versus from 12.5 percent to 25.5 percent in the upgraded comparison area A and versus from 11.1 percent to 12.1 percent in comparison area B, the control area. The increase in utilization of EmOC service in the intervention area is just 10 percent below the ambitious 50 percent goal targeted by the project.

- The percent of total births taking place in facilities increased over the life of the DSI: in the intervention area: 2.4 percent to 10.5 percent; in the upgraded comparison area A: 7.2 percent to 12.1 percent; and in the control area: 4.5 percent to 5 percent according to the Final Quantitative Survey by ACPR. In order to increase the percent of women with obstetric complications using EmOC facilities, the percentage of births occurring in these facilities was expected to increase and did.

- There is now advocacy for and support of women subjected to violence. This support and advocacy can be found at Birampur UHC and from a broad-based community support network which did not exist prior to the DSI Project. Due to late implementation of the Violence Against Women intervention, the number of women subjected to violence admitted to the intervention UHC may be somewhat fewer than if the intervention had been initiated earlier: 7/99-12/99: 41 women; 1/00-6/00=59 women; 7/00-12/00=25 women.

- Project interventions such as birth planning, community support systems, quality of care improvements, and VAW programming, targeted to mobilize the community and break down barriers to the receipt of timely EmOC needed by childbearing women, were generally well accepted.

- DSI Final Quantitative Survey data indicated that the awareness of 3 of the five birth preparations (Know danger signs, Know where EmOC offered, Save money for care and transport, Identify trained birth attendant, Prepare for clean delivery)

was significantly greater in the intervention area versus the comparison and control areas.

- DSI Final Quantitative Survey data showed that awareness of 3 or more of the five danger signs (Headache/edema/convulsions, Obstructed labor/malpresentation, Bleeding/retained placenta, Fever/foul discharge, Abortion) by women delivering in the last year was significantly greater in the intervention area than in the comparison or control areas.

- The establishment over time of 130 functioning community support systems and 3 clubs[1] covering 120 villages and the presentation of on-the-job training sessions by CARE field workers with GoB field workers seem to correlate with the increase in EmOC utilization across time in the intervention area.

- Participation of institutional and community stakeholders as partners in all aspects of DSI efforts to reduce maternal mortality, such as in the QoC Stakeholder Meetings and in VAW Ward Forums, improved project ownership and outcomes.

**Priority Conclusions** concerning project outcomes include the following:

- Comparison of EmOC utilization rates during DSI in the three study areas suggests that while upgrading facilities increases utilization rates, combining upgrading with community mobilization increases it more. Other intervening factors which may have also increased EmOC utilization at a UHC include the availability of a resident physician, the availability of a female physician, and the leadership capability and personality characteristics of the physician in charge.

- The four key DSI interventions act synergistically as a community mobilization package. For example, the Stakeholder Committee at the Birampur UHC not only serves as a communication vehicle between the community and facility providers but oversees QoC at the UHC, has developed a fund to assist EmOC patients in need of care, is beginning to examine VAW issues, and has decided to intervene in communities where the established CmSS are failing.

- Better knowledge of danger signs and birth preparation actions in the intervention versus comparison and control areas according to the DSI Final Quantitative Survey by ACPR may have contributed to the significant increase in EmOC use during the study period in the intervention area.

- The Birth Planning card and maternal health flashcards are effective tools for reminding pregnant women of danger signs and of preparations for birth.

[1] A club is typically a youth organization registered by the Youth Ministry or Social Welfare Ministry to focus on games and some volunteer community service. In Birampur, some clubs took a lead role to form a fund for maternal health.

- The Evaluation Team was unable to determine whether the poorest village members are reached by the Birth Planning card and CmSS.

- Community support systems can be effective; the best CmSS committees have recognized that having such committees is an effective method to solve problems and are eager to apply the strategy to other problems.

- The complex issue of Violence Against Women as it relates to maternal health is being recognized in the DSI and given its due weight.

- Stakeholder QoC meetings empower their members to serve as effective advocates for those community members they represent; they have provided leadership in the improvement of QoC.

- DSI efforts have been found to be consistent with CARE-Bangladesh's Long Range Strategic Plan particularly 1) the Stakeholder Committee empowering civil society, 2) capacity building emphasis at the community and facility level, 3) linkages between community facilities, elected bodies, and NGOs, 4) gender rights with CARE being part of the solution as an advocate in VAW programming and in encouraging woman's roles in family and community decision-making as in BP card, CmSS, etc.

- The DSI was a more successful implementation than operations research project.

**Limitations** of the project include:

- The DSI project is an ambitious project, trying to reach approximately 3,200-4,700 pregnant women each year in 189 villages with multiple interventions that attempt to change long-established cultural and behavioral norms, including gender inequity.

- Due to delay in the inclusion of VAW intervention in the DSI, the VAW strategy under DSI is just now being fully implemented.

- For assessment of effectiveness, the project relies heavily on service data that is inconsistent and often incomplete across UHCs and other facilities.

- The use of the proxy, utilization of EmOC, for met need in the prevention of maternal death has limitations.

- From the onset of the project there appears to have been a lack of agreement regarding plan for the scope, collection and monitoring of data.

- Attribution of the impact of the interventions individually or collectively to the utilization of EmOC is problematic, due to the lack of consistency and quality of data collection. Also, some questions were just never routinely asked of patients

admitted to EmOC facilities and/or if asked, answers were not recorded, such as 1) Was referral of this woman, needing EmOC, to a (higher) facility timely?; 2) What was the source of her referral to this facility?; 3) Does this EmOC parient have a birth plan? 4) If this patient has a birth plan: a) From whom did she get information about the birth plan?; b) On how many visits was the birth plan discussed?; c) Did she use the birth plan to seek services?; d) If yes to c, did she change her provider from unskilled to skilled as a result of the birth plan?; e) If yes to c, did it make a difference to her husband attending the BP sessions on their use of EmOC services?; f) If yes to c, did it make a difference to her mother-in-law attending the BP sessions on their use of EmOC services?: 5) If this EmOC patient has a birth plan and did not use it, why not?; 6) Has this patient ever seen a BP card?; 7) Did this EmOC patient use CmSS?; 8) If yes to #7, where did she get information on the CmSS?; 9) If yes to #7, what CmSS services did the patient use?; 10) Is there any evidence that this EmOC patient has been recently subjected to violence?

**Recommendations** concerning project findings are as follows:

- Invite appropriate peers from Reproductive Health (RH) in other settings to observe DSI interventions for possible replication.

- Partners should continue to test, adapt and disseminate the Birth Planning cards and maternal health flashcards and assess if the poor and less educated clients are benefiting from them.

- Give serious consideration to implementing the blood grouping campaign approach on a wider scale.

- Continue to upgrade facilities; speed up the time frame if possible, and combine upgrading with community mobilization efforts.

- Urgent attention to VAW in maternal health is warranted.

- Partners should consider expanding the focus of preventative programming on reproductive health in other parts of Bangladesh and elsewhere to emphasize reduction of maternal morbidity and mortality and as in the DSI applying key intervention strategies from DSI.

- Quantitatively measure the improvement of QoC utilizing such methods as quality compliance coefficients, which show improvement over time.

- Local level initiatives should be undertaken for repair of equipment, instruments, furniture and facilities, as they have a direct impact on quality of care.

- Greater emphasis needs to be placed on how to bring local, sub-district level political structures into VAW activities.

- The establishment of VAW Ward Forums and involvement of female Union Parishad (UP) members are promising strategies for advocacy and support of victims of violence and should be continued on a high priority basis.

- Complicated maternity cases admitted to facilities should each be consistently and sufficiently documented in a timely manner with adequate information for analysis and follow-up. A client's first and last name, village, union, Upazila, admission diagnosis and date, discharge date and diagnosis upon discharge home, referral/discharge to another facility, or death, at a minimum, should be recorded.

- A study be done of the social processes and factors affecting the success and sustainability of community support systems.

- In future operations research (OR) projects, staff responsible for implementation should not be the same as those staff responsible for the ongoing monitoring and data collection related to that project.

# I. BACKGROUND

## A. Bangladesh Health Care System

In the last decade, Bangladesh has made significant progress in the areas of maternal and child health (MCH) demonstrated by the fall in both the infant and child mortality rates and the dramatic rise in contraceptive use. Despite these achievements, maternal mortality has been poorly addressed and remains very high in Bangladesh (560/100,000 live births as of 1990) with estimates of 28,000 women dying annually.

In 1994, the Ministry of Health and Family Welfare (MoHFW) started several initiatives to address the high levels of maternal mortality. First, the Emergency Obstetric Care (EmOC) project, supported by UNICEF, with technical support from the Obstetrical and Gynecological Society of Bangladesh (OGSB), began working in 11 districts. The project aimed to build the capacity of the District Hospitals (DH), Upazila (Sub-district) Health Complexes (UHCs) and Health and Family Welfare Center (HFWC) by: training their staff on life saving skills (including anesthesia and surgery) and; providing necessary equipment and supplies to offer quality EmOC services.

Second, UNFPA began assisting the MoHFW to upgrade the Maternal and Child Welfare Centers (MCWCs) at the district level with similar inputs. Both projects are concentrated on building the capacity of government service providers and facilities with little attention directed towards the community to address the first two delays. It is recognized that the Government of Bangladesh (GoB) does not have the capacity to undertake interventions to mobilize the communities to access these services.

Bangladesh Health System: Bangladesh is divided into Divisions (6); Districts (64); Upazilas (490) and Unions (4,451). The government health system is outlined in Table 2. In addition to these facilities, there are 13 government medical college hospitals (under graduate), post-graduate medical hospitals, and many private clinics, private medical college hospitals and private providers that also provide services to pregnant women.

**Table 2. Bangladesh Health Care System**

| Indicator | Satellite Clinic | Family Welfare Center | Upazila Health Complex | Maternal & Child Welfare Center[1] | District Hospital |
|---|---|---|---|---|---|
| ***Where*** | ***House in Village*** | ***Union*** | ***Upazila*** | ***District*** | ***District*** |
| Population | 2,000 | 20-25,000 | 200,000 | 2.5 million | 2.5 million |
| Services Provided | FP, ANC, EPI, | FP, ANC, EPI, | Outpatient Department (OPD), Minor surgery, FP, ANC, EPI, Basic EmOC, Lab | OPD, FP, ANC, EPI, Basic/ Comprehensive EmOC | OPD, C-section, FP, (VSC), ANC, EPI, Comprehensive EmOC |
| How often | Monthly | Daily | 24 hrs. | 24 hrs. | 24 hrs. |
| Inpatient Beds | | | 31 (6 for maternity) | 5-10 beds | 50-100 beds (10 maternity)[2] |
| Staff | 1FWA: 1FWV 1 HA[3] | 1-2 FWV 1 HA | 3-4 Physician 6-10 Nurses 1 Lab. Technician | 1 Female Doctor 2-3 Nurses 1 Lab. Technician | 3-4 Obs/Gyn. 5-10 Nurses 5 Lab. Technician |
| Intervention Area | 56 | 4 | 1 | 1 | 1 |
| Comparison A | 48 | 5 | 1 | 1 | 1 |
| Comparison B | 80 | 9 | 1 | 1 | 1 |

[1] *Some MCWCs are at Upazila and Union*

[2] *Normally the district hospital has 50-100 beds but because Dinajpur District Hospital is a temporary Medical College Hospital it has 250 beds.*

[3] *FWA = Family Welfare Assistant; FWV = Family Welfare Visitors; HA = Health Assistant.*

***Note:*** *The MCWC and the District Hospital serves all three Upazila under DSI.*

In Table 3 the roles of the variety of health workers that care for childbearing families in Bangladesh are illustrated.

**Table 3. Roles of Various Health Workers in Bangladesh**

| *Indicator* | *Traditional Birth Attendant (TBA)* | *Family Welfare Assistant/Health Assistant (FWA/HA)* | *Village Doctor* | *Family Welfare Volunteer (FWV)* | *Non-Governmental Organization (NGO) Worker* |
|---|---|---|---|---|---|
| Basic Training | No Formal/ 21 days | 2 months | No formal/ 6 months | 18 months | 1 to 2 months |
| Place of Service | Village/Home | Village/Home | Village/Home | SC, HFWC | Home/ Community |
| Services in pregnancy | Traditionally none, but now referral for ANC and EmOC | Home visit, Information, TT, List of pregnant women, | Complication Management (special herbal, homeopathic, allopathic) | ANC (Blood Pressure, wt, position of baby, IFA) | ANC (TT, information) |
| Services in childbirth | Attend delivery: Normal stay 1-3 hrs. Problems 8-12 hrs. | None | Complication Management | None | None |
| Services in post-partum | None traditionally | Post-partum Information | Complication Management | PP Care at facility | Post-partum counseling focused on FP |

## II. INTRODUCTION

### A. Scope of Work for the DSI Final Evaluation

The scope of this evaluation is to examine and validate the achievements, and explain the attribution of the specific project interventions, and make recommendations for future programming initiatives through a comprehensive review of the project approaches and its relevant documents. Due to the time constraints of two weeks in-country for this review (May 2-17, 2001), an evaluation of external factors which may have influenced the results of this project was not possible.

### B. Methodology of the Final Evaluation

Certain preparatory actions were completed prior to this evaluation and final project review. These activities included: 1) process documentation by DSI staff on each of the DSI interventions and on partnership; 2) the Final Quantitative Survey by ACPR to compare progress against baseline using both quantitative and qualitative methods; 3) consolidation of project monitoring data by DSI staff; and 4) the gathering together of all relevant project documents by DSI staff including case studies, verbal autopsies, workshop summaries, meeting reports, actions plans and written evidence that actions have taken place.

Specific objectives of the final review process include: 1) To review Birth Planning as a tool to reduce delay in decision making and enhance emergency preparedness for using EmOC services; 2) To review the CmSS approach a) as a tool to establish community alliances to support women and their families in using EmOC services, and b) as a potential basis for a complete community based health care system; 3) To review the approaches used to improve QoC and their effectiveness (the social aspect of QoC in particular) such as the Stakeholder Committee improving service quality and bridging the gap between facility and community; 4) To review and validate evaluation and monitoring data of DSI, interpret/explain the relation of project achievements especially EmOC utilization with specific project intervention/approaches; 5) To review partnership efforts used by DSI to achieve long-term project sustainability through capacity building approaches; 6) To review efforts to address VAW and develop realistic recommendations for future programming on VAW which build on current experiences of DSI; and 7) To make recommendations on the following: a) expansion or use of experiences of lessons learned for the wider national and international audiences; b) extension of some approaches for consolidation of lessons learned; c) limitation of the current initiative and need for further study; and d) any other appropriate recommendations.

Key methods used for the final evaluation by the Evaluation Team included document review, data analysis, field visits and observation, in-depth interviews, focus group discussions, meetings and other relevant methods identified by the individual consultant.

The Evaluation Team for the DSI Final Project Evaluation consisted of:

- **Team Leader**: Ms. Anita M. Barbey, CNM, DrPH, Health Service Consultant, President, A.M. BARBEY AND ASSOCIATES, CO, Portland, Oregon, USA.

- **Expert on BP and CmSS**: Ms. Susan Zimicki, Demographer, Change Project, Washington DC, USA.

- **Expert on QoC**: Dr. Abu Jamil Faisel, MBBS, DPM, MPH, Country Representative-EngenderHealth (AVSC International), Bangladesh Country Office and Chief of Party, Quality Improvement Partnership (USAID funded project).

- **Expert on Violence against Women (VAW)**: Ms. Vivi Stavrou, MSocSc Clin Psych, Clinical and Community Psychologist, Freelance Consultant, Dhaka, Bangladesh.

- **Volunteer Participant**: Jaime Stewart, MPH, CARE, USA.

- **Volunteer Participant**: Juliana Myeya, AD Diploma MH, CARE, Tanzania.

For the purpose of maximizing efficiency of time and resources, the Final Evaluation Team was divided by assignment: Dr. Susan Zimicki and Jaime Stewart addressed by BP and CmSS interventions, Dr. Abu Jamil Faisel and Juliana Myeya addressed the QoC intervention, Vivi Stavrou reviewed the VAW intervention, and Dr. Anita Barbey served as Team Leader, coordinating efforts of the Team and assuming responsibility for this Final Evaluation DSI Report.

A review of all key DSI documents was completed by the Final Evaluation Team. Most important to the review were the Project Proposal of DSI, the Monitoring Strategy of DSI, DSI Baseline Survey conducted by University Research Corporation now Health and Development Research Centre, the DSI Final Evaluation Survey by Associates for Community and Population Research(ACPR), Report of the DSI Qualitative Baseline Study, DSI Interventions to Increase the Use of Emergency Obstetric Care Service, Partnership in DSI, DSI Case Studies including those of VAW Cases, DSI Verbal Autopsies of Maternal Deaths, Long Range Strategic Plan of CARE Bangladesh 2002-2006, Ann Levin's Cost Effectiveness Analysis of DSI, Handbook and Action Plan on Women Friendly Hospital Initiative(WFHI) by UNICEF, GoB and other stakeholders, Comments and Recommendations by DSI Staff on the WRHI Handbook and Action Plan, Report on the DSI Workshop on the Role of Union Parishad Women Members and Municipality Women Commissioners in Reducing Maternal Deaths, the five DSI Project Implementation Reports and UHC service statistics gathered and kept by the UHC, private EmOC facilities, and District Hospital staffs in three study areas. It was helpful to the Evaluation Team to also be given the comprehensive DSI List of Materials Developed during 1998-2001.

Throughout this evaluation report, data from the above documents was triangulated by the Evaluation Team with our own observations, interviews, focus groups, research findings, etc. However, the Team decided not to use most of the DSI Baseline Survey data due to our concerns regarding the sampling methodology utilized. In the Baseline, sampling was done in a single randomly selected union in each of the three study Upazilas. Then, within each union selected, a FWA unit was randomly selected. A list of all MWRAs meeting given criteria from the FWA's register was then prepared. If there were not 235 MWRA meeting the criteria, a second FWA unit adjacent to the original one was then randomly selected, a list of MWRAs of given criteria prepared for interviewing. This process continued until the desired number of respondents could be obtained. Then, for samples of husbands and mothers-in-law, one husband and one monter-in-law was selected for every alternate MWRA interviewed. The Team concluded that this sampling methodology would have produced a group of women and their husbands and mothers-in-law in each Upazila being served by one or more of the same FWA's. If the FWA(s) in each Upazila was particularly skilled or not, such as in Birth Planning, that may have had an unfairly biased the results of the Baseline Survey.

The DSI Final Evaluation Survey(ACPR), however, used a different sampling frame and produced results that overall were quite useful to the Evaluation Team. The Final Survey sample was taken from three wards selected at random from nine wards of each union of an Upazila. Starting from a random point of a selected Ward every alternative household was visited to see if an eligible ever married woman aged 13-49 who had given birth in the last one year, their husbands, decision makers caretaker and community agents would respond to the survey. The target sample size was approximately 400 women,400 husbands, 200 decision makers, 200 caretakers of the newborn and 100 community agents from each study area. Findings from the Survey regarding population characteristics of each of the study Upazila were of particular interest. Bochaganj and Debiganj have significantly more Hindu(one fourth to over a third respectively) than Birampur. However, women and their husbands in Birampur and Bochanganj are generally more highly educated than those in Debiganj. Other results indicated that the mean age, mean age at marriage, occupation, marital status, and economic status of women from the three study areas are similar. Also, a majority of families are of the Moslem religion in all three study areas.

Another study of interest which is only briefly referred to later in this report is the April 2001 Cost-Effectiveness Analysis of the DSI by Ann Levin. This report provides a thorough and frank analysis of the cost-effectiveness of only upgrading the comparison UHC versus upgrading the intervention UHC plus implementing three of the four DSI interventions on community mobilization: Birth Planning, Community Support System, and Quality of Care to increase utilization of EmOC services. While this study finds that the intervention of upgrading facility services alone is more cost-effective than the upgrading plus community mobilization, the author points out that the EOC utilization may not be able to be increased further without a community mobilization component. A larger sample size of intervention and comparison Upazilas would be needed to adequately ascertain the impact of community mobilization and upgrading facilities on EmOC use. Also, intervening factors involving personnel differences affected access to

EmOC services in the three study Upazilas. A larger sample size would also reduce the affect of such intervening factors.

## III. ASSESSMENT OF RESULTS AND PROGRAM IMPACTS

### A. Summary Charts of Final Project Data

A summary of the Final DSI Project Data, with the exception of information on maternal case fatality rates for the EmOC facilities in the three study areas, can be located in Table 4 on page 22. For ease of review, these data have been divided into process, output, and effect indicators.

