Mid-Term Evaluation Of the Parivartan Child Survival Project India

(August 2010)

Christian Reformed World Relief Committee (CRWRC)

In Partnership with:

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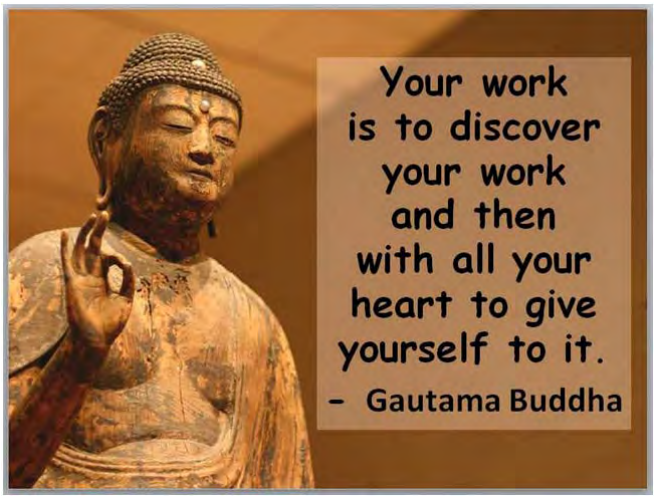

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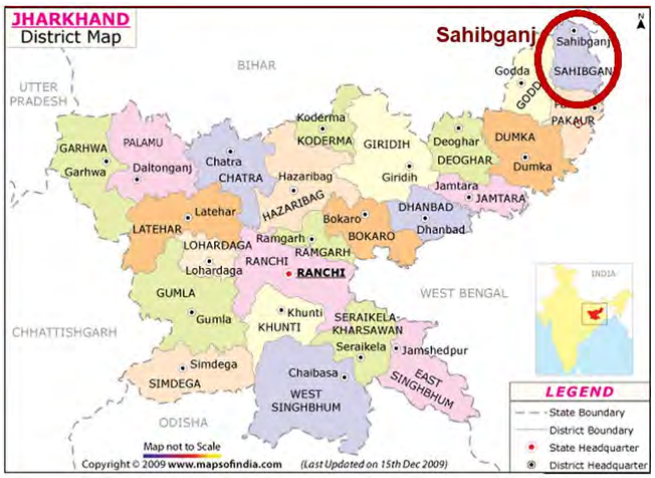
LIST OF ACRONYMS

ARI	Acute Respiratory Infection
ANC	Antenatal Care
AWC	Anganwadi Center
AWW	Anganwadi Worker
ANM	Auxiliary Nurse Midwife
BCC	Behavior Change Communications
BCG	Bacille Calmette-Guérin vaccine
CBO	Community Based Organizations
CCM	Community Case Management
CRWRC	Christian Reformed World Relief Committee
CS	Cluster Supervisor
CSSA	Child Survival Sustainability Assessment
CDPO	Child Development Program Officer
DPO	District Program Officer
DPT	Diphtheria, Pertussis, and Tetanus vaccine
EBF	Exclusive Breast-Feeding
EFICOR	Evangelical Fellowship of India Commission on Relief
EOP	End of Project
HMIS	Health Management Information System
HSC	Health Sub-Center
ICDS	Integrated Child Development Services
ITN	Insecticide Treated Net
KPC	Knowledge Practice Coverage
LLIN	Long Lasting Insecticidal Net
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MAMAN	Minimum Activities for Mothers and Newborns
MH&FW	Ministry of Health and Family Welfare
MW&CD	Ministry of Women and Child Development
MOIC	Medical Officer In-Charge
MTE	Mid-Term Evaluation
NFHS	National Family Health Survey
NRHM	National Rural Health Mission
NGO	Non-Government Organization
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PHC	Primary Health Center
PIT	Project Implementation Team
PM	Project Manager
PMT	Project Management Team
PNC	Post Natal Care
SBA	Skilled Birth Attendant
TAG	Technical Advisory Group
TBA	Traditional Birth Attendant
TTBA	Trained Traditional Birth Attendant
TT	Tetanus Toxoid
U5	(Children) Under Five Years of Age
UNICEF	United Nations International Children's Emergency Fund
VHND	Village Health Nutrition Day
VHC	Village Health Committee

MAPS OF PROJECT AREA



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EXECUTIVE SUMMARY

The goal of the Parivartan Project is *to reduce mortality among mothers, newborns and children under the age of five through building and sustaining community capacity***.** The four strategic objectives of the project are to:

1) Strengthen public-private partnerships for maternal and child health services;
2) Improve access to quality maternal and newborn care;
3) Improve nutrition among children; and
4) Prevent and properly treat infectious diseases among women and children.

The area targeted by the project includes the entire district of Sahibganj in Jharkhand State, which has an estimated population of one million people. Sahibganj consists of nine blocks divided into two geographic regions, i.e., the tribal hills and the populated plains. The culture is mixed with four local languages, i.e., Hindi, Bangla, Santali and Malto. The general health status of the population is very poor compared with that of rest of Jharkhand State.

The key technical interventions for the project include Maternal and Newborn Care (40%); Nutrition (20%); Immunization (10%); Malaria (10%), including Operations Research; ARI (10%); and Diarrhea (10%). The primary cross-cutting interventions are community mobilization of Village Health Committees (VHCs) and other community-based organizations (CBOs); Behavior Change Communications (BCC) through Sahiya and Anganwadi Workers (AWWs); and quality improvement of support for interventions by Health Sub-Centers (HSCs).

The primary inputs and outputs of the project revolve around the training of community health workers for community-based behavior change communications.

Table 1: Illustrative Summary of Major Project Accomplishments

Inputs	Activities	Outputs	Outcome
Weighing scales, growth charts and training	Training of Anganwadi Workers (AWWs)	1,548 AWWs trained and functional in conducting growth monitoring clinics	Reduction in underweight children
BCC strategies, health materials, training	Training of Sahiyas (community health workers)	841 Sahiyas trained and supported for BCC activities	Dramatic increase in knowledge of mothers for danger signs related to pregnancy
Training materials, basic supplies	Training of Auxiliary Nurse Midwives to facilitate Convergence Meetings	82 ANMs in 140 facilities have been trained in organizing and conducting Convergence Meetings	Convergence Meetings become a promising practice for coordination and planning by ANMs, AWWs and Sahiyas.
Delivery kits, training	Training of TBAs in safe deliveries and referrals	653 TTBAs receive refresher training	Improved referrals of pregnant women for facility-based delivery

The Mid-Term Evaluation (MTE) took place August 2-13, 2010. The 14-person evaluation team (see Annex 7) included an external consultant team leader, volunteer external evaluators, CRWRC and EFICOR representatives, and Parivartan project staff. The evaluation process answered five questions:

- **Progress**: Has the project been implemented as planned?
- **Achievements**: Is the project on track to achieve its objectives?
- **Sufficiency**: Are the approaches being used sufficient to reach objectives?
- **Identification of Barriers**: What challenges has the project faced?
- **Recommendations**: What needs to be changed to improve project implementation?

The evaluation began in New Delhi with briefing meetings with USAID and EFICOR, and followed by travel by plane and overnight train to the project site in the Sahibganj District of Jarkhand State. The evaluation process with the full evaluation team began on August 3, and followed the eight steps (see Annex 8 for details for each step):

1) Agree on what we should evaluate (day 1)
2) Decide the questions to ask & who to interview (day 2)
3) Make field visits to conduct interviews (day 2, 3 & 4)
4) Compile the information collected (day 5)
5) Discuss findings and draft conclusions (day 5, 6)
6) Develop consensus on recommendations (day 6)
7) Prepare summary elements for presentation (day 6, 7)
8) Present findings to partners (days 7, 8, 10)

The evaluation team reviewed project documents and reports, discussed the mid-term Knowledge, Practice and Coverage (KPC) survey results, consulted with district authorities, and made field visits to four blocks within Sahibganj district to interview block authorities, ANMs, Sahiyas, AWWs, TTBAs and VHC members (see Annex 9 for a list of those interviewed). The findings from these interviews, along with an analysis of the MTE KPC survey, were used to identify areas for project improvement.

The project is to be commended for a number of things:

- Government authorities were impressed by the zeal and enthusiasm of Project staff;
- EFICOR has created a well-balanced project team in terms of skills, culture and religion;
- Parivartan is making excellent progress in meeting or surpassing most of its targets;
- The project has revitalized and enhanced growth monitoring by AWWs;
- Caregiving knowledge of mothers has increased dramatically; and
- Project personnel have worked effectively and strongly with government to take interventions to scale.

The project has made excellent progress towards achieving its objectives and has already surpassed end-of-project targets for 12 of 23 objectives. It is making excellent progress for six other objectives and satisfactory progress for three objectives. There are only two objectives, related to exclusive breastfeeding and zinc treatment, where progress has been unsatisfactory.

Many useful suggestions emerged from the interviews conducted during the evaluation. The comments and suggestions from Auxiliary Nurse Midwives (ANMs), Sahiya community health workers and Anganwadi Workers (AWWs) were particularly helpful. The evaluation team identified and established a consensus on twelve key recommendations that could help achieve and sustain project objectives and important child survival interventions:

Recommendation #1: Develop the capacity of ANMs to facilitate monthly HSC Convergence Meetings with Sahiyas & AWWs to plan and coordinate activities within the HSC catchment area.

Recommendation #2: Increase capacity of ANMs to reinforce and encourage timed counseling at the household level by Sahiyas and AWWs for primary and secondary caregivers.

Recommendation #3: Assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles).

Recommendation #4: Scale up capacity building training for high and medium performance VHCs.

Recommendation #5: Use the Behavior Change Framework (including doer and non-doer survey/analysis) to identify actions to improve safe deliveries, immunizations, control of diarrheal disease (CDD) and exclusive breast-feeding (EBF) with respect to religious and cultural influences.

Recommendation #6: Design/Reinforce block and culture-specific nutrition counseling and food-group campaigns that target high risk mothers and children.

Recommendation #7: Provide advocacy and training for community case management of diarrhea and direct distribution of ORS and Zinc by Sahiyas and/or AWWs.

Recommendation #8: Continue refresher training to improve the skill and knowledge of TTBAs to promote prenatal care, safe deliveries and neonatal care, especially in areas where institutional deliveries are low.

Recommendation #9: Reinforce/upgrade selected HSCs to increase safe delivery points.

Recommendation #10: Scale up the distribution of safe delivery kits through HSCs to all pregnant women.

Recommendation #11: Use the outcomes of project Operations Research in malaria to improve BCC messages by identifying positive deviant survivors.

Recommendation #12: Re-adjust targets for objectives where the project has surpassed the end-of-project targets.

I. PROJECT OVERVIEW

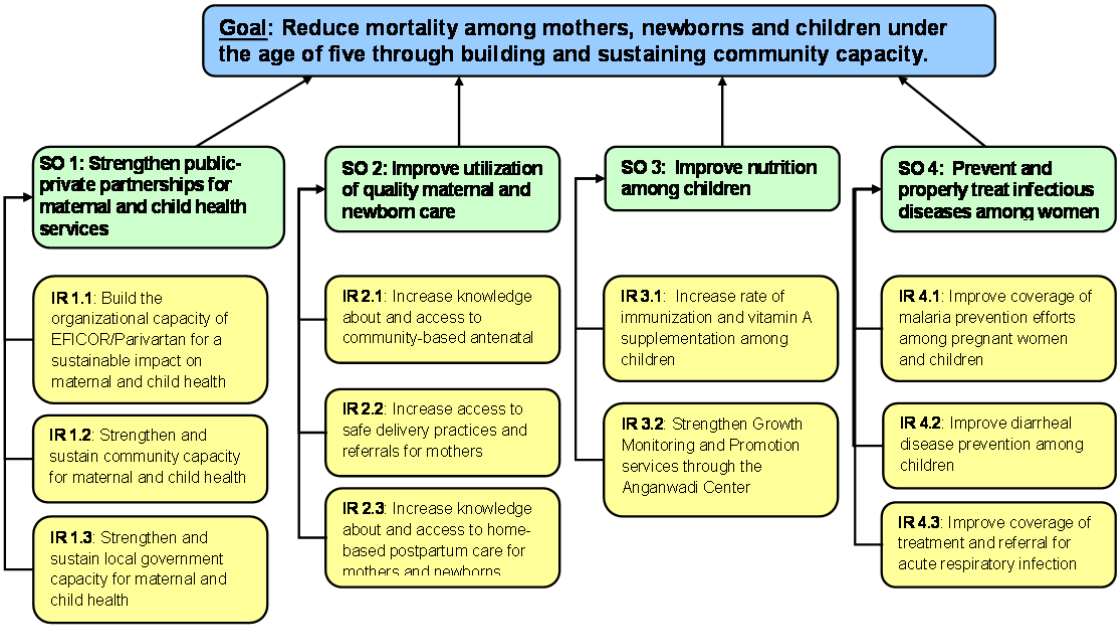
A. Project Goal and Objectives

The goal of the Parivartan Project *is to reduce mortality among mothers, newborns and children under the age of five through building and sustaining community capacity***.** The project objectives are aligned with Intermediate Result 3 of USAID India's Health Strategic Objective (SO 14) to "increase use of key child survival interventions" as well as the GOI National Health Policy (2002) and National Population Policy (2000). The four strategic objectives of the Parivartan Project are to:

1) Strengthen public-private partnerships for maternal and child health services;
2) Improve access to quality maternal and newborn care;
3) Improve nutrition among children; and
4) Prevent and properly treat infectious diseases among women and children.

The results framework for the project is shown below:

Figure 1: Parivartan Project Results Framework



B. Project Location

Christian Reformed World Relief Committee (CRWRC) has partnered with the Evangelical Fellowship of India Commission on Relief (EFICOR) for the Parivartan "Transformation" Project in Sahibganj District of Jharkhand State of India. Jharkhand is one of three focus states of USAID to expand reproductive and child health. Sahibganj District was selected due to its tremendous burden of disease, weak network of health services and limited assistance due to difficult access to remote villages.

The target district Sahibganj is bordered on the north by the Ganges River and Katihar district, on the south by Godda district, on the east by Maldah and Murshidabad districts of the State of West Bengal, and on the west by Bhagalpur and Godda districts. Sahibganj is connected by railway from Howrah and New Delhi. Road connections, although bad, exist from West Bengal and Bihar.

Sahibganj consists of nine blocks divided into two geographic "regions." The first region includes Borio, Mandro, Barhait, Pathna and Taljhari blocks under the Damin-I-koh (Skirt of Hills) area. This area includes forest-covered hills and slopes and valleys with extensive rice cultivation. The inhabitants of this region are generally Pahariyas, Mal Pahariyas and Santhals. The inhabitants on the hill top cultivate barbatti and maize using rain water harvesting. The second region consists of plains area of Sahibganj, Rajmahal, Udhwa and Barharwa blocks with the Ganges, Gumani and Bansloi rivers. This area has plenty of fertile lands and is richly cultivated. The inhabitants of this region are mainly middle class people of different castes and tribes like Pahariyas and Santhals.

The baseline KPC findings for Sahibganj District revealed that the health status of the population is very poor compared with that of Jharkhand State. Some of the findings that are most critical to address in this project include:

- **Lack of trained personnel:** Only 26.7% of women reported that the birth of their first child was attended by a skilled health care provider. Only 23% had at least three antenatal visits, and only 26% had a postpartum check-up.
- **Low rates of iron supplementation:** Only 3.7% of mothers said that they consumed at least 90 iron tablets during pregnancy.
- **Lack of knowledge of danger signs:** Only 0.7% of mothers knew three danger signs of pregnancy, and 1.7% knew danger signs in the post-partum period.
- **High prevalence of malnourished children:** Only 19.3% of mothers immediately breastfeed. About 45% of children in the survey were underweight. Only 20.6% received a dose of Vitamin A in the last six months.
- **Poor immunization coverage:** The rate of complete immunization was 9.5%.
- **Lack of malaria prevention:** Sahibganj has a high prevalence of malaria, but only 5.7% of children who had malaria in the previous two weeks received antimalarial medicines. Only 33% of children under five sleep under a bednet.
- **High prevalence of childhood diseases:** The prevalence of diarrheal disease among children was 30%, and the prevalence of ARI was slightly higher.

The Rapid Health Facilities Assessment revealed that the public health infrastructure is grossly inadequate in relation to the population. At the Health Sub-Center (HSC) level, less than 20% of the personnel that are required are in place. Only 6% of HSCs had the minimum essential supplies for child health, and the great majority had stock-outs of antibiotics, tetanus toxoid (TT) injections, or iron folic acid supplements.

C. Estimated Project Area Population

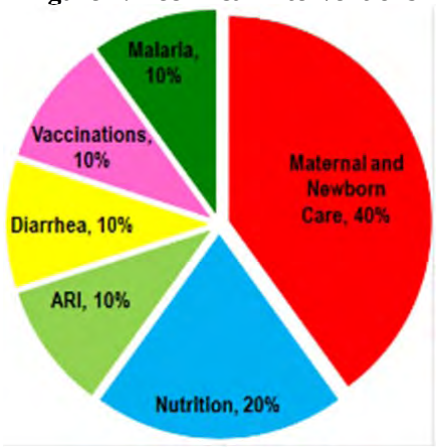
The health status of Sahibganj District with respect to Jharkhand State is bleak. The estimated crude birth rate in Sahibganj is 35.5 compared to 29.9 in Jharkhand. The Parivartan Project targets the entire population of nearly 1,000,000 people. This includes a large tribal population that is disproportionately overlooked by the existing health system. The estimated target beneficiaries are shown in the table at right.

Table 2: Program Beneficiaries

Beneficiary Population	Number
Infants 0-11 months	32,390
Children 12-23 months	32,390
Children 24-59 months	97,170
Children 0-59 months	161,950
Women 15-49 years	188,511
Total Population	**927,770**

D. Technical and Cross-cutting Interventions

Figure 2: Technical Interventions



The key technical Interventions for this project include:

- Maternal &Newborn Care (40%);
- Nutrition (20%);
- Immunization (10%);
- Malaria (10%), including Operations Research;
- ARI (10%); and
- Diarrhea (10%).

The cross-cutting interventions for implementing those technical interventions include:

- **Community mobilization** of Village Health Committees and other CBOs;
- **Behavior change communications** through Sahiya and AWW workers; and
- **Quality improvement** of support for interventions by Health Sub-Centers.

E. Project Design

Parivartan is a standard category child survival project with funding of $1,148,555 over five years (2007-2012). The project design and strategies are based on lessons learned from CRWRC's successful Child Survival Project in neighboring Bangladesh.

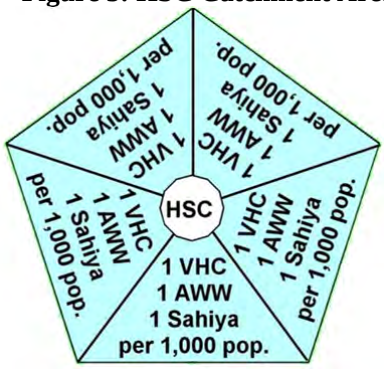
F. Partnerships

There are several noteworthy partnerships in this project.

First, CRWRC is partnering with the Evangelical Fellowship of India Commission on Relief (EFICOR) for project management and implementation. EFICOR has worked in Sahibganj for twelve years. This has provided an opportunity for collaboration with a local FBO that is working in a geographic area that is also targeted by USAID and Project Vistaar.

Second, the project is partnering with the Ministry of Health and Family Welfare (MH&FW) and the Ministry of Women and Child Development (MW&CD). These ministries represent the key service providers for both health and child development services in the project area. The project works, therefore, to reinforce the community-based structures of those ministries, e.g., Health Sub-Centers of the MH&FW and Anganwadi Centers of the MW&CD.

Figure 3: HSC Catchment Area



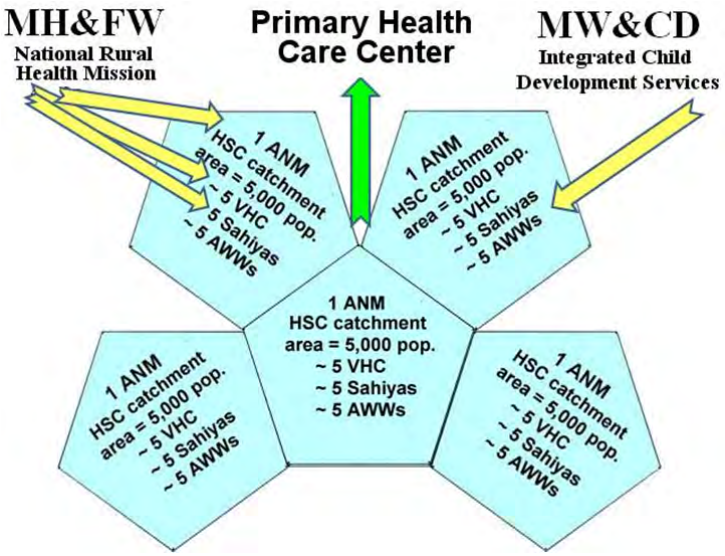
The Indian health system is a complex "dance" of health providers with shared responsibilities by the MH&FW and MW&CD. This is further complicated by an incentive-driven system of motivation. To better understand how the Parivartan project and the MTE recommendations, it will be helpful to visualize how the system is constructed.

A typical community or village consists of a population of 1,000 people and is to be "governed" in health matters by a government-created Village Health Committee, a Sahiya volunteer (aka ASHA) and a salaried Anganwadi Worker (AWW) working out of a community-based Anganwadi Center. Typically five such villages would comprise the catchment population of 5,000

people served by a Health Sub-Center which is staffed by an Auxiliary Nurse Midwife. In reality, the population and number of villages may be higher in the more densely populated "plains" versus the more sparsely populated "tribal" areas in the hills/mountain regions. The following figures represent the catchment area of a Health Sub-Center.

Ideally, four to five HSCs staffed by ANMs would use a Primary Health Care Center (PHC) as their referral, e.g., to refer pregnant women for institutional deliveries. The diagram below illustrates the multi-headed partnerships within which the Parivartan project works in a cross-cutting and integrating/converging fashion.

Figure 4: The Dichotomy of Service Providers and Partnerships



II. DATA QUALITY

A. Project Approach and Data Mix

The project has adopted and developed a good mix of data processes for measuring results that include 1) Information collected from the health system, e.g. from HSCs and PHCs and 2) Project-specific data collection, e.g. KPC Surveys, Lot Quality Assurance Sampling (LQAS), cluster/block outputs, timed counseling activities, ANM supervisions and Participatory Rural Appraisals.

The project's management information is also collected during the monthly meetings of the Project Implementation Team composed of project manager, M&E officer, block supervisor, MNC trainer and finance officer. In addition, a Project Management Team—including the CRWRC Regional Advisor, EFICOR Program Manager, and Project Manager—meets twice a year. A Technical Advisory Group (TAG) of selected key stakeholders and individuals meets every six months to review project data and progress.

The project Health Management Information System (HMIS) is both comprehensive and functional. So as not to duplicate government's monitoring system, the project does not collect data directly at the clusters (HSC) and block levels (PHCs). Rather, the M&E officer enhances existing data by converting them into graphs to help health workers, block officials and the district health personnel in using data for decision making. Project-specific data is

collected for supervision of/by ANMs, timed counseling activities and capacity-building of VHCs. These data are also sent to the block and district offices for their use.

The weakest link in the data collection system is probably at the community level, where Village Health Committees (VHC) are not yet fully formed and the project could not measure community capacity in communities without them. The data obtained and the manner of collecting these at the HSC level by ANMs are not controlled by the project, but rather under the supervision of the Ministry of Health and Family Welfare (MH&FW) as shown previously in Figure 4.

B. Data-Based Achievements

The MOH Health Information System: Regular meetings are held by the Block Coordinators with CDPO (Block's Child Development Program Officer) and MOIC (Medical Officer In-Charge), wherein data are examined and analyzed to come up with recommendations for improved implementation. The project staff hopes to further improve data analysis with more convergence meetings of ANMs, AWWs and Sahiyas at the HSC level (see Recommendation #1). Not only will regular births, deaths and immunization information be analyzed in this level but it will also include a review of the *Due-List* (for those children scheduled for immunization) and the *Tickler Bag* (pouch where cards of *no-show* children are kept) for those who did not get their scheduled vaccination.

Systematic Project Data Collection: The project's M&E data collection and reporting are systematically used for decision making at all levels, i.e., clusters, blocks and district. Data from the HSC level are enhanced through graphics to facilitate analysis especially by the ANMs, AWWs, Sahiyas and project staff. Similarly, at the block and district levels, the aggregated data are analyzed and discussed regularly at all levels within the government system and project management for recommended action.

Using Data for Management Decisions: An analysis of both qualitative and quantitative data has been effective, for example in the control of diarrheal disease. The MTE KPC showed a marginal improvement in ORT use (45.5% at baseline to 51.2% at midterm) and a decrease in treatment with zinc (18.8% at baseline and 14.7% midterm).A discussion with health workers - ANMs, AWWs and Sahiyas - confirmed that zinc access was limited to health facilities, even though some AWWs and Sahiyas had been trained in zinc usage. These data ultimately resulted in a MTE recommendation for the project to advocate with the government for a policy to allow community-based workers to dispense ORS and zinc and for the project to train these workers in Community Case Management (CCM) of diarrhea.

C. Overall Effectiveness of Data

The combination of KPC surveys, LQAS and HMIS are effectively helping to measure progress towards results. The LQAS data per block are aggregated for a quantified result to be useful as district data. The HMIS data as a whole is one gauge for measurement of the project's effectiveness. The project M&E officer works with the block coordinators and cluster supervisors to analyze information to identify areas not at par with the established benchmark. This helps the project make informed decisions for improving implementation.

III. PROGRESS IN ACHIEVING PROJECT RESULTS

A. MTE KPC Results

This color-coded table summarizes the progress towards achievement of project objectives from excellent (surpassed End-of-Project targets) to unsatisfactory (no progress or decrease).

Nb	Table 3: Project Progress in Achievement of Objectives Degree of Progress: Excellent / Very Good / Satisfactory / Unsatisfactory	Base-line	EOP Target	MTE
1	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 mos having three or more antenatal visits when they were pregnant with their youngest child	23%	50%	**54%**
2	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 months who received at least two TT vaccinations before the birth of their youngest child	69%	80%	**86%**
3	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 months who received/bought iron supplements while pregnant with their youngest child	47%	60%	**75%**
4	**MNC - Clean Delivery Practices:** Percentage of births where a cord was cut with a new or clean instrument or a clean birth kit was used	89%	95%	**96%**
5	**MNC - Clean Delivery Practices:** Percentage of children age 0-23 months whose births were attended by skilled personnel	27%	40%	**37%**
6	**MNC - Post Partum Care:** Percentage of mothers of children age 0-23 mos who received a post-partum visit from an appropriate trained health worker within 3 days after birth of youngest child	26%	40%	**41%**
7	**MNC - Post Partum Care:** Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after birth of youngest child	26%	40%	**38%**
8	**MNC - Thermal Care:** Percentage of children age 0-23 months who were dried and wrapped with a warm cloth or blanket immediately after birth (before the placenta was delivered)	69%	80%	**85%**
9	**MNC - Maternal Knowledge:** Percentage of mothers able to report at least three known maternal danger signs during the post-partum period	2%	25%	**77%**
10	**MNC - Maternal Knowledge:** Percentage of mothers able to report at least three known newborn danger signs	4%	25%	**72%**
11	**NUT - Breastfeeding- Early Initiation:** Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal feeds	19%	50%	**38%**
12	**NUT - Breastfeeding- Exclusive:** Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours	70%	80%	**56%**
13	**NUT - Complementary feeding:** Percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices	25%	50%	**30%**
14	**NUT - Vitamin A:** Percentage of children age 9-23 months who received a dose of vitamin A in the last 6 months	21%	50%	**52%**
15	**NUT: Maternal Nutrition:** Percentage of women who have a low BMI (<18.5 kg/m2)	42%	35%	**40%**
16	**NUT - Children - underweight:** Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)	45%	30%	**41%**
17	**IMMUN - Full Primary Immunization:** Percentage of children age 0-23 months who received BCG, DPT3, OPV3, and measles vaccines before they reached 12 months	10%	50%	**23%**
18	**IMMUN - Access:** Percentage of children age 12-23 months who received a DPT1 vaccination before they reached 12 months	29%	60%	**54%**
19	**IMMUN - Performance:** Percentage of children age 12-23 months who received a DPT3 vaccination before they reached 12 months	21%	50%	**40%**
20	**MALARIA - ITN Use:** Percentage of children age 0-23 months who slept under a bednet the previous night	33%	60%	**79%**
21	**CDD - ORT USE:** Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea	46%	70%	**51%**
22	**CDD - Treatment with Zinc:** Percent of children under 2 years of age who were treated with a medication containing zinc during their episode of diarrhea	19%	30%	**15%**
23	**ARI – place of treatment:** Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of ARI	41%	60%	**65%**

B. Maternal and Newborn Care

1) Overview of Approach

There are two strategic approaches in carrying out the project's MNC intervention:

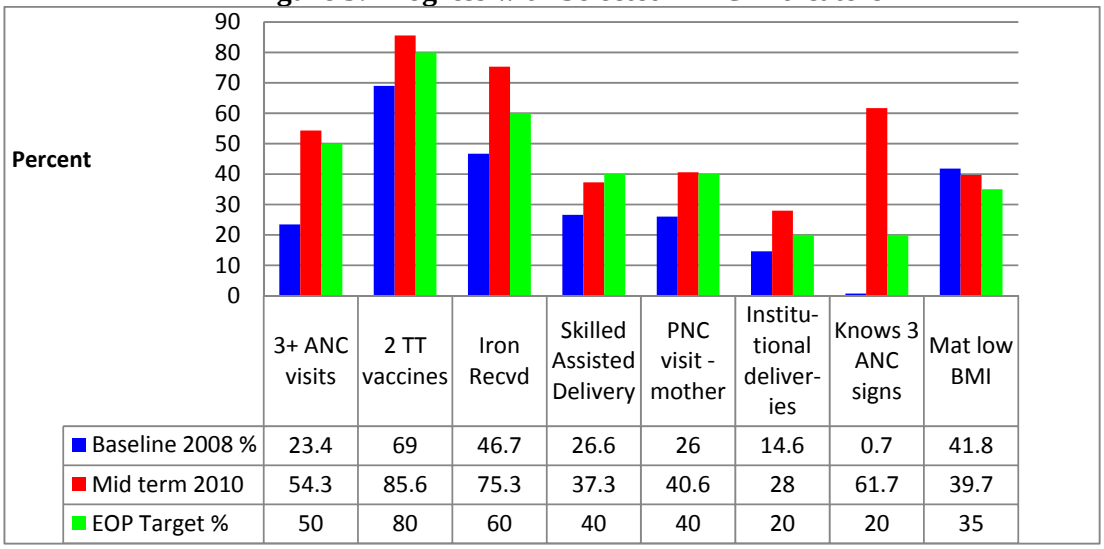
- Capacity building of the partner organization, the community and the local government to support the network of volunteers and link them to the health system. This effort focuses on training, supervision and provision of services through the ANMs, trained TBAs, AWWs and Sahiyas, as well as registered medical practitioners and traditional healers.
- Improving utilization of quality maternal and newborn care through high-impact, low-cost community-based interventions, including Minimum Activities for Mothers and Newborns (MAMAN), Tetanus Toxoid vaccines, clean delivery, health facility referrals, cord care, thermal care, maternal nutrition and anemia prevention.

The project uses proven approaches to train and monitor the development of the partner organizations and volunteers for the technical intervention. These include dialogue education; the BEHAVE framework, doer/non-doer analysis, and supportive skilled supervision on the implementation of MNC interventions. EFICOR helped to mobilize primary or self-help groups and second tier groups, e.g., community based organizations (CBOs) and training institutions. In turn, those groups developed community access and link within communities through referrals to health facilities by community-based Sahiyas and TTBAs.

2) Achievement of Objectives

The project has made excellent progress in achieving targets for ten MNC interventions (see Figure 5 below). The project surpassed EOP targets for eight indicators. The project emphasis on behavior change communications (BCC) and health promotion by the Sahiyas and AWWs created a demand for services and the referrals linked the community to the health facilities. The success of the maternal and newborn interventions has enhanced the public provision of essential health services.

Figure 5: Progress with Selected MNC Indicators



	3+ ANC visits	2 TT vaccines	Iron Recvd	Skilled Assisted Delivery	PNC visit - mother	Institu-tional deliver-ies	Knows 3 ANC signs	Mat low BMI
Baseline 2008 %	23.4	69	46.7	26.6	26	14.6	0.7	41.8
Mid term 2010	54.3	85.6	75.3	37.3	40.6	28	61.7	39.7
EOP Target %	50	80	60	40	40	20	20	35

There is an increase in percentage of mothers making three or more ANC visits (23.4% to 54.3%), two doses of Tetanus Toxoid (69% to 85.5%) and iron supplement (46.7% to 75.3%), which are good indicators of the program's performance. The team's BCC and timed counseling of the Sahiyas and AWWs have worked together to emphasize these aspects of ANC.

Maternal knowledge increased dramatically for at least three danger signs/symptoms during the pregnancy (0.7% to 61.7%), during postpartum period (2% to 25%) and for newborn care (4% to 25%). The increase in the knowledge of the danger signs is also associated with timed counseling of community-based providers.

There was an important increase in the delivery by skilled health personnel from 26.6% to 37.3% and improvement in delivery practices (clean instrument to cut cord increased by 6%) which could be attributed to the health promotion (timed counseling), referrals of Sahiyas and AWWs and training of TTBAs.

3) Sufficiency of Approach

The project has created an outreach link from community-based to facility-based care. The capacity building of the primary groups and CBOs has created a support network for a cadre of trained community volunteers (Sahiyas and AWWs) that appears to be performing well and in a way that is sufficient to achieve the MNC targets. The works of the CHVs and TTBAs are very complementary to the government health services.

4) Challenges in Achievement

Barriers identified during interview with ANMs, AWWs, Sahiyas and TTBAs included the following:

- Lack of Skilled Birth Attendants to provide MNC services. Skills and practices of skilled birth attendants are not yet optimized in areas such as post-partum care.
- Paucity of facilities providing MNC services. The system is weak for institutional delivery. Institutional delivery, to be effective, would need at least six institutions for delivery in a block and these are not available. (The plan of the government is to have an additional 35 additional PHCs, but the plan may be too ambitious with the resources available).
- Religious and cultural beliefs regarding pregnancy and newborn practices among the sub-groups. Some HSC catchment areas have 80% deliveries in the facilities, while others have 80% home deliveries. The variations depend primarily on geographic, cultural and religious factors.
- TTBAs must sometimes purchase the safe delivery kits out of their 200 to 300 rupee payment from families.
- Program sustainability in supporting Sahiyas and TTBAs is questionable.

5) Recommendations

The following are the recommendations on the MNC intervention to improve implementation:

- **Recommendation #5:** Use the behavior change framework (Barrier Analysis including doer and non-doer survey) to identify action to improve safe deliveries with respect to religious and cultural influences. Identify specific actions to target messages related to MNC interventions.

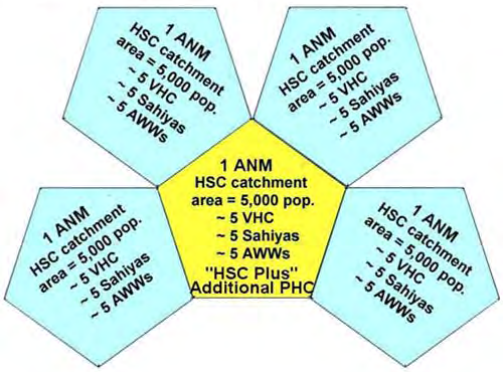
- **Recommendation #8:** Continue refresher training to improve skills and knowledge of TTBAs to promote prenatal care, safe deliveries and neonatal care, especially in areas where institutional deliveries are low.

  The policy of the MH&FW does not encourage home deliveries by TTBAs, but rather institutional deliveries. Yet the number of delivery sites and SBAs is insufficient, and will remain insufficient, for many years to come. From a practical standpoint, therefore, the project should continue to work with and through TTBAs.

- **Recommendation #9:** Reinforce/upgrade selected HSCs to increase safe delivery points in hard-to-reach areas.

  It would not be necessary to upgrade HSCs to the level of a PHC. Rather, the strategy would be to focus on identifying one HSC within a group of HSCs (see Figure 6) that would meet several priority criteria, i.e., 1) deliveries are currently being done at home; 2) a room is already available for conversion into a delivery room, and 3) two ANMs are currently in place who could provide 24-hour service. In that case, it is estimated that a combination of minor rehabilitation, provision of delivery equipment and training of the ANMs by Vistaar could create an "HSC Plus" which could be authorized to conduct institutional deliveries for their catchment area and neighboring catchment areas. This process might also be combined with referral payments to Sahiyas and TTBAs to encourage institutional deliveries.

Figure 6: Upgrading to "HSC Plus"



- **Recommendation #10:** Scale up the distribution of safe delivery kits through HSCs to all pregnant women. There is a policy to provide safe delivery kits to all pregnant women, but this is not done comprehensively. If this were carried out through the health promotion of AWW and Sahiyas (increase demand), TTBAs would not need to buy kits from the payment they receive from the families.

- **Recommendation #12:** Re-adjust targets for objectives where the project has surpassed the End-of-Project targets.

C. Immunization

1) Overview of Approach

The Parivartan Project collaborates with the National Rural Health Mission of the MH&FW at the District-level (Civil Surgeon) and at the block level (MOIC) to provide of key immunizations (BCG, DPT, OPV and measles) to children under two years of age. The project has worked effectively with UNICEF and the MH&FW to ensure cold chain management and a regular supply of vaccines at each HSC on immunization days. The ANM,

who administers vaccines at the HSC and in the villages, notifies the MOIC of any shortages in supplies. In addition, the cluster supervisors and block coordinators communicate problems that they discover with vaccine supply and ANM staffing directly to the MOIC.

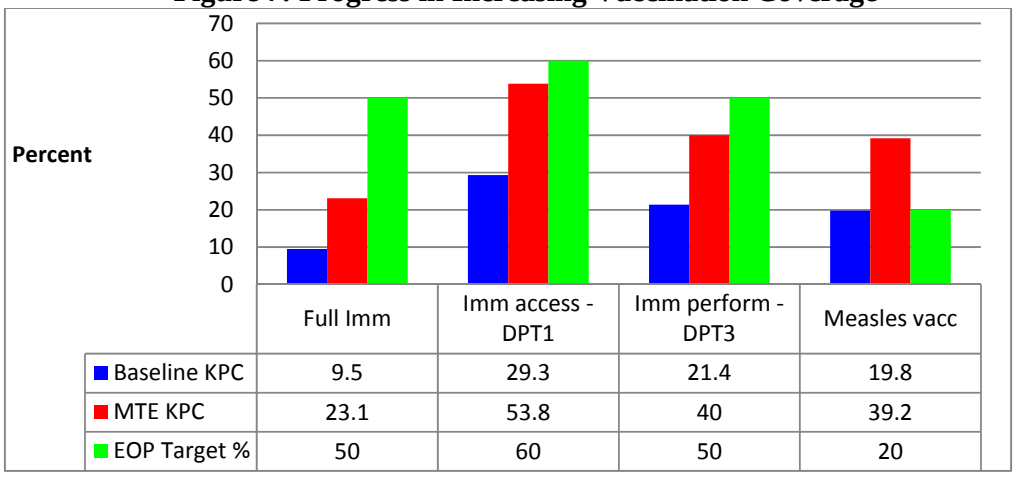
Both Sahiyas and AWWs have been trained by the project in the childhood immunization schedule. Sahiyas visit households following the birth of a child as part of a newly adopted timed counseling approach, discuss the importance of vaccinations, and distribute vaccination cards. During monthly meetings between the ANMs, Sahiyas, and AWWs, the 'due list' of children requiring immunizations is updated to ensure the children requiring immunizations and left-out and drop-out children are covered in the next Village Health Nutrition Days (VHND). Parivartan cluster supervisors coordinate immunization-related activities with the ANMs, Sahiyas, and AWWs at this time.