### B. Case Fatality Rates

One of the main objectives of this study was to determine the impact of certain community mobilization interventions on the removal of barriers to EmOC usein the upgraded intervention UHC versus the upgraded comparison UHC and non-upgraded control UHC. EmOC use was used as a proxy for the reduction of maternal death in the DSI. This study assumes that EmOC, if received in an upgraded facility, would not result in maternal death.

During our final evaluation of the DSI, the Evaluation Team attempted to verify and triangulate as much of the key study data as possible. Unfortunately, for the Team and the DSI, facility data on maternal mortality in the three study areas was not adequately documented, systematically collected and analyzed in a timely manner throughout the DSI such that we could verify and triangulate the data as needed. Additionally, because of the unavailabiltiy of an EmOC trained physician in residence at Birampur UHC, it is known that some emergency maternity patients were unable to obtain care at Birampur UHC and were therefore sent to the District Hospital for care. .In some of these cases, it is known that patients were taken home to die versus taken to the referral facility. In conclusion, the data that we have on maternal deaths in study area facilities is certainly incomplete, but, the best we could collect given often inadequate documentation in the Hospital Admissions, EmOC, and Labor & Delivery Registers of these facilities. At Birampur UHC, data from 1999 and 2000 were collected. At Bochaganj UHC, Debiganj UHC, and Dinajpur District Hospital only data from 1999 was collected We also obtained some data on maternal deaths from DSI Verbal Autopsies (1999 and 2000) and from GoB MIS data (2000) collected by ACPR for the DSI Final Evaluation Survey. The Team was unable to obtain baseline data on the number of maternal deaths which occurred in these study area facilities prior to the DSI.

The known cases of institutional maternal deaths which occurred in the facilities of the three study areas are as follows:

Birampur: No known institutional maternal deaths occurred in 1998 and 1999; In 2000, there were 4 maternal deaths identified: 2 cases of septic abortion and 1 case of eclampsia at the UHC and 1 case of obstructed labor from Birampur who died at Dinajpur District Hospital. (We know of at least

one additonal patient whose family took her home to die versus follow the advice of Birampur UHC staff to go to District Hospital in Dinajpur for care.) No maternal deaths to patients from Birampur are known to have occurred at the private EmOC facilities in the area. Thus, there are a total of 4 known maternal deaths from Birampur which occurred in facilities in 2000, for a total of 4 known maternal deaths from 1998-2000.

Bochaganj: No known institutional maternal deaths occurred in 1998 and 1999. In 2000, there were 8 maternal deaths identified: 2 cases of septic abortion, 3 cases of obstructed labor, 2 cases of post-partum hemorrhage and one case of antepartum hemorrhage at 5 months of pregnancy. All of these cases died at the UHC. No maternal deaths to patients from Bochaganj are known to have occurred at the District Hospital in Dinajpur or at the private EmOC facilities in the area from 1998-2000. Therefore, there are a total of 8 known institutional maternal deaths from Bochaganj from 1998-2000.

Debiganj: In the UHC in Debiganj which has not been upgraded to provide Basic EmOC services, five maternal deaths occurred in 1998 due to: retained placenta (1), pre-eclampsia (1), and eclampsia (3). In 1999, there were eight maternal deaths at the Debiganj UHC due to: pre-eclampsia (1), eclampsia (5), obstructed labor (1), and cause unknown (1). In 2000, three maternal deaths at the Debiganj UHC occurred due to: eclampsia (2), and severe anemia at term (1). No maternal deaths to patients fromDebiganj are known to have occurred at the District Hospital in Panchaghar or at the private EmOC facilities in the area from 1998- Therefore, the are a total of 16 known maternal deaths from Debiganj which occurred in facilities from 1998-2000.

The Evaluation Team did not compute case fatality rates for the three study areas for the intervention UHC versus the comparison and control UHCs. because the of the apparent lack of quality and completeness of the data.

Prior to the DSI, maternal deaths in the study areas occurred at home versus in a health care facility. There is no formal system by which maternal deaths which occur in the community (versus in a health care facility) are officially documented. Thus, the only estimates the Evaluation Team saw were the results of an effort made in 1999 by the DSI staff to use key informants to collect maternal death information by union on cases that had occurred in the community in Birampur from 1994-1999.

**Table 4. DSI Final Project Data**

| Process Indicators | Birampur | Bochaganj | Debiganj |
|---|---|---|---|
| ***Birth Planning*** | | | |
| No. of Birth planning cards distributed/1 | 3,600 | | |
| Percent of women receiving antenatal care/2 | 78.9% (n=412) | 71.8% (n=400) | 73.8% (n=400) |
| ***Community Support Systems*** | | | |
| No. of training sessions on CmSS/1 | 576 | | |
| No. of CmSS systems ever established/1 | 143 | | |
| No. of clubs established/1 | 3 | | |
| ***Quality of Care*** | | | |
| No. of team building meetings/1 | 6 | | |
| No. of Stakeholder Committee meetings/1 | 8 | | |
| ***Violence against Women*** | | | |
| No. of training sessions for NGOs/1 | 31 | | |
| **Output Indicators** | **Birampur** | **Bochaganj** | **Debiganj** |
| ***Birth Planning*** | | | |
| Percent of women aware of three or more birth preparations/3 | 19.2% (n=412) | 2.8% (n=400) | .8% (n=400) |
| Percent of women aware of 3 of 5 danger signs/3 | 44.2% (n=412) | 4.0% (N=400) | 6.0% (N=400) |
| ***Community Support Systems*** | | | |
| No. of villages with currently functioning CmSS out of 189 villages/4 | 120 villages with 130 CmSS | | |
| Range of percent participation rate for CmSS/5 | 16.9% to 44.4% | | |
| ***Quality of Care*** | | | |
| Percent of quality of care standards achieved by Birampur UHC(Standards achieved include: Cleanliness, privacy, adequate seating for women; Partially achieved are prompt care and easy access and directions to services)/6 | 60% | | |
| ***Violence against Women*** | | | |
| Percent of women who delivered in the past year who know where and to whom victims of violence can go for support/2 | 19.9% (N=412) | 15.3% (N=400) | 16.3% (N=400) |
| **Effect Indicators** | **Birampur** | **Bochaganj** | **Debiganj** |
| ***Birth Planning and QoC*** | | | |
| Percent of women with obstetric complications using EmOC facilities from January 1999-December 2000/7 | 16% (N=59)-39.8% (N=144) | 12.5% (N=45)-25.5% (N=92) | 11.1% (N=44)-12.1% (N=48) |
| Percent of total births taking place at the facility/2 | 2.4%-10.5% | 7.2%-12.1% | 4.5%-5.0% |
| Number of women with obstetrical complications Referred to a higher facility from July 1998-December 2000/8 | 121 | 55 | 13 |
| ***Community Support Systems*** | | | |
| Women with obstetrical complications reported using CmSS funds/2 | 3% | | |
| ***Violence against Women*** | | | |
| No. of women who came to Birampur UHC with Evidence of violence/1 | 7-12/99=41<br>1-6/00=59<br>7-12/00=25 | | |

*1 = DSI data*
*2 = ACPR data*
*3 = ACPR survey reanalysis*
*4 = Evaluation team reanalysis of DSI data*
*5 = Team analysis of DSI*
*6 = Team*
*7 = ACPR and survey statistics collected by team*
*8 = DSI reports and GoB MIS*

## C. Technical Approach: Project Description and Methodology

The DSI goal is to reduce maternal mortality and morbidity through identifying and removing barriers which lie between women and EmOC service facilities by:

- empowering women and their families with optimum knowledge,
- creating supportive environment within the family and community,
- increasing access to community support, transportation system, and funding for EmOC services, if needed, and
- ensuring quality of services at EmOC facilities at the Upazila level.

The objectives are:

- By the year 2001, utilization of EmOC services is increased to 16% to 50% of expected complications;
- By the year 2001, all girls/women subjected to violence who seek services of the sub-district facilities receive quality care.

The project was designed as a community and facility based longitudinal study with an intervention and two comparison areas. In the intervention area, along with the GoB-UNICEF upgraded EmOC services, a community mobilization package will be implemented consisting of:

- Provision for the pregnant women, their family members, and community leaders to receive information related to danger signs, referral facilities, birth attendants and community resources for reaching EmOC facilities through Birth Planning (BP).
- Facilitation of community dialogue targeting men, women, and various community leaders to build a community support system through the Community Support System (CmSS).
- Assessment of EmOC service quality at the intervention UHC, and the development and implementation of actions for improvement will be completed through Quality of Care (QoC).
- Provision for the girls and women subjected to violence, their family members, and community leaders to receive information related to services/support available at the facilities for women subjected to violence through Violence Against Women (VAW).

The Evaluation Team defines "community mobilization" as the combination of all the inputs used in the DIS – distribution of Birth Planning cards to pregnant women and their families, along with orientation about birth, preparation actions and danger signs, the formation of community support systems, and advocacy to different important community groups (teachers, dais, village doctors . . . .) through "training."

One Upazila each has been selected for the intervention area, comparison area-A and comparison area-B making a total of three Upazilas, with an approximate population of 170,000 in each Upazila. Birampur Upazila of Dinajpur District has been selected as the intervention area and Bochaganj Upazila of the same district as comparison area-A having GOB-UNICEF supported EmOC services, and Debiganj Upazila under Panchagarh District has been selected as comparison area-B or the control area having no UNICEF-GOB supported EmOC services.

## D. Evaluation of Key Project Interventions

### 1. Birth Planning

#### a. Description of the Birth Planning Intervention:

In the context of the DSI project, birth planning is defined as "…an educational process that empowers women and their families to make the necessary preparation, in advance, to ensure a healthy pregnancy outcome for the mother and child. It consists of taking a number of steps in advance of the birthing process, to ensure that a pregnant woman is prepared for a normal delivery and complications, should they arise."[2] The underlying notion is that the introduction of a Birth Planning card will highlight the importance of pregnancy and delivery among family members and facilitate a dialogue among them on the ways they can support a safe delivery. The card was the media used to disseminate these messages. Thus it reduces delays in seeking care by improving access to required information for a safe delivery and utilization of emergency obstetric care.

Through Birth Planning, DSI project staff have stressed six messages:

- Care for yourself during pregnancy and delivery (healthy diet, adequate rest, cleanliness, avoid drugs, heavy workloads, and tobacco)
- Know the danger signs
- Identify a trained birth attendant
- Prepare for a clean delivery
- Know which facility to go to in case of an emergency
- Plan for complications, including savings and transport

[2] Hossain, Jahangir. *DSI Interventions to Increase the use of Emergency Obstetric Care Services.* 2001 Cooperative Assistance for Relief Everywhere, Inc. (CARE)

CARE staff undertook the following steps to promote birth planning:

1. Perform a situation analysis
2. Share the findings with counterparts (advocacy)
3. Understand the importance of Birth Planning (orientation)
4. Facilitate the process of developing BP
5. Advocate for Implementation with the MoHFW and NGO managers on promotion of Birth Planning
6. Organize training for the MoHFW and NGO field staff
7. Promote BP by MoHFW and NGO field workers and on the job training by CARE
8. Follow up and monthly review of promotion of BP with Ministry of Health and Family Welfare (MoHFW) and NGO field workers
9. Evaluation and documentation
10. Dissemination of findings

One of the primary activities used to promote birth planning was training, in the form of workshops and on-the-job training. No less than 17 workshops/orientation sessions were held for the GoB staff (family welfare assistants (FWAs) and health assistants (HAs), teachers, NGO staff, traditional birth attendants (TBAs), religious leaders (imams), and village doctors. Furthermore, nearly 2,000 on the job training sessions were held to support the field workers listed above. (See Annex D for a complete list of DSI training activities.)

### b. Objectives of Birth Planning

The objectives of Birth Planning are as follows:

- Increase awareness to at least 80% of pregnant women, husbands, and decision-makers on the conditions requiring referral to EmOC centers.
- Increase (three times over the base line) practice of Birth Planning including emergency preparedness.
- Increase utilization of the EmOC services in the facilities within the intervention area from 16% to 50%.

### c. Method of Evaluation of Birth Planning

Observation and Interview: In order to observe how Birth Planning was promoted and assess the quality and depth of penetration, field visits were made to 12 villages in Birampur Upazila. Three members of the Evaluation Team were able to talk with four pregnant women, four women who had delivered within the last year and three women who had used emergency obstetric services. The team tried to interview both poor women as well as some that were well off. One caveat is that in some cases, the villages visited

were a matter of convenience versus randomly selected due to time constraints of the Evaluation Team in the field.

Women were asked if they had seen the Birth Planning card, if they had card, when they had received the card, if someone had explained the card to them and which other family members were present when they were given the card. In reference to their last or upcoming birth, women were asked if they made plans and what type of preparations they had made. Women were also questioned about their knowledge of danger signs and were asked to interpret the Birth Planning card. Users of EmOC services were requested to recount their experience and specific questions were asked to probe about delays in recognition of the problem, the decision to seek care, mode of transportation, method of payment for services and perception of the quality of services. Two TBAs and two FWAs were also interviewed.

Quantitative Analysis: The only quantitative information available to the Team was from the final survey. Data from the baseline survey was unavailable, and even if it were available, would not have been comparable as the sampling frames were dissimilar between the baseline and final DSI surveys. No process data were available, apart from some information about the number of training activities and the estimate of the total number of Birth Planning cards distributed.

In the final survey, women had been asked if they knew any danger signs, and if they replied affirmatively, to name them; the interviewer recorded those they named without prompting. A similar pattern of questions was used to elicit knowledge about birth preparation actions. The team reanalyzed the final survey results to determine the proportions of all respondents by union who knew danger signs and birth preparation actions. Ideally, these proportions would be compared with the proportions of women who knew these things at baseline. However, as noted above, this was not possible.

### d. Results of Implementation of the Birth Planning Intervention

Observation and Interview: Of the 11 women interviewed, most had received the card, and all that had received it had kept it (excluding one woman whose card had been collected by CARE staff). The team visited one village where a well-off woman had received a BP card on her way to the hospital when she by chance met a CARE Field Trainer, and a poor woman had not received a card. In another village no women (of three) had received the card. Of the four women that the team inquired about when they were given the card, one woman reported "four months ago," two at "five months ago," and one at "six months ago." Women reported that CARE staff, TBAs, FWAs, NGO staff and CmSS members had provided them with a card. All women reported that the card had been explained to them and most women reported that their in-laws, husband, or both were present when the Field Trainer explained the card. The team did not systematically question either husbands or mothers-in-law, but the husbands that were questioned were generally less aware of danger signs than the women.

Often only the woman's name and particulars were written on the card. When the answers to questions were marked, it was done only once with an "x" beside what the woman said she decided. Most women reported that this was done at the session at which they received the card. The team did not always ask how frequently the visitor had discussed the card with the woman, but had the impression that it was not more than once or twice. An attempt was made at the UHC to collect data on the number of women with a birth plan. However, data was determined not to be representative of those seen at Birampur UHC – from a convenience sample drawn over a few short time periods when a particular staff member was on-duty.

Pregnant and recently delivered women were asked to recount what the field worker had taught them when they were given the Birth Planning card. Nearly all who had received the card could explain the danger signs using it as an aid. Women mentioned pre-eclampsia, bleeding, sepsis, prolonged labor, fever, fits, and malpresentation as danger signs. While women mentioned prolonged labor as a problem, most were unclear about how long was too long. When asked where to go in the case of bleeding, needing a transfusion, or prolonged labor needing Cesarean section, most replied correctly that one should go directly to the District Hospital.

Most women with whom the team talked said that they were preparing or had prepared for the birth in some fashion – most by putting money or rice aside. Several women were raising poultry as a way of saving for complications. Seven women reported that their families contributed to the CmSS in their village, with contributions ranging from two to five Tk per month. Women knew that if they had a problem during delivery, they should go to the hospital and that they could access funds through the CmSS. All women planned to deliver at home, and most knew the clean delivery preparations (a clean cloth, hot water, clean thread, new blade…). All but one woman knew who would be the delivery attendant -- all had chosen women who were dais or trained TBAs. However, it is important to note that there is confusion about who is a 'trained TBA'. TBAs who had attended a one day CARE training course were considered to be trained TBAs. (Further questioning in the office determined that this attribution was shared by at least some of the CARE DSI staff "since [those who attended the training session] know the danger signs and what to do to prepare.")

The Evaluation Team interviewed three women in the community that had had obstetric complications. The first woman had labor pains for 12 hours, then the TBA who was attending, the husband and in-laws quickly decided to take her to the hospital. She went to the UHC in a van, accompanied by the TBA, and was promptly seen. She delivered at the UHC and though her village had a CmSS that she contributed to, she sold a goat to pay the 500 Tk hospital bill. She was aware of the CmSS, but sold the goat anyway to pay the bill. Perhaps she thought of the CmSS as a "safety net" in case she had nothing to sell or had no money at hand for EmOC or transportation. The second woman delivered at home with the help of a relative. When she did not deliver the placenta within 30 minutes, a decision was made immediately to go to the hospital in a van, which she paid for. She reported that she was aware of the danger signs and had saved money for a complication. She reported that a CmSS was established in her village two months

prior to her complication and she understood that women who had complications could access the funds. The third woman reported sudden bleeding and knew from the CARE Field Trainer and service providers that bleeding was a problem. After the bleeding began she spoke to an NGO field worker who referred her to the hospital. She was separated from her husband, so she had to get permission from the wife of a family member to go to the hospital. From the onset of bleeding to the time she left for the hospital was two hours. She went to Birampur by van, paid for by her father. She delivered normally after 5 days.

Two TBAs were interviewed as part of the evaluation. The first had been a TBA for six to seven years and estimated that she delivered 20 babies per year. She received a one-day training course by CARE one year before. Prior to the training she was called by women at the time of delivery, but now she provides some antenatal teaching. At the training she learned about malpresentation, how deliveries should be conducted safely (wash hands and clean blade), and to refer women for malpresentation and bleeding (greater then one pound or sudden gush). Since training she has attended 20 to 25 deliveries and has dealt with four complications. The first was a case of eclampsia; the TBA reported accompanying the woman to the district hospital. The second complication was prolonged labor (24 hours). The village doctor was contacted first and the baby was born dead. The last two were malpresentation (face and hand), and she accompanied each woman to the UHC at Birampur.

The second TBA reported that she has been attending deliveries for ten years. She took a one day training course a half a year ago where she learned about prolonged labor (>12 hours), retained placenta (> 30 minutes), pre-eclampsia, sepsis, bleeding (>1 cup), and the harmful effects that violence during pregnancy can have. She also learned to go directly to the district hospital for bleeding and Cesarean section. Lastly, she learned about safe deliveries, namely to boil the blade (to estimate how long, she puts some rice in the pot with the blade and boils until it is cooked), and cleanliness. She estimated that she serves 370 households and delivers about one baby per month.

The Evaluation Team also interviewed two Family Welfare Assistants (FWAs) in the community. The first FWA reported having a secondary education and had been an FWA for twelve years. She said that she goes bari[3] to bari to identify pregnant women. When she identifies them she gives them a card right away, discusses everything on it and tries to include husbands, in-laws and neighbors in the counseling session. She reported that she visits pregnant women every two months. She also works with TBAs to find out about pregnant women with potential complications and sometimes visits women with a TBA. The second FWA reported that she covers 8 villages and that there were currently 910 eligible couples in her area and 34 pregnant women.

Quantitative Analysis: Field staff reported that 6000 cards had been distributed to FWAs, HAs, TBAs, NGO workers, village doctors and CmSS members. The staff estimate that of those cards, 3,600 were distributed to pregnant women. As there were an estimated 6500-9500 births during the two years of the project, this amounts to between

[3] "bari to bari," in this case, means from house to house.

38% and 55% of pregnant women receiving the card. Unfortunately, no information was available concerning who had received the card; no questions concerning the card were included in the final survey.

The reanalysis of the final survey did permit comparison of the intervention area with the comparison areas. Awareness of individual signs, except for signs associated with pre-eclampsia and eclampsia, was significantly higher in Birampur than in the other areas. In reviewing the UHC Admissions Book in Debiganj, in 1999, of the 79 admissions for EmOC, there were 8 maternal deaths of which 6 were due to eclampsia. This finding might be coincidental or possibly a reason why women in Debiganj might have been more aware of pre-eclampsia and eclampsia as danger signs. A striking 44% of women in Birampur knew three or more of the five danger signs identified by GoB, compared with 4% in Bochaganj and 6% in Debiganj.

Another important observation may also be made regarding the fact that although there is low knowledge of danger signs and preparation for birth in Bochaganj, they still have fairly high rates of institutional deliveries and met need. This may be due to provider characteristics at the Bochaganj UHC, where the EmOC trained physician resided on the hospital premises, had strong leadership ability, and also, skill in relating to the population served.