Immunization awareness and acceptance by primary and influencing groups is being promoted with BCC approaches at the village level, such as *Sass Bahu Pati Samellan*[a]. Sahiyas, who serve as secretary of their Village Health Committee (VHC), also promote awareness by teaching VHC members about the importance of childhood immunizations and exploring village-level barriers with the VHC to bringing children in for vaccinations. AWWs promote immunizations at the AWC where the monthly VHND are held.

2) Achievement of Objectives

The progress in increasing vaccination coverage is shown in Figure 7 below:

Figure 7: Progress in Increasing Vaccination Coverage



	Full Imm	Imm access - DPT1	Imm perform - DPT3	Measles vacc
Baseline KPC	9.5	29.3	21.4	19.8
MTE KPC	23.1	53.8	40	39.2
EOP Target %	50	60	50	20

At the time of the Midterm KPC, 71% (47% at baseline) of the 300 mothers surveyed had a vaccination card for their child less than 2 years of age. Of the 130 children 12-23 months of age in the survey, 23% (9.52%) had been fully immunized as documented in the immunization card (NFHS[b] 3 - 34.5%). The proportion of children 12-23 months who received the DPT1 vaccine was 53.8% (29.3%). 40% (21.4%) of children 12-23 months received the DPT3 vaccine (NFHS 3 - 40.3%), and 39.2% (19.8%) of children 12-23 months had received the measles vaccine (NFHS3-48%) before their first birthday.

[a] This is a Hindi term for a type of behavior change communication that involves focus group discussions and motivation for mothers-in-law and husbands.
[b] National Family Health Survey

3) Sufficiency of Approach

All immunization indicators increased markedly from baseline. While over 50% of children received the 1st DPT and approximately 40% received DPT and measles, the finding that only 23% of children were fully immunized at midterm points to the need for identifying and correcting reasons for the 'gap' in full coverage to increase immunization rates overall during the remaining years of the project.

4) Challenges in Achievement

The increase in immunization rates points to the system-strengthening effect of enhancing the Government service delivery system in assuring access to vaccines at the District and Block level and facilitating collaborative monitoring of vaccination levels by ANMs, AWWs, and Sahiyas.

Several barriers to reaching target immunization levels were identified during the midterm evaluation. Training of the full cadre of AWWs and Sahiyas was not completed until recently and, as a result, the immunization message only now has the potential of being delivered in all communities. AWWs were taught the immunization schedule. In addition, Sahiyas recently received training in the BCC timed counseling approach with the importance of immunizations is taught during the first postpartum visit.

In the Sahibganj District, the mother-in-law and husband often control how a woman cares for a child. They may grant permission for the first DPT but, when a fever occurs, may prevent future immunizations. This is reported to be especially true in Muslim populations and points to the need for education of both the mother and her influencing group on the importance of immunizations. To address this barrier, the project recently instituted the BCC *Sass Bahu Pati Samillan* intervention which provides village-specific health promoting messages in theater format. The VHCs are another emerging mechanism which shows promise of tracking (through a community immunization card) and promoting acceptance of immunizations at the village level.

5) Recommendations

The following recommendations are relevant to improving immunization levels.

- **Recommendation #1:** Develop the capacity of ANMs to facilitate monthly HSC Convergence Meetings with Sahiyas and AWWs to plan and coordinate activities within the HSC catchment area.
- **Recommendation #2:** Increase capacity of ANMs to reinforce and encourage timed counseling at the household level by Sahiyas and AWWs for primary and secondary caregivers.
- **Recommendation #3:** Assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles).
- **Recommendation #5:** Use the Behavior Change Framework (including doer and non-doer survey/analysis) to identify actions to improve safe deliveries, immunizations, CDD and EBF with respect to religious and cultural influences.

D. Control of Diarrheal Disease

1) Overview of Approach

The program to achieve the objective of improving diarrheal disease prevention among children was initiated using a strategy that was implemented by EFICOR; it was assisted by a close working relationship with state and district offices. At the HSC and village level the AWWs and Sahiyas implemented BCC strategies to encourage hand-washing with soap, consuming safe water, treating children with diarrhea using ORT/zinc and encouraging mothers to seek care for their child's illness. All cluster supervisors and block coordinators were trained in a four-day session by a team that included medical doctors from NHRM, the project supervisor and M&E officer. The cluster supervisors trained the Sahiyas and AWWs in the practices used to prevent and treat diarrheal disease. Periodic refresher training sessions were held occasionally at the block and PHC level. Using advocacy and lobbying, EFICOR personnel also worked to enhance the availability of ORS and zinc.

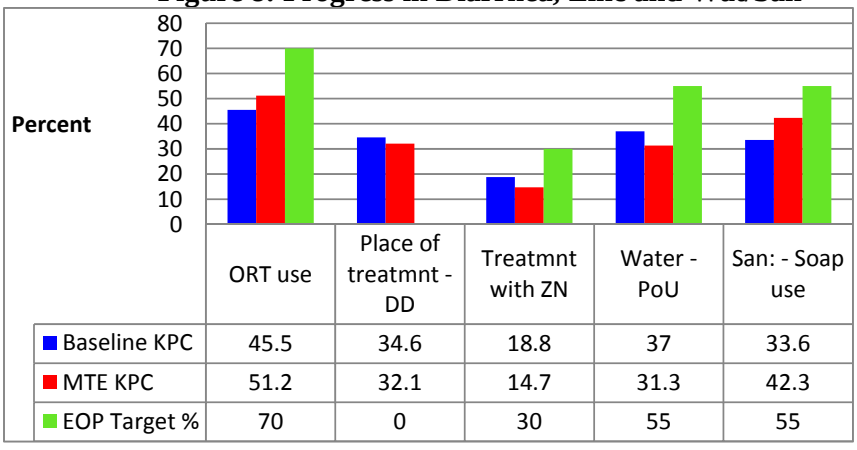
Sahiyas were trained in water safety at home, safe disposal of waste water, protection of water sources and hand-washing with soap.

2) Achievement of Objectives

According to the MTE KPC the project did not have any significant effect on the indicators related to diarrheal disease prevention or occurrence (Figure 8). For the KPC mothers of 300 children were surveyed. In the two weeks preceding the survey, 42.7% (33.7% at baseline) had diarrheal disease. Of them, 51.2% (45.5%) were given an acceptable form of ORT – powdered OR Salt which could be reconstituted, or ready-mixed ORS or an acceptable fluid available in their home (NFHS3-17.8%). 14.5% of the 131 mothers of children who had diarrhea, (down from a baseline of 18.9%) stated that they gave the child a medication containing zinc. The mothers of the 131 children who had diarrhea reported that 32.1% (down from a baseline of 34.6%) of the children were taken for treatment to a qualified provider when the child showed signs of diarrhea (NFHS 3 - 32.5%).

Water and sanitation were measured as "other indicators of interest." As with the core indicators related to diarrheal disease, there was no difference in water treatment and the use of soap for hand washing. Of the 300 households of children age 0-23 months surveyed, 31.3% (37% at baseline) treated water effectively and 42.3% (33.6%) had soap or detergent that is normally used for hand-washing.

Figure 8: Progress in Diarrhea, Zinc and Wat/San



	ORT use	Place of treatmnt - DD	Treatmnt with ZN	Water - PoU	San: - Soap use
Baseline KPC	45.5	34.6	18.8	37	33.6
MTE KPC	51.2	32.1	14.7	31.3	42.3
EOP Target %	70	0	30	55	55

3) Sufficiency of Approach

The application of BCC interventions has had only a small effect on diarrheal disease indicators, although these types of interventions have had a positive impact on most other indicators. The small increase in the use of ORT likely reflects the early stage of the intervention—the target is expected to be reached as knowledge impacts practice. Recent retraining of the Sahiyas in timed counseling related to safe practices will likely positively impact the diarrheal disease indicators. The limited use of zinc reflects the lack of distribution.

Using BCC approaches is ideally suited to teach sanitary practices both for mothers in the perinatal period and in the village as a whole. Changing water sanitation practices at the village level is a difficult process that requires changing deeply engrained beliefs and practices.

4) Challenges in Achievement

Although there appears to be an adequate supply, zinc is not being distributed adequately from the HSCs. While ANMs are authorized to distribute zinc, Sahiyas are not. Therefore, the only children receiving zinc as part of their treatment for diarrhea are those that come to the HSC for treatment. The project will not be able to attain its modest objective of 30% coverage under the current circumstances. There is a need, therefore, for the government to review/revise its policy to permit distribution of zinc by Sahiyas and AWWs.

Many villages do not have safe water supplies or latrines. Furthermore, many people deeply-held beliefs and ingrained habits that mitigate against safe water practices. It is not within the scope of this Project to implement sanitation infrastructure; however, safe practice training can enhance mitigation of diarrheal disease. Furthermore advocacy through the VHCs and district government has the potential to magnify the benefits of safe personal sanitation practices.

5) Recommendations

- **Recommendation #7:** Provide advocacy and training for community case management of diarrhea and direct distribution of ORS and zinc by Sahiyas and/or AWWs.

  The project should to seek ways, even as operations research, to demonstrate the effectiveness of community case management of diarrhea with treatment both with ORS and zinc via Sahiyas and/or AWWs.

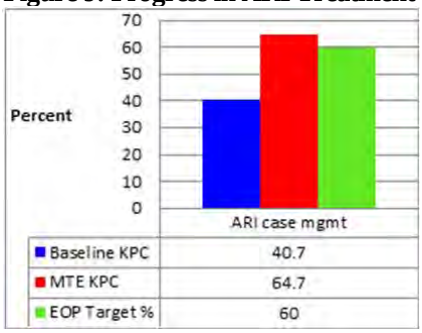
E. ARI

1) Overview of Approach

To improve treatment and referral for ARI, the Parivartan Project ANMs, Sahiyas, and AWWs were trained to counsel mothers and husbands on the prevention and detection of ARI and the importance of referral to the ANM or PHC for treatment. Timed counseling related care seeking for fever and/or fast breathing is done by Sahiyas during the household visit when the child is one month. The project networked with District and Block officials to ensure that basic drugs (i.e. cotrimoxazole) are available to the community at the PHC and HSC. Cluster supervisors are working with the with the ANMs, Sahiyas and AWWs to ensure that all mothers whose children show signs of pneumonia take them to qualified health care.

2) Achievement of Objectives

Figure 9: Progress in ARI Treatment



See Figure 9 at right. 119 mothers of 300 surveyed in the Midterm KPC stated that their youngest child less than 24 months of age showed signs of cough and difficult breathing in the 2 weeks preceding survey. Of them, 77 (64.7%) took the child for treatment to a qualified provider – (40.7% at baseline, 46.3% NFHS 3).

3) Sufficiency of Approach

While the improvement in care seeking for ARI exceeds the project target and shows promise for this approach, program strategies need to continue to incorporate BCC and quality improvement to decrease deaths due to ARI. Educational messages should be targeted toward seeking proper qualified help. Training local health care providers in recognizing danger signs and in making proper and immediate referrals to medical facilities would be an important consideration in the project as well.

4) Challenges in Achievement

It is often difficult for a parent to access qualified health care at the nearest HSC and PHC when a child becomes ill due to lack of public and private transportation mechanisms in the area and the long distances between the health facilities and villages. Training Sahiyas in case management and equipping them with timers to measure respiratory rate and cotrimoxazole for treatment at the village level would do much to improve treatment and reduce morbidity from ARI. This has been done in rural Bangladesh with success.

5) Recommendations

The following recommendations are relevant to improving ARI treatment:

- **Recommendation #1:** Develop the capacity of ANMs to facilitate monthly HSC Convergence Meetings with Sahiyas and AWWs to plan and coordinate activities within the HSC catchment area.
- **Recommendation #2:** Increase capacity of ANMs to reinforce and encourage timed counseling at the household level by Sahiyas and AWWs for primary and secondary caregivers.
- **Recommendation #3:** Assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles).
- **Recommendation #4:** Scale up capacity building training for high and medium performance VHCs.

F. Malaria

1) Overview of Approach

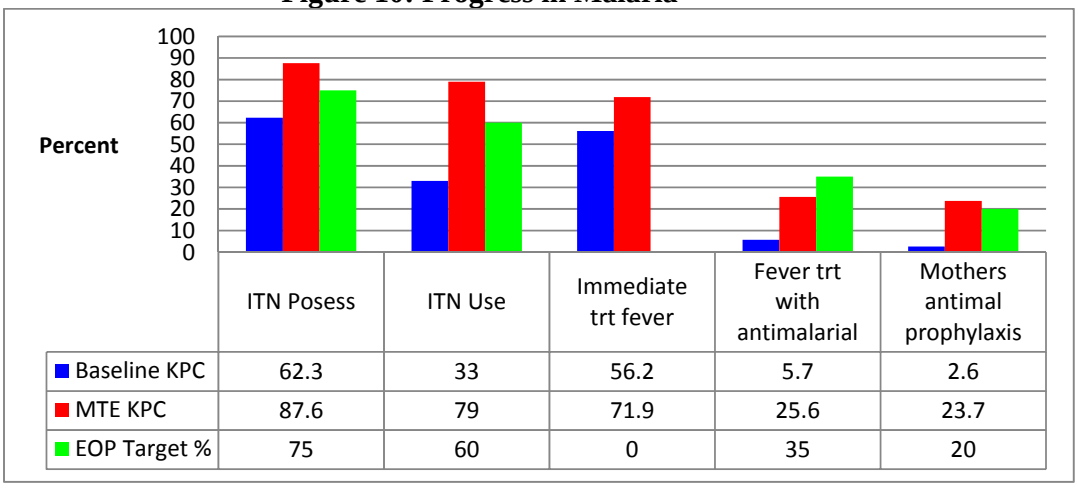
Sahibganj district has a high prevalence of malaria (P.*falciparum* accounts for 44% of the cases in Jharkhand). To improve malaria prevention and treatment among children less than 5 years of age and pregnant women, the project collaborated with the District Malaria Program within the MH&FW to facilitate:

- Distribution of long-lasting insecticidal nets (LLINs) from UNICEF and promotion of the use of these insecticide treated nets (ITNs) through BCC (based on doer/non-doer analysis) at the community level;
- Distribution of chloroquine tablets to HSCs for 8-doses prophylaxis for pregnant women per H&FW guidelines;
- Training and monitoring of Sahiyas as depot holders for first-line antimalarials (chloroquine), in presumptive treatment of children with a fever and referral for smear test/follow-up, and in timed counseling regarding care seeking for fever on during the 1 month home visit to the child;
- Training of Registered Medical Practitioners (RMPs) about the proper treatment and referral for children under five years of age with fever; and
- Awareness and knowledge raising about malaria prevention techniques using BCC messages with VHCs, radio messages, group counseling, and health "*melas*" (fair)[c].

2) Achievement of Objectives

Data from the midterm KPC (see Figure 10 below) reveal that 87.6% of mothers (62.3% at baseline) stated that they had a bednet in their house and 79% (33%) slept under the bednet the night previous to the survey, however, only 4.7% had dipped the bednet in an insecticide in the past (0.3%). 91.3% knew that malaria is transmitted through mosquito bite (53.3%). Of the 164 out of 300 children with fever in the 2 weeks preceding the survey, 71.6% (56.2%) were taken for treatment on the same day or the next day after the appearance of the fever and of these, 25.6% (5.7%) were reportedly treated with an antimalarial medication. 23.6% (2.6%) of the 300 mothers surveyed stated that they had taken antimalarial medication during the pregnancy with their youngest child less than 2 years of age.

Figure 10: Progress in Malaria



	ITN Posess	ITN Use	Immediate trt fever	Fever trt with antimalarial	Mothers antimal prophylaxis
Baseline KPC	62.3	33	56.2	5.7	2.6
MTE KPC	87.6	79	71.9	25.6	23.7
EOP Target %	75	60	0	35	20

3) Sufficiency of Approach

[c] Health *Melas* are health fair or camps that would offer a wide range of outreach health services.

While the level of all malaria indicators is higher than at baseline and possession and use of ITNs increased dramatically from baseline, issues regarding malarial treatment and access to antimalarial drugs needs to be explored. Approximately 75% of children with fever did not receive presumptive treatment for malaria, and 75% of pregnant mothers did not receive preventative treatment of malaria even though this is a district government health system policy.

4) Challenges in Achievement

Collaboration of Parivartan staff with district health officers made LLIN distribution and chloroquine availability at the village level a reality. The BCC efforts through ANMs, AWWs and Sahiyas at the family and village level may have contributed to improvements in ITN use, increases in treatment of fevers with chloroquine and use antimalarial prophylaxis for mothers. Since LLIN were distributed, dipping the nets in insecticide was not needed.

Training of the full cadre of AWWs and Sahiyas was not completed until recently and, as a result, the malaria message only now has the potential of being delivered in all communities. Both were trained in malaria prevention and intermittent preventive treatment for pregnant women. In addition, Sahiyas received training in presumptive treatment of malaria for children under 5 and, more recently, the BCC timed counseling approach with care seeking for fever discussed during child's 1 month visit, which is just now ramping up. In addition, malaria prevention and treatment is being discussed with the VHCs and is also a target for the village-level BCC activities. As these activities more fully saturate the blocks, improvements in malaria prevention should be enhanced.

Because malaria contributes appreciably to childhood mortality in the region, the Operations Research (OR) for the project is examining factors at the individual and household level associated with higher risk of under five death due to malaria. The findings will further inform project activities aimed at malaria control.

5) Recommendations

The following recommendations are relevant to improving malaria control.

- **Recommendation #1:** Develop the capacity of ANMs to facilitate monthly HSC Convergence Meetings with Sahiyas and AWWs to plan and coordinate activities within the HSC catchment area.
- **Recommendation #2:** Increase capacity of ANMs to reinforce and encourage timed counseling at the household level by Sahiyas and AWWs for primary and secondary caregivers.
- **Recommendation #3:** Assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles).
- **Recommendation #4:** Scale up capacity building training for high and medium performance VHCs.
- **Recommendation #11:** Use the outcomes of project Operations Research in malaria to improve BCC messages by identifying positive deviant survivors.

G. Nutrition

1) Overview of Approach

The approach to nutrition taken by the project is two pronged. First, there is collaboration with the MW&CD/Integrated Child Development Services (ICDS) and the MH&FW/National Rural Health Mission (NRHM) and to strengthen the health system. Second, there is the effort to generate a demand and awareness at the community level, particularly among mothers and immediate family members, to address the issues of childhood malnutrition in the district. The project focused on increasing utilization of nutrition services and adoption of appropriate and caring behaviors of the households with children under two years of age.

Interventions:

Collaboration with ICDS and NRHM: Parivartan Project obtained a letter of support for collaboration from the Director Social Welfare, Government of Jharkhand, Secretary Health & Family Welfare and Mission Director NRHM, and Civil Surgeon which facilitated working in close coordination with both ICDS and NRHM. This helped the project to conduct training on growth monitoring and promotion for AWWs and on time counseling for Sahiyas.

The project also worked with the ICDS to resolve the problem of non-availability of weighing scales and growth charts in most of the Anganwadi Centers (AWCs). The advocacy effort resulted in supply of weighing scale for all the AWCs in the district. However, the newly introduced growth chart is yet to be made available across all the AWCs.

The project trained AWWs on how to use growth monitoring charts to counsel mothers of malnourished children with a priority for grade-II, III and IV children. The project also came out with a specific time counseling module for Sahiyas. The counseling with respect to nutrition covered topics on exclusive breast-feeding, appropriate feeding for children between 6-24 months and Vitamin A supplementation. The project also focused on counseling to husbands and mothers in laws during their home visits. The counseling helped families to access provided by Village Health and Nutrition Days (VHND), i.e. growth monitoring, nutrition counseling, immunizations and Vitamin A.

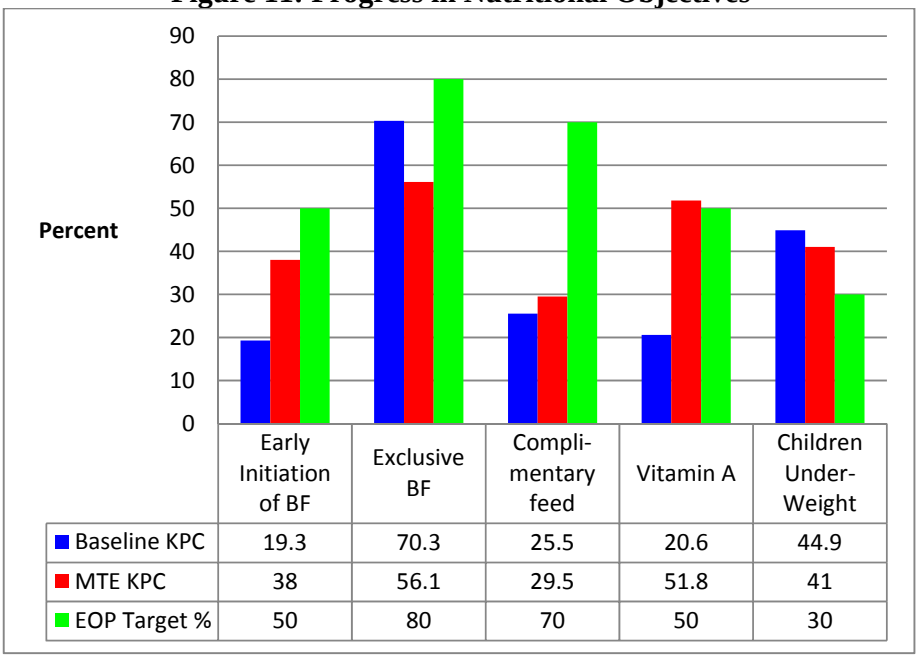
The project also organized specific BCC strategies such as *Saas bahu pati sammelan*[d], *Kaljatha*[e], and *Nukat natak*[f] to address the myths and misconception with respect to exclusive breast-feeding, feeding practices, immunization and Vitamin A. This helped to change the mindset and behavior pattern of the community, particularly for mothers, husbands and mothers-in-law, in relation to those nutritionally-related practices.

2) Achievement of Objectives

The progress in achieving nutritionally-related objectives is shown graphically below in Figure 11.

[d] A Hindi term for BCC involving focus group discussion and motivation for mothers-in-law and husbands.
[e] A Hindi term for street plays.
[f] Street plays for different cultural groups done by professionals based on health topics relevant to the communities.

Figure 11: Progress in Nutritional Objectives



	Early Initiation of BF	Exclusive BF	Compli-mentary feed	Vitamin A	Children Under-Weight
Baseline KPC	19.3	70.3	25.5	20.6	44.9
MTE KPC	38	56.1	29.5	51.8	41
EOP Target %	50	80	70	50	30

The initiation of breastfeeding within one hour of birth in the absence of pre-lacteal feeding was practiced by 38% of the 300 mothers surveyed. This represents an increase of 19% from the baseline figure of 19.3%. The corresponding figure for the State of Jharkhand is 10.9% (NFHS 3).

Exclusive breast feeding surprisingly decreased by 24.2% (from 70.3% to 56.1%) between baseline and mid-term. This change in direction was unexpected. The MTE team was unable to identify if this decrease is simply the result of some sort of a sampling or survey error, or whether the change is real. The EBF behavior is ingrained with the age-old cultural practices, undernourished mothers having not enough milk for the child, and working pattern of women in the tribal and poverty pockets of the district. Additional investigation in the survey numbers is being conducted.

On the other hand, complementary feeding of the children between 6-23months of age increased marginally by 4% (25.5% to 29.5%). Home visit counseling by AWWs, *Saas Bahu pati Sammelan, Kalajatha* message and time counseling by Sahiyas could be attributed to the improving trend.

The project facilitated campaign of Vitamin A and helped the government to do it in remote and hard reaching tribal pockets of the district. As a result Vitamin A coverage has increased from 20.6% at baseline to51.8% at mid-term. The community level demand generation through different BCC interventions and counseling has facilitated access to and utilization of services provided during the Village Health and Nutrition Days.

The KPC mid-term data shows marginal improvement, i.e., decrease of 4% (44.9% at baseline to 41% mid-term) in the under-nourished trend of children less than two year of age. While the decrease is small, it suggests that the project is moving in right direction in terms of reduction of malnutrition among children under two.

3) Sufficiency of Approach

Except for the EBF decrease, project interventions appear to be sufficient to meet the End of Project objectives.

4) Challenges in Achievement

The multi-faceted nature of nutrition always makes it a challenging area for projects. The Parivartan Project has noted the following challenges in this area:

- Mothers and family members in remote geographic areas and tribal pockets are not aware about the consequences of the malnutrition.
- Myths and misconceptions associated with early and exclusive breast feeding are still prevalent in certain tribal areas.
- Growth monitoring training is based on the newly introduced growth chart by the WHO and Government of Jharkhand. However, there is short supply of these charts; therefore the AWWs are yet to practice the learning on new growth chart.

5) Recommendations

- **Recommendation #5:** Use the Behavior Change Framework (including doer and non-doer survey/analysis) to identify actions to improve exclusive breast-feeding with respect to religious and cultural influences.

- **Recommendation #6:** Design/reinforce block and culture-specific nutrition counseling and food-group campaigns that target high risk mothers and children.

  The project should actively seek opportunities to expand the nutrition work of AWWs beyond growth monitoring. The project might, for example, use the Behavior Change Framework to identify local foods that might be promoted as part of a nutritional campaign.

H. Community Mobilization and CSSA

1) Overview of Approach

The objective of the community mobilization strategy is to build capacity at the community/village level. The project seeks to assist the community at the grass roots level so that there will be a demand for health services, as well as health promotion activities, in the communities. The project's approach is based on the belief that people understand their needs better and can plan for their health. Ownership and management of health services should be shared by the community. It is beyond public health functionaries and involves the common people.

CRWRC's approach has typically been to work with communities to form self-help groups. These groups are then organized in clusters and overseen by an apex body or Community Based Organization (CBO). The project is working at scale to cover the entire population of one million people in the nine blocks of Sahibganj District. Where NGOs have worked, there are self-help groups, and Parivartan is working to build their capacity for health promotion and linkages with the Government. Each village has a village health committee, and Parivartan is working to strengthen this body for health promotion and services. The community, through village health committees, work with the Government health services to bring about comprehensive health promotion in the local communities.

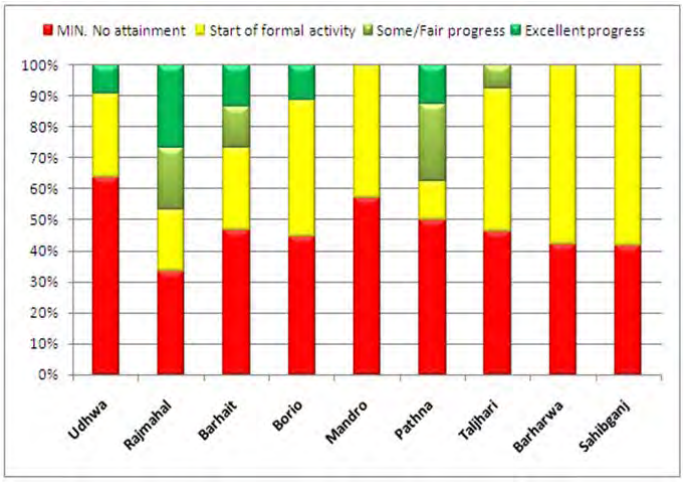
2) Achievement of Objectives

Project staff assistance has encouraged monthly VHC meetings. The Project builds the capacity of the VHC members regarding roles and responsibilities, planning, budgeting, and linking with health services. The Project has assisted 250 VHCs in opening bank accounts to access "untied" funding from the Government. The Project has worked with VHCs to develop a self-scoring sheet of ten main capacity areas and has trained VHCs in assessing their development progress. This helps the VHC members to know their roles and responsibilities and to improve in their work. The VHCs keep this record and then review their scores on a six monthly basis. It is a pictorial system, so it can be understood by those that are illiterate. The system involves having the VHC sit together to score their indicators, and then check progress from the previous time. They are able to identify areas that are weak, and then develop simple action plans to improve in that area.

Figures 12 & 13: Progress in Capacity Building of VHCs

Overall Progress

Progress of VHCs by Block



The project conducts a Child Survival Sustainability Assessment (CSSA) with VHCs every six months to determine improvements in six developmental areas, including community and organizational capacity and viability. The results of the self-scoring form are used to determine community capacity scores.

3) Sufficiency of Approach

The CRWRC approach for capacity building of CBOs is certainly a sufficient approach as demonstrated by the success in its project in Bangladesh. This question for the Parivartan Project is whether taking that approach to scale in working with more than 1,000 VHCs is also sufficient. This is a typical problem confronted by any project that is going to scale.

Based on the CSSA assessments and the interviews with Cluster Supervisors it would appear that the approach is sufficient, but that it should concentrate on the higher performing VHCs to maximize the chance of sustainability (as opposed to trying to bring all VHCs up to the same level). Through these approaches, the project hopes to ensure sustainability and continuation of activities and health promotion services.

4) Challenges in Achievement

Challenges recognized by the project in this area include:

- Formation of village health committee was done by Vikas Bharati, a local NGO. It was not done as per the guidelines of National Rural Health Mission, and follow-up was weak. As a result some VHCs have never really become functional.
- Community ownership is sometimes weakened by VHCs members including members from the same household, and therefore representing broad ownership in the community.
- It was initially difficult to convince banks to open accounts for VHCs.
- Training of VHC members has often been inadequate; therefore some VHC members are unaware of their roles and responsibilities.
- Management of the un-tied fund is problematic and becomes the central focus of many VHC, thereby marginalizing other important health issues.

5) Recommendations

➢ **<u>Recommendation #4:</u>** Scale up capacity building training for high and medium performance VHCs.

I. Behavior Change Communications

1) Overview of Approach

The Parivartan Project has developed innovative approaches to reach literate and non-literate people and other decision makers with health messages that are tailored to the various cultural and religious groups in Sahibganj district.

The project has effectively used the Behavior Change Framework through conducting a doer and non-doer analysis to design specific BCC activities for primary and influencing groups. In the first two and a half years, the project used this approach for knowledge, immunization and antenatal care behaviors/actions and, as a result, saw marked improvements in behaviors related to those areas.

A key role of the cluster supervisors has been to ensure that behavior change communication is taking place through their work, the work of the VHCs, the work of the ANMs, AWWs and Sahiyas. All staff received training on Dialogue Education which emphasizes the role of the learner. Trainings and BCC activities were then designed using this approach.

The project designed various BCC approaches, including village dramas, training for influencing groups of mothers-in-law and husbands, song shows in four language groups (Hindi, Bangla, Santali and Malto), *Timed Counseling* flip charts, counseling programs, and community growth monitoring promotion. All BCC activities were conducted with knowledge and input of the Government. Government representatives were also present for many of the training and BCC events.

Because of the large scale of the project, many BCC events were at the village or larger community level. They were also tailored for the various language/religious/cultural groups in the area and also designed based on the large number of illiterate community members. The major players for BCC at the community level are:

- Cluster supervisors: The timed counseling approach has increased the confidence of the AWWs and Sahiyas and also has ensured that appropriate counseling is given at the appropriate time.

- TTBAs: TTBAs are one of the most useful change agents for the pregnant and lactating mothers. They were trained residentially and given extensive training on danger signs, importance of referrals and safe delivery.
- Sahiyas: Sahiyas were trained on *Timed Counseling*, and the Cluster Supervisors followed up to ensure effective counseling.
- AWWs: Training of AWW has improved their ability to identify malnourished children, plot growth monitoring charts and counsel parents of malnourished children.
- VHCs: The VHC plays a vital role in changing the behavior of people in the community. Some of the VHCs take an active role in organizing street plays, skits, and campaigns targeted to mothers-in-law and husbands.

The Parivartan Project has used different mass communication techniques to reach out a larger group are given below, e.g. *Kalajatha* program, *Sass Bahu Pati Samellan*, health *mela*[g], group counseling and individual counseling. For example:

***Kalajatha*:** This is a Hindi term for "street plays." The real strength of *Kalajatha* lies in properly selecting the method of communication, choosing theme of the songs and the language of the script for street plays. *Kalajatha* effectively use the local folk tunes and then a script is developed for key health messages. These events are designed to be participatory, and then are immediately followed up in small group settings.

***Sass Bahu Pati Samellan*:** This is a Hindi term for a type of behavior change communication that involves focus group discussions and motivation for mothers-in-law and husbands. Dramas are done and then discussed with these groups. Key messages that were low in the KPC were discussed.

2) Achievement of Objectives

As noted in the MNC section of this report, maternal knowledge increased dramatically for at least three danger signs/symptoms during the pregnancy (0.7% to 61.7%), during postpartum period (2% to 25%) and for newborn care (4% to 25%). The increase in the knowledge of the danger signs is also associated with timed counseling of community-based providers.

3) Sufficiency of Approach

This approach includes a variety of methods, linking large scale events and one-on-one *Timed Counseling*. Based on the results of the mid-term KPC, the behavior change approach is very adequate. Additional analysis of areas that did not do well (see recommendations) will be explored further.

4) Challenges in Achievement

BCC is not without its challenges. For example:

- *Kalajatha* program is expensive to conduct, since the project is covering an entire district with many geographically difficult to reach areas.
- Ensuring active participation of husbands in *Sass Bahu Pati Samellan* is not easy;

[g] Health fairs on market days when stalls are set up for the health messages (also for health services and counseling).

- Adoption and replication of this program into the Government system will not be automatic.

5) Recommendations

➢ **Recommendation #5:** Use the Behavior Change Framework (including doer and non-doer survey/analysis) to identify actions to improve safe deliveries, immunizations, CDD and EBF with respect to religious and cultural influences.

As noted throughout the report, this recommendation is applicable for a number of intervention areas. The Behavior Change Framework has been used effectively by the project during project year one and could make a useful contribution as a follow-up to the mid-term evaluation.

➢ **Recommendation #6:** Design/reinforce block and culture-specific nutrition counseling and food-group campaigns that target high risk mothers and children.

The project should actively seek opportunities to expand the nutrition work of AWWs beyond growth monitoring. The project might, for example, use the Behavior Change Framework to identify local foods that might be promoted as part of a nutritional campaign.

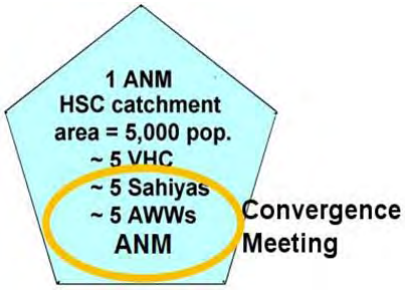
J. Quality improvement

1) Overview of Approach

A Health Sub Centre (HSC) is the first contact point between the health system and the community and is staffed by at least one Auxiliary Nurse Midwife (ANM). The availability of quality primary health care services such as immunizations, prenatal care, and treatment of childhood diseases depend on well-functioning HSCs. The catchment area of a typical HSC includes a population of 5,000 with five Village Health Committees and five Sahiyas reporting to the Ministry of Health and Family Welfare and five Anganwadi Workers (AWWs) reporting to the Ministry of Women and Child Development for growth monitoring activities.

The Parivartan Project recognized that increasing the working relationship among these key health workers (ANMs, Sahiyas and AWWs) would promote a better convergence and coordination of the health work within the HSC catchment areas. Given the dichotomy of community-based health workers reporting to two different ministries, the project has opted to strengthen the role of ANMs at the HSC to serve as a convergence point for reinforcing the technical supervision and coordination of health work within the HSC catchment area.

The Project secured the authorization of the health department for project Cluster Supervisors to assist ANMs in conducting monthly Convergence Meetings at the HSC level, usually the first Wednesday of each month. These meetings are intended to create an environment where the Sahiyas, AWWs and ANM can meet regularly and establish an effective working relationship to plan and implement health services, especially for children under the age of five and for pregnant and lactating mothers.



2) Achievement of Objectives

The results to date have been very promising. The Ministry of Health has already mandated that Convergence Meetings are to be regularly conducted in the 140 HSCs in Sahibganj

district. The project is providing training to ANMs in planning and facilitating these meetings with the use of tools, such as Due Lists and Timed Counseling, and has already trained 82 ANMs. Through this strategy, it is hoped that the ANM will take over some of the responsibilities currently performed by Cluster Supervisors. For example, the ANM could support and supervise the work of Sahiyas, thereby increasing the trust and confidence the people have for VHCs in the health system.

3) Sufficiency of Approach

The development of the approach for conducing convergence meetings is a Promising Practice (see Annex 1 Results Highlight). The approach does appear to be sufficient for reaching its objective. A typical HSC Convergence Meeting includes three agenda points:

1. Review of previous month's work

All the health service providers such as ANM, Sahiya, AWW and sometime LHV and MOIC participate in HSC monthly meeting. ANM facilitate the meeting, if LHV or MOIC are present, like this period LHV or MOIC facilitate.VHC members also participate in the meeting. In the first stage of meeting ANM explain the achievement of the previous month with a reference to the VHND (Village Health& Nutrition Day). Sahiyas describe the experience of home visits, counseling and referrals to the body (service providers and VHC) . Sahiyas also bring out the probable pregnancy cases for referrals.

2. Planning for next month

The second part of the meeting is dedicated towards planning for the next month with targets. ANM—with the help of Sahiyas, VHC and Parivartan Project representatives—do the planning and target setting of services that are part of VHND. The accomplishments against the set target are being discussed in the subsequent meeting. Apart from this, ANM also update the members about any government new schemes or policies. Planning at the HSC means it includes local level AWW and sahiyas who are not generally invited when meetings takes place at the district levels. Planning becomes more practical and participatory.

3. Training and capacity building

In this part of the meeting, Parivartan staff, along with ANM, train the Sahiyas and AWWs on community case management of malaria, diarrhea, ARI and other communicable diseases in a very simplified manner. They do the training showing flip charts, facilitating group discussions and providing materials in a very simple language. The trainings are more participatory and include key elements of the government endorsed module.

Each topic (e.g. malaria case management, ARI , diarrhea) is taken up for a period of at least three months in order to enable the Sahiyas and AWWs to understand the topic well and obtain the practical knowledge they need. The Parivartan staff has composed songs related to prevention and treatment of diseases, which all the participants sing during the training.

The benefit of having training at the HSC is that it is very close to their village, so they are able to give more time for the training. Participants feel more comfortable because they know each other and belong to the same area.

4) Challenges in Achievement

There are a number of challenges to making Convergence Meetings.

First, ANMs already have a heavy work load, so she may feel that conducting an additional monthly meeting is simply extra work for her. The key will be to convince the ANM that meeting regularly with the Sahiyas and AWWs will improve and ease her work.

Second, participation of Sahiya is sometimes difficult, because the performance-based honoraria that they have been promised have not been provided by the Ministry of Health in a timely fashion. The payment of these bonuses is, therefore, an agenda point that the Convergence Meeting should address to leverage those payments for the Sahiyas.

Third, there is a tendency for the HSC meeting discussion to focus only on the planning and implementation of routine immunization. The training of the ANMs will be important, therefore, an emphasis the integrated and "converging" nature of the topics to be addressed.

Finally, supervision, support and monitoring of these meetings from above are still weak. The project (Cluster Supervisors and Block Coordinators) will need to work with the respective supervisors in the MH&FW and the MW&CD to ensure that these health authorities remain engaged and supportive of this approach.