**Table 5. Awareness of Danger Signs**

| | Birampur | Bochaganj | Debiganj |
|---|---|---|---|
| ***Of the 5 danger signs:*** | | | |
| Know none | 12.4 | 45.5 | 19.5 |
| Know 1-2 | 43.4 | 50.5 | 74.5 |
| Know 3 or more | 44.2 | 4.0 | 6.0 |
| ***Aware of individual signs:*** | | | |
| Pre-eclampsia (headache, edema) | 51.5 | 31.8 | 66.5 |
| Eclampsia (convulsions) | 36.2 | 18.5 | 36.0 |
| Obstructed labor | 49.0 | 23.5 | 5.8 |
| Malpresentation | 41.5 | 7.0 | 16.8 |
| Bleeding | 21.4 | 7.0 | 2.3 |
| Retained placenta | 29.4 | 3.5 | 2.0 |
| Postpartum infection (fever, foul discharge) | 28.4 | 1.5 | 7.8 |
| Abortion | 23.3 | 7.0 | 2.3 |
| **Number of women responding** | **412** | **400** | **400** |

*Source: Reanalysis of final evaluation survey*

**Table 6. Awareness of Birth Preparedness**

| | Birampur | Bochaganj | Debiganj |
|---|---|---|---|
| ***Of the 5 preparations:*** | | | |
| Know none | 35.4 | 71.5 | 79.8 |
| Know 1-2 | 45.4 | 25.8 | 19.5 |
| Know 3 or more | 19.2 | .8 | .8 |
| ***Aware of individual preparatory actions:*** | | | |
| Learn about danger signs | 27.7 | 3.5 | 1.0 |
| Learn where EOC services are offered | 23.5 | 6.3 | 1.3 |
| Save money | 21.1 | 17.0 | 13.3 |
| Identify transport | 4.4 | 3.0 | 1.8 |
| Prepare for a clean delivery | 50.0 | 12.0 | 10.8 |
| Identify trained TBA | 11.7 | 4.5 | 9.0 |
| Identify person to deliver (trained/untrained) | 35.2 | 18.5 | 46.3 |
| **Number of women responding** | **412** | **400** | **400** |

*Source: Reanalysis of final evaluation survey*

### e. Factors Facilitating Achievement of Birth Planning Objectives

The greatest factor facilitating the achievement of project objectives is the dedication of CARE staff and the superb rapport that they, together with government workers, have with the community. Other community representatives explained that CARE staff come for the benefit of the community, not for their own benefit.

Training was another facilitating factor. As reported above, CARE staff facilitated hundreds of on the job training sessions which were key to educating families on danger signs and preparation for birth. The support of the MoH and the diligence of the FWAs and HAs was also vital.

A third facilitating factor was the large number of maternal deaths. While not all villages had experienced a maternal death, all of the communities interviewed had heard of a maternal death in a neighboring village. However, families were only able to recognize and address the problem when CARE staff brought a case to their attention and encouraged them to identify their own solutions. These cases stimulated thinking and problems solving, motivating community members to do birth planning and preparation.

### f. Factors Hindering Achievement of Birth Planning Objectives

Understaffing has made achievement of the objectives difficult. Out of the 43 FWA positions, only 32 were filled, and 19 of 31 HA positions were vacant. In addition, one CARE Field Trainer was responsible for two unions, while all other field trainers covered one union.

As described above, CARE staff implemented numerous workshops and training activities. However, the number of trained personnel as a result of these sessions was fairly small. For example, the project implementation report for the period January to June 2000, reported that 734 on the job training sessions were held on BP, and that as a

result 38 GoB and 10 NGO workers were able to promote Birth Planning. Thus, the training was highly intensive.

An additional inhibiting factor was the definition of a trained TBA. In observing TBAs in the community, some were found to be well trained and highly effective at promoting Birth Planning. However, it was also noted that TBAs who had attended a one day training course were considered by the community and CARE staff to be "trained TBAs." By most standards, one day of training does not qualify a TBA as trained. Therefore, estimates of the number of women who had a trained TBA attend their birth may be inflated.

Poor monitoring appears to have been another inhibiting factor. While large amounts of data were compiled, their collection was sporadic and inconsistent. Moreover, data that was collected was not analyzed on an on-going basis to monitor the project achievements. When data is not analyzed in a timely manner, then the data collected is often of less use. Also, if a question arises about a piece of data, it may be too late to reconstruct accurately what happened in a specific instance.

### g. Special Outcomes and Unexpected Results in Birth Planning

Individuals and families have been empowered through the knowledge they have gained related to birth planning and preparation. A UHC Stakeholder Committee community representative stated that women are less ill now than three years ago. They have more confidence and less fear about getting service because of the advocacy and knowledge they have received.

### h. Lessons Learned regarding Birth Planning

The Birth Planning card and flashcards are effective tools for reminding most pregnant women of danger signs and of preparations for birth. However, the Evaluation Team was unable to determine if the poorest village members are being reached effectively with these tools.

## 2. Community Support System (CmSS)

### a. Description of the Community Support System Intervention

A Community Support System is a collective effort to establish a common system at the community level so that every member of the community can access emergency obstetric care during a maternal emergency. The purpose of establishing Community Support Systems is three-fold:

- To facilitate immediate transfer of women with obstetric complications to an appropriate EmOC facility.
- To enhance the decision making process at the household level.
- To create awareness among community members about the danger signs of obstetric complications and the availability of EmOC services.

Communities were able to identify the key barriers to care and select the most appropriate intervention for their situation. Out of the 143 CmSS ever initiated, most selected to establish a community fund to pay for transportation and/or EmOC services. Some bought their own form of transportation as well as identified men to accompany the women to the facilities.

CARE staff, working with the GoB, have facilitated the establishment of Community Support Systems using the following process:

1. Select the village
2. Perform a community diagnosis
3. Share the finding of the community diagnosis with the community
4. Discuss potential solutions with key stakeholders
5. Identify community facilitators
6. Train facilitators
7. Facilitate a meeting of the whole community
8. Implement the support system
9. Disseminate information about the CmSS
10. Follow-up

As with Birth Planning, the primary activities to support the establishment of community support systems were village meetings and on-the-job training sessions. A total of 146 village meetings were held to introduce and orient communities on support systems and over 500 on the job training sessions were held to train CmSS committee members on management of committees and support funds. (See Annex D for a complete list of DSI training activities.)

### b. Objective of the Community Support System Intervention

The objective of CmSS intervention was to:

- Establish community support systems in all the villages in the intervention Upazila in order to provide transportation and funds for obstetric emergencies.

### c. Method of Evaluation of the Community Support System Intervention

Observation and Interview: In order to observe how Community Support Systems function, members of the Evaluation Team visited two villages in Birampur with

flourishing support systems, two villages with failed support systems and one community where a support system was never attempted. In the two villages with functioning support systems the team was able to meet with the entire committee and have an in-depth discussion, review the minutes from past meetings and examine the account books. In each of these villages the team also talked with pregnant women, recently delivered women, FWAs and TBAs, as described above.

In the villages where the support system had failed, the team met with several individual committee members, talked with other people in the community and reviewed minutes and accounts in one village. Community members were asked about how the CmSS had started (if applicable), how it had functioned and why it had failed.

Quantitative Analysis: The team ascertained that the DSI staff had kept records of the dates that support committees were established, along with the size of the committee, the number of households contributing (during the initial months) to the community fund and whether the committee was known to have stopped functioning. From the compiled list of this information that the staff provided, the Evaluation Team calculated the cumulated number of CmSS established by month, as well as the total number of villages with at least one CmSS presumed to be functioning at the time of the evaluation. The Evaluation Team also requested, and received, a list of the villages where a CmSS had never been established, along with the major reasons for non-establishment.

Some information about CmSS was also available from the final survey. A general question was asked: "Is there any support system in your area for pregnant mothers in case of emergency?" with follow up questions concerning the kind of services, who organized them, and whether the respondent could access them. In addition, women who reported having had a complication during their last pregnancy that was managed outside the home were asked whether they used any support from the community and if yes, what specific kind of support.

### d. Results of Implementation of Community Support Systems

Observation and Interview: The two villages with *functioning community support systems* had fairly large committees (13-19) and had both male and female members, though slightly more men. Both committees had dynamic leadership, male and female, had active committee members, were well educated and had a meeting frequency once every two to three month. The villages with the functioning support systems seemed to be large, "rich" villages and have fairly good participation (large proportion of households in the village contributing to the fund). In addition, the committee chair was a member of the Stakeholder Committee. Neither committee charged interest on money lent and families were expected to pay it back if they could. Both committees had purchased vans that were earning 10 Tk per day.

The first committee visited was in a village of 246 families. The support system was formed at a general meeting and nineteen committee members were selected by verbal

voting. The committee has been active for two years and has collected 12,000 Tk, from which they have purchased a van. Since they formed the fund, there have been 22 deliveries and nine women have accessed the fund. No women have died in their village, but a woman in a neighboring village died of obstetric complications and they analyzed this case to see what they could have done to save her. CmSS members said that the greatest benefit of the CmSS is that women are now getting information on safe pregnancy from multiple channels and have ready access to cash and free transportation for EmOC.

This village has expanded the scope of the community support system beyond that originally envisioned. They decided that it would be good to know every person's blood, so that in case of hemorrhage a blood-matched volunteer could accompany the woman to a facility to ensure that she could obtain blood. UNICEF, GoB, and CARE facilitated the process (donated time and materials were used, the villagers organized the process). This innovative solution to a common problem is worth considering for replication.

The second functioning CmSS visited had been active for two years and was run by a committee of 13 men and women. Their village had experienced maternal deaths, so when CARE staff came to talk to them about forming a committee they were ready to do something to address the problem. They arranged a village meeting and decided to set up a fund and a committee to manage it. The community selected members on the basis of honesty and reputation. They should also be active in the community. Members had to be able to write their name, and it was required that at least 5 women sit on the committee. The community decided that families would contribute 2 Tk per month and to date have collected 2,300 Tk, which was used to buy a van. Two women have used the fund.

The Evaluation Team also visited two communities with *failed support systems*. In the first village, the CmSS that had been established in one neighborhood (paraa) was active for a year, then dissolved. The idea of starting a support system to provide for obstetric emergencies came from a CARE staff member. There had been no deaths in the village. They arranged a village meeting of all 30 families and decided to form a fund and a committee. Five men were chosen for the committee and it was decided that two Tk per month would be collected. Funds were collected from 25 families for one year and the committee met five times. No women used the funds for obstetric emergencies, though one woman borrowed 100 Tk to go to the hospital for a case of diarrheal disease. After one year there was a quarrel among households about money and whether the cashier was spending it on himself. The original cashier had left for Dhaka and appointed a new one. As the village as a whole did not select him, they did not accept him. All of the money was returned to the families who contributed it. When asked what they would do if a pregnant woman had a complication they replied that she will be in danger and that this is not acceptable. The failure of this CmSS appeared to be due to several factors: 1) no initial unifying motive to start a CmSS; 2) no one in the first year of the CmSS used the fund for EmOC; 3) lack of trust in the CmSS cashier; and 4) lack of ownership in the CmSS by villagers after the original cashier left.

The second village had a fund for one year. The village decided to form the fund when a field worker told them if they had an emergency then they would have money to pay for it. The village consists of 200 households, but only 30 families (one neighborhood) were called to a general meeting where committee members were selected. In the beginning, all 30 families contributed 10 Tk per month, but this dwindled to 20 families. It was decided (unclear by whom) that the fund should be a general savings fund. Five people accessed the funds, but none of them were pregnant women. The fund grew to 5,000 Tk. The cashier began to charge interest to everyone but himself, although the regulations stated loans were given with no interest. The team learned that though the fund was active for one year, the committee never met. Villagers explained that there was no transparency, so a lack of trust developed. The money was eventually returned. The failure of this CmSS seemed to be due to: 1) lack of ownership in the CmSS by a majority of families in the village CmSS; 2) lack of use of the CmSS for EmOC by the villagers; 3) lack of trust by the village as the committee running the CmSS never met; and 4) due to a lack of a transparency regarding the fund management.

**Table 7. Attributes of Four Community Support Systems**

| | ***Village 1*** | ***Village 2*** | ***Village 3*** | ***Village 4*** |
|---|---|---|---|---|
| Status of CmSS | Functioning | Functioning | Non-functioning | Non-functioning |
| # of households | 246 | 200 | 30 | 200 |
| # of CmSS Committee Members | 19 | 13 | 5 | Unknown |
| Time of functioning CmSS | 2 years | 2 years | 1 year | 1 year |
| # female members | 6 | 5 | 0 | Unknown |
| Frequency of meetings | Every 2 months | | | Never |
| Total amount in fund | 9,000 Tk + van | 300 Tk + van | | 5,000-6,000 Tk |
| Number of Contributors | | 85 | 25 | 30, then 20 |
| Amount of contribution | 5 Tk/month | 2 Tk/month | | 10 Tk/month |
| # of fund users | 9 | 2 | 1 | 5 |

Quantitative Analysis: At the time of the evaluation, one hundred and forty-three funds and three clubs had been established in 133 villages (70%) of the 189 in Birampur. Some funds were established in neighborhoods (paraa) rather than villages. Of the 143, 13 were 'broken', that is, were known to have failed. Since failures are reported from only two unions, it is likely that more have failed, but went unnoticed by fieldworkers. Community support systems were never established in 56 villages (30%). In 38 of these villages (20% of all villages), no effort had been made to establish a CmSS. In the other 18 villages, CARE staff tried to establish a CmSS but the community had chosen not to. The reasons varied, but in 7 cases it was because they had had a bad experience with other community funds before – generally because someone had absconded or misused funds; in 5 additional villages (2 with a bad experience with other credit funds), village politics hindered the formation; one village had another fund, one said they had enough money, and in one village the field worker could not identify a proactive village member to facilitate the establishment of a fund.

**Table 8. Status of the Establishment of CmSS by Union, Birampur**

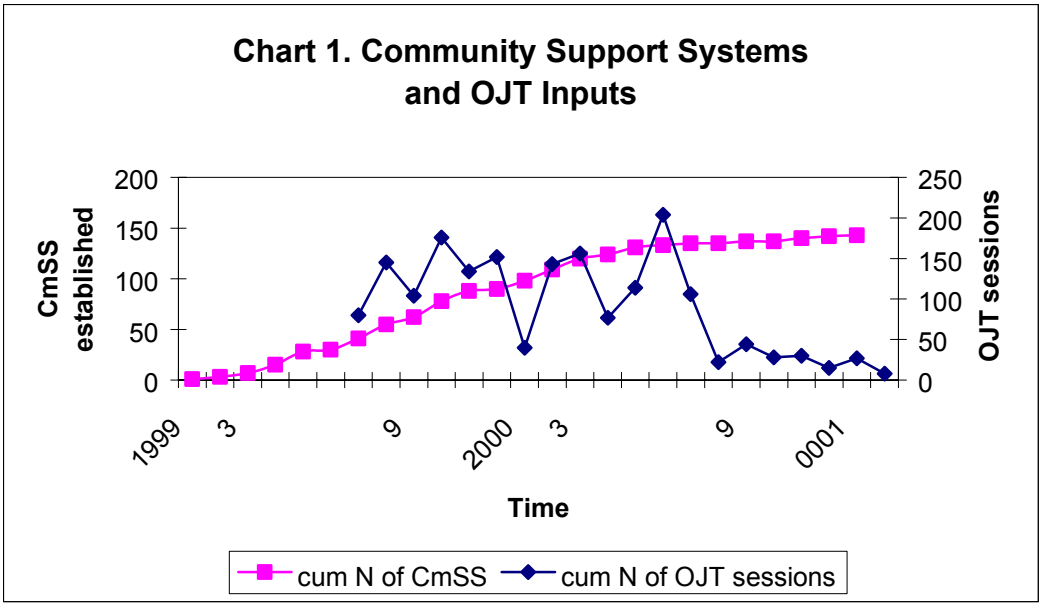
| *Union* | *# villages* | *# not tried* | *# tried and failed* | *# with funds established* | *# known to have failed* |
|---|---|---|---|---|---|
| Binail | 29 | 5 | 3 | 21 | |
| Birampur | 31 | 10 | 0 | 21 | |
| Deor | 29 | 3 | 0 | 26 | 3 |
| Jothbani | 30 | 4 | 4 | 22 | 10 |
| Katla | 20 | 1 | 3 | 16 | |
| Khanpur | 28 | 10 | 5 | 13 | |
| Poliprayagpur | 21 | 5 | 3 | 13 | |
| **OVERALL** | **189** | **38** | **18** | **133** | |

Participation rates – the percent of households in the neighborhood or village contributing to their neighborhood or village fund at regular intervals – ranged from 2% to 100%, and averaged 39% overall. Interestingly, the average participation rates differed by union, with Jothbani and Binail having the lowest participation rates.

**Table 9. Participation Rates in CmSS by Union, Birampur**

| Union | In villages with funds, initial participation rate | | |
|---|---|---|---|
| | *Range* | *Average* | *Median* |
| Binail | 8-58% | 26.7 | 23.5 |
| Birampur/Mukundapur | 10-100% | 53.4 | 48 |
| Deor | 2-80% | 33.2 | 30 |
| Jothbani | 4-76% | 25 | 23 |
| Katla | 4-91% | 44.4 | 42 |
| Khanpur | 19-86% | 53.4 | 55 |
| Poliprayagpur | 20-80% | 50.2 | 60 |
| **OVERALL** | **2-100%** | **39** | |

The number of funds established increased over time. Beginning in early 1999, the rate of establishment was constant until mid-2000, when it leveled off. Interestingly, this coincided temporally with a substantial drop in the monthly number of on-the-job training sessions.




*Attribution*

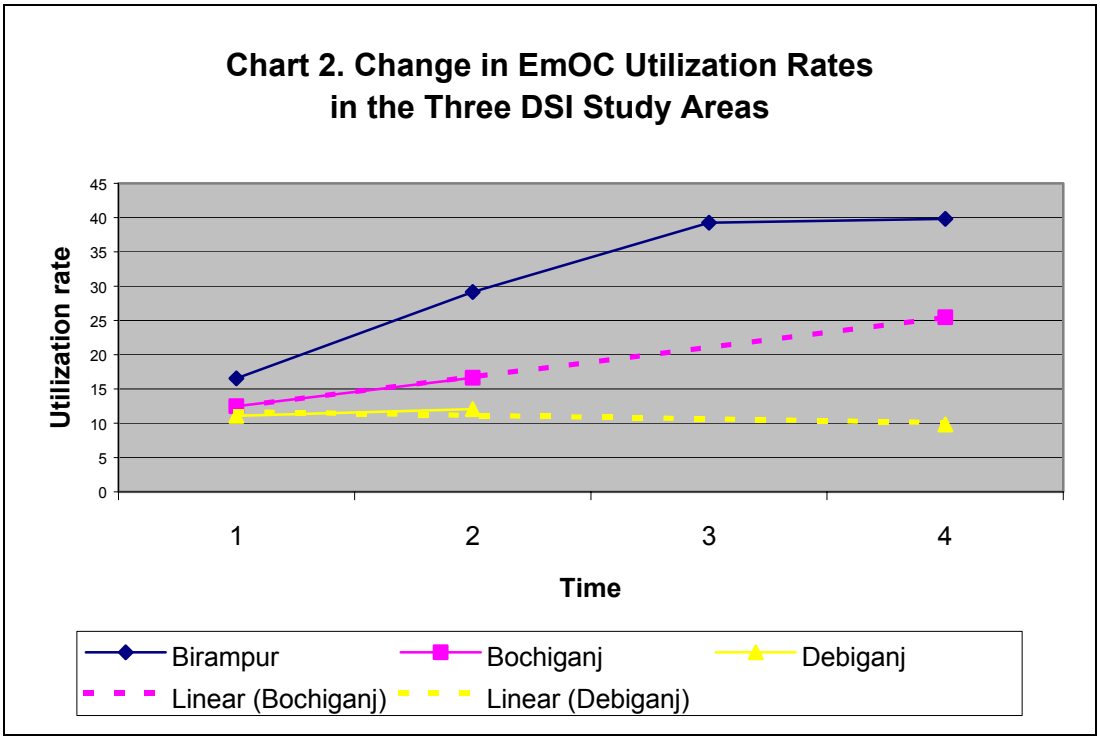
Our basic strategy for assessing whether it is reasonable to attribute gains in met need to program activities is to examine the correlation in time and place of inputs and outputs. The main output measure we use is EmOC utilization, that is, the number of women using EmOC facilities in a period of time divided by the number of women we estimate to have needed them. The numerator of this rate for 1999 and 2000 was obtained by examining the registers of UHC facilities in Birampur (1999 and 2000), Bochaganj (1999), Debiganj (1999), Dinajpur District Hospital EmOC Register (1999) and the remainder from GoB MIS forms obtained from ACPR for February 2000-January 2001. In Birampur, the data on EmOC cases was kept in two registers: the EmOC Admissions Register and the other, a Delivery Register. Since we were interested in an unduplicated count of users, we did not count twice anyone who was readmitted for the same pregnancy complication or anyone who was admitted as a normal labor case at term and later on, after admission, developed complications. In Bochaganj, the data on EmOC cases was kept in an EmOC Register only. In Debiganj, the information was kept in the Hospital Admissions Register. The most significant limitation of the UHC data on EmOC is that it is sometimes written in the Register several days after the admission took place. Information on key variables may be missing, such as the village or union that a client came from, the date of admission/delivery or even a client's last name. Only in one of the three UHCs, Debiganj, were maternal deaths recorded. Since there were no residential doctors at Birampur UHC and because clients often had to travel a great distance to receive care, it seems unusual that no deaths occurred in the two years of data reviewed. No deaths were recorded in the data reviewed at Bochaganj UHC either, over the same two-year period.

In the District Hospital in Dinajpur, records were sealed for a period of May 18,1999 until August 9, 1999 apparently due to an abortion investigation. Data from the Dinajpur

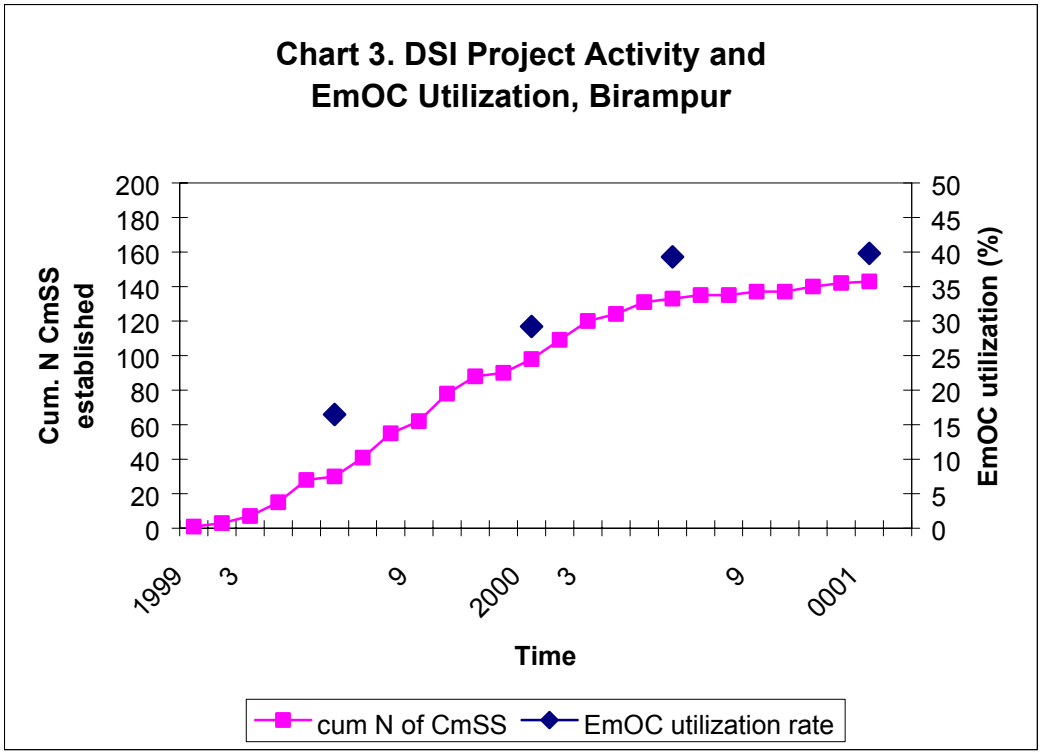
District Hospital also was sometimes written several days after an admission took place and occasionally was also missing key information such as village or union. Maternal deaths, if they occurred, did not appear to be listed in the EmOC Register. Also, another interesting observation is that despite the number of referrals made from Birampur UHC to District Hospital only two clients over a two-year period were documented at having been an EmOC admission to Birampur UHC and then subsequent admission to District Hospital.

The denominator for the EmOC utilization rate was calculated as 15% of the estimated number of pregnancies in a period [UNICEF. (1996)]. "The Progress of Nations." (New York: UNICEF). The estimated number of pregnancies was obtained by applying a crude birth rate of 29 (per 1000 population) to the projected 2000 populations of the three study Upazilas. While this birth rate is higher than the national average of 19.9, it is within the range of 25-32 that informed opinion attributes to Dinajpur (Barkat, pers. com). Note that there was no population growth rate increase added into the denominator to compare the baseline and final EmOC utilization as the study data was only collected over a two-year period. See Chart 2 which illustrates the change in EmOC utilization rates over time in the intervention and two comparison UHCs.

Time: The only input information available by time is the number of CmSS established per month. We consider this a reasonable proxy for all program activities – as illustrated in Chart 3 entitled "Project Activity and EmOC Utilization, Birampur" on page 39, in which the rate of establishment of CmSS leveled off at about the same time the number of monthly on-the-job training sessions declined substantially.



The chart below shows the correlation between project activity (as proxied by CmSS establishment) and use of emergency obstetric care in Birampur.




*Analysis by union*. Unfortunately, the Evaluation Team had insufficient information to examine the relation between inputs and the main output – EmOC utilization by union. The Birampur register contains inconsistent information about where each patient comes from (sometimes paraa, sometimes village, sometimes simply the union), and the team was unable to obtain estimates of the number of pregnancies per union. However, the final survey did collect information about intermediate outcomes, knowledge of the five danger signs, knowledge of the five birth preparation activities, and awareness of a community support system. The table below displays the levels of these indicators along with the % of villages in which a CmSS was established and the median participation rate in the community fund.

**Table 10. Birth Preparation by Awareness of CmSS by Union**

| Union | % with CmSS established | Median Part. rate | % know 3+ prep actions | % know 3+ danger signs | % know of com support |
|---|---|---|---|---|---|
| ***Binail*** | ***72*** | ***24*** | ***12.1*** | ***51.5*** | ***6.1*** |
| Birampur P. | 66 | 48 | 13.7 | 34.2 | 5.5 |
| Mukundapor | | | 12.9 | 35.3 | 8.2 |
| Deor | 90 | 30 | 32.1 | 75.0 | 39.3 |
| ***Jothbani*** | ***73*** | ***23*** | ***3.4*** | ***34.5*** | ***3.4*** |
| Katla | 80 | 42 | 29.0 | 45.2 | 25.8 |
| Khanpur | 46 | 55 | 17.1 | 44.3 | 21.4 |
| Poliprayagpur | 62 | 60 | 36.5 | 54.0 | 20.6 |

The two unions with the lowest participation rates and the lowest estimated total coverage – Binail and Jothbani – were among those with the lowest rates of knowledge of community support and lowest knowledge of preparatory actions. Conversely Deor and Katla, with the highest establishment rates had the highest levels of knowledge of community support and knowledge of danger signs.

### e. Factors Facilitating Achievement of Objectives regarding Community Support Systems

A community member of the Stakeholder Committee stated that CARE gained acceptance because they made sure that the community is leading and making the decisions. The same member also reported that support systems are started through "CARE's assistance and the people's motivation. They skillfully share solutions, not by helping with money but with important messages and tips. They probe us and help us come up with our own solutions."

Training was also a key facilitating factor. As reported above, CARE staff facilitated hundreds of on the job training sessions which were key to establishing Community Support Systems. At the beginning of the project, one observer said that government staff were shy and not proactive. However, as time has passed, the GoB staff have become a proactive and important part of this project's success.

A third facilitating factor, as in the case of Birth Planning, was the large number of maternal deaths. Using local examples, CARE staff were able to orient communities to the problem of maternal mortality and help them in finding solutions.

A fourth possible factor is familiarity with credit schemes. Many of the communities had other clubs and committees, such as youth clubs and Grameen Bank fund, and so had a good understanding of credit schemes and group process. However, as discussed above, many villages had negative experiences that were detrimental to establishing support systems.

While the upgrading of the Upazila Health Complexes to provide EmOC services and improve the quality of care were implemented by UNICEF and through the DSI project,

it was unclear if the community knew about the improved services. One CmSS member did mention that they were pleased a female doctor was working at the UHC so women could maintain their privacy.

Other facilitating factors appear to be strong leadership within the CmSS, regular committee members and transparency.

### f. Factors Hindering Achievement of Objectives regarding Community Support Systems

In the villages visited by the Evaluation Team, lack of trust and transparency were the major inhibitors to the establishment of successful community support systems. In 7/56 cases, that distrust was the result of a failed credit scheme prior to the DSI project. In other cases the distrust was a result of mismanagement of the CmSS fund. A Stakeholder Committee member explained that there were three major hardships in establishing the support systems: 1) Understanding and accepting that CARE would not be providing them with money or medication; 2) lack of trust related to funds; and 3) choosing the committee members. The Evaluation Team noted that it is also important that communities understand the difference between group savings funds and support funds.

The quality of the monitoring again appears to have been another inhibiting factor. While large amounts of data were compiled, their collection was sometimes sporadic and inconsistent. Moreover, data that was collected was not analyzed on an on-going basis to monitor the project achievements in a timely manner.

Other factors may include the balance between male and female committee members and the size and socio-economic status of the village.

### g. Special Outcomes and Unexpected Results regarding Community Support Systems

While no special outcomes were discerned through analysis, some were observed through interviews. In one community the formation of the CmSS seemed to create positive peer pressure in the village to ensure that the women received prompt emergency obstetric care. When the committee was asked what they would do if they knew of a woman who was having complications but whose family would not seek appropriate care for her, committee members said they would go to the family and intervene.

Both successful and unsuccessful support systems discussed using the CmSS to solve problems outside of maternal health. This can be positive and negative. For example, one successful CmSS reported that the used the committee as a forum to mediate disagreements while another was using the CmSS meeting to discuss school drop out among girls. However, one of the unsuccessful support systems reported that they

decided to make the fund more general, which diluted the focus on maternal health. The fund became quite large and quarrels over money soon ended the fund all together.

### h. Lessons Learned regarding Community Support Systems

From the interviews and observations of the Evaluation Team, one core necessity for establishing a successful community support system is trust and transparency. The committee members must be respected members of the community and must conduct the committee with openness and honesty. The two successful support systems that the team observed facilitated this by drafting regulations which the committee was expected to follow.

A second lesson learned is the prerequisite for buy-in from a large portion of the community. Holding a community-wide meeting to discuss the problem of maternal death and to come to consensus on a strategy to address it, is essential. The communities where committee members were elected, and replaced, by the community were more successful.

## 3. Quality of Care (QoC)

### a. Overview of the Quality of Care Intervention

The Dinajpur SafeMother Initiative (DSI) had the objective of increasing utilization of EmOC services, through specific interventions to impact upon in the reduction in the three delays. One of the delays occurs at the facilities. The hypothesis is that the quality of the services at the facilities, if improved, would reduce the delay at the facilities. It was thus planned that concepts of Quality of Care (QoC) and tools to improve the EmOC services would be introduced and implemented.

It has been found that QoC has a direct influence on delay in deciding to seek care. Poor quality of services discourages people from using them. Case studies show that women with obstetric complications may attend a facility and return home, if it did not provide appropriate and/or required services. A high quality of service enhances the trust of the people in hospitals and service providers. It improves the relationship between the clients and the providers. It thus establishes women's right to quality services and eventually enhances the rate of hospital use by the patients.

Some key elements of quality of care were identified by DSI based on the need and the context of the service delivery sites.

1. Prompt attention to emergencies.
2. Easy access to and directions for services.
3. Cleanliness.

4. Adequate seating and separate queue for women.
5. Privacy.

DSI staff identified the following principles to be considered when taking an action to improve the QoC:

1. Foster the service provider's understanding of the benefits of improving the quality of care.
2. Use participatory methods to do a needs assessment for quality of care.
3. Involve key decision-makers.
4. A decision to implement QoC improvements must be made by the appropriate key decision-maker/manager(s) of the facility.
5. Involve the service providers/managers of the facility in any QoC events as the main facilitator.
6. Consider all comments, suggestions, and recommendations regarding QoC made by service providers.

**b. Objective(s) of the Quality of Care Intervention:**

- Ensure 24-hour availability of quality EmOC services at the intervention UHC through better management of the services.
- Reduce delay in providing services to clients who attend the facility.
- Create a woman-friendly environment at the facility.
- Reduce the gap between providers and clients.

**c. Method of Evaluation of the Quality of Care Intervention**

For the review exercise, the sub-group of the Evaluation Team working on QoC collected pertinent information in the following ways:

- Tour of the three Upazila Health Complexes/observation of activities (See DSI Quality of Care Observation Checklist in Annex C).
- Interview key informants.
- Record review.
- Attend Stakeholder Committee meeting.
- Visit a private clinic.
- Group discussion with relevant DSI staff.

**d. Results of the Implementation of the Quality of Care Intervention:**

The QoC intervention has been implemented at the Birampur Upazila Health Complex to improve the EmOC services. This effort has been carried out in a difficult environment. CARE posted a full time nurse trainer at the facility to work on Quality of

Care. Quality of Care was defined as the provision of safe, effective, acceptable and easily available services within limited resources, which ensures optimum utilization of available facilities, participatory decisions, mutual respect, respecting values, necessary exchange of information and satisfaction of the service receivers (adapted from WHO definition).

The first step was the planning and implementation of a Team Approach to QoC workshop (6 October 1999). It was attended by 60 staff of the health complex. In that workshop two important events occurred. A role playing exercise allowed staff to role play each other roles on the staff. For instance, a doctor may have role played being a nurse, a sweeper role played a doctor, etc. This allowed the staff to begin to understand a bit more of other staff member's perspective. Second, several QoC issues were identified by the staff. Out of the selected issues, the staff identified which ones they considered to be of the highest priority on which basis a plan of action was developed. The following action areas of quality were targeted for improvement: cleanliness of the facility, staff supervision, interpersonal communication, privacy provision for clients, and the orientation of clients to the UHC. Eight team norms were then defined by staff: 1) mutual respect; 2) allow participation by all; 3) avoid always being directive; 4) be punctual; 5) in an emergency, take any role necessary; 6) do a self-evaluation to monitor your own progress monthly; 7) help each other; and 8) do your job the best you can with resources you have. Exit interviews were then conducted with clients to obtain baseline data concerning their perception of quality.

Following the workshop, the action plan which was posted on the wall was reviewed periodically in bimonthly staff meetings. Six such meetings have been held so far. After each of the meetings, minutes have been developed and kept by the UHFPO. These minutes were then used at future bimonthly meetings and also reviewed by the District Level Manager when making monitoring visits at the UHC. It has been 18 months now since the action plan was developed and implemented. Some outcomes can be seen evidenced by the occurrences of certain activities within the health complex. For example, cleanliness is the responsibility of the sweeper who sweeps the facility twice daily as part of his/her job description. Throughout this project, the status of cleaners at the facility has been increased. The facility has now been found to be clean throughout, but, with definite problems in the toilets. No clinical waste was found littered around the health complex. The nurses said that the clinical wastes are being burned and buried. Another example is supervision of staff by the RMO which supervises staff on a daily basis. The Evaluation Team members observed that the nurses are very friendly with the patients. The patient-provider interaction seems to have improved according to CARE staff. This has been helped by constant on-the-job training (OJT) conducted by the CARE Field Trainer Nurse located within the facility.

The DSI project managed to ensure lighting in the corridors and indoor hallways allowing safe passage of clients/providers especially during night, which had not been present previously. In this case, CARE brought this issue forward, gained GoB support, and then the necessary financial support for implementation was secured through the GoB and Stakeholder Committee. The different rooms in the health facility are now

marked, but clear arrow signs for services are not adequate. Clients and staff should be consulted regarding improved signage and the solution implemented on a priority basis.

The provision of seating arrangements for pregnant women outdoors has enabled them to receive services more quickly avoiding delay at the facility level. There is an increase in the number of deliveries at Birampur health facility from 2.4% at baseline to 10.5% in the Final Quantitative Survey by ACPR. This may be attributed to the improvement of the social aspect of QoC as well as CmSS and Birth Planning efforts in the community.

The DSI project has managed to build team spirit among the facility staff and improve the relationship and communication between service providers and clients. The idea of working as a team seems to have been instilled in the minds of the providers. They are trying to put this principle into practice. However, more time is required by the team to fully institutionalize this approach such as in the area of problem solving.

The Birampur Health Complex authority has started to work in partnership with community stakeholders and non-governmental organizations. They have given CARE a room to work within the hospital. This is an excellent example of the GoB working in partnership with NGOs. The Stakeholder Committee has even established a fund to help pregnant women requiring support. At the Stakeholder Committee meeting attended by the Evaluation Team, issues of QoC were discussed which they had identified and specific EmOC cases reviewed. The members reviewed the causes of the maternal deaths, shared responsibilities and took the action necessary to overcome problems. The Stakeholder Committee identified improvement in several areas of QoC: cleanliness, outdoor seating for pregnant women, water supply, lighting inside the UHC especially in hallways and toilet, privacy curtains in the exam room, health education sessions held regularly, recordkeeping, communication between providers and clients, and coordination among service providers. After the meeting, members of the committee spent time observing the Quality of Care at the UHC and interviewing clients about their perception of care received. Community representatives seemed comfortable questioning providers about care given. This is evidence that the gap between the facility and community which previously existed is being overcome.

### e. Factors Facilitating Achievement of Objectives related to Quality of Care:

The achievements in connection with QoC have been due to the implementation of a team approach being initiated at Birampur Upazila Health Complex. Much more can be achieved if staff motivation improves. Some internal minor administrative issues, if resolved, would help in further improvement of QoC.

### f. Factors Hindering Achievement of Objectives related to Quality of Care:

There have been several factors negatively affecting the implementation of the QoC intervention. Leadership of the Upazila Health Complex would be the first factor affecting the achievement. A dynamic leadership is a pre-requisite in bringing a change. In this case, improving QoC means a change in many of the usual practices in a government facility. The leadership has to be proactive, undertake initiative and take some risk. All of these characteristics combined together make leadership dynamic.

Commitment and a strong sense of ownership from the highest level is lacking. The relevant staff at the Directorate General of Health Services should give extra attention to this project and issue necessary directives and guidance from time to time. To date, they have only participated in joint review and monitoring activities.

The on-site CARE staff has done a lot of good work with the lower level staff of the facility. However, her attempt to work with the physicians and the management has not been as effective. In the future, CARE might think of deploying a physician to work with the doctors and the management of the facility.

The on-site CARE staff should receive thorough orientation on facilitation, and coaching skills. These skills are critical when on-the-job training approaches are being applied. The on-site CARE staff would benefit and work more effectively if some orientation to methodologies such as self-assessment, problem identification and resolution, the client's rights framework, peer review exercises, newer steps of infection prevention etc. are received. Even if this technical assistance requires travel outside the country, it should be considered.

Specifically for QoC elements and indicators used in the DSI project, baseline data, in the truest sense, were not collected. The final evaluation done by ACPR also did not look at level of achievement in the QoC indicators.

There has been no attempt made to quantitatively measure the improvement of QoC. The methodology of measuring Quality Compliance Coefficient (QCC) using indices is an easy way of showing improvements in QoC over time. The QCC methodology which has been used widely in the NGO clinics funded by USAID in Bangladesh is recommended.

### g. Special Outcomes and Unexpected Results regarding Quality of Care

In all of the three Upazila Health Complexes and the District Hospital visited, the step of decontamination is totally absent within the context of infection prevention (IP) practices. It seems that the providers pay very little attention to the different aspects of IP. The risk of getting infected by deadly infections like Hepatitis-B is not understood by the lower category of staff, namely cleaners, ward boys etc.

Repair and maintenance of equipment, instruments, furniture, and facility seems to be a neglected aspect of the health service delivery system. It seems that very little local level initiative is undertaken to repair anything. Due to lack of repair and proper maintenance, many valuable and necessary equipment items and instruments are inoperative at the hospitals/health complexes. The providers thus are unable to provide care at the standard expected and always have an excuse due to the non-availability of functioning equipment and instruments which they require.

Improvement of QoC at the local level has to be fully backed by an appropriate and timely training, and a supportive supervisory system. The skill-based training offered to providers is often not adequately linked to the provision of service. At times, even trained providers after receiving training, cannot practice due to the lack of necessary facilities or equipment for a specific service. Consequently, the provider begins losing his/her skills. This situation has happened with the EmOC trained doctors at both the Birampur and Bochaganj Health Complexes in which physicians trained to perform comprehensive EmOC services such as Cesearian section are not permitted or equipped to do so. The supervisory system within the health service delivery program in Bangladesh shall have to adopt an approach of being more supportive in nature.