5) Recommendations

- **Recommendation #1: Develop the capacity of ANMs to facilitate monthly HSC Convergence Meetings with Sahiyas & AWW to plan and coordinate activities within the HSC catchment area.**

Photos: Srikund HSC (left) and ANMs Preyabala Murmu & Mandakini Hansdak (right)

IV. POTENTIAL FOR SUSTAINED OUTCOMES

A. Progress Toward Sustained Outcomes

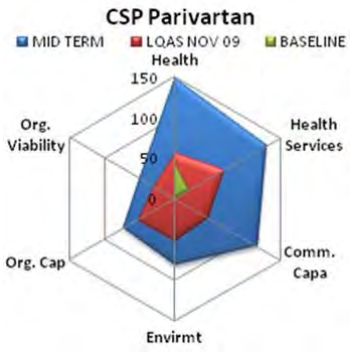
The Child Survival Sustainability Assessment tool is being used by the project to build the capacity of the Village Health Committees. CRWRC and EFICOR are well known for the capacity building and sustainability approach at the grass roots level. To measure the capacity development and sustainability, the project uses CSSA. The Project selected appropriate indicators for each of six components including Health Services, Health Outcomes, Organizational Capacity, Organizational Viability, Community Capacity and Environment.

Using this measurement system, the project made good progress (see Figures 14 & 15).The greatest improvement has been in the areas of health outcomes, health services and community capacity. There has been more modest improvement in organizational viability, organizational capacity and environment. The organizational areas have a large correlation with sustainability and are related to the VHCs, as well as structures for continuation of activities after the project closes. These will be highlighted over the next two years of the project. The project uses CSSA to plan for the next six months. The CSSA has been shared

with the district officials and community. They then work with the community to identify areas of concern and possible ways to address this through action planning.

Figures 14 & 15: CSSA Framework Progress of the Project

Indicators	2008	2009	2010
Health	45	56	147
Health Services	21	70	130
Community Capacity	0	47	117
Environment	15	52	82
Organizational Capacity	0	53	73
Organizational Viability	0	30	50

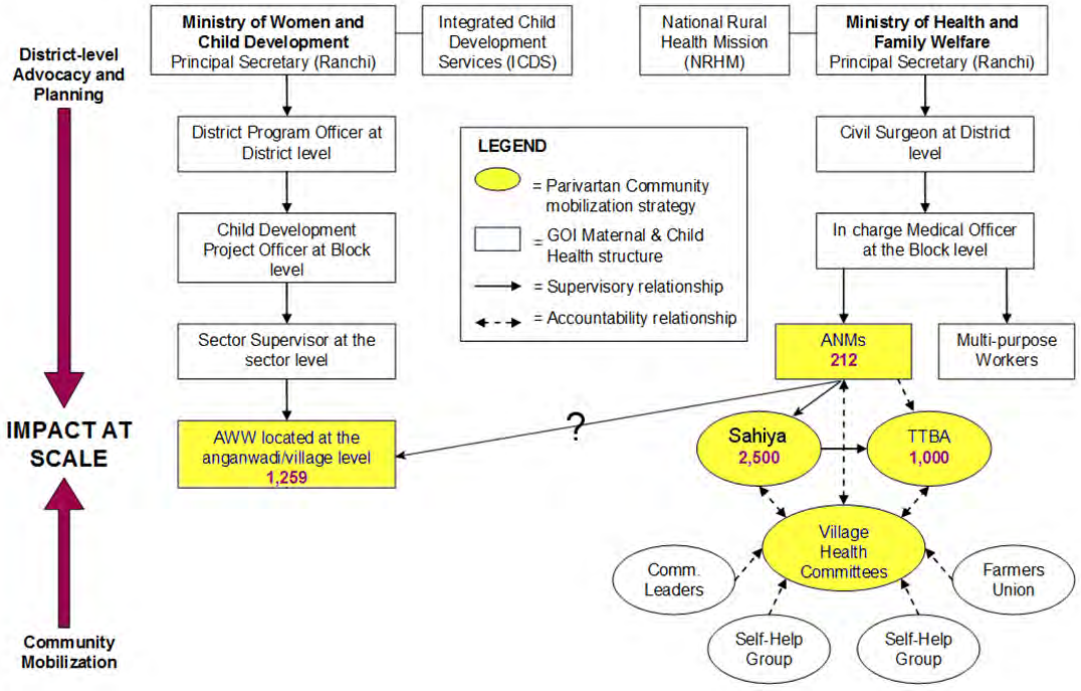


B. Contribution to replication or scale up

The Parivartan Project was specifically designed to work at scale, i.e., with a beneficiary population comprising the entire district and one million inhabitants of Sahibganj. Figure 16 below highlights the dichotomous system within which the project is working, and the leverage points (highlighted in yellow) which are the primary intervention points for the project, i.e., training and support of community-based health workers (Sahiyas, AWWs, TTBAs) and capacity building of Village Health Committees.

The issue therefore, is to whether the project is replicable for scaling up, but rather whether the approaches used by the project in working at scale will be sufficient to meet the project objectives. The conclusion of the MTE team is that the project is working very effectively at scale with both Ministries and in developing a support system for community health workers that shows considerable potential for sustainability.

Figure 16: The Parivartan Project Working At Scale



C. Attention to Equity and Gender

The Parivartan Project follows the gender policy of the EFICOR board. That policy systematically strives for a 50/50 ratio of male and female project staff. For example, the gender breakdown of the thirty Cluster Supervisors is currently 15 women and 15 men. Similarly, the five block coordinators comprise two women and three men.

D. Role of Community Health Workers

As previously noted, the work of Sahiyas and AWWs is central to the approach and success of the Parivartan Project. To this end considerable training of these community health worker cadre has been part of this project (see Annex 6 for training details).

The project has trained almost 1,300 Anganwadi workers. The training was organized by session topic and included in the following areas:

1. Antenatal care and counseling
2. Post-natal and newborn care
3. Malaria prevention and intermittent preventive treatment for pregnant women
4. Growth monitoring and promotion
5. Prevention and detection of diarrhea and home-based diarrhea management
6. Prevention, detection and referral for ARI

Similarly, almost 850 Sahiyas have been trained in the following topics:

1. Antenatal care and counseling
2. Childhood immunization schedules
3. Prevention and detection of diarrhea and home-based diarrhea management

4. Post-natal and newborn care
5. Malaria prevention, intermittent preventive treatment of malaria for pregnant women and presumptive treatment of malaria for children under five
6. Prevention, detection and referral for ARI

The Sahiyas, AWWs and ANMs are the three categories of community health workers who have their fingers on the pulse on the population. This was evident from the MTE interviews conducted with these groups. Most of the twelve recommendations that were adopted by the MTE team came, in fact, from suggestions by ANMs, AWWs and/or Sahiyas (see table below).

Table 4: MTE Suggestions by Community Health Workers

Suggestions by ANMs	Suggestions by AWWs	Suggestions by Sahiyas
- Due list must be updated - Sahiya reports must reach ANM - VHCs must discuss immunizations - Government must supply LLINs - ANMs should be given SBA training - AWW & Sahiya need ORS & Zinc - Must visit hard-to-reach areas - Delivery kits for all pregnant women	- Counsel mothers on growth chart - Motivate mothers for AWC - Prepare Due List & follow up - Increase project staff - Home visits for malnourished children - AWW & Sahiya need ORS & zinc - Relationships should be good among Sahiya & AWW	- Immunization needed each month - VHC should monitor immunizations - Incentives need to be timely - Need to focus on Due List - Counsel parents on DPT1 effects - More BCC in hard-to-reach areas - ORS & Zinc needed in AWC - Train VHC on roles & responsibilities
		

E. Contribution to Global Learning

EFICOR's capacity is also being built as a result of its membership in national associations through CRWRC. Eficor is part of the *CRWRC Learning Circle*, a 15-member organization from Bangladesh and India that meets regularly. It is also a member of the Jharkhand NGO Forum and participates in the Intra health project (Vistaar) funded by USAID.

CRWRC and EFICOR have used the Learning Circle as the primary means to disseminate new information and best practices throughout EFICOR and to the other CRWRC India partner organizations. The Learning Circle for India began in 2004 and is based on the Bangladesh model where CRWRC disseminates information and learning to all partner organizations. For example, as part of this process, a Master Trainer from EFICOR trained 35 staff on Dialogue Education.

V. CONCLUSIONS AND KEY RECOMMENDATIONS

A. Conclusions and Commendations

Government authorities across the board expressed their appreciation for the zeal and enthusiasm of the Parivartan project staff. They were also appreciative that EFICOR and CRWRC have created a well-balanced project team in terms of skills, culture and religion. The thirty cluster supervisors, in particular, are a good representation of the cultural diversity of the peoples with whom they work.

The project has made excellent progress towards achieving its objectives and has surpassed end-of-project targets for 12 of 23 objectives. It is making excellent progress for six other objectives and satisfactory progress for three objectives.

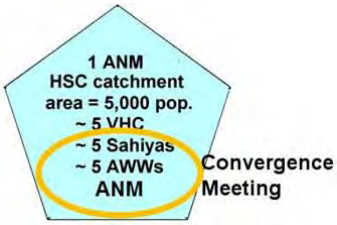
The project helped to revitalize growth monitoring by AWWs. The practical assistance by the project to provide weighing scales and growth charts was particularly appreciated by the Anganwadi Workers.

The project has worked effectively with two Ministries to develop interventions at scale for training and to support community health workers, especially Sahiya and AWWs.

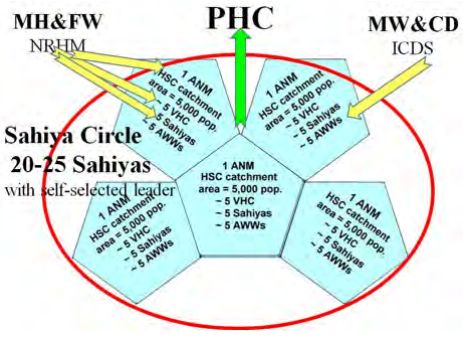
The Project's practice of encouraging and facilitating Convergence Meetings between ANMs and Sahiyas and AWWs has become a promising practice which could develop long-term sustainability for the coordination of health activities within HSC catchment areas.

B. Recommendations

The evaluation team identified and established a consensus on twelve key recommendations that could help achieve and sustain project objectives and important child survival interventions:



Recommendation #1: Develop the capacity of ANMs to facilitate monthly HSC "Convergence" meetings with Sahiyas & AWW to plan and coordinate activities within the HSC catchment area. The key health workers within a HSC catchment area are the ANM, Sahiyas and AWWs. Increasing their working relationship through monthly meetings will allow for a better convergence and coordination of their work. The CSP will provide training to the ANM in planning, and facilitating these meetings with the use of "tools" such as the Due Lists, and Timed Counseling. Through this strategy the ANM could "absorb" some of the responsibilities currently being performed by Cluster Supervisors.



Recommendation #2: Increase capacity of ANM's to reinforce and encourage timed counseling at the household level by Sahiyas and AWWs for primary and secondary caregivers. This recommendation is linked to the above recommendation with an emphasis on continued and enhanced use of "timed counseling" to reach secondary or "influential" caregivers such as husbands and mother-in-laws.

Recommendation #3: Assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles). Sahiyas do not have as strong of a powerbase as AWWs. In additional to strengthening their working relationship with the ANMs through "Convergence" meetings it is also recommended that CSP explore the potential for developing a support group specifically for Sahiyas working across four or five HSC catchment areas. This concept was suggested by the District Coordinator of VHCs and Sahiyas. The development of these support "circles" would provide another option for sustaining the role of Sahiyas. In addition, the "election" of a Sahiya Circles President (or Super Sahiya) could potentially provide another person who could replace some of the responsibilities of the Cluster Supervisors.

Recommendation #4: Scale up capacity building training for high and medium performance VHCs. The capacity building of more than 1,000 Village Health Committees has been challenging as they were constituted by another project/NGO with the primary function being to manage an annual government-provided "un-tied" development fund. The MTE recommends that CSP concentrate its efforts (personnel and funding) to increase the functionality and sustainability of approximately one-half of the VHCs, i.e., the medium and high performance groups.

Recommendation #5: Use the Behavior Change Framework (including doer and non-doer survey/analysis) to identify actions to improve safe deliveries, immunizations, CDD and EBF with respect to religious and cultural influences.

As noted throughout the report, this recommendation is applicable for a number of intervention areas. The Behavior Change Framework has been used effectively by the project during project year one, and could make a useful contribution as a follow-up to the mid-term evaluation.

Recommendation #6: Design/reinforce block and culture-specific nutrition counseling and food-group campaigns that target high risk mothers and children.

The project should actively seek opportunities to expand the nutrition work of AWWs beyond growth monitoring. The project might, for example, use the Behavior Change Framework to identify local foods that might be promoted as part of a nutritional campaign.

Recommendation #7: Provide advocacy and training for community case management of diarrhea and direct distribution of ORS and Zinc by Sahiyas and/or AWWs.

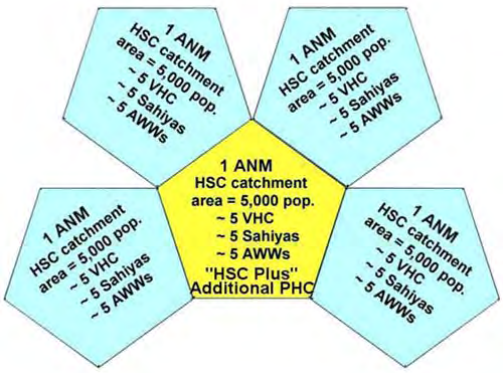
The project will not be able to attain its modest objective of 30% coverage unless there is a way to permit distribution of zinc by Sahiyas and AWWs. The project should to seek ways, even as operations research, to demonstrate the effectiveness of community case management of diarrhea with treatment both with ORS and Zinc via Sahiyas and/or AWWs.

Recommendation #8: Continue refresher training to improve the skill and knowledge of TTBAs to promote prenatal care, safe deliveries and neonatal care, especially in areas where institutional deliveries are low.

The policy of the MH&FW does not encourage home deliveries by TTBAs, but rather institutional deliveries. Yet the number of delivery sites and SBAs is insufficient and will

remain insufficient for many years to come. From a practical standpoint, therefore, the project should continue to work with and through TTBAs.

Recommendation #9: Reinforce/upgrade selected HSCs to increase safe delivery points.



This recommendation is to one or two HSCs where most deliveries are currently being done at home; where an existing room is available for conversion into a delivery room, and where two ANMs are currently in place to provide 24-hour service. The hope is that a combination of minor rehabilitation, provision of delivery equipment, and training of the ANMs by Vistaar could create an "HSC Plus" which could be authorized to conduct institutional deliveries for their catchment area and neighboring catchment areas. Establishing this sort of model for one or two HSCs could establish an important precedent for additional upgrading of health facilities.

Recommendation #10: Scale up the distribution of safe delivery kits through HSCs to all pregnant women.

The established policy to provide safe delivery kits to all pregnant women is not being implemented comprehensively. A full implementation of this strategy with promotion AWWs and Sahiyas would increase demand. Furthermore, TTBAs would not then need to buy delivery kits from the payment they receive from the families.

Recommendation #11: Use the outcomes of project Operations Research in malaria to improve BCC messages by identifying positive deviant survivors.

The project has completed data collection for behavior change communications related to malaria survivors. At the time of the MTE data analysis was just beginning. This recommendation is made, therefore, to encourage the integration and application of the research results with project implementation.

Recommendation #12: Re-adjust targets for objectives where the project has surpassed the End-of-Project targets.

The project surpassed end-of-project targets for 12 of 23 indicators. A number of targets were set rather conservatively at the beginning of the project due to uncertainty about government capacity for increase service delivery. The project team has reviewed each objective and proposed changes as part of their action plan for implementation of the MTE recommendations. See Annex 11: Key Indicators with Revised Targets.

VI. ACTION PLAN TO RESPOND TO RECOMMENDATIONS

A completely updated work plan is provided in Annex 3. The following information was extracted from the plan to highlight actions for subsequent project years and to show how MTE recommendations are to be integrated into the action plan.

Table 5: Updated Parivartan Child Survival Program Work Plan
(Showing Year 3, 4 and 5 actions with Recommendations highlighted)

Objective/Activity	Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Strategic Objective 1: **Strengthen public-private partnerships for maternal and child health services**												
Intermediate Result 1.1: **Build the organizational capacity of EFICOR/Parivartan for a sustainable impact on maternal and child health**												
Learning Exchange to Bangladesh CSP for TL and M&EO						X						
Learning Circles for all CRWRC partners in Bangladesh and India	X				X				X			
Advance M&E training for Project Staff						X						
Learning exchange for Gov't and Parivartan Staff to Nepal, Bangladesh, Indonesia					X							
Intermediate Result 1.2: **Strengthen and sustain community capacity for maternal and child health**												
Follow-up training of Sahiyas on Timed Counseling, Health messages					X	X	X	X	X	X	X	X
Strengthening VHC, Sahiya, AWW to create awareness about the appropriate maternal, newborn and child health care practices		X	X	X								
Train Rural Medical practitioners on the difference between safe practices and harmful practices			X									
Awareness Program for maternal and newborn care and child health in coordination with ICDS and H&FW: Nutrition Week, Immunization Week, Breastfeeding Week	X	X	X	X	X	X	X	X	X	X	X	X
Awareness Program for maternal and newborn care in coordination with ICDS and H&FW: Health MELA (Meet for Empowerment, Learning and Advocacy)	X	X	X	X	X	X	X	X	X	X	X	X
Rec. 4: Scale up capacity building training for high and medium performance VHCs.					X	X	X	X	X	X	X	X
Intermediate Result 1.3: **Strengthen and sustain local government capacity for maternal and child health**												
Recs. 1& 2: Develop the capacity of ANMs through supportive supervision and on job training.	X		X						X		X	
District and Block level coordination committee meetings	X	X	X	X	X	X	X	X	X	X	X	X
Network meetings of NRHM at State and District Level	X	X	X	X	X	X	X	X	X	X	X	X
Meet District officials for District Action Planning & budgeting	X				X				X			
Following Self Measurement tool						X				X		
Rec. 3: Work with the VSRC to begin a pilot a Sahiyas Circle and then assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles).					X	X	X	X	X	X	X	X
Strategic Objective 2: **Improve utilization of quality maternal and newborn care**												
Intermediate Result 2.1: **Increase knowledge about and access to community-based antenatal care for women**												
Train AWW in antenatal care counseling and care	X		X		X		X					
Train Sahiyas in antenatal care counseling and care	X	X	X	X	X	X	X	X	X	X		
Sahiyas and AWW will provide antenatal care visits for pregnant women in the last trimester	X	X	X	X	X	X	X	X	X	X	X	X
Home visit to counsel mothers and husbands on the importance of ANC, danger signs during pregnancy, skilled attendant at birth, birth plans, proper nutrition, TT vaccine and IFA tablets	X	X	X	X	X	X	X	X	X	X	X	X
Coordinate with ANM and ICDS to provide TT vaccine and IFA tablets for all pregnant women	X	X	X	X	X	X	X	X	X	X	X	X

Objective/Activity	Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Intermediate Result 2.2: **Increase access to safe delivery practices and referrals for mothers**												
Rec. 8: Train TBAs in safe / clean delivery, recognition of danger signs, importance of referral etc.	X		X		X		X					
Network between Village Health Committee and Primary Health Center to provide quality and accessible emergency obstetric care	X	X	X	X	X	X	X	X	X	X	X	X
Establish referral system between Primary Health Center and Sahiya/TTBA	X	X	X	X	X	X	X	X	X	X	X	X
Rec. 10:Scale up the distribution of safe delivery kits through HSCs to all pregnant women.					X	X	X	X	X	X	X	X
Rec. 9:Reinforce/Upgrade selected HSCs to increase safe delivery points inn at least 2-5 HSCs in hard-to-reach areas						X	X					
Intermediate Result 2.3: **Increase knowledge about and access to home-based postpartum care for mothers and newborns**												
Train AWW in post-natal and newborn care	X		X		X		X					
Train Sahiyas in post-natal and newborn care	X		X		X		X		X		X	
Train TBA in post-natal care immediately after delivery	X		X		X		X					
Sahiyas and AWW will provide post-natal care visit for pregnant women within first 3 days &for high risk babies on day 1, 7 &14	X	X	X	X	X	X	X	X	X	X	X	X
Counsel mothers and husbands on the importance of cord care, thermal care, immediate and exclusive breastfeeding, maternal and newborn danger signs, etc.	X	X	X	X	X	X	X	X	X	X	X	X
Network between VHC and Primary Health Center to provide quality and accessible emergency post-natal or newborn care	X	X	X	X	X	X	X	X	X	X	X	X
Establish referral system between Primary Health Center and Sahiya/TTBA	X	X	X	X	X	X	X	X	X	X	X	X
Establish emergency transport funds within each SHG or existing village committees	X	X	X	X	X	X	X	X	X	X	X	X
Strategic Objective 3:**Improve nutrition among children**												
Intermediate Result 3.1: **Increase rate of immunization and vitamin A supplementation among children**												
Train Sahiyas in childhood immunization schedule	X		X		X		X					
Facilitate Sahiyas and Anganwadi worker in preparing childhood immunization due list	X		X		X		X					
Coordinate with H&FW to provide BCG, DPT, OPV and measles vaccines to all children under 2	X	X	X	X	X	X	X	X	X	X	X	X
Coordinate with ANM to distribute immunization cards to mothers of children under 2.	X	X	X	X	X	X	X	X	X	X	X	X
Ensure equal access to immunization for all children through regular awareness/sensitization campaign in excluded community	X	X	X	X	X	X	X	X	X	X	X	X
Coordinate with H&FW to have VA available at Health Sub-Center during immunization days	X	X	X	X	X	X	X	X	X	X	X	X
Facilitate strengthening o Nutrition and Health Day processes	X	X	X	X	X	X	X	X	X	X	X	X
Rec. 6: Culture-specific nutrition counseling and food-group campaigns that target high-risk mothers and children. MELAs, Food demos, trainings in high risk mothers					X	X	X	X	X	X	X	X
Intermediate Result 3.2: **Strengthen Growth Monitoring and Promotion services through the Anganwadi Center**												
Train AWWs in Growth Monitoring and Promotion including how to weigh children, maintain growth charts, carry out counseling using a simple decision guide and BCC materials, conduct home visits, and maintain community-based monitoring charts	X		X		X		X					
Coordinate with ICDS to provide every Anganwadi Center with functional scales and growth monitoring cards	X				X				X			
Timed Counsel mothers and husbands on importance of EBF up to 6 months, colostrum feeding, introduction of appropriate complementary feeding, immunization and VA supplementation	X	X	X	X	X	X	X	X	X	X	X	X
Community growth monitoring chart updates shared with community and follow up with counseling					X	X	X	X	X	X	X	X

Objective/Activity	Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Strategic Objective 4: **Prevent and properly treat infectious diseases among women and children**												
Intermediate Result 4.1: **Improve coverage of malaria prevention efforts among pregnant women and children**												
Train Sahiyas in malaria prevention, intermittent preventive treatment of malaria for pregnant women as part of ANC and presumptive treatment of malaria for children under 5	X		X		X		X		X		X	
Train AWWs in malaria prevention and intermittent preventive treatment of malaria for pregnant women as part of ANC	X		X		X		X					
Raise awareness about the symptoms, preventive measures and importance treatment	X	X	X	X	X	X	X	X	X	X	X	X
Coordinate with government to make LLIN available to every household with children under 5 and pregnant women.	X	X	X	X	X	X	X	X	X	X	X	X
Provide presumptive treatment of malaria for children under 5 at the Health Sub Center	X	X	X	X	X	X	X	X	X	X	X	X
Facilitate the Sahiyas serve as depot holders for antimalarials and provide presumptive treatment in the home for children under 5	X	X	X	X	X	X	X	X	X	X	X	X
Intermediate Result 4.2: **Improve diarrheal disease prevention among children**												
Train Sahiyas in the prevention, detection of diarrheal disease, and home-based management of diarrhea emphasis on ZN &ORS	X		X		X		X		X		X	
Train AWWs in the prevention, detection of diarrheal disease, and home-based management of diarrhea emphasis on Zinc and ORS	X		X		X		X		X		X	
Facilitate training ANMs on the clinical management of severe diarrhea and dysentery	X		X		X		X					
Timed Counsel mothers and husbands on the prevention of diarrheal disease and basic treatment with ORS and zinc	X	X	X	X	X	X	X	X	X	X	X	X
Ensure basic drugs (i.e. zinc and ORS) are available to the community at the ICDS center	X	X	X	X	X	X	X	X	X	X	X	X
Rec. 7: Provide advocacy and training for community case management of diarrhea and direct distribution of ORS and Zinc by Sahiyas and/or AWWs.				X	X	X	X	X	X	X	X	X
Intermediate Result 4.3: **Improve coverage of treatment and referral for acute respiratory infection**												
Train AWWs in the prevention, detection of and referral for ARI	X		X		X		X		X		X	
Train Sahiyas in the prevention, detection of and referral for ARI	X		X		X		X		X		X	
Facilitate the training ANM on the treatment of ARI	X		X		X		X					
Facilitate Counseling to the mothers and husbands on the prevention and detection of danger signs and symptoms of ARI	X	X	X	X	X	X	X	X	X	X	X	X
Ensure basic drugs (i.e. Cotrimoxazole) are available to the community through the HSC	X	X	X	X	X	X	X	X	X	X	X	X
Monitoring and Evaluation												
Qualitative Surveys including FGDs and PRA										X		
Rec. 5: Barrier Analysis including Doers and Non Doers analysis				X	X							
Operations Research/Malaria care seeking practices conducted			X	X								
Annual monitoring using LQAS						X						
Dissemination of annual surveys to community			X				X					
Midterm and Final Evaluations and Reports				X						X	X	
Regular program monitoring using HMIS	X	X	X	X	X	X	X	X	X	X	X	X
Block level staff meeting for planning & monitoring (Block Team)	X	X	X	X	X	X	X	X	X	X	X	X
Project staff meeting for planning and monitoring (Project Implementation Team)	X	X	X	X	X	X	X	X	X	X	X	X
Rec.11: OR dissemination, report write up of Malaria OR and action plan based on results				X	X							
Rec. 12: Adjustment of Targets that were exceeded in Mid term			X									
Final KPC and CSSA Measurements										X		
Documentation of Best practices						X						

Annex 1: Promising Practice: Health Sub Centre "Convergence" Meetings

A Health Sub Centre (HSC) is the first contact point between the health system and the community and is staffed by at least one Auxiliary Nurse Midwife (ANM). The availability of quality primary health care services, e.g., immunizations, prenatal care, and treatment of childhood diseases depend on well-functioning HSCs. The catchment area of a typical HSC includes a population of 5,000 with five Village Health Committees and five Sahiyas reporting to the Ministry of Health and Family Welfare and five Anganwadi Workers (AWWs) reporting to the Ministry of Women and Child Development for growth monitoring activities.

The Parvitaran project recognized that increasing the working relationship among these key health workers (ANMs, Sahiyas and AWWs) would promote a better convergence and coordination of the health work within the HSC catchment areas. Given the dichotomy of community-based health workers reporting to two different ministries, the project has opted to strengthen the role of ANMs at the HSC to serve as a convergence point for reinforcing the technical supervision and coordination of health work within the HSC catchment area.

HSC of Srikund (above) and its ANMs Preyabala Murmu & Mandakini Hansdak (below)

The project secured the authorization of the health department for project Cluster Supervisors to assist ANMs in conducting monthly "Convergence" meetings at the HSC level, usually the first Wednesday of each month. These meetings are to create an environment where the Sahiya, AWWs and ANMs can meet regularly and establish an effective working relationship to plan and implement health services, especially for children under the age of five and pregnant and lactating mothers. A typical HSC Convergence Meeting includes three agenda points – 1) Review of previous month's work; 2) Planning for next month; and 3) Training and capacity building on a selected topic, e.g., community case management of diarrhea, malaria or ARI.

The results to date have been very promising. Most all of the 141 HSCs in Sahibganj district are now holding regular convergence meetings. The project is providing training to ANMs in planning, and facilitating these meetings with the use of "tools" such as Due Lists, and Timed Counseling. Through this strategy it is also hoped that the ANM will take over some of the responsibilities currently performed by Cluster Supervisors.

A key Mid-Term Evaluation recommendation for the Parviartan project is to continue to *Develop the capacity of ANMs to facilitate monthly HSC "Convergence" meetings with Sahiyas & AWW to plan and coordinate activities within the HSC catchment area.* This will help to further increase the motivation and enhance the skill of health services providers at both the health facility and community levels.

Annex 2: Project Management Evaluation

Financial management system

All financial policies are in place. There is a field accountant based at the Parivartan office who takes care of all bookkeeping and local accounting for the project. He is overseen by the Project Manager. He sends reports to the EFICOR offices on a monthly basis. There is a Finance Officer who spends 35 percent of her time in the EFICOR Office New Delhi. Every quarter, she reviews the accounts record and prepares the quarterly financial statement. The CRWRC accountant reviews accounts monthly, compiles the quarterly reports, and reports variances to the CRWRC Asia Regional Health Consultant. Additionally, the CRWRC accountant visits EFICOR regularly, reviews accounts monthly and consolidates the financial report. The CRWRC accountant is responsible for finalizing the report and communicating report information to CRWRC International. There is a yearly independent external audit carried out on a yearly basis. Results of this audit are reviewed by CRWRC with EFICOR and the Parivartan project, and submitted to CRWRC International.

Human resources

The project currently has 1 Project Manager (CRWRC staff), 1 M and E officer, 2 Trainers, 5 Block Coordinators, 1 Accountant, and 30 Cluster Supervisors. There is one field office in 5 blocks, and these cover all 9 blocks of the District. Staff assessments are carried out in a participatory two way feedback system on a yearly basis. The CRWRC Consultants give input into the evaluation of the Project Manager. Each staff has an individual training and development plan which is reviewed on a six monthly basis. The Project Manager is hired by CRWRC and seconded to EFICOR. The M and E officer and Block Coordinators are hired by EFICOR and the Cluster Supervisors are hired locally by the project.

In the past year, there has been no staff turnover. There is also a full complement staff. In the past year, the trainers were hired on a contract basis due to the increased training needs for TTBAs and Sahiyas.

In this project, CRWRC is working with its long time project, EFICOR. The CRWRC Capacity Development Consultant and the Health Consultant have (at least) 4 monthly consultations with EFICOR.

Communication system and team development

There are three layers of teams: the Project Implementation Team (PIT), the Project Management Team (PMT), and the Advisory Group. The PIT meets monthly to discuss project implementation and other administrative matters. During this meeting, Block Coordinators submit their monthly work plan to the Project Manager. Each Block Coordinator leads a team of Cluster Supervisors. 4 of the Block Coordinators are overseeing 2 Blocks. The Cluster Supervisors assemble weekly to prepare work plan and to review the previous week's work plan. During this time, Block Coordinators train them on health issues. The Project Manager (PM) reports weekly to the CRWRC Asia Regional Health Advisor and Capacity Development Consultant and submits monthly reports to them, besides regular phone communication. The Project Manager also communicates 2-3 times a week for logistics with the EFICOR Program Coordinator. The PMT is involved in setting policy and management decisions for the project

and meets quarterly with ongoing communication between CRWRC and EFICOR. The Advisory Group meets twice a year and is jointly chaired by the CRWRC and EFICOR.

PVO coordination/collaboration in country

The Parivartan project collaborates with numerous Government and non Government bodies including Prem Jyothi, World Vision of India, UNICEF, Vistar, Bikash Baroti and Government departments like the Health Department and ICDS. TBAs were initially trained through Prem Jyothi hospital but due to high volume training, EFICOR contracted its own trainers, and used Prem Jyoti facilities. The project has also contracted with numerous consultants for the OR, additional training and survey support. The Government syllabus for the AWWs and Accredited Social Health Activists (ASHAs) were adapted for this training. Annual community-based surveys using LQAS were conducted. The project staff worked with the Ministry of Health & Family Welfare to strengthen 141 existing HSCs in the district and with ICDS to strengthen AWWs and equip AWCs with scales and growth monitoring charts. The Parivartan Project also collaborates with the District Malaria Officer for the provision of ITNs.

Parivartan Child Survival Program Work Plan

Country: India | ***Updated*** **October 1, 2007 to September 30, 2012** | **Agency: CRWRC**

Objective / Activity	Year 1		Year 2				Year 3				Year 4				Year 5				Staff position responsible	Indicator	Target	Comments
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Strategic Objective 1: **Strengthen public-private partnerships for maternal and child health services**																						
Intermediate Result 1.1: **Build the organizational capacity of EFICOR / Parivartan for a sustainable impact on maternal and child health**																						
Training on Primary Health Care (PHC) for TL, M&EO, BCs, and CSs	X			X															Program Manager (PM)	# of people trained	22	
Training on specific areas of PHC for TL, M&EO, and BCs by Jamkhed		X																	PM	# of people trained	7	
Learning Exchange to Bangladesh CSP for TL and M&EO	X											X							PM, Regional Health Advisor (RHA)	# of people participating in learning exchange	2	
TL, M&EO, and BCs visit World Vision program in UP to learn about HMIS		X																	PM, M&E Officer (M&EO)	# of people participating in learning exchange	7	
Training on HMIS development and Lot Quality Assurance Sampling for TL, M&EO, and BCs			X																PM, M&EO	# of people trained	7	
Training on CSSA and community capacity building for TL, M&EO, BCs, and CSs		X																	PM, Capacity Advisor (CA)	# of people trained	28	
Training on Designing a Behavior Change Strategy for EFICOR HQ staff, TL, M&EO, and BCs			X																RHA, HQ Backstop (HQ)	# of people trained	25	
Learning Circles for all CRWRC partners in Bangladesh and India in India			X				X				X				X				RHA	# of Learning circles	4	
Training on financial management for accountant, BCs, PM, and M&EO		X																	RHA	# of people trained	7	
Training on staff evaluations and follow up, and setting up staff evaluation system for PM, M&EO, and EFICOR staff.			X																RHA		4	
Advance M&E traininig for Project Staff												X							RHA	# of People Trained		**Kindly add the target**
Learning exchange for Govt and Parivartan Staff to Nepal , Bagladesh , Indonesia											X								RHA	# of People rained		**Kindly add the target**
Intermediate Result 1.2: **Strengthen and sustain community capacity for maternal and child health**																						
Follow -up Traininig of Sahiyyas on Timed Counseling , Health messages											X	X	X	X	X	X	X	X	**PM, BC, CS**	# of Sahiyyas Trained	**1000**	(Y4= 500, Y5=500) Follow of traininig on Timed Counseling Shiyyas .
Selection of Sahiyyas in coordination with Vikas Bharti, Health and ICDS officials	X		X				X				X				X				PM, Block Coordinators (BC), Cluster Supervisors (CS)	# of Sahiyyas selected	2500	Selection of Sahiyas already done by Vikash Bharti. Government gave Sahiya training section to Parivartan, and that is ongoing
Strengthening VHC, Sahiyya, AWW to create awareness about the appropriate maternal, newborn and child health care practices		X		X	X	X		X	X	X									BC, CS	# of (VHCs, Sahhiya, AWW)	1280	Y1=80, Y2=550, Y3=650. In year 4&5 we will continue to work with these same group
Train Rural Medical practitiners on the difference between safe practices and harmful practices					X				X										BC, CS	# of Medical practitioner trained	100	Now people are less belive in Traditional Healers , at the community people are more accsesible to Medical pratitioners. and Y2=100; Y3=100 (follow-up training in Y3)
Awareness Program for maternal and newborn care and child health in coordination with ICDS and H&FW: Nutrition Week, Immunization Week, Breastfeeding Week			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC, CS	# of Awareness Programs held	4/year	
Awareness Program for maternal and newborn care in coordination with ICDS and H&FW: Health Mela (Meet for Empowerment, Learning and Advocacy)			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC, CS	# of Health Melas	103	Nutrition weeks fall in the month of February and September and breastfeeding week in the month of August, and Immunization week as decided by UNICEF
Scale up capacity building training for high and medium performance VHCs. (Recommendation No . 4)											X	X	X	X	X	X	X	X	PM,M&EO, BC	# of VHC members Trained	250	(Y4= 100, Y5= 150) (Follow-up training)
Intermediate Result 1.3: **Strengthen and sustain local government capacity for maternal and child health**																						
Develop the capacity of ANMs through supprotive supervision and on job trainining . (Recommendation No 1)							X		X						X		X		PM	# of ANMs trained	200	Y3=200; Y5=200 (follow-up training in Y5)
Train Medical Officers and Paramedics in supportive supervision and current topics in MCH (Unicef cary this out)					X				X										PM	# of Medical Officers and Paramedics trained	45	UNICEF is doing this training, therefore project will do duplicate this
District level coordination committee meetings	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM	# of meetings attended by PM	4/year	
Block level coordination committee meetings	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC	# of meetings attended by BCs	4/year	
Network meetings of NRHM at State and District Level	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM	# of meetings attended by PM	2/year	
Meet with District officials during the District Action Plan and budget process			X				X				X				X				PM	# of meetings attended; % of budget allocated towards health	1/year	Targets for % allocation will be determined after first meeting
Following Self Measurment tool												X				X			PM, M&EO, BC	# of VHC measured	240	(Y4= 120 VHC, Y5=120 VHC)
Work with the VSRC to begin a pilot a Sahiyaas Circle and then assess the potential for developing and scaling up support clusters for Sahiyas (Sahiya Circles). (Recommendation No 3)											X	X	X	X	X	X	X	X	PM, M&EO , BC	# of Sahiyya Circles formed	65	
Strategic Objective 2: **Improve utilization of quality maternal and newborn care**																						
Intermediate Result 2.1: **Increase knowledge about and access to community-based antenatal care for women**																						
Train AWW in antenatal care counseling and care			X		X		X		X		X		X						BC, CS	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Train Sahiyyas in antenatal care counseling and care			X		X	X	X	X	X	X	X	X	X	X	X	X			BC,CS	# of Sahiyyas trained	2500	Y2=200, Y3=800, Y4=800, Y5=700
Sahiyyas and AWW will provide antenatal care visits for pregnant women in the last trimester			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	# of home visits made by AWW/Sahiyyas per year	9 per AWW/Sahiyya	