### h. Lessons Learned regarding Quality of Care

The DSI project as related to QoC has been a good experience for CARE and to all those who have worked on it, specifically government, UNICEF, and local NGOs. The main lessons learned from this project can be summarized as follows:

- The Stakeholder Committee at the UHC has become an excellent vehicle to reduce the communication gap between the facility and the community.

- The QoC component can be replicated if some adjustments are made. The biggest adjustment that must be made is in the development and ongoing implementation of a single well thought out action plan with alternative strategies reviewed and revised as needed for the accomplishment of improved QoC at the facility. Currently, there are three separate QoC action plans which are similar but not the same being implemented for three separate programs at Birampur UHC: 1) CARE's DSI; 2) UNICEF's Women Friendly Hospital Initiative; and 3) GoB's Room by Room Assessment due to the management's inability to agree on a single plan. There is an apparent lack of leadership on this issue.

- All activities and/ means used to improve the quality of care and to evaluate such improvement should be well structured and clearly defined. Often providers and managers mix up the two aspects of QoC, first, continuous improvement, and second, measurement.

- The on-site staff responsible of QoC shall be an effective trainer(s) with excellent coaching, facilitation, and training skills.

- Personal concerns of staff should be addressed as soon as possible. At Birampur Health Complex the EmOC trained physician should be given a table and a separate chair on which to sit. He should not be given the opportunity for personal discontent.

- The on-site activities to improve QoC should be backed up by a regular supportive supervisory system.

- Attempts should be made to highlight and share examples of issues that are getting resolved with local resources.

The lessons learned in the area of QoC can be easily applied/replicated in many other programs with some minor adjustments and or modifications. The lessons learned in the DSI project on QoC should be widely disseminated and tested in other places.

## 3. Violence Against Women(VAW)

### a. Description of the Violence Against Women Intervention

DSI has a three-pronged strategy for its Violence Against Women intervention which includes research, community mobilization and support for victims, and the improvement of quality of care *specific* to the women subjected to violence offered by staff at Birampur UHC.

1. Research: Gathering qualitative data to inform the study especially with regards to the "Three delays' model and the QoC component collected at the Birampur Upazila Health Center. This has also involved the collection of quantitative baseline and final DSI project data specific to VAW.

2. Community mobilization by CARE of key stakeholders through the partnership NGOs (PNGOs) using a variety of capacity building techniques to: increase public awareness of VAW towards pregnant girls and women, to increase the awareness of families to the problem of VAW and its impact on pregnancy and EOC, to provide support such as legal assistance, village arbitration, basic support, referrals, and transport to victims via the PNGOs and ward forums, to organize around VAW issues, and to facilitate access to the UHC.

3. Provision of comprehensive support at the health facility level: To provide comprehensive support to women at the UHC through improving the QoC offered by the staff and the facility at Birampur UHC. UNICEF's Woman Friendly Hospital Initiative (WFHI) QoC protocols including the management of VAW are to be implemented. Basic criteria for this include: 1) the facility must have four trained personnel oriented to VAW protocol; 2) the trained staff must set up a facility-based special committee on VAW; 3) in accordance with VAW protocols,

conditions for an adequate examination must be present including non-judgmental staff attitude, privacy, confidentiality, timely counseling and treatment, with records adequately and properly kept; and 4) a proper referral system to other agencies of higher level such as hospitals is in place.

**b. Objective(s) of the Violence Against Women Intervention**

- Ensure quality services for all women subjected to violence, particularly during pregnancy, that seek services of the UHC in Birampur.

**c. Method of Evaluation of the Violence Against Women Intervention**

The scope of the evaluation is to review the efforts that have been undertaken by DSI to address the project's objectives that relate to Violence against Women (VAW) and to develop recommendations for future programming.

The methods used in this evaluation included document review, observation, interviews and focused group discussions.

- The observation included the Birampur and Bochaganj Upazila Health Complexes, and two villages in the Birampur Upazila, Dior and Jholagari.
- A focus group discussion took place with the 4 partnership non-government organizations, and with the doctors at Birampur UHC.
- Discussions and in-depth interviews were held with 11 respondents from CARE, UNICEF and the UHCs.
- Documents provided by CARE and UNICEF were reviewed and analyzed.

**d. Results of the Implementation of the Violence Against Women Intervention**

The incidence of VAW in Bangladesh is enormous.

- In 1992, VAW was the cause of death for twice as many women as those who died of TB, leprosy, skin disease, tumors and cancer combined (Bangladesh Bureau of Statistics).

- An ICDDRB study indicates that 14% of all maternal deaths in Bangladesh are attributed to physical and emotional violence, including homicide and suicide.

- Studies estimate that in Bangladesh in 1999, between 47% and 60% of married women were victims of wife beating, (UNFPA State of the World Population Report and Naripokkho research, respectively).

- A study located in four sub-districts, including Birampur, documenting the case histories of 66 women subjected to violence, indicate that an average of 50% of the women mentioned that their husband had been violent during their pregnancy (Blanchet, 2000).

- The DSI Final Evaluation Report of 400 women indicates that 12.2 percent, 21.1 percent and 10.8 percent of women of Birampur, Bochaganj and Debiganj respectively suffered from violence during their last pregnancy. On average, Birampur, Bochaganj and Debiganj women were victims of violence 5.0, 3.3, and 2.4 times, respectively, during the pregnancy.

- The relationship between the neglect of pregnant girls/women and maternal morbidity and mortality is inestimable.

The Violence against Woman intervention is aimed at involving local NGOs and the relevant GoB department for piloting a small scale initiatives to address the VAW issue that includes providing support to abused women both at the community and facility.

Addressing VAW is not one of the declared project goals. It is one of the two stated objectives. Namely that "By the year 2001 all girls/women subjected to violence who seek services of the Upazila Health Complex receive quality care." The VAW component of DSI has only been activated in the selected intervention area, the Birampur sub-district, and not in comparison areas A and B.

When the DSI project started in May 1998 as a joint initiative between UNICEF, the Government of Bangladesh (GoB) and CARE, it was structured as a community mobilization pilot to address the three delays for reducing maternal mortality and morbidity. The issue of VAW, as it relates to EmOC was recognized but not included as a key objective as it is in subsequent documents. The 1999 DSI Baseline Survey explores the perceived need for services on VAW, knowledge and availability of existing services, but offers no qualitative data regarding incidence of violence against pregnant women. VAW is not featured in the 1998 DSI Qualitative Study. However, VAW is an integral part of UNICEF's Women Friendly Hospital Initiative (WFHI), and a significant number of the surveyed women's experiences during the DSI's research included incidences of physical, emotional and structural violence, as well as abusive neglect.[4]

Notwithstanding the ongoing data gathering and organizing around VAW, CARE only included VAW as a key objective in the 1999 DSI Monitoring Strategy. However, there are no verifiable indicators in the 1999 log frame of DSI's Monitoring Strategy. In the DSI baseline survey, certain key VAW variables such as the number of pregnant

[4] The definitions of used by CARE (see DSI's document Prevention of VAW and the Provision of Comprehensive Care for the Victims' Jan 2000) do not refer to abusive neglect, which can result in damage and death, or to structural violence. Structural violence refers to the violations caused by the way in which society is strutted- government legislation, business and organizational pollicies and regulations, socio-cultural and religious values and norms (Stavrou, 1993)

women subjected to violence treated at the Birampur UHC was excluded, making it difficult to evaluate the impact of DSI.

CARE's strategy in development of the community based VAW component, has been to first identify local NGOs and key stakeholders that have an interest in the prevention of VAW. CARE then arranged two workshops where the four identified NGOs (Uddyog, Orban, SCDF, Development Council), the Upazila Executive Officer, the UHC, Upazila police authorities, the Union Parishad, the National Women Lawyers' Association journalists and other community representatives drew up respective action plans and a Memorandum of Understanding (Jan 2000). This process is aimed at developing a consensus on the mode of coordination with the different agencies re their respective VAW interventions.

**Table 11. Percentage of PNGOs Field Functionaries Implementing VAW Work**

| *Name of NGO* | *Total no. of staff* | *Staff implementing DSI VAW work* | *Percentage* |
|---|---|---|---|
| Development Council | 34 | 4 | 11.76 |
| UDDYOG | 16 | 4 | 25 |
| ORBAN | 72 | 2 | 2.7 |
| SCDF | 21 | 5 | 23.8 |

*VAW Ward Forums*

The 1999 DSI Baseline Survey indicated that if the respondents would go to anyone for assistance when VAW crosses a limit, it would be the Union Parishad chairman or committee member. This finding is verified by the ACPR Final DSI Evaluation Survey. CARE has thus targeted the UP women members as key informants and organizers at the ward level. The UP women members, with help from the PNGOs, have set up VAW Ward Forums in all of Birampur Upazila's 24 wards.

The VAW Ward Forums were formed in November and December 2000. Each forum has 11 members, 5 women, including the UP member, and 6 men for strategic reasons, the chairperson is always a man, Of the 24, 17 forums are noted by the PNGOs as being active, and thus far 13 hold their own ward based forum meetings every two or four weeks. The main activities of the forums are (in descending order) organizing meetings, prevention activities, arranging for village arbitrations, awareness raising, arranging for legal support. The forum members have been trained to record all the arbitrations and minutes of VAW Ward Forum meetings in a register.

The CARE staff, NGO representatives and UP women members interviewed in the course of this evaluation, reported that the awareness of the community to the availability of VAW support and services has risen since the DSI intervention. There is little comparative data to triangulate this observation.

The UP women members interviewed stated that the village arbitrations were difficult but a critical part of the prevention of VAW. The arbitrations clarified issues regarding who would support the woman and the family, and what action needed to be taken against the perpetrators. Recourse to legal aid and police action was avoided. The role the women VAW forum members played in these arbitrations were according to one UP member interviewed "  good for women empowerment. But there are lots who oppose this. Especially if it is political and rich or influential families involved. It is the same with the medical certificates."

The VAW Ward Forum members interviewed reported that the most complicated thing about organizing the forums was that ". . . the village chairmen do not want to accept working with VAW, especially the very religious and the perpetrators. They see it as very complicated. Plus those women take a leadership role with the chairman as advisor is a problem. The problem has decreased but it's still there."

The support for VAW Ward Forums is weak at the sub-district level. The Upazila Executive officer (Upazila Nirbahi Officer, TNO) chairs a VAW Cell, which was supposed to meet twice a month monitor the forums' activities and advocate at the sub-district level. The cell has only has met 3 times between Jan 2000 and May 2001. In this pilot phase, the Ward forums are supported by the PNGOs, which are in turn supported by CARE. The PNGOs meet monthly at the CAEW Birampur office to discuss the above. CARE keeps in close touch with the women UP members who are CARE's key informants in the broader scope of the DSI.

*Use of Health Facility by Women Subjected to Violence*

The tables below show the number of VAW cases noted during this evaluation report in the Birampur UHC inpatient register, and the number of VAW admissions noted in the EOC Register.

**Table 12. Number of Recorded VAW Inpatient Cases at Birampur UHC**

| *Year* | *Total no. Inpatients Registered* | *Year* | *Total no. VAW admissions* |
|---|---|---|---|
| Jan-Dec 2000 | 1191 (50%=595.5) | Jan-Dec 2000 | 7.05% (N=84) |
| Jan-Dec 1999 | 998 (50%=499) | July-Dec 1999 | 8.2% (N=41) |

**Table 13. Number of Recorded VAW EOC Cases at Birampur UHC**

| *Year* | *Total no. EOC patients registered* | *Year* | *Total no. EOC VAW admissions* |
|---|---|---|---|
| Jan-Dec 2000 | 153 | Jan-Dec 2000 | 1.96% (N=3) |
| Jan-Dec 1999 | 92 | July-Dec 1999 | 7.6% (N=7) |

*Quality of Care for Female Victims of Violence at the Birampur Upazila Health Facility*

A formal QoC needs assessment has not been done at the Birampur UHC. The respective role of the UHC, other GoB and local government structures regarding provision of facility based VAW services were discussed and action plans drawn up when the VAW MoU was drawn up in January 2000. CARE, UNICEF, and the GoB held a joint review (only meeting minutes, no report available).

UNICEF has trained 3 doctors and one nurse in the "Training Module of the Management of VAW" at Birampur UHC. At a group discussion with five UHC doctors, they reported that they maintain the UHC register and record nothing on VAW, they take all the VAW case histories, but other than that no special treatment is given to women/girls subjected to violence. They have not seen the VAW protocol, have not fed back any of the VAW training to the rest of the UHC staff and Stakeholder Committee, have not formed a UHC VAW committee, offer no counseling, are reluctant to make referrals and give medical certificates noting the abuse and the perpetrator. There are currently no resident medical doctors at Birampur UHC.

The UHC Stakeholder Committee does not discuss VAW issues. Despite the existence of private doctors' examination rooms, the majority of patients get examined and their history gets taken in the ward in front of all the other patients. No screens were observed. The above situation mirrors the responses of the people interviewed for the 1998 Baseline survey. These aspects of QoC were unfortunately not part of the design parameters of the Final Evaluation report.

UNICEF has conducted no follow-up to VAW training course. The doctors maintained that VAW "needs multi-disciplinary action," that they are understaffed, do not have the time to get involved and "have no work satisfaction any way." When asked as to any suggestions the doctors could make, the RMO reported that they would like to be enabled to perform more comprehensive forensic examinations at the Upazila level: "There is no use gathering forensic evidence because it cannot be preserved by the time it gets examined at district level. This work will benefit us."

The Senior Staff nurse trained in VAW management at Birampur UHC, stated that the main impact of the training has been that she now gives the patient more time, gets a good history, and if the injuries are very gross, will take the patient into the nurses' sleeping room for the examination and history taking. She reports that the RMO supports her in the above. She has never seen the VAW Management Protocol. Her wishes are for the health workers to be a more motivated team. She appears to be the only staff member offering explicit assistance to women/girls subjected to violence.

The CARE FT-N based at the UHC facilitates and monitors the VAW work at the UHC, working closely with the VAW trained nurse. The FT-N helps the trained UHC nurse with history taking and facilitating any referrals made. The areas that the FR-N

identified needing urgent change are the poor staff motivation, the lack of staff accountability and the lack of psychological counseling.

The FWA and the HA interviewed, reported that they do not incorporate VAW issues into their work. They stated that they would very much like to use DSI's VAW flash cards because it is not included in the DSI Birth Planning card.

### e. Factors Facilitating Achievement of the Violence Against Women Intervention

The following factors seemed to enhance the achievement of the VAW intervention:

- Copious qualitative data was collected by CARE. This data appears to have been used effectively as an advocacy tool with the community to lobby for more preventive and support services for VAW, and as an operational tool to inform the community based interventions, e. g., formation of VAW Ward Forums.

- A sound community mobilization strategy, especially the targeting of UP women members and the setting up of VAW Ward Forums formed the core of the VAW intervention. The 2001 Final Evaluation Survey indicates that far greater proportion of respondents are aware of the VAW services and support offered by the VAW Ward Forums than indicated in the 1999 DSI Baseline Survey.

- The CARE flash cards on VAW appear to be excellent public health education materials.

- The strategy of partnering and supporting local NGOs appears to have been successful regarding the explicit VAW objectives.

### f. Factors Hindering Achievement of Objectives related to the VAW Intervention

The following factors seem to hinder the accomplishment of objectives related to the VAW intervention.

- The late addition of the VAW objective into the DSI intervention package introduces a lack of conceptual and methodological clarity to the VAW intervention. The stated objective is over ambitious for DSI's purposes, especially noting the late start of the VAW intervention. The problem of VAW is extremely complex, requiring a greater commitment of project time and resources to conceptualizing, assessing, planning, implementing, monitoring and following-up the VAW objective. A more limited and project focused objective of all pregnant women rather than the stated 'all women' would have been more realistic for DSI.

- A lack of comparable baseline and evaluation data makes it difficult to measure the impact of the intervention re the percentage of VAW cases managed at the UHC. The current estimates made by this report indicate either low utilization of services or poor recording of VAW cases at the UHC.

- With little comparative data, it is difficult to evaluate the impact of the intervention re the quality of care given to all women and to all pregnant women who come to the facility with evidence of violence. The current quality of care appears poor, notwithstanding the input of the UNICEF training, the efforts of the nurse trained in the management of VAW and the CARE FT-N currently stationed at the UHC.

- Health facility staff and the UP women interviewed, indicate that the reluctance of the medical staff to make referrals and issue medical certificates may be because they fear reprisals from the women's husband and family. Furthermore, the NGO workers and the UP women members reported that they have been personally threatened because of their VAW work.

- The impact of UNICEF's VAW training appears to be low in terms of increasing the quality of service provision. It seems that the QoC given to women/girls subjected to violence at the UHC is integrally linked to the UHC staff.

### g. Lessons Learned regarding the Violence Against Women Intervention

The following lessons can be drawn from the implementation of the VAW Intervention to date.

- Due to a late start, the VAW component of the DSI is in its infancy, just as the project is about to end.

- The complex, culturally sensitive nature of the issue means that withdrawing support so early in the VAW intervention would compromise the establishment of the program before quantitative effects can be measured, and sustainability and replicability can be meaningfully ensured.

- The intervention has resulted in modest gains thus far:
  - Increased awareness of the VAW
  - Increased awareness of available services/support in the area
  - The mobilization of partnership NGOs and relevant local government and community organizations as stakeholders in improving services to women/girls subjected to violence
  - Creation of VAW Ward Forums.

- It is difficult to make accurate attributions with regards to the low utilization of services by VAW cases. See Tables 12 and 13 on page 52. A lack of comparable

baseline and other evaluation data makes it difficult to measure the impact of the intervention re the percentage of VAW cases managed at the UHC. A significant issue to be taken into account is that the VAW intervention is a new process, not fully oriented to identifying and recording VAW cases.

- It is clear that at the health facility level, the QoC given to women/girls subjected to violence, is integrally linked to the poor quality of orientation, incentive and on-going support given to the Birampur Upazila Health Complex staff.

## E. Tools and Innovative Methods Applied during the Project

*Birth Planning Cards and Flashcards*

The Evaluation Team observed an FWA using the Birth Planning cards and flashcards to orient a young couple and the husband's parents. She explained them clearly, without apparently having to look at the Bengali on the back of the cards. The cards were found to be easy for the villagers to understand. In two villages the team showed them to women who had never seen them and they readily picked out salient points either on their own or with minimal orienting questioning. Two visual cues were not understood: the crosses through things a women should not do had to be explained (and the pills were mistaken for vitamins), and the visual display of time. However, with explanation, the cues appeared to be easy for women and their families to comprehend and remember. Also, the VAW flashcards have been found to be very effective. In conclusion, the materials (Birth Planning cards and flash cards) work well as aids. The Evaluation Team could not conclusively determine the coverage of Birth Planning cards and are concerned that poor women may be less likely to get them.

*Case Studies*

Cases studies (verbal autopsies) have been successfully used at both the community and facility levels in this project as educational and motivational aids. Each month, case reviews of at least 5 women with obstetric complications are conducted at both the community and facility level. At the community level, case studies of maternal deaths and near misses have been used to encourage community members to act together in forming a community support system to reduce barriers between themselves and the services they require. At the facility level, case studies of both planned and unplanned maternal deaths serve to teach providers and community members alike as stakeholders what might have been done differently to prevent the death which occurred. A planned death means when a woman with obstetric complications or her family members decide to return home from a basic EmOC health facility because of non-availability of required services or decide not to transfer (her) to a comprehensive EmOC facility as instructed by the Basic EmOC service provider due to a perceived lack of options, i.e.: monetary crises, lack of transport, lack of motivation, etc., knowing the fate of the woman, i.e., she will

die at home. This kind of analysis empowers the staff and community, may improve care and reduces the opportunity for blame.

*CmSS*

CARE Bangladesh has been using effective facilitation tools and techniques to establish community support systems involving the Government, NGOs and the community. The important aspect of the facilitation is to identify problems or constraints including local experiences (e.g. maternal death). These findings are used to mobilize support from the community and facilitate appropriate actions such as the development of a local transportation system, and in one instance, a blood grouping campaign.

*Blood Typing Campaign*

In the formation of a CmSS facilitated by CARE under DSI one community came up with the idea of a voluntary blood grouping campaign in their village and blood donation. This idea originated form the experience of a woman unable to obtain the blood she needed in a timely manner to save her life during an obstetric emergency.

*Stakeholder Participation in Service Delivery*

CARE Bangladesh has been facilitating a process to form a Stakeholder Committee with participation of the facility and community representatives. The committee provides the community and facility an opportunity for regular dialogues to share concerns and take appropriate measures to address them. The role of the Stakeholder Committee is to conduct exit interviews with patients at the UHC, to develop an action plan on the women friendly hospital initiative to visit and observe UHC facilities on a periodic basis, to review maternal death findings regularly and take necessary recommendations and to hold meetings bimonthly to discuss the above commitments and progress made.