Objective / Activity	Year 1		Year 2				Year 3				Year 4				Year 5				Staff position responsible	Indicator	Target	Comments
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Home visit to counsel mothers and husbands on the importance of ANC, danger signs during pregnancy, skilled attendant at birth, birth plans, proper nutrition, TT vaccine and IFA tablets			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sahiyyas, AWW	# of counseling sessions per quarter	10 sessions per AWW/Sahiyya	
Coordinate with ANM and ICDS to provide TT vaccine and IFA tablets for all pregnant women		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS, Sahiyya	Meeting with ICDS held and plan in place	Complete	
Intermediate Result 2.2: **Increase access to safe delivery practices and referrals for mothers**																						
Train TBAs in safe / clean delivery, recognition of danger signs, importance of referral etc.			X		X		X		X		X		X						BC, CS	# of TBAs trained	700	Y2=200,Y3=400, Y4=100
Trained TBAs will provide safe normal deliveries (Project is Not tracking TTBAs deliveries)		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	TTBAs	Outcome of all deliveries recorded by TTBAs	Verification of records	**No training of new TBAs - just refreshers.**
Network between Village Health Committee and Primary Health Center to provide quality and accessible emergency obstetric care		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	# of meetings per year	4/year	
Establish referral system between Primary Health Center and Sahiyya/TTBA			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	Referral system in place and recorded	Verification of records	
Establish emergency transport funds within each SHG or existing village committees		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	Proportion of SHGs with Emergency Health Funds in place	70% of the SHG	70% of all SHGs have emergency funds (Year 2 40%, Year 3 50%, Year 4 60%, Year 5 70%)
Scale up the distribution of safe delivery kits through HSCs to all pregnant women. (Recommendation No 10)											X	X	X	X	X	X	X	X	BC, CS	# of HSC distributed the KIT	141	Right now in few HSC, delivery kits are available, project would ensure that kits are available in all HSC and it is distributed to the pregnant women during the ANC
Reinforce/Upgrade selected HSCs to increase safe delivery points. (Recommendation No. 9) This will in hrd to reach area, At least 2-5 HSC												X	X						PM,M&EO , BC , CS	# of HSC upgraded	5	Since the HSC is not conducting deliveries, upgradation of HSC with SBA will increase institutional deliveries . Project would focus specially hard to reach area and Muslim area.
Intermediate Result 2.3: **Increase knowledge about and access to home-based postpartum care for mothers and newborns**																						
Train AWW in post-natal and newborn care			X		X		X		X		X		X						BC	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Train Sahiyyas in post-natal and newborn care			X		X		X		X		X		X		X		X		BC	# of Sahiyyas trained	2500	Y2=200, Y3=800, Y4=800, Y5=700
Train TBA in post-natal care immediately after delivery			X		X		X		X		X		X						BC	# of TBAs trained	1000	Y2=200,Y3=400, Y4=400
Sahiyyas and AWW will provide post-natal care visit for pregnant women within the first 3 days and for high risk babies on day 1, 7 and 14			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS	# of post-natal care visits made per year	9 per AWW/Sahiyya	
Counsel mothers and husbands on the importance of cord care, thermal care, immediate and exclusive breastfeeding , maternal and newborn danger signs, etc.			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS	# of counseling sessions per quarter	10 sessions per AWW/Sahiyya	
Network between VHC and Primary Health Center to provide quality and accessible emergency post-natal or newborn care		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	# of meetings per year	4/year	
Establish referral system between Primary Health Center and Sahiyya/TTBA			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	Referral system in place and recorded	Verification of records	
Establish emergency transport funds within each SHG or existing village committees		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	Proportion of SHGs with Emergency Health Funds in place	135	Total 75 SHG from Roman Catholic and 60 SHG from Food security project, Y4 = 80, Y5=55
Strategic Objective 3: **Improve nutrition among children**																						
Intermediate Result 3.1: **Increase rate of immunization and vitamin A supplementation among children**																						
Train Sahiyyas in childhood immunization schedule			X		X		X		X		X		X						BC, CS	# of Sahiyyas trained	1200	Y2=200, Y3=800, Y4=200
Fecilitate Sahiyyas and Anganwadi worker in preparing childhood immunization due list			X		X		X		X		X		X						BC,CS	# of AWWs and Sahiyya have due list	2400	Y4=1200, Y5= 1200
Coordinate with H&FW to provide BCG, DPT, OPV and measles vaccines to all children under 2		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	Meeting with H&FW held and plan in place	Complete	
Coordinate with ANM to distribute immunization cards to mothers of children under 2.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS	Meeting with H&FW held and plan in place; immun. cards procured	Complete	
Ensure equal access to immunization for all children through regular awareness/sensitization campaign in excluded community			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	# of campaigns per year	12/year	Immunization is done on Nutrition and Health day i.e. on every Thursday of the month. Immunization week camping is usually held in Dec. or as decided by the MH&FW
Coordinate with H&FW to have VA available at Health Sub-Center during immunization days		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	Meeting with H&FW held and plan in place	Complete	
Facilitate strengthening of NHD (Nutrition and Health Day) processes		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC,CS	Meeting with ICDS to plan NHDs; # NHDs/month	Complete; 8 per month	
Culture-specific nutrition counseling and food-group campaigns that target high-risk mothers and children. Melas , Food demos, traings in high risk mothers											X	X	X	X	X	X	X	X	PM, BC,CS	# of campaigns , health mela, Food demo, training	100	Campaigns, Health Mela and Food demo at village level during VHND or during session site. This would target the high risk mother and children in hard to reach area
Intermediate Result 3.2: **Strengthen Growth Monitoring and Promotion services through the Anganwadi Center**																						
Train AWWs in Growth Monitoring and Promotion including how to weigh children, maintain growth charts, carry out counseling using a simple decision guide and BCC materials, conduct home visits, and maintain community-based monitoring charts			X		X		X		X		X		X						BC, CS	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Coordinate with ICDS to provide every Anganwadi Center with functional scales and growth monitoring cards		X	X				X				X				X				PM, BC	Meeting with ICDS held and plan in place	Complete	

Objective / Activity	Year 1		Year 2				Year 3				Year 4				Year 5				Staff position responsible	Indicator	Target	Comments
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Timed Counsel mothers and husbands on the importance of exclusive breastfeeding up to 6 months, colostrum feeding, introduction of appropriate complementary feeding, immunization and VA supplementation			X	X	X	X	X	X	X	X	x	X	X	X	X	X	X	X	CS	# of counseling sessions	10 sessions per AWW	
Community growth moitoring chart updates shared with comminty and folow up with counseling											x	X	X	X	X	X	X	X	M&EO , BC, CS	# of AWC having Community Growth monitoring Chart.	100 AWC	Y4= 50 , Y5=50
Strategic Objective 4: **Prevent and properly treat infectious diseases among women and children**																						
Intermediate Result 4.1: **Improve coverage of malaria prevention efforts among pregnant women and children**																						
Train Sahiyyas in malaria prevention, intermittent preventive treatment of malaria for pregnant women as part of ANC and presumptive treatment of malaria for children under 5			X		X		X		X		X		X		X		X		BC, CS	# of Sahiyyas trained	2500	Y2=200, Y3=800, Y4=800, Y5=700
Train AWWs in malaria prevention and intermittent preventive treatment of malaria for pregnant women as part of ANC			X		X		X		X		X		X						BC, CS	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Facilitatte the traininig of ANMs on intermittent preventive treatment of malaria for pregnant women as part of ANC and presumptive treatment of malaria for children under 5							X		X		X		X						BC, CS	# of ANMS	212	Not doing because that is not Govt policy and if policy chages porject will do it
Raise awareness about the syptoms, preventive measures and importance treatment			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	# of counseling sessions per quarter	10 sessions	
Coordinate with government to make LLIN available to every household with children under 5 and pregnant women.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	Meeting with malaria coordination committee and plan in place	Complet e	Instead of ensuring insecticide treated net available project will ensuer LLIN availabe to the community.
Provide presumptive treatment of malaria for children under 5 at the Health Sub Center			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	# of children treated presumptively for malaria	Verificati on of	
Facilitate the Sahiyyas serve as depot holders for antimalarials and provide presumptive treatment in the home for children under 5			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	# of children treated presumptively for malaria	Verificati on of	
Provide intermittent preventive treatment for pregnant women as part of ANC			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC, CS	# of who received 2 doses of IPT recorded by ANMs	Verificati on of records	Not doing because that is not Govt policy and if policy chages porject will do it
Intermediate Result 4.2: **Improve diarrheal disease prevention among children**																						
Train Sahiyyas in the prevention, detection of diarrheal disease, and home-based management of diarrhea emphasisi on Zinc and ORS			X		X		X		X		X		X		X		X		BC, CS	# of Sahiyyas trained	2500	Y2=200, Y3=800, Y4=800, Y5=700
Train AWWs in the prevention, detection of diarrheal disease, and home-based management of diarrhea emphasisi on Zinc and ORS			X		X		X		X		X		X		X		X		BC, CS	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Facilitate training ANMs on the clinical management of severe diarrhea and dysentery							X		X		X		X						BC	# of ANMs Facilitated	212	Y3=212,Y4=212 (Year 4 will be follow-up training)
Timed Counsel mothers and husbands on the prevention of diarrheal disease and basic treatment with ORS and zinc			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS	# of counseling sessions per quarter	10 sessions per AWW/Sa hiyya	
Ensure basic drugs (i.e., zinc and ORS) are available to the community at the ICDS center		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	Meeting with ICDS held and plan in place	Complet e	
Provide advocacy and training for community case management of diarrhea and direct distribution of ORS and Zinc by Sahiyas and/or AWWs.										X	X	X	X	X	X	X	X	X	BC, CS	# of HSC disrtibuting ORS and zinc through Sahiyyas and AWW	Verificati on of records	This woud initiate in upgraded 4-5 HSC as pilot basis
Intermediate Result 4.3: **Improve coverage of treatment and referral for acute respiratory infection**																						
Train AWWs in the prevention, detection of and referral for ARI			X		X		X		X		X		X		X		X		BC, CS	# of AWWs trained	1259	Y2=200, Y3=1259, Y4=1259 (Year 4 will be follow-up training)
Train Sahiyyas in the prevention, detection of and referral for ARI			X		X		X		X		X		X		X		X		BC	# of Sahiyyas trained	2500	Y2=200, Y3=800, Y4=800, Y5=700
Facilitaet the training ANM on the treatment of ARI							X		X		X		X						BC	# of ANMs Facilitated	212	Y3=212,Y4=212 (Year 4 will be follow-up training)
Facilitate Counseling to the mothers and husbands on the prevention and detection of danger signs and symptoms of ARI			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	CS	# of Sahiyyas and AWW Facilitated	10 sessions per AWW/Sa hiyya	
Ensure basic drugs (i.e., cotrimoxasol) are available to the community through the HSC		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, BC	# of HSC disrtibuting cotrmozasol	Complet e	
Monitoring and Evaluation																						
Qualitative Surveys including FGDs and PRA	X															X			PM, M&EO	Report	Complet e	
Barrier Ananlysis including Doers and Non Doers analysis				X						X	X								PM, M&EO	BEHAVE Frameworks	Complet e	
Operations Research/ Malaria care seeking practicces conducted with St Johs University									X	X									PM, M&EO	Plan in place; report	Complet e	
Annual monitoring using LQAS				X								X							PM, M&EO	Annual report	Complet e	
Dissemination of annual surveys to community					X				X				X						PM, M&EO	Annual meetings held	Annual	
Midterm Evaluation and Report										X									PM, M&EO	MTE Report	Complet e	
Final Evaluation and Report																X	X		PM, M&EO	FE Report	Complet e	
Regular program monitoring using HMIS			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM, M&EO	Quarterly reports	Quarterl y	
Block level staff meeting for planning and monitoring (Block Team)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	BC	Meeting minutes	Monthly	
Project staff meeting for planning and monitoring (Project Implementation Team)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	PM	Meeting minutes	Monthly	
OR desimanation , report write up of OR and action plan based on results										X	X								PM, M&EO	OR Report	Complete	
Adjustment of Targets that were exceded in Mid term									X										PM, M&EO, BC	WorkPlan	Complete	
Final KPC																X			PM, M&EO	KPC Report	Complete	
CSSA Measurment																X			PM, M&EO	CSSA report	Complete	
Documentaiton of Best practises												X							PM, M&EO	Documentation	Complete	

Blue : Adaptation
Yellow : To be Deleted
Red : Newly Added as per Mid Term Recommmendation

Annex 4: Rapid Catch Indicators: Mid-term

(KPC Survey June 2010-30. Cluster Sample Type)

Indicator	Numerator	Denominator	Midterm Percentage	Confidence Interval
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child	257	300	**85.7%**	11.2
Percentage of children age 0-23 months whose births were attended by skilled personnel	112	300	**37.3%**	8.8
Percentage of children age 0-23 months who received a post-natal visit from an appropriately trained health worker within three days after birth	113	300	**37.7%**	8.8
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	41	73	**56.2%**	20.6
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall	88	170	**51.8%**	13.2
Percentage of children age 12-23 months who received a measles vaccination	51	130	**39.2%**	13.7
Percentage of children age 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey	70	130	**53.8%**	15.2
Percentage of children age 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey	52	130	**40.0%**	13.8
Percentage of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	42	164	**25.6%**	10.2
Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids	67	131	**51.1%**	14.9
Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider	77	119	**64.7%**	16.8
Percentage of households of children age 0-23 months that treat water effectively	94	300	**31.3%**	8.2
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing	127	300	**42.3%**	9.2
Percentage of children age 0-23 months who slept under an insecticide-treated bed net (in malaria risk areas, where bed net use is effective) the previous night	237	300	**79.0%**	11.1
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)	123	300	**41.0%**	9.1
Percentage of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices	67	227	**29.5%**	9.2

Annex 5: Mid-Term KPC Report

Report of the Mid Term Knowledge, Practice and Coverage (KPC) Survey

Parivartan

USAID-supported Child Survival Program
of CRWRC, EFICOR
and the Government of Jharkhand
June 2010

Report written by
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With the valuable assistance of

The CS Program staff at Sahibganj district, Jharkhand, India

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The interviewers and supervisors interacted with three hundred mothers of children less than two years of age who graciously gave them their time and the information they sought. We are thankful to them.

Arvind Kasthuri
on behalf of the KPC survey team

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ABBREVIATIONS / ACRONYMS USED IN THE TEXT

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
ANM	Auxiliary Nurse Midwife
ARI	Acute respiratory Infection
ASHA	Accredited Social Health Activist
AWW	Anganwadi worker
BCC	Behavior Change Communication
BCG	*Bacille Calmette Guerin*
BMI	Body Mass Index
CBO	Community Based Organization
CDC	Centers for Disease Control (and Prevention)
CHV	Community Health Volunteer
CRWRC	Church Reformed World Relief Committee
CS(P)	Child survival (program)
CSTS	Child Survival Technical Support (group)
DIP	Detailed Implementation Plan
DTP/DPT	Diphtheria, Pertussis, Tetanus vaccine
EFICOR	Evangelical Fellowship of India Commission on Relief
EHA	Emmanuel Hospital Association
EPI	Expanded Program On Immunization
GOI	Government of India
H&FW	Health & Family Welfare
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HSC	Health Sub Center
ICDS	Integrated Child Development Service
IFA	Iron & Folic Acid
IMNCI	Integrated Management of Neonatal & Childhood Illness
IMR	Infant Mortality Rate
ITN	Insecticide Treated (mosquito)Net
KPC	Knowledge, Practice and Coverage (survey)
MAMAN	Minimum Activities for Mothers and Newborns
MCH	Maternal and Child Health
MMR	Maternal Mortality Ratio
MOHFW	Ministry of Health and Family Welfare
MTP	Medical Termination of Pregnancy
NFHS (3)	National Family Health Survey (3rd round,- 2005-06)
NGO	Non Governmental Organization
NRHM	National Rural Health Mission
ORS	Oral Rehydration Salt/ Solution
ORT	Oral Rehydration Therapy
OPV	Oral Polio Vaccine
PD	Positive Deviance
PoU	Point of Use
PHC	Primary Health Center
PI	Performance Index
PNC	Postnatal care
PVO	Private Voluntary Organisation
RCH	Reproductive Child Health
TT	Tetanus Toxoid (vaccine)
(T)TBA	(Trained) Traditional Birth Attendant
USAID	United States Agency for International Development
U5MR	Under Five Mortality Rate
UIP	Universal Immunization Program
VitA	Vitamin A
WHO	World Health Organization

EXECUTIVE SUMMARY

1. Background

This report details the process and results of a Mid Term Rapid Knowledge, Practice and Coverage (KPC) survey for the USAID-supported Child Survival Project called "Parivartan", or "Transformation". The project is awarded to the Church Reformed World Relief Committee (CRWRC) with the Evangelical Fellowship of India Commission On Relief (EFICOR) as the local implementing partner. The project works with the Government of Jharkhand who is the main service provider in the area. The Parivartan child survival project commenced in 2007, and is funded for five years covering the district of Sahibganj with a population of 927,770, in the State of Jharkhand, India. The proportion of population in poverty and the infant and maternal mortality rates are higher in this tribal-dominated state as compared with the national average. The project will benefit a total of 188,511 women of childbearing age and 161,950 children less than five years of age, of which 32,390 are under one year of age. The project planned to work on four primary areas of child survival: Maternal and Newborn care, Nutrition, Immunization and Prevention and Treatment of Malaria. Following the baseline assessments, it was decided to add the areas of Diarrheal Disease Control and Pneumonia Case Management. It aims to enhance the capacity of the implementing partner, EFICOR and the Government of Jharkhand in delivering information and services to mothers and children in these areas. The program uses the strategies of community mobilization, behavior change communication and quality improvement in delivering health education and services to children and their caregivers.

A baseline KPC survey was conducted in January 2008, the findings of which are given alongside the results of the current survey in the "Results" section in the body of the report. The main purpose of the Mid Term survey was to ascertain levels of knowledge, practices and coverage of health services in specific areas of health that the project has been working with, in order to better refine project goals, indicators and activities during the remaining project period. At the same time, a benefit of the Mid Term survey process was in building the capacity of local project and partner staff to collect, analyze and use data for decision-making.

2. Methodology

The survey training, implementation and data entry took place from the 7th to the 15th of June 2010, using a rapid cluster sample methodology. Three hundred mothers of children under two years of age located in 30 clusters, chosen randomly from the population of the district, were interviewed. Interviews were conducted in Hindi over the course of three days, using a 76-item interview schedule primarily covering aspects of maternal and newborn care, breastfeeding and nutrition, immunization, prevention and treatment of malaria, with additional questions related to maternal background, management of acute respiratory infections and diarrhea, water and sanitation and other health issues. Data were compiled and analyzed using Epi Info version 6.04c.

3. Results

Basic results of all questionnaire items are given in Appendix A, and more detailed analysis of results of interest is given in section 4 of this report. Some of the key findings of the analysis are as follows, with the baseline figures and NFHS3 figures[1], wherever available, in parentheses:

Maternal and Newborn Care: The literacy levels of the mothers was low, with 19.03 % (17.7% at baseline) of them being able to read a sentence on the standard literacy card. However, most indicators of Maternal Newborn Care showed higher levels at mid term than at baseline. Indicators of Antenatal Care included three important aspects – Antenatal visits, Tetanus immunization and Iron supplementation. The proportion who had made at least 3 antenatal

[1] National Family Health Survey III, 2005-06, factsheet on Jharkhand at http://www.nfhsindia.org/pdf/JH.pdf

visits to a health care provider during their last pregnancy was 54.4% (23.3%) (NFHS3-36.1%), with 10.3% (8.6%) having made 4 or more visits. The proportion of mothers who said that they received/bought Iron supplements when they were pregnant with their youngest child was 75.3% (46.7%), and 45.7% (3.7%) of mothers stated that they consumed at least 90 tablets during pregnancy. Tetanus immunization rates are higher, with 85.7% (69 %) of mothers stating that they had received at least 2 doses of TT vaccine before the birth of their youngest child aged <24 months. 61.7% of mothers surveyed were able to state at least 3 danger signs of pregnancy, sharply different form the baseline figure of 0.7%. Indicators of Intranatal Care were as follows: 27.6% (14.2%) of mothers surveyed said their last birth was at a health care institution (NFHS3-19.2%). The cord was cut with a new/clean instrument or a safe delivery kit was used in 96% (89 %) of deliveries, and thermal care – wiping the baby dry and wrapping in a blanket – was practiced in 85% (69.3%) of deliveries. The proportion of mothers who received skilled assistance during delivery is 37.3% (26.7%) (NFHS3- 28.7%). Assessment of Postnatal Care and Newborn Care shows that 40.65% (26%) of mothers were visited by an appropriately trained worker within 3 days of the delivery of their youngest child, and 37.6% (25.7%) of the children aged 0-23 months received a similar visit within 3 days of their birth. 76.6% (1.7%) of the mothers were able to state 3 danger signs in the post partum period and 72% (4.3%) of mothers were able to state 3 danger signs in newborn babies.