## F Cross Cutting Themes

### 1. Capacity Building

At the community level individuals have learned about danger signs in pregnancy and about planning for their birth. At the group level, the community has with the assistance of CARE and GoB workers, formed community support systems to respond to community needs for EmOC. At the facility level, individual providers and stakeholders become the focus of capacity building through management information system training, team building workshops, and training on QoC and VAW protocol. At the organizational level, NGOs become the focus of DSI capacity building efforts to support the VAW

objectives of DSI. The impact of all of this capacity building on individual community members, community groups, facilities and organizations, while not formally measured, can be observed in the results of the DSI.

In both Birth Planning and in the CmSS interventions, capacity building was a key element to insure the buy-in of the study population and to sustain the DSI effort. While there was no attempt to measure behavior change among those exposed to either on-the-job training or to the various workshops held throughout DSI, there does appear to be a relationship between the training effort, formation of new CmSS, and the increased utilization of EmOC.

The team building workshop for staff at Birampur UHC using role playing, an assessment of QoC, and action planning were pivotal in motivating staff to improve the Quality of Care they provided. Ongoing review of that action plan and appropriate supervision by the RMO has maintained that improvement. Stakeholder Committee meetings between facility staff and community serve as an intermittent reminder and check on the Quality of Care provided.

Areas in which capacity building has been utilized effectively within the VAW intervention are: 1) in a GoB, CARE, UNICEF, and NGO workshop to develop a joint action plan to prevent VAW and support women victims of violence; 2) in UNICEF's VAW training course which has expanded the potential of the UHC; 3) in the strategy of partnering and supporting local NGOs regarding the explicit VAW objectives and the broader developmental goals of community-based capacity building, sustainability and replicability; 4) through the NGOs, cultural groups have begun performing VAW dramas and folk songs; and 5) the NGOs have gained access to and acceptance by partner NGOs working on VAW issues as well as by GoB functionaries at the district level due to their involvement in DSI and with CARE.

"One day I went to Birampur alone for VAW work and a new local Upazila policeman said 'You're a woman, how come you alone have taken the responsibility of working with violence against women?' I am not alone I said, there are three of us working on this issue."

Another excellent example of capacity building is the creation of VAW Ward Forums and the targeting of women UP members to be the driving force of these forums. In the context of rural Bangladesh where there is a shortage of structures dealing with VAW, a new structure has been built.

## 2. Sustainability

The sustainability of a project such as DSI depends on many factors such as the partnerships and linkages forged and the long range plans of those partners. Sustainability also depends on the cost effectiveness of a project, the breadth of support for a project in a community, and the quality of the organizational leadership and governance of the

project. The development of human capital through capacity building may also serve to strengthen the odds of project sustainability.

The cost effectiveness study of the DSI recently completed by A. Levin (2001) showed approximately equal costs per client using EmOC in the upgraded facilities in the intervention and comparison Upazilas assuming 8 years use of training by facility staff. The additional cost per EmOC client looks small. However, this analysis had two serious limitations: a small sample size and unequal access to EmOC in the upgraded intervention versus comparison Upazila.

The Birth Planning card used by DSI has been adopted for use by the GoB. However, sustainability of the card depends on staff remaining motivated to train clients to use it and the commitment of GoB or donors to pay for its provision to clients.

The sustainability of the community support system is dependent on the leadership of the group and governance that is provided. If the CmSS meets the needs of those in the community, it will be sustained. If not, it will fail. The support of GoB and CARE workers has also been a critical factor in the success of these CmSS. According to GoB leadership, 75% of GoB staff are skilled enough now to continue in this role when CARE staff leave.

The use of team building methods at Birampur UHC will continue to improve communication between staff and clients and also motivate staff to want to meet clients' needs for Quality of Care. The Stakeholder Committee at the UHC plans to continue to serve as a voice and communication channel between the community and the UHC.

The sustainability of the fledgling VAW Ward Forums will depend upon ongoing support and advocacy from the PNGOs and the DSI partners. The forum members interviewed stated that their continued existence would be in jeopardy if support from CARE and the PNGOs was withdrawn. There is a strong dependence upon them for educational (VAW) and technical support. Political influence is another factor impacting upon sustainability. The VAW forum's support at the national level through the DSI partners, and the local level through the PNGOs is strong. Their local government support at the district and sub-district level appears to be weak. The UP women forum members stated that they require the protection and status offered to them by CARE's perceived patronage to give them credibility for the nature of the work, and acceptance of the gender equity in the forum membership. It appears as if the intrinsic utility of the VAW forum is not broadly accepted at this stage. The UHC nurse has evidenced the most marked behavioral and professional changes brought about by the VAW training course. However, the sustainability of the impact of the training amongst the doctors is poor. Sustainability depends upon the quality of orientation, incentive and on-going support given to the UHC staff, as well institutionalizing aspects of VAW service provision into the professional scope of work of all the health workers.

## 3. Replicability

The Birth Planning card and the maternal health flashcards as educational aids and the motivational use of case studies for initiating community support committees have been effective approaches which should be replicated. The blood grouping campaign conceived and implemented by a CmSS is another creative approach which deserves broader use. The Stakeholder Committee is also a methodology that should be replicated. It seems to encourage meaningful communication between providers and the community and improve the social aspects of Quality of Care.

People interviewed for this evaluation reported that, notwithstanding regional and local variations, the Dinajpur district is fairly typical of rural Bangladesh. If this is indeed the case, it bodes well for future replication of innovations which have proven themselves worthy in the VAW intervention of DSI. The institutional form of the VAW Ward Forums are an excellent concept, if the considerable amount of input involved in creating and maintaining these structures can be sustained. The success of these Ward Forums appears to be linked to the motivation of the UHC staff and to the on-going support given to them. If aspects of VAW service provision are institutionalized into the professional scope of work of all the UHC health workers then replicability may be possible in the areas of training and in the documentation of critical VAW client data. For example, the job description of the trained nurse could be changed to Nurse-Counselor, and her newly acknowledged skill could be incorporated into her job description. The DSI broad based approach to supporting victims of VAW in the community is also a strategy which could be replicated if strong institutional partners were found.

## 4. Partnership

The recognition of the importance of partnerships across the DSI was acknowledged from its beginning. The agreement of CARE, GoB, and UNICEF to collaborate on the DSI permitted the comparative advantages and potentials of the individual partners to be put to best use. From the onset of DSI, additional partners were identified to be part of the Project implementation. The strengths and weaknesses of each partner were assessed in relationship to the goal of reducing maternal mortality, their potential role in implementing the DSI, and their willingness to commit their time and resources to the Project. What was very clear from this assessment process, was that the activities required to reduce maternal mortality could not be the role of any one agency. Thus, the partnership is not only based on money or technology, rather on comparative advantages and potential gaps of individual partners.

One of the important values of partnership that has been practiced throughout the DSI is the feeling of ownership. CARE took the key role to facilitate and advocate for the partnership process involving all the partners, clarifying understanding of the purpose and mutual expectation from the outset of the Project. Partners included: household, community, GoB Health Infrastructure at the Upazila and below, local institutions such as local NGOs, CBOs, Union Parishad, and educational institutions, TBAs and village

doctors, CARE, UNICEF, and the GoB. Each partner was involved in each step of the Project, giving a feeling of ownership of the partnership to the partner. It was believed that the less involvement of money in the partnership, the more likely the efforts will be sustained. The success of the partnership was due to the consistent practice of participatory methodologies, partnership values, and guiding principles.

Excellent examples of successful partnerships in Intervention Upazila of the DSI include the following: the broad-based support system of NGOs, VAW Ward Forums, and the Woman Friendly Hospital/UHC for women subjected to violence; the establishment of 130 successful community support systems (CmSS) at the village level: the active Stakeholder Committee made up of community and facility representatives at the UHC in Birampur and the fine collaboration between GoB and CARE workers at the community and facility level throughout implementation of the DSI.

## 5. Gender

The issue of gender, particularly equal status of both men and women, is recognized now as critical to the health and well being of society as a whole. However, the status of women and men in many countries is far from equal and the importance of the gender equity not well understood. In Bangladesh, maternal mortality is very high which may be attributed in part to the low status of women in society.

In the DSI, the focus of the project is the reduction of maternal mortality by removing barriers that women face in receiving needed emergency obstetric care. Particular efforts have been made in the design and implementation of this project to reach out to women and men to help them consider gender issues as they address the problem of maternal mortality at the community and facility level.

In Bangladesh, domestic violence is thought to contribute to 14% of maternal mortality. Therefore, in the DSI, one of the four key interventions, VAW, was focused on addressing the needs of women subjected to violence. Extra effort was made to have women to serve on the VAW Ward Forums who actively support women Victims of violence. UNICEF's effort to create a Women Friendly Hospital at Birampur UHC was done specifically to address issues that discouraged or delayed women in the past who were seeking services at the UHC. UNICEF trained three Physicians and one nurse from Birampur UHC in the management of VAW.

The QoC intervention of DSI specifically attempted to improve the UHC facility so that women, in particular, feel safe receiving service there. Approximately 50 percent of the Stakeholder Committee at the UHC are active women representatives from both the community and the facility.

The CmSS intervention addresses the financial, transportation, and accompaniment requirements of women in need of EmOC. In establishing CmSS, CARE begins by completing a community diagnosis process which includes meeting with key informants

in the community. This information is then shared with local leaders, elected women union members, and other influential people. Several steps later, a meeting of between 30-60 people is held representing both men and women in all age groups from the various geographic parts of the village to address the problem of maternal mortality and disability related to childbirth as it affects them.

In Birth Planning, the approach which the DSI adopted addressed the fact that even though women may not be the primary decision maker in a household, if women have the information they need regarding danger signs in pregnancy and preparation for birth, they can help prevent delay in getting to appropriate care should complications of pregnancy or birth occur. The Birth Planning intervention also targets the husbands and families of pregnant women who are decision-makers so they can assist pregnant women to get the appropriate care they need in a timely manner.

# IV. CONCLUSIONS AND RECOMMENDATIONS

## A. Conclusions:

### 1. Birth Planning

- The Birth Planning card and maternal flashcards are effective tools for reminding pregnant women about danger signs and preparations for birth.

### 2. Community Support Systems

- Community support systems have been initiated widely, and can be extremely effective.
- The best community support system committees have begun applying the strategy to other problems.
- We still have a lot to learn about how CmSS work and what factors are important to establish effective, sustainable CmSS.

### 3. Quality of Care:

- Stakeholder QoC meetings empower their members to serve as effective advocates for the community.
- Quality of care can be improved through community and provider partnerships.
- As the social aspects of QoC which clients can perceive and providers increasingly understand improve (such as keeping the facility clean), the utilization of EmOC at Birampur UHC will increase further.

### 4. Violence Against Women:

- The establishment of VAW Ward Forums and the involvement of female UP members are promising strategies for advocacy and support for female victims of violence and should be continued.
- The complex issue of violence against women as it relates to maternal health is being recognized in the DSI and given its due weight.

**5. Project-wide Conclusions:**

- The four key DSI interventions act synergistically as a community mobilization package. For example, the Stakeholder Committee at Birampur UHC not only serves as a communication vehicle between the community and facility providers, but oversees QoC of the UHC, has developed a fund to assist EmOC parents in need of care, is beginning to examine VAW issues and has decided to intervene in communities where the CmSSs are failing.

- Comparison of utilization rates in the different study areas of the project suggests that upgrading facilities increases utilization and combining upgrading with community mobilization increases it more. Other factors which may have also increased EmOC utilization of a UHC include the availability of a resident physician, the availability of a female physician, and the leadership capability and personality characteristics of the physician in charge.

- DSI efforts have been found to be consistent with CARE-Bangladesh's Long Range Strategic Plan particularly 1) the Stakeholder Committee empowering civil society, 2) capacity building emphasis at the community and facility level, 3) linkages between community facilities, elected bodies, and NGOs, 4) gender rights with CARE being part of the solution as an advocate in VAW programming and in encouraging woman's roles in family and community decision-making as in BP card, CmSS, etc.

## B. Recommendations

**1. Birth Planning:**

- Partners should continue to adapt and disseminate the Birth Planning cards and maternal health flashcards.

**2. Community Support Systems:**

- Give serious consideration to implementing the blood grouping campaign approach on a wider scale.

- A study of the social processes and factors affecting the success and sustainability of community support systems should be conducted as it will provide information useful for Integrated Management of Childhood Illness as well as maternal health programs.

**3. Quality of Care:**

- An attempt should be made to quantitatively measure the improvement of QoC. The methodology of measuring Quality Compliance Coefficient using indices is an easy way of showing improvements over time.

- Local level initiative should be undertaken for repair and maintenance of equipment, instruments, furniture, and facilities. This is a neglected aspect of the health service delivery system, which has a direct impact on improvement of the quality of care.

**4. Violence Against Women**

- It is strongly recommended that one of the doctors' examination rooms on the ground floor of the Birampur UHC be used by the health workers as an examination and history taking room for all women presenting with evidence of violence.

- Training in QoC (record keeping and documentation) at the facility level needs to consider refining the categorization of violence[5] in the hospital records. This will help staff identify violence cases amongst those treated and/or admitted. Incidences of violence need to be recorded in the all of the UHC's registers.

- It is suggested that aspects of VAW service provision be institutionalized into the professional scope of work of all the health workers. It is recommended that the DSI partners include an organizational development and human resources approach when institutionalizing the VAW training.

- Introduce VAW as a set item on agenda of the UHC's Stakeholder Committee meetings.

- Any VAW intervention needs to take into account that service providers may be threatened or otherwise endangered by those opposing their work. This is not an uncommon occurrence in Bangladesh, and needs to be factored into the intervention strategy.

- Evaluate the short and long-term outcomes of women/girls and families that have received VAW health facility and community intervention.

- Make available to FWAs, HWAs and the VAW Forum members the flashcards depicting VAW and VAW posters to use as community awareness and public health education tools.

[5] The only categories noted in the admission and treatment registers are "Assault" and "Poisoning."

- Target outreach to boys and men regarding the responsibilities and rewards of being sons, brothers, uncles, fathers, husband and neighbors.

- Consider delinking the VAW Ward Forums from their exclusive focus on maternal health and EOC, consolidating the leadership role taken by the UP women members, and broadening the scope of the forums to include all victims of all types of violence and trauma. This will increase service provision and prevent stigmatization of the members working on VAW issues.

- Greater emphasis needs to be placed on how to bring to the local and sub-district level political structures into VAW activities.

**5. Project-wide Recommendations**:

- Invite appropriate peers from Reproductive Health in other settings to observe DSI interventions for possible replication.

- Encourage the continuation of key intervention strategies.

- Continue to upgrade facilities; speed up the time frame if possible, and combine upgrading with community mobilization efforts.

- Partners should consider expanding the focus of preventive programming on reproductive health to emphasize reduction of maternal death.

- In future operations research projects, staff responsible for implementation should not be the same as those staff responsible for evaluation.

- Complicated maternity cases admitted to facilities should each be consistently and sufficiently documented in a timely manner with adequate information for analysis and follow-up. A client's first and last name, village, union, Upazila, admission diagnosis and date, discharge date and diagnosis upon discharge home, referral/discharge to another facility, or death, *at a minimum*, should be recorded.

## V. ANNEX

### A. References: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Levin, A. Cost-effectiveness Analysis of Dinajpur SafeMother Initiative- DSI. April 2001. Cooperative Assistance for Relief Everywhere, Inc., Bangladesh, Dhaka.

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Maine, D. Akalin, M. Z., Ward, V. M., and Kamara, A., The Design and Evaluation of Maternal Mortality Programs. New York: Center for Population and Family Health, School of Public Health, Columbia University, June, 1997.

## B. Persons Interviewed/Met:

**Birampur Upazila Health Complex:**

1. Dr. Md. Lokman Ali, Upazila Health and Family Planning Officer (UHFPO).
2. Dr. Md. Zulfiqur Ali, MO (Gyn./Obs.) trained in EmOC.
3. Mrs. Fatima Begum, Senior Staff Nurse (trained in EmOC).
4. Dr. Mostofa Md. Nurrunnabi, RMO
5. Dr. Mazammel Hossain, Medical Officer
6. Dr. Tamera Khatus, Medical Officer
7. Adus Sattur, Health Assistant Dr. Tahera Khatun Lovely, MO-MCH
8. Ms. Marja Haq, Upazila Family Planning Officer
9. Dr. Anawarul Islam, Deputy Program Manager, Reproductive Health

**Bochaganj Upazila Health Complex:**

1. Dr. Abdul Karim, Upazila Health and Family Planning Officer (UHFPO).
2. Dr. Saral Chandra Roy, RMO (trained in EmOC).
3. Mrs. Ismat Ara Begum, Senior Staff Nurse (trained in EmOC).
4. Mrs. Sandhya Rani, Aya/Cleaner.
5. Mrs. Suchitra Das, Senior Staff Nurse (OT in charge)
6. Mrs. Rabeya Begum, FWA.
7. Mr. Md. Afzalul Haque, Ward Boy.
8. Julekha Begum, Senior Staff Nurse, Ward in charge

**Debiganj Upazila Health Complex:**

1. Dr. Shamsul Alam, UHFPO.
2. Dr. Md. Masud, MO (trained in EOC).
3. Dr. Pitambar Roy, RMO.
4. Mrs. Monica Rivero, Nurse In charge.
5. Mrs. Rima Banarjee, Senior Staff Nurse.
6. Mrs. Mouluda Begum, Senior Staff Nurse.
7. Mrs. Tamjida Khatun, FWV.
8. Mr. Md. Shamsur Rahman, Medical Technologist.
9. Mr. Priyo Nath, Field Coordinator, Danish Bangladesh Leprosy Mission.

**Dinajpur Sadar Hospital:**

1. Dr. Hashi Sultana, Internee physician.
2. Dr. Raihana Begum, Internee physician.
3. Dr. Ferdousi Begum, Internee physician.
4. Mrs. Monowara Khatun, Senior Staff Nurse, Ob/Gyn Ward.
5. Ms. Lalita Soren, Nurse student (3rd year), Ob/Gyn Ward.

**Niramay Hospital, Dinajpur (a private clinic where EmOC cases are admitted)**

1. Dr. Masiruddin, Medical Officer and in charge of the clinic.
2. Mr. Ershadul Alam Mukul, Pathologist.

**UNICEF:**

1. Mr. Mizanur Rahman Chowdhury, EOC Field Officer, UNICEF, Rajshahi Division.
2. Dr. Jennifer Mary Clarke MD, MCRP (UK), DCH, MPS, Consultant in the Health and Nutrition Section, UNICEF, Dhaka
3. Dr. Ataur Rahman, Asst. Project Officer, Health & Nutrition Section, UNICEF, Dhaka
4. Dr. Yasmin Ali Haque, Project Officer, Health & Nutrition Section, UNICEF, Dhaka
5. Dr. Mohammad Mohiuddin, Project Officer, Health & Nutrition Section, UNICEF, Dhaka

**CARE:**

1. Steve Wallace, Country Director, CARE-Bangladesh, Dhaka
2. Susan Ross, Assistant Country Director, CARE-Bangladesh, Dhaka
3. Dr. M.A. Sabur, Health and Population Sector Coordinator, CARE-Bangladesh, Dhaka
4. Jagannath Kumor Dutta, Design, Monitoring, Evaluation Specialist, Institutional Learning, CARE-Bangladesh, Dhaka

**CARE, Safe Mother Project:**

1. Dr. Jahangir Hossain, Coordinator, DSI/CARE, Dhaka.
2. Dr. Samina Begum, Assistant Coordinator, DSI/CARE, Dhaka.
3. Dr. Tariqul Islam, Training Officer, DSI/CARE, Dhaka
4. Mr. Mozaffar Hossain, Administrative Assistant, DSI/CARE, Dhaka
5. Mr. S. M. Muhsin Siddiquey, Project Manager, DSI/CARE, Dinajpur.
6. Ms. Akhter Mohsina Banu, Administrative Assistant, DSI/CARE, Dinajpur
7. Mr. Rafiqul Islam, Driver, DSI/CARE, Dinajpur
8. Mr. Mrinalendu Majumder, Project Officer, DSI/CARE, Birampur
9. Ms. Khukumoni Adhikari, Field Trainer (Facility), DSI/CARE, Birampur
10. Ms. Nasima Begum, Field Trainer (Community), DSI/CARE, Birampur
11. Ms. Shikha Rani Dey, Field Trainer (Community), DSI/CARE, Birampur
12. Ms. Tulsi Rani Bhowmik, Field Trainer (Community), DSI/CARE, Birampur

**Government of Bangladesh:**

1. Dr. Md. A Baqi, Director PHC and Line Director-ESP, DGHS, Mohakhali, Dhaka
2. Dr. Islam

**VAW Partner NGO's:**

1. Md. Hafiz Rahman, Executive Director, Development Council
2. Ms. Umme Nehar, Director, UDDYOG
3. Mrs. Selina Haque, Director, SCDF
4. Mrs Shamshun Nahar, Executive Director, Orban

**Union Parishad Women Members:**

1. Mossamat Monowara Begum, Dior Village
2. Aleya Begum, Jholagari Village

**Village Woman Survivor of Violence:**

1. Bulbuli, Dior Village

**Participants of the Stakeholders' Meeting at Birampur Health Complex**

1. Mrs. Jahan Ara Hossain (Housewife), Vice President, Stakeholder Committee.
2. Dr. Md. Lokman Ali, UHFPO, Member Secretary, Stakeholder Committee.
3. Dr. Mostofa Md. Nuunnabbi, RMO, Birampur Upazila Health Complex.
4. Mrs. Marzia Huq, UFPO, Birampur Upazila Health Complex.
5. Dr. Tahera Kahtun, MO (MCH-FP), Birampur Upazila Health Complex.
6. Mr. Md. Nazrul Islam, Headmaster, Khanpur, Government Primary School; President of Charqai Village CmSS; Member, UHC Stakeholder Committee.
7. Mrs. Nisha Khatun, Medical Assistant.
8. Mrs. Morsheda Khatun, Senior Staff Nurse, Birampur Upazila Health Complex.
9. Mr. Md. Hafizur Rahman, Representative, Development Council.
10. Mr. Mokhlesur Rahman, EPI Technician, Birampur Upazila Health Complex.
11. Mr. Mamunur Rashid, Pharmacist, Birampur Upazila Health Complex.
12. Dr. Atiar Rahman, General Practitioner.
13. Mr. Shamsul Alam, President of Damodarpur Village CmSS; Member, UHC Stakeholder Committee.
14. Mr. Md. Shah Jamal, Social Worker.
15. Mrs. Tota Begum, Cleaner, Birampur Upazila Health Complex.
16. Mr. Mrinalundu Majumder, Project Officer, CARE.
17. Mrs. Khukumoni Adhikari, Field Trainer Nurse, CARE.
18. Mrs. Morjina Begum, Cashier, CmSS; Member, Stakeholder Committee

**Associates for Community and Population Research:**

1. Mr.M. Sekander Hayat Khan, PhD

**Health Development Research Centre:**

1. Dr. Abul Barkat

## C. DSI Quality of Care Observation Checklist:

**Date of Observation:**

| *S1 No.* | *Variables* | *Yes* | *No* | *NA* |
|---|---|---|---|---|
| **1.** | **Prompt attention to emergency:** | | | |
| A. | Provider quite often inquires about any emergency case waiting to be attended. | | | |
| B. | Provider asks the patient/client what services are needed. | | | |
| **2.** | **Easy access to and directions for services:** | | | |
| A. | Visible signboard in front of the clinic. | | | |
| B. | Signs of different services and arrows are marked over the doors and the walls. | | | |
| **3.** | **Cleanliness:** | | | |
| A. | Patient waiting area is clean. | | | |
| B. | Patient examination area is clean. | | | |
| C. | Toilets are clean. | | | |
| **4.** | **Adequate seating and separate queue for women:** | | | |
| A. | Separate waiting area for women. | | | |
| B. | Adequate seating arrangement for women. | | | |
| **5.** | **Privacy:** | | | |
| A. | Private space for counseling and consultation. | | | |
| B. | Private space for physical examination. | | | |
| **6.** | **Security/Safety:** | | | |
| A. | Provider washes hands after examining each patient. | | | |
| B. | Provider demonstrates appropriate decontamination step. | | | |
| C. | Provider demonstrates correct use of boiling. | | | |
| D. | Provider demonstrates compliance with waste disposal standards. | | | |
| **7.** | **Establish mechanism to know community perspective:** | | | |
| A. | Provider conduct client exit interview. | | | |
| B. | Provider collects community perception through different means (group discussion, in-depth interviews). | | | |
| **8.** | **Interpersonal communication:** | | | |
| A. | Provider builds rapport with the patient. | | | |
| | Provider interacts with the patient, listens to their questions, and behaves in a friendly way. | | | |
| B. | Provider spend adequate time during interpersonal communication. | | | |
| **9.** | **Information on condition and option given:** | | | |
| A. | Provider explains the condition of the patient. | | | |
| B. | Provider discusses treatment options. | | | |
| **10.** | **Health education and counseling:** | | | |
| A. | Provider gives health information to the patient about the services requested. | | | |
| B. | Provider uses job aids during counseling. | | | |
| C. | Provider confirms that client/patient understands what was communicated during counseling. | | | |
| **11.** | **Follow-up advice to client:** | | | |
| A. | Follow-up instructions are clearly described to the patients. | | | |
| B. | Written follow-up instructions/advice provided to the patients. | | | |
| **12.** | **Gender sensitiveness:** | | | |
| A. | Providers are gender sensitive. | | | |
| B. | The providers give men and women patients' equal attention. | | | |

## D. Dinajpur Safe Mother Initiative Training Summary:

| # | Name of Training/Workshop | Focus Point | Duration | How | When | Whom | Where | Remarks |
|---|---|---|---|---|---|---|---|---|
| | ***DSI Staff Training*** | | | | | | | |
| | Basic training for DSI project staff | Project description<br>Roles and responsibilities of staff<br>Team building<br>IPC/Counseling<br>Facilitation skills Monitoring<br>How to conduct BCC and use BCC materials<br>How to conduct OJT<br>Promotion of BP<br>Facilitation of establishing CmSS<br>Facilitation on improving social aspect of QOC<br>Qualitative methodologies<br>Resource mapping<br>Data analysis<br>CARE-Bangladesh policies<br>Documentation | 1 month | Residential | Nov. '98-Dec. '98 | Project staff<br>10 | CARE-Dinajpur training hall | |
| | Refresher training for DSI project staff | Review performance<br>Identify problems<br>Recommend solutions<br>Facilitation skills for promotion of BP, establishing CmSS, improving QOC<br>OJT techniques<br>Developing action plans<br>Data collection, analysis and its use<br>Updating project related and organization related issues<br>Documentation<br>Conducting mini-surveys | 7 days in each year, 1 day in each quarter | Yearly residential in house, quarterly and monthly | Feb. '99-pril '01 | Project staff<br>9 to 13 | Dinajpur in different venues | |
| | ***Community Mobilization*** | | | | | | | |
| | Upazila Advocacy Workshop on DSI (GoB, UNICEF & CARE input) | Maternal Health<br>Promotion of BP<br>Role of GoB, UNICEF & CARE | I day | In house | July '98 | UP Manger<br>E. Person<br>Political Leader<br>S.D.<br>NGO<br>?? | UHC Conference Room | |
| | Union Level Advocacy Workshop | Maternal Health<br>Promotion of BP<br>Role of GoB. UNICEF & CARE<br>Sharing R.M.<br>Case studies | 1 day | In house | Jan-?? '99 | Teacher<br>TBA<br>Social worker<br>Volunteer<br>Women members<br>NGO/CBO | Union Parishad School | 7 different workshops at different unions |
| | Orientation and training workshop for GoB Health Assistants (HA) | Promotion of BP<br>How to facilitate CmSS | 1 day | In house | Sept. '99 | 22 HAs | UHC Conference room | |
| | Orientation and training workshop for GoB Family Welfare Assistants (FWA) | Promotion of BP<br>How to facilitate CmSS | 1 day | In house | Sept. '99 | 23 FWAs | UHC Conference room | |
| | Orientation for HAs | Promotion of BP<br>How to facilitate CmSS | Once a month | In house | April '99-Dec. '00 | HA (12x10)<br>120 | UHC Conference room | |
| | Orientation for FWAs | Promotion of BP<br>How to facilitate CmSS | Once a month | In house | April '99-Dec. '00 | HA (25x10)<br>250 | UHC Conference room | |
| | School Teacher Orientation | BP<br>5 danger signs<br>Referral<br>Role of CmSS | 1 day | In house | Oct. '99 | Primary School Teachers<br>77 | Upazila Auditorium | |
| | Refresher Orientation for School Teachers at Upazila Level (head teachers) | BP<br>5 danger signs<br>Referral<br>Role of CmSS | 1 day | In house | Aug. '00 | Primary school head teachers<br>77 | Upazila Auditorium | |

| # | Name of Training/Workshop | Focus Point | Duration | How | When | Whom | Where | Remarks |
|---|---|---|---|---|---|---|---|---|
| | School teacher Orientation at Community Level (all teachers) | BP<br>5 danger signs<br>Referral<br>Role of CmSS | 1 hour | In house | ?? '99-Dec '99 | All teachers<br>377 | Respective Primary Schools | 107 Primary Schools in Birampur Upazila |
| | Workshop with NGO staff (BRAC) and Development Council (D/C) | Collaboration<br>Partnering<br>Identifying opportunities<br>Initiative from possible collaboration | 3 days | In house | Nov. '99 (BRAC) and Aug. '99 (D/C) | BRAC staff<br>7<br>D/C staff<br>12 | BRAC office Birampur and D/C Office | |
| | Orientation for NGO staff and Development Council | Promotion of BP<br>Facilitation of CmSS | 1 day | In house | Oct. '99 | D/C all staff<br>25BN | | |
| | TBA Orientation | 5 danger signs<br>Clean delivery<br>Referral | 1 day | In house | Sep. '99-Dec. '99 | TBAs<br>181 | FWC/UO School | In 7 unions |
| | Refresher Orientation for TBAs | 5 danger signs<br>Clean delivery<br>Referral<br>Promotion of BP<br>Follow-up of CmSS | 1 day | In house | Sep. '00-Nov. '00 | TBAs<br>196 | FWC/UO School | 7 orientations in 7 unions and 1 in municipality |
| | Imam Orientation | 5 danger signs<br>Referral | 1 day | In house | Dec. '99-June '00 | Imams<br>140 | UHC, FWC and UP school | 7 Orientations |
| | Orientation for Village Doctors | 5 danger signs<br>Referral | 1 day | In house | Dec. '99-March '00 | Village Doctors<br>133 | UHC, FWC and UP school | 7 Orientations |
| | Refresher orientation for Village Doctors | 5 danger signs<br>Referral<br>Promotion of BP<br>CmSS | 1 day | In house | Jan. '00 | Village doctors<br>95 | UHC, FWC and UP school | 3 Orientations |
| | Village Meeting for Establishing CmSS | Sharing case study<br>Resource map findings<br>Identification of community role | 3 hours | In house | Mar. '99-Feb. '01 | Community people<br>50 x 146 = 7,300 | Community | 146 events |
| | Orientation on management of CmSS | Role of community members<br>How to develop constitution<br>How to conduct meetings<br>How to maintain cash book | 4 hours | In house | Mar. '99-Feb. '01 | CmSS committee members<br>10 x 146 = 1460 | Community | 146 events |
| | On the job training sessions (OJT) on management of CmSS | Role of community members<br>How to develop constitution<br>How to conduct meetings<br>How to maintain cash book | 4 for each CmSS (3 hrs) | OJT | Mar. '99-Feb. '01 | CmSS committee members<br>876 | Community | 508 OJT session s |
| | Union Level Workshop with the representatives of CmSS | Linkages with Union Parishad<br>Linkages with MoH & FWAs<br>Identify monitoring and follow-up role | 3 hours | In house | Sep. '00-Jan. '01 | 2 selected members from each CmSS, UP members elite, MoH/NGO staff<br>385 | | |
| | On the job training on promotion of birth planning | How to build rapport<br>Use of the BP card<br>LPC<br>How to conduct a session including husband and other decision makers<br>How to use local evidence | 30 minutes for each OJT session | OJT | Mar. '99-April ''01 | FWA, HA, TBA, VD, school teacher, NGO staff<br>1933 | Community household | |
| | Orientation of male mobilization through folk songs | 5 danger signs<br>Importance of referral on time<br>Role of husband during pregnancy and delivery | 3 days | In house | Sep. '00-April '01 | Husbands<br>4 | NGO office | |
| | OJT on male mobilization through folk songs | 5 danger signs<br>Importance of referral on time<br>Role of husband during pregnancy and delivery | 3 OJT/month | OJT | Sep. '00-April '01 | Husbands<br>4 | Community | Through folk songs reached 6000 males. Total OJT sessions = 29. |
| | OJT to male volunteers on how to organize dissemination session with males in the community on maternal health | 5 danger signs<br>Importance of referral on time<br>Role of husband during pregnancy and delivery | 3 OJT/month | OJT | April '00-May '00 | Religious leader Male<br>1 | Mosque and natural gathering places<br>Tea stalls | Reached 4246 male/religio us leaders |
| | Mass gatherings on Safe Motherhood Day | Importance of maternal death | 1 day | In house | May '00 | Community people<br>800 | Community 8 gatherings | |

| # | Name of Training/Workshop | Focus Point | Duration | How | When | Whom | Where | Remarks |
|---|---|---|---|---|---|---|---|---|
| | OJT to community representatives of stakeholder committee | Importance of stakeholder committee<br>Role of stakeholder members<br>How to participate and contribute as stakeholder member<br>Facilitation of meeting using local evidence and case studies | 8 OJT in every 2 months | OJT | Oct. '99-April '00 | Community representatives<br>8 | Community | |
| | Workshop for Union Parishad women members on reducing maternal death | Awareness of the existing situation<br>Identify causes of maternal death<br>Role women can play in reducing maternal mortality<br>Developing action plan | 1 day | In house | May '99 | Union Parishad members<br>Female commissioner of the municipality<br>Union Parishad Chairman<br>32 | Upazila Auditorium | The workshop was also attended by women in GoB, UNICEF and NGO staff |
| | ***Quality of Care*** | | | | | | | |
| | Workshop on the importance of QOC, especially the social aspects of QOC | Social aspects of QOC<br>Prioritize needs<br>Develop action plan | 1 day | In house, using participatory methods and role play | Oct. '99 | Service providers<br>25 | UHC | Individual participants were prepared for better participation in the workshop |
| | Team building workshop | Importance of working in a team approach<br>Develop team norms | 1 day | In house, using participatory methods, role play and games | Sept. '99 | Service providers<br>27 | UHC | Individual participants were prepared for better participation in the workshop |
| | OJT to service providers on IPC, privacy, cleanliness and MIS | Identified issue in action plans | 60 OJT/ month | OJT | Oct. '99-April '01 | Service providers<br>20 | UHC | |
| | OJT in organizing and facilitating monthly/bi-monthly QOC monitoring meeting at work | How to plan for a meeting<br>How to use data in training sessions<br>How to facilitate a meeting<br>Documentation and follow-up | 1 every two-months | Work together and OJT | Nov. '99-April '01 | UHFPO/RMO<br>Nurse in charge<br>MA<br>Statistician<br>Office assistant<br>5 | UHC | |
| | Orientation of community representatives of stakeholder members | Importance of stakeholder committee<br>Role of stakeholder members<br>How to participate and contribute as stakeholder member<br>• Facilitation of stakeholder meeting using local evidence and case studies | 1 day | In house using participatory methods | Sept. '99 | Community representatives<br>8 | Community | |
| | OJT to nurses for collection of case studies | How to conduct case studies through in-depth interview<br>Documentation | 5 OJT per month | OJT | April '99-April '01 | Nurses<br>4 | Facility | |
| | Facilitate joint monitoring by district MoHFW | Review performance<br>Review QOC action plan<br>Review community activities | One monitoring visit to each district every three months | Joint work | June '99-April '01 | CS, DCS, DD-FP, AD-CC<br>4 | UHC and community | |
| | OJT on how to access needs and make demand for those | Empowering<br>Think in a realistic way<br>Value social aspect of QOC | 2 months | Work jointly<br>Observation<br>Review materials | April '99-may '99 | All facility staff<br>Doctor, nurse, Aya, MA, FWV, ward boy, MLSS<br>30 | UHC | |
| | Facilitate joint mentoring by national level MoHFW and UNICEF staff | Review performance<br>Review QOC action plan<br>Review community activities | Every 6 months | Joint work | April '99-April '01 | PM-RH, DPM-FP, Project Officer UNICEF<br>4 | UHC and community | |

| # | Name of Training/Workshop | Focus Point | Duration | How | When | Whom | Where | Remarks |
|---|---|---|---|---|---|---|---|---|
| | OJT to hospital representatives of stakeholder committee | Importance of stakeholder committee<br>Role of stakeholder members<br>How to participate and contribute as stakeholder member<br>Facilitation of stakeholder meeting using local evidence and case studies | 8 OJT in every 2 months | OJT | Oct. '99-April '00 | Facility representatives<br>6 | Facility | |
| | OJT to stakeholder committee member of an effective facilitation of the meeting | Role of stakeholders members<br>Use of data, case studies, verbal autopsies<br>Identify actions and follow-up mechanisms | 1 in every 2 months | OJT | Oct. '99 to April '01 | Selective members<br>Chair person<br>Secretary<br>5 | Facility and community | |
| | Workshop on Upazila MIS | How to correctly fill-out the format<br>How to analyze and use the data | 1 day | In house | Oct. '00 | All doctors, managers, nurses, statistician, MAs and FWAs<br>15 | UHC | |
| | Orientation on communication | Importance of good communication of service providers<br>Identify existing problems<br>Identify activities to implement | 1 day | In house | Dec. '99 | 25 | UHC | |
| | ***Violence Against Women*** | | | | | | | |
| | Orientation of 3 NGOs on organizing VAW activities | How to organize a workshop<br>Facilitation skills<br>Forming forum<br>Community participation<br>Monitoring | 2 days | In house | Feb. '00 | NGO staff<br>8 | Dinajpur CARE office | |
| | OJT for NGO staff for organizing VAW activities | How to organize a workshop<br>Facilitation skills<br>Forming forum<br>Community participation<br>Monitoring | 2 per month | OJT | Feb. '00-April '01 | NGO staff<br>8 | Union Parishad | |
| | Workshop for developing joint action plan to support women subjected to violence and prevent VAW | Awareness of existing situation<br>Presentation of study report<br>Importance<br>Develop action plan<br>Finalize memorandum of understanding | 1 day | In house | Jan. '00 | GoB, UNICEF, CARE, NGO representatives<br>Local government, politicians, journalists, teachers, community leaders, lawyers, police<br>66 | Upazila Auditorium | |

## E. Highlights of DSI Project Final Evaluation Debriefing:

DSI Final Evaluation Debriefing: UNICEF Boardroom,
Dhaka, Bangladesh
May 15, 2001

Questions Asked by the Audience (approx. 40 persons in attendance) Dr. Yasmin Ali Haque, Director of Health and Population, UNICEF hosted; Dr. Baqi, Director of Primary Health Care and Essential Service Package, GOB, chaired.

1. What do you mean by CmSS? Answer given by Mr. Shamsul Alam, Birampur UHC Stakeholder Committee Member and CmSS Leader in his village of Damodarpur. He sees himself as a social worker in his area. The death of a young girl in his area made a great impression on him. He mentioned that CARE with the GOB assisted him with suggestions that inspired him to get involved and help organize his village around this issue. Instrumental in getting 3 vans involved in transporting EmOC cases for free, will never refuse a women. He stated, " In Islam, we help the poor through some tax. We also need to tax our brains to organize around ways of helping the poor." Dr. Baqi agreed and commented on this. POSITIVE RESPONSE from the audience.

   This Community Representative also related how he started a system of voluntary blood typing in his village and blood donation.

   Another question to this Community Representative: "Since you mentioned fundamentalism in your response, what position do you play in Birampur, are you involved in politics or social movement?" He responded: "NO."

2. Dr. Baqi: "Comment about case histories and personal experiences as crucial mobilization tools."

3. Invited Guest: "Why are men not involved? Explain gender equity in Forums for VAW." Vivi Stavrou, a clinical psychologist and member of the CARE DSI final Evaluation Team explained that men were the heads of the union parashad committees addressing VAW but that most contained 5 men and 5 women in addition to the chair.

4. Invited Guest: "Are there cases of acid violence?" A Community Representative (female) from Birampur stated: "None are known in Birampur."

5. Dr. Emanul Karim, Resource Person, Policy Change Unit, MOH and FW of GoB asked: "You say the quality of data poor. External agencies involved. Elaborate." Dr. Susan Zimicki, a demographer and member of the CARE DSI final Evaluation Team answered that there was a need for ongoing, systematic, data collection over consistent periods. Particularly, secondary data was problematic. People just couldn't remember.

6. Dr. Karim then asked: "Are there overlaps between what you are recommending versus what already exists in other policy documents such as in the GoB MOHFW Health and Population Sector Program 1998-2003?"Dr. Abu Faisel, member of the CARE DSI final Evaluation Team answered that he didn't think there was anything contradictory that the team recommended. The CmSS created in DSI were not meant to replace community groups to support community clinics. However, when the GoB is forming community groups to run the community clinics, CmSS should be considered as a possible solution due to their experience in running groups and organizing and managing funds.

7. Dr. Karim: "DSI was a three-year project: could external factors have affected results? Such as an extra nurse at Birampur?" Dr. Yasmin Ali Haque. NO. Dr. Faisel: " Impact of the nurse was on team building not on the addition of clients per se."

8. Director of Planning under the Director General of Family Planning, GoB: "What about maternal death? How much of it is there in the study area? DSI Evaluation Team: "Not well documented. We don't really know."

9. Invited Guest: "What was the cost of this study?" (Concern about replicating interventions and costs) Dr. Yasmin Ali Haque: The DSI project cost $450,000. It was intensive on personnel: 8 core staff and 3-6 field trainers. No funds were given to the local level to insure sustainability. In 1994, 5% unmet need for EmOC met in Birampur, in 1999, 27% of unmet need for EmOC in Birampur was met, and in Birampur in 2001, 40% of unmet need for EmOC was met.

   Regarding replicability, visits by others interested in the DSI good. Some will do replication on own without additional funding support.

10. Invited Guest: "What has been done to reduce the 3 delays?"

11. Invited Guest: "What about meeting the need for more comprehensive obstetric care? Not only essential obstetric care?"

12. Invited Guest: "What is the geographic dispersion of the project interventions in the study area?" Dr. Susan Zimicki: "We do not know. This is important to look at."

13. Dr. Tajul Islam of UNICEF, Technical Officer for Human Resources of Maternal Health Programs: "There is still 60% unmet need for EMOC. Who are these and how can they be reached?" Mr. Mohsin (DSI Project Manager) said that the project has been trying to reach more men using folk songs. By reaching more men, they hope will reach more women. Also, the DSI project does not know if reaching all re danger signs. Dr. Yasmin Ali Haque (UNICEF): "We don't know."

14. Dr. Isteaque Bashil, ICDDRB, Coordinator of Operations Research, Maternal Health, Matlab. "This intervention seemed to focus on the demand side. What are the project inputs on the supply side?" Dr. Yasmin Ali Haque: UNICEF inputs training,

equipment, and supplies, No special doctors trained for the upgrade; trained existing doctors and nurses. Policy framework: the implementation of this project was done within the reality of service provision. USAID supported production of the Birth Planning card. Have national card now. CARE inputs, too.

15. Mr. Steve Wallace, CARE Country Director: "Please explain indicators/evidence of the variations in CMSS." Evaluation Team: Local variation in leadership, issues of trust, too much, too fast, male/female participation on committee, low vs high participation especially in selection of committee members, if meet regularly/not, if local cases of maternal death in that village/not, skills/not in facilitation, record keeping, good governance; clear terms of reference/not; knowledge and uniform understanding of charter/not.

16. Dr. Ezjaj Rasul, Program Manager, Saving Newborn Lives, Save the Children, USA-Bangladesh "What is going on in Bochaganj to explain greater use of facilities?" Dr. Anita Barbey, DSI Evaluation Team Leader, explained what has been described as the natural leadership qualities of the RMO at Bochaganj. Also, of course, Bochaganj UHC has also been upgraded by UNICEF. In Birampur, unfortunately, there is no residential medical officer. While they do have a women doctor, the fact they have no resident doctor means that at times of emergency, the doctor must be called in, which adds delay. (Also, the non-resident physician is disconnected from the provider team that CARE worked hard to build.)

17. Invited Guest: "Why is the flattening of the EMOC utilization graph occurring?" Dr. Susan Zimicki explained that there were 18 complications tht occurred at Leuky Clinic in Dinajpur. We were unable to assign these cases to Birampur or Bocaganj because we did not have the information to do so. If these cases were assigned to Birampur, the utilization curve for Birampur would not have flattened, but would have continued to rise.

18. Invited Guest: "What special benefits does the formal partnership provide in this project?" CARE gave only materials only to NGOs. No money given, just capacity building. Vivi said that the VAW alliance of NGOs, CARE, and UNICEF gave influence and status to the NGOs advocacy. VAW as an intervention is in its early stages and needs to have this alliance continue.

19. Invited Guest: "What is the sustainability of DSI once technical assistance is withdrawn?"

    - The Deputy Civil Surgeon from Dinajpur stated that GoB staff have increased technical skills due to the intervention and these will remain via government workers. The UP has taken responsibility to monitor this re facility QoC, CmSS, and the UHC Stakeholder Committees. He stated that 75% of the GoB field staff are skilled in BP and CmSS. Government staff have also been involved in Union Parashad and Stakeholder Committees. He asked for continued support from UNICEF and CARE re DSI over the next 1-2 years so the GoB can consolidate

the learnings of CmSS and so that other parts of the region can also learn from the DSI examples. POSITIVE RESPONSE

- The Sylhet Project can learn a lot from the DSI project with an eye to sustainability and with Stakeholder Committees.

- Dr. Karim: "Strengthen community groups of 6000 to each include CmSS if possible."

- The DFP of the Dinajpur District sees changes in Birampur since early days when CARE workers were proactive and governmentt staff were shy and followed others. Now, government workers are proacitve with planning. He wants to see replication of CmSS in FP using community groups. CmSS would link with community clinics.

20. Community Representative, Mr. Shamsul Alam(Damodarpur): "We have worked to save our mothers, can we not also work to save our newborn babies?"

## F. DSI List of Materials Developed During 1998-2001:

# Dinajpur SafeMother Initiative-DSI

***SafeMother Project of CARE-Bangladesh is implementing the DSI in collaboration with GoB and UNICEF***

## LIST OF MATERIALS DEVELOPED DURING 1998-2001

***(Available on request)***

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 1. Project Proposal for DSI | January 1998 | Spiral book | English | 17 | – Dr. K M Rezaul Haque (Ex-Project Coordinator, SafeMother)<br>– Dr. Jahangir Hossain Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother)<br>– Dr. Swamp Sarker (Ex-Health & Population Sector Coordinator, CARE- Bangladesh ) with active participation of other team members and stakeholders | |
| 2. Birth Planning Card | March 1998 | Flash card with polythene cover | Bangla (translation available) | 01 | – Dr. Jahangir Hossain Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother) with active participation of other team members and stakeholders and assistance from professional artist | Field workers using it at field for promoting birth planning among pregnant women, their family members -Pregnant women keep it with them |
| 3. Guide for completing birth planning card | January 1999 | Stapled sheets | Bangla & English | 08<br>07 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI with active support of other team members of DSI | Field workers using it as guide |
| 4. Flash card on Emergency Obstetric Care (EOC) & Violence Against Women (VAW) | March 1998 | Flash card with polythene cover | Bangla | 13 | – Dr. Jahangir Hossain Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother) with active participation of other team members and stakeholders and assistance from professional artist | Field worker using it at field as tool for conducting awareness raising sessions |
| 5. Poster on danger sign of obstetric complications | March 1998 | Poster | Bangla | 01 | – Dr. Jahangir Hossain Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother) with active participation of other team members and stakeholders and assistance from professional artist | Field worker using it at field as tool for conducting awareness raising sessions an posting it in the health centers |

*Dinajpur SafeMother Initiative-DSI: List of Materials Developed During 1998-2001*

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 6. Workshop reports on Annual Implementation Plan for the year 1998-99 | July 1998 | Spiral book | English | 41 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI with active support of other team members of DSI | |
| 7. Training manual for qualitative study | December 1998 | Spiral book | English | 32 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Carol Jenkins, Senior Coordinator, Health and Population, CARE-Bangladesh | Used for training of data collectors of qualitative baseline study of Dinajpur SafeMother Initiative (DSI) |
| 8. Training guide for orientation of field worker on EOC | March 1998 | Spiral book | Bangla | 27 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. KM Rezaul Haque, Project Coordinator, SafeMother Project | This guide was adapted from Gov't-UNICEF developed manual and was used for refresher training of Gov't/NGO field staff |
| 9. Report: Baseline Survey of DSI of SafeMother Project, CARE-Bangladesh (quantitative) | May 1999 | Spiral | English | 211 | – Abul Barkat PhD<br>– Azizur Rahman,<br>– URC-Bangladesh | Prepare by URC-Bangladesh |
| 10. Monitoring strategy | January 1999 | Spiral book | English | 16 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI with active support of other team members of DSI | |
| 11. Communication strategy | November 1998 | Spiral book | Bangla | 52 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI with active support of other team members of DSI | |
| 12. Brochure (SafeMother Project) | May 1998 | Folder | English | 06 | – Dr. KM Rezaul Haque, (Ex-Project Coordinator, SafeMother)<br>– Dr. Jahangir Hossain, Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother)<br>– Dr. Tariqul Islam, Training Officer, DSI with active support of other team members and stakeholders and assistance from professional artist | |

*Dinajpur SafeMother Initiative-DSI: List of Materials Developed During 1998-2001*

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 13. Brochure on EOC | May 1998 | Folder | Bangla | 06 | – Dr. KM Rezaul Haque, (Ex-Project Coordinator, SafeMother)<br>– Dr. Jahangir Hossain, Project Coordinator, DSI (Ex-Asst. Project Coordinator, SafeMother)<br>– Dr. Tariqul Islam, Training Officer, DSI with active support of other team members and stakeholders and assistance from professional artist | Education material for project participants |
| 14. Proceedings of join CARE-Gov't-UNICEF | April 1999 | Stapled sheets | Bangla | 08 | – Dr. Tariqul Islam, Training Officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 15. Workshop report on the role of Union Parishad (UP) women member in reducing maternal mortality | May 1999 | Stapled booklet | Bangla<br>English | 34<br>26 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI with active participation of other team members | |
| 16. Booklet on role of UP women member in improving maternal health | May 1999 | Stapled booklet | Bangla<br>English | 34<br>25 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 17. Community and Household Factors Contributing to Low Utilization of Obstetric Services at selected thanas of Dinajpur and Panchgarh Districts of Bangladesh. | October 1999 | Spiral Book | English | 28 | – Dr. Jahangir Hossain, Project Coordinator, DSI with active support of other team members of DSI<br>– Dr. Carol Jenkins, Senior Coordinator, Health and Population, CARE-Bangladesh | Report of qualitative baseline study |
| 18. Guide for establishing community support system | July 1999 | Stapled sheets | Bangla | 05 | – Ms. Hasina Samajder<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI with active participation of other team members | |
| 19. Guide questionnaire for case study | February 1999 | Sheet | Bangla<br>English | 01 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | FT-Nurse using it during conduction of case study |

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 20. Qualitative methodologies | August 1999 | Stapled sheets | Bangla | 07 | Original in English by:<br>– Dr. Carol Jenkins, Senior Coordinator, Health and Population, CARE-Bangladesh<br>Translation in Bangla by:<br>– Dr. Tariqul Islam, Training Officer, DSI | A guide for conducting in-depth interview and FGD |
| 21. Guide for organizing workshop with local leaders on EOC | January 1999 | Stapled sheets | Bangla | 04 | – Dr. Tariqul Islam, Training Officer, DSI with active support of other team members | |
| 22. Struggle of Bangladeshi rural women for safe motherhood: Case studies on obstetric complications | November 1990 | Stapled sheets | English | 05 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI (1st draft in Bangla by :Khukumoni Adhikary, Field Trainer-Nurse, DSI) | |
| 23. Case studies | 1999-2000 | Stapled sheets | Bangla<br>English | 40<br>50 | Original in Bangla by:<br>– Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>Translation in English: Consultant and Editing by:<br>– Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Susan Ray Ross, Sr. Reproductive Health advisor, CARE-USE | Continuous activity |
| 24. Guide for completing daily documentation formats for FT | February 1999 | Stapled sheets | Bangla | 10 | – SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI with active support of other team members of DSI | Concern staff using it regularly |
| 25. Guide for completing daily documentation formats for FT-Nurse | February 1999 | Stapled sheets | Bangla | 10 | – Dr. Tariqul Islam, Training Officer, DSI with active support of other team members<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI | Concern staff using it regularly |
| 26. Diary keeping at hospital | September 1999 | Stapled sheets | Bangla | 04 | – Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | FT-Nurse using it regularly |
| 27. Establishing linkage between hospital & community | 29 April 1999 | Staple sheets | Bangla | 02 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI | Presented in a GOB training on management issues and team building on EOC for 40 comprehensive EOC for 40 comprehensive EOC THCs held at 29 April 1999 at LGED Bhaban, Dhaka |
| 28. Report on Basic Training of Project Staff | January 1999 | Staple sheets | English | 11 | – Dr. Tariqul Islam, Training Officer, DSI | |

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 29. Project brief: DSI | December 1998 | Staple sheets | English | 02 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI with active support of other team members | |
| 30. Module: Work in team approach | October 1999 | Staple sheets | Bangla<br>English | 16<br>21 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Training for service providers of THC |
| 31. Module: Quality of care | October 1999 | Staple sheets | Bangla<br>English | 20<br>23 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Training for service providers of THC |
| 32. Module: Development Communication | October 1999 | Staple sheets | Bangla<br>English | 22<br>46 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Training for service providers of THC |
| 33. Module: Collection, Compilation and use of Data | October 1999 | Staple sheets | Bangla<br>English | 20<br>25 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Training for service providers of THC |
| 34. Module: Stakeholder Participation | October 1999 | Staple sheets | Bangla<br>English | 07<br>08 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Training for service providers of THC |
| 35. Guide for community support system fund generation | October 1999 | Sheets | Bangla | 01 | – Ashfaque Wahab, Program Development Office-Finance, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Tariqul Islam, Training Officer, DSI | |
| 36. Workshop report: annual performance review (98-99) & development of annual implementation plan | August 1999 | Spiral book | Bangla & English | 29<br>20 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 37. Components and sub-components of health facility management capacity development | October 1999 | Sheet | English | 01 | – Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 38. Report on workshop with local elite persons | July 1999 | Staple sheets | English | 02 | Original in Bangla by:<br>– Mrinalendu Majumder, Project officer, DSI<br>Translation in English: Consultant and Editing by:<br>– Dr. Tariqul Islam, Training Officer, DSI | Workshop held at Birampur in Feb-Mar 99 |
| 39. Guideline for verbal autopsy | October 1999 | Staple sheets | English | 04 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI | |

*Dinajpur SafeMother Initiative-DSI: List of Materials Developed During 1998-2001*

| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 40. Mini survey guideline | July 1999 | Staple sheets | Bangla | 03 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI | |
| 41. Observation checklist for QOC | October 1999 | Staple sheets | English | 01 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI | |
| 42. Exit interview questionnaire | July 1999 | Sheet | Bangla | 01 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI | |
| 43. Report on training workshop on QOC | November 1999 | Stapled Sheets | Bangla | 05 | – Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Mrinalendu Majumder, Project officer, DSI | |
| 44. Report on training workshop on working in team approach | November 1999 | Stapled Sheets | Bangla | 06 | – Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Mrinalendu Majumder, Project officer, DSI | |
| 45. Format for filling out the basic information of women subject to violence admitted into hospital | December 1999 | Sheet | Bangla | 01 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI | |
| 46. Project Evaluation Report of Moulvi Bazar SafeMother Initiative | May 2000 | Binding | English | 35 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 47. Report on VAW workshop | January 2000 | Spiral | Bangla<br>English | 31<br>43 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 48. Report: Analysis of hospital based data on VAW in Birampur thana of Dinajpur district | January 2000 | Stapled | English | 08 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 49. Promotion of Birth Planning to Increase the Use of Emergency Obstetric Care Services | October 2000 | Spiral | English | 49 | – Dr. Samina Akhtar, Ast. Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Documentation of DSI learning |

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| Name of Material | Developed On/In | Type | Language | # of Page/ Sheet | Author(s) | Remarks |
|---|---|---|---|---|---|---|
| 50. Community Support System to Increase the Use of Emergency Obstetric Care Service | November 2000 | Spiral | English | 34 | – SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar, Ast. Project Coordinator, DSI | Documentation of DSI learning |
| 51. Improving quality of care to Increase the Use of Emergency Obstetric Care Services | December 2000 | Spiral | English | 29 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Documentation of DSI learning |
| 52. Prevention of VAW and provision of comprehensive care for the victims | February 2001 | Stapled | English | 48 | – Dr. Tariqul Islam, Training Officer, DSI with support of other team members<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Documentation of DSI learning |
| 53. Partnership in DSI | April 2001 | Stapled | English | 11 | – Dr. Jahangir Hossain, Project Coordinator, DSI with support of other team members | |
| 54. Project Implementation Report: Jul-Dec 98 | March 1999 | Stapled sheets | English | 14 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar with support of other team members | Semesterly project completion report |
| 55. Project Implementation Report: FY 99 | July 1999 | Stapled sheets | English | 21 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar with support of other team members | Annual project completion report |
| 56. Project Implementation Report: Jul-Dec 99 | March 2000 | Spiral | English | 17 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Samina Akhtar with support of other team members | |
| 57. Project Implementation Report: Jan-June 00 | September 2001 | Spiral | English | 23 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Samina Akhtar with support of other team members | |
| 58. Project Implementation Report: Jul-Dec | March 2001 | Spiral | English | 17 | – Dr. Jahangir Hossain, Project Coordinator, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Dr. Samina Akhtar with support of other team members | |
| 59. Long Range Strategic Plan of CARE Bangladesh, 2002-2006 (2nd Draft) | April 2001 | Stapled | English | 25 | – CARE-Bangladesh Mission | |

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|---|---|---|---|---|---|---|
| 60. Report: Final Evaluation of SafeMother Project of CARE-Bangladesh: DSI | April 2001 | Spiral | English | 09 | – M. Sekander Hyat Khan, PhD<br>– Tauhida Nasrin<br>– APM Shafiur Rahman of ACPC (Consultant) | |
| 61. Report: Cost-effect analysis of DSI | April 2001 | Spiral | English | 13 | – Ann Levin (Consultant)<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Dr. Samina Akhtar with support of other team members | |
| 62. Documentation of Verbal Autopsy of Maternal Death | September 2000 | Stapled | English | 03 | – SM Muhasin Siddiquey, Project Manager, DSI with support of other team members<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | |
| 63. Handbook on Women Friendly Hospital Initiative (WFHI) | 1998 | Spiral | English<br>Bangla | 35<br>25 | – UNICEF-GoB and other stakeholders | |
| 64. Action Plan of Women Friendly Hospital Initiative | 1998 | Spiral | English<br>Bangla | 38<br>27 | – UNICEF-GoB and other stakeholders | |
| 65. Comment and Recommendation on WFHI Action Plan and Hand Book | January 2001 | Stapled | English<br>Bangla | 03 | – DSI team members | |
| 66. Proceedings on stakeholder committee meetings (#7) | From April 1999 to January 2000 | Stapled | Bangla | Total: 38 | 1st Draft:<br>– Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>Finalized by:<br>– Mrinalendu Majumder, Project officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Upazila Health and Family Planning Officer, Birampur | |
| 67. Proceedings on stakeholder committee meetings (#6) | From November 1999 to February 2001 | Stapled | Bangla | Total: 20 | 1st Draft:<br>– Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>Finalized by:<br>– Mrinalendu Majumder, Project officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Upazila Health and Family Planning Officer, Birampur | |

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| 68. Proceedings: Joint monitoring and review meetings among GoB, CARE, and UNICEF (#03) | April 1999 to January 2000 | Stapled | Bangla | Total: 24 | 1st Draft:<br>– Dr. Tariqul Islam, Training Officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>Finalized by:<br>– Dr. Jahangir Hossain, Project Coordinator, DSI<br>– Respective GoB and UNICEF representatives | |
| 69. Key notes in bridging between community and facility | 1 June 2000 | Stapled | English | 03 | – Dr. Tariqul Islam, Training Officer, DSI<br>– Dr. Jahangir Hossain, Project Coordinator, DSI | Paper was presented by Tariqul Islam, in the MotherCare consultative forum entitled: Behavioral Dimensions of Maternal Health & Survival in Washington DC from June 5-7, 2000 |
| 70. Proceedings: Joint review meeting among the stakeholders working on VAW issue | 26 June 2000 | Stapled | Bangla | 06 | 1st Draft:<br>– Khukumoni Adhikary, Field Trainer-Nurse, DSI<br>Finalized by:<br>– Mrinalendu Majumder, Project officer, DSI<br>– SM Muhasin Siddiquey, Project Manager, DSI<br>– Upazila Health and Family Planning Officer, Birampur | |
| 71. Report: Construction of Masculinity and Violence Against Women | September 2000 | Spiral | English | 115 | Therese Blanchet (Consultant | |