B. Breastfeeding and Nutrition: Breastfeeding continues to be a universal practice, with 292 of the 300 mothers surveyed (97.3%) having ever breastfed their child (97.7% at baseline), and 37 of 40 mothers of children 20-23 months of age – 92.5% (85.7%) persisting with breastfeeding. 82.4% (60.2%) of the mothers stated that they gave colostrum to their youngest child under 2 years in the three days following birth. Of the 73 infants 0-5 months of age, 56.1% (70.4%) stated that they were not giving any food other than breastmilk to their child at the time of survey (NFHS3-57.8%) The initiation of breastfeeding within one hour of birth in the absence of prelacteal feeding was practiced by 39% (19.3%) of the mothers surveyed (NFHS3-10.9%). Of the 292 mothers who practiced breastfeeding, 25.3% (21.7%) stated that they gave their child something other than breastmilk in the first three days following delivery. 29.5% (25.5%) of the 227 children 6-23 months of age were fed complementary foods according the minimum of appropriate feeding practice, and 28.7% (44.2%) of 73 children 6-9 months of age received solid / mushy food in the 24 hours preceding survey (NFHS3-65.7%) 51.8% (20.6%) of 170 children 9-23 months of age received a dose of Vitamin A in the last 6 months, and 34.6% (13.5%) received a dose of anthelminth medicine. Of the 300 mothers, 39.7% (41.8%) had a BMI less than 18.5 (NFHS3- 42.6%). 41% (44.9%) of children 0-23 months in the survey were found to be underweight (< 2 SD below the median wt for age according to the NCHS/CDC standard), (NFHS3-59.2%). Exclusive breastfeeding, Prelacteal feeding and complementary feeding would need attention in the remaining life of the project.

C. Childhood Immunization: 71% (47% at baseline) of mothers had a vaccination card for their child less than 2 years of age at the time of the survey. Of the 130 children 12-23 months of age in the survey, 23% (9.52%) had been fully immunized as documented in the immunization card (NFHS3-34.5%). The EPI access indicator which measures the proportion of children 12-23 months who received the DPT1 vaccine was 53.8% (29.4%). 40% (21.4%) of children 12-23 months received the DPT3 vaccine (NFHS3-40.3%), which is the EPI performance indicator, and 39.2% (19.8%) of children 12-23 months had received the measles vaccine (NFHS3-48%), all before their first birthday. The increase in service indicators could point to the system-strengthening effect of this unique project, which aims to enhance the effectiveness of the Government service delivery system in a large geographic area with poor levels of access and quality.

D. Malaria – Treatment and Prevention - 263 of the 300 mothers – 87.6% (62.3% at baseline) stated that they had a bednet in their house. 237 of the 300 children – 79% (33%) slept under the bednet the night previous to the survey. Only 4.7% of mothers stated that the bednet in her house had been dipped in an insecticide in the past (0.3%). The fact that malaria is transmitted through mosquito bite was known by 91.3% of the mothers surveyed (53.3%). Of the 164 children with fever in the 2 weeks preceding the survey,71.6% (56.2%) were taken for treatment on the same day or the next day to the appearance of the fever. 42 of the 164

children with fever – 25.6% (5.7%) were reportedly treated with an antimalarial medication. 23.6% (2.7%) of the 300 mothers surveyed stated that they had taken antimalarial medication during the pregnancy with their youngest child less than 2 years of age. While the level of indicators is higher than at baseline, the issues regarding malarial treatment and access to antimalarial drugs would need to be explored.

E. Diarrhea and Pneumonia (ARI)/ Water & Sanitation – Indicators with respect to Diarrheal Disease showed: 131 children of 300 – 42.7% (33.7% at baseline) had diarrheal disease in the 2 weeks preceding survey. Of them, 51.2% (45.5%) were given an acceptable form of ORT – powdered OR Salt which could be reconstituted, or ready mixed ORS or an accepted home available fluid (NFHS3-17.8%) 32.1% (34.6%) children were taken for treatment to a qualified provider when the child showed signs of diarrhea (NFHS3-32.5%).19 of the 131 mothers – 14.5% (18.9%) of children who had diarrhea stated that they gave the child a medication containing Zinc. The situation with reference to Acute Respiratory Infection showed that 119 mothers of 300 surveyed stated that their youngest child less than 24 months of age showed signs of cough and difficult breathing in the 2 weeks preceding survey. Of them, 64.7% (40.7%) took the child for treatment to a qualified provider (NFHS3-46.3%). While there is a slightly higher level of indicator seen at midterm, strategies need to be intensified regarding treatment of diarrhea, and the use of zinc. With respect to Water and sanitation, 31.3% of mothers stated that they treat water using boiling or the application of chlorine. 42.3% (33.7%) of the 300 households had soap or detergent present at the place designated to wash hands.

4. Conclusions and Recommendations

The overall results of the survey show that levels of most key indicators with respect to health of mothers and children under 24 months in the project area are higher than at baseline. The strategy of supportive supervision at the grassroot, while working with the Government district health management at the top should continue and be strengthened, in the area of MNC and Immunization. In the areas of breastfeeding, diarrheal disease control and ARI case management, continued emphasis on BCC in the remaining project period could help in improved behavior. Detailed recommendations are presented in Section 6 of this report, along with suggested revisions of targets.

Overall, the Mid Term survey was extremely participatory, and survey personnel were well trained, motivated and dedicated to collecting accurate data. Project staffs feel they have the capacity to organize and implement future surveys with minimal outside assistance. KPC survey data and information from the qualitative component of the Mid Term evaluation will contribute towards enhanced performance in the remaining life of the Parivartan CS project.

1. BACKGROUND

1.1. Background of the Child Survival Project

The USAID-supported Parivartan ("Transformation") Child Survival (CS) Project is based in Sahibganj district of Jharkhand state in India. The project represents a partnership between the Christian Reformed World Relief Committee (CRWRC), the Evangelical Fellowship of India Committee On Relief (EFICOR) and the Government of Jharkhand.

Established in 1962 by the Christian Reformed Church in North America, the Christian Reformed World Relief Committee (CRWRC) exists so that "*communities around the world whose well-being (shalom) has been jeopardized by poverty, injustice, or disaster are engaged in transformative practices that improve their situations in sustainable ways*." CRWRC provides consultation, technical assistance, and financial support to these partners as they implement multi-sector programs in health and HIV/AIDS, agriculture, literacy, and income generation. CRWRC also promotes social justice through education on issues such as human rights, gender equity, child labor, property and inheritance rights, and land rights.

CRWRC has been successfully implementing integrated community health programs that increase the survival rate of children under the age of five. CRWRC's health programs often involve activities such as vaccination, nutrition and health education, child growth monitoring, improving access to safe water, de-worming, and the prevention and control of malaria and diarrhea. CRWRC has implemented programs like these in Bangladesh, India, Laos, Mali, Sierra Leone, Tanzania, Zambia, Guatemala, Honduras, El Salvador, and Ecuador.

In 2004, CRWRC received its first Child Survival and Health award from USAID for a five-year program in Bangladesh covering three geographical areas. After the first two years of implementation, the overall program has benefited 4,600 children under the age of five, exceeding the two-year target by 20%.

The primary partner organization for this project is the Evangelical Fellowship of India Commission on Relief (EFICOR). EFICOR is a National Christian Relief and Development Organization. It began in 1967, as a unit of the Evangelical Fellowship of India, a National alliance of church-based institutions and individuals to provide relief to the drought-hit state of Bihar. It was registered as a separate organization in 1980 under the Societies Registration Act, 1960. Since then EFICOR has been working with the needy and disadvantaged communities in the poorest districts in India. EFICOR's focus has been community development, facilitating partners, network formation, capacity building, relief, rehabilitation and disaster preparedness. EFICOR is also a member of the CRWRC South Asia Partners Forum and had the opportunity to learn from the USAID-funded child survival program in Bangladesh through the "Learning Circle," which consists of 20 partner organizations of CRWRC in Bangladesh and India. In 2006 key EFICOR staff participated in a study tour of the CRWRC Bangladesh child survival program.

EFICOR has prior working experience in Jharkhand and has worked in integrated community development programs, including health promotion, in Sahibganj district since 1994. At the proposal development stage, CRWRC and EFICOR had extensive discussions with the local and district Government in Sahibganj. The district H&FW

Director (Civil Surgeon) has expressed support, as well as the Malaria Division of H&FW. The ICDS Director has also given advice on program design and expressed her support. The project will also collaborate with the Integrated Management of Neonatal and Childhood Illness (IMNCI) and the National Rural Health Mission (NRHM), which are initiatives of the Government of India.

Another partner organization working with the Parivartan project is the Emmanuel Hospital Association (EHA), particularly its Prem Jyoti Hospital in Chandragoda village near Barharwa in Sahibganj district. EHA has been involved in proposal discussions and is assisting the project in TBA and CHV training as well as in providing technical expertise. Prem Jyoti has established health committees in three blocks out of the nine blocks in the district and this project will help to strengthen and build the capacity of these health committees as well as scale them up to the other six blocks.

1.2. Project Location and Characteristics of the Population

The Parivartan Child Survival project is located in all the 9 community development blocks in Sahibganj district, Jharkhand State, India.

A. INDIA

In May 2000, India crossed the one billion population mark. This densely populated country ranks 126 out of 177 countries on the human development index[2]. Each year, 20% of the world's infants are born in India (26 million). Of this number, 1.2 million die before completing the first four months of life (almost 30% of the world's neonatal deaths). The current neonatal mortality rate (NMR) of 44 per 1,000 live births accounts for nearly two-thirds of all infant mortality and half of under-five child mortality. The IMR is 57[3] and the U5MR is 85[4]. India also has the highest burden of maternal mortality in the world. Of the global toll of 529,000 maternal deaths each year, India accounts for one-fourth[5]. The current maternal mortality ratio is 540 per 100,000 live births[6].

B. JHARKHAND STATE

a. Demographic characteristics

The word Jharkhand means 'forest land'. The state of Jharkhand was created on November 15, 2000 as the 28th state of India. The total geographical area of the State is 79,720 sq. km. The State is divided into 22 districts with 211 blocks and 32,615 villages. The population growth rate of Jharkhand (23.19%) was higher than the national average (21.34%) during 1991-2001. More than half (54%) of the State population lives below the poverty line as compared to the estimated national average of 30%.

Jharkhand's per capita income is $280 USD (compared to $470 USD nationally) and only 24% of households in Jharkhand have electricity (compared with 60% in India as a whole). Scheduled tribes comprise 28% of the total population of Jharkhand compared to only 8% nationally. There are 31 scheduled tribes in the State with Santal, Munda, Oraon and Ho constituting 78% of the total tribal population. The adult literacy rate in Jharkhand is 53.6% compared 64.8% nationally. However, the female adult literacy rate in Jharkhand is much lower at 38.9%[7]. Tribal populations often live

[2] UNDP. Human Development Report. 2005.
[3] NFHS - 3
[4] UNICEF. The State of the World's Children. 2005.
[5] National Neonatology Forum and Save the Children (NNF and SC). State of India's Newborns. 2004.
[6] UNICEF, 2005.
[7] Census of India 2001

in remote, rural areas that have limited access to electricity, sanitation, education, and health services.

b. Health Indicators

i. Child Health

The crude birth rate of the State is 32.8 per 1,000 population compared to national average of 24.8. The estimate of the crude death rate for Jharkhand is 9 per 1,000 population (national rate 9.7). Jharkhand has an infant mortality rate (IMR) of 71 per 1,000 live births. Of these, 60% are neonatal deaths, occurring within the first 28 days of life. Neonatal deaths are primarily attributed to premature birth, infections and birth asphyxia. Childhood mortality is also high, as one-fourth of all deaths take place between the ages of one and four[8]. Beyond the first four months of life, much of the morbidity and mortality in this State can be attributed to poor nutrition including lack of micronutrients, poor breastfeeding practices and low immunization rates (Table 2).

Table 2. Critical Child Health Indicators in Jharkhand, India[9]

Indicator	Percentage
Percent of children 0-35 months immediately breastfed	10.9
Percent of children under 6 months exclusively breastfed	57.8
Percent of children 6-35 months anemic	77.7
Percent of children 0-35 months stunted	41.0
Percent of children 0-35 months underweight	59.2
Percent of children 12-23 months fully immunized	34.5

About 50% of all childhood deaths in India are attributable to malnutrition[10]. In Jharkhand, more than half of all children under three years of age are underweight. Less than 15% of infants are breastfed within one hour of birth. Just over half of the children under four months of age are exclusively breastfed and almost eight of every 10 children suffer from some form of anemia.

In Jharkhand, many infectious diseases remain highly prevalent. Malaria continues to be highly endemic with frequent epidemic outbreaks. In a household survey conducted among the tribal villages of Raj Mahal hills in Sahibganj district, mothers reported that malaria accounts for 56.6% of child morbidity and approximately half (48%) reported that at least one person from her family had suffered from malaria in the past three months[11].

b. Maternal Health

In Jharkhand, the maternal mortality ratio is 400 per 100,000 live births. The major causes of maternal mortality are hemorrhage, anemia, and sepsis[12]. Many of the causes of maternal mortality are due to insufficient antenatal care, lack of skilled care at delivery, and absence of postnatal care (Table 3). [13].

Just about a third of pregnant women in Jharkhand made 3 visits to a health facility for care when they were pregnant. More than 80% of deliveries took place in a setting outside of a health care facility. Skilled assistance at delivery was available to less

[8] Jharkhand Population and Reproductive and Child Health Policy, 2004.
[9] NFHS -3 2005-06
[10] World Health Organization (WHO). Improving Maternal, Newborn and Child Health in the South-East Asia Region. 2005.
[11] Population Foundation of India, 2005.
[12] Sample Registration System of India (SRS), 1998.
[13] NFHS 3 2005-06

than a third of mothers, and less than a fifth received a visit form an appropriate health care worker within 2 days of delivery. Almost 7 of every 10 women in the reproductive age group suffer form anemia, and more than 4 of every 10 are underweight.

Table 3. Critical Maternal and Newborn Health Indicators in Jharkhand, India [14]

Indicator	Percen -tage
Percent of births whose mother received at least 3 antenatal check-ups	36.1
Percent of births whose mothers were assisted at delivery by a skilled health professional	28.7
Percent of births delivered outside a medical facility	80.8
Percent of births that were followed by a postpartum check-up within 2 days of delivery	17.0
Percent of women with anemia	68.4
Percent of women with low BMI	42.6

Overall, these results show that utilization of health services in Jharkhand during pregnancy, during delivery, and after childbirth remains very low. They also point to the important role of traditional birth attendants (TBAs) for the large majority of births that occur at home[15].

Maternal mortality is reported to be very high in many of the tribal areas as well. MMR in the Raj Mahal hills is 460 per 100,000[16]. The high MMR is mainly due to unhygienic practices during delivery. In many of the villages where they have no trained birth attendant, the delivery is conducted by the husband according to tradition. Very few referrals are made to health facilities due to the lack of knowledge of maternal danger signs and the inaccessibility of health facilities.

During pregnancy, most tribal women do not eat more food. Santal tribal women often reduce their food intake because of the fear of recurrent vomiting and also to ensure that the baby may remain small so that the delivery is easier. Only 33% of pregnant women receive IFA tablets; however, the compliance to IFA is low due to lack of information provided on its associated symptoms like nausea and tough stools. Vitamin A and iodine deficiencies, lack of knowledge of health care, lack of health facilities or personnel in the village, inaccessibility of the area, and infectious diseases such as malaria, Kala-azar are other causes of high mortality.

C. SAHIBGANJ DISTRICT

Sahibganj district has similar socioeconomic and demographic characteristics compared to the rest of Jharkhand. However, 89.4% of the total population of Sahibganj lives in rural areas and only 37.6% of the adult population is literate (26.6% for females). IMR in Sahibganj district is 67 per 1,000 live births[17] and in some of the tribal villages in Raj Mahal hills the IMR is as high as 147 per 1,000 live births[18]. The high rate is mainly due to low birth weight, lack of basic knowledge of mothers about danger signs, inaccessibility of health care facilities, and infectious diseases such as malaria and Kala Azar.

Table 5. Health Facilities in Sahibganj District

Type of Units	No. of Units	No. of Beds	No. of Doctors
Sadar Hospital	1	60	9
Referral Hospital	2	60	5
Primary Health Center	7	42	17
Additional PH Center	10	60	10
Health Sub-Center	141	---	---
Family Welfare Center	7	---	---
Maternity & Child Health Center	2	---	---
District T.B. Center	1	---	1
EHA, Prem Jyoti Hospital	1	15	2

[14] NFHS 3, 2005-06
[15] Ibid.
[16] Prem Jyoti Hospital, 2005
[17] Reproductive and Child Health Survey II (RCH-2), 2000.
[18] Prem Jyoti Hospital. Annual Report. 2005.

The Parivartan child survival project is funded for five years and covers the district of Sahibganj with a population of 927,770. The project will benefit a total of 188,511 women of childbearing age and 161,950 children less than five years of age, of which 32,390 are under one year of age.

1.3. Local Health Service Delivery and National Protocol

1.3.1. Health service delivery in the project area

Maternal and Child Health services are currently delivered by the State to the people of India as part of the National Reproductive and Child Health (RCH) program of the Ministry of Health and Family Welfare. The RCH program provides essential obstetric care, emergency obstetric care, essential newborn care, and family planning. These services are delivered by Doctors and ANMs through the PHCs and HSCs at the rural area, and Community Health centers, Subdivisional hospitals, District hospitals and teaching hospitals at higher levels. At the rural area, each PHC covers a population of approximately 25,000 to 30,000 while each HSC covers a population of approximately 3,000 to 5,000.

The physical health infrastructure of Jharkhand consists of a public sector with three medical colleges; 12 district hospitals; 18 sub-divisional hospitals; 47 Community Health Centers (CHCs), or referral hospitals; 103 primary health centers (PHCs); 368 additional primary health centers; and 4,462 health sub-centers (HSCs). Additionally, there are 122 ayurvedic, 54 homeopathic and 30 Unani dispensaries. There is one regional family planning training center and 11 training institutions for Auxiliary Nurse Midwives (ANMs) in the State. The existing public health infrastructure is grossly inadequate in relation to the population and geographic spread of the State. As per the Government of India (GOI) norms, there exists a shortage of 2,053 HSCs, 854 PHCs and 200 CHCs[19]. There are 1,219 doctors with a shortfall of 1,412. There are 1,252 multi-purpose health supervisors, yet a need for 1,196 more. There are only 3,915 female multi-purpose workers and 423 male multi-purpose workers, with shortfalls of 1,949 and 4,809 respectively.

The health care delivery system in India comprises agencies within the public and private sectors. Public health care delivery systems are generally perceived as being crowded, and of poor quality. But they are largely free, and this makes them attractive to the poor and underprivileged. The private sector is a major player in health care provision, and while quality of care is generally better, they are seen as profit driven, and sometimes exploitative. In Jharkhand, seventy percent of households use private doctors or private hospitals/clinics for treatment. Only 19% normally use the public sector. Among the poor, utilization of public sector services is even lower (16%). Low utilization of public sector services are largely due to poor access to services, understaffed facilities, poor infrastructure and low quality of services.

1.3.2. National Protocol – Reproductive and Child Health

Promotion of maternal and child health has been one of the most important objectives of the Family Welfare Program in India, which was subsequently called the Child survival and Safe Motherhood Program. Currently, maternal and child health is part of the National Reproductive and Child Health Program (RCH) which was launched in October 1997. The RCH Program incorporates the components covered under the

[19] Sarva Swasthya Mission, Government of Jharkhand

Child Survival and Safe Motherhood Program and includes an additional component relating to reproductive tract infection and sexually transmitted infections.

The services contained in the RCH program are :
1. Care of pregnant women - prenatal, natal and postnatal services
2. Immunization against 6 vaccine preventable diseases i.e. TB, Diphtheria, Tetanus, Pertussis, Polio and Measles and provision of 5 doses of Vit A to children
3. Distribution of Iron Folic Acid tablets for Anemia against pregnant women
4. Treatment of Diarrhea and Pneumonia in children
5. Spacing methods - permanent and temporary
6. MTP services
7. Emergency Obstetric Care services
8. Nutrition counseling and distribution of complementary foods
9. Management of Reproductive tract infections and sexually transmitted diseases like HIV/AIDS

Broadly, the RCH program aims to universalize immunization, ante-natal care, skilled attendance during delivery as well as care for common childhood ailments. Greater stress on improving neonatal care at all levels, hospital, homes and community aims to substantially reduce infant mortality. The RCH Program aims at eradication of poliomyelitis while selectively introducing Hepatitis B in the UIP package.

a. Maternal Health components
Essential obstetric care intends to provide basic maternity services to all pregnant women. The RCH Program aims at providing at least 3 prenatal checks including weight and blood pressure check, abdominal examination, immunization against tetanus, iron and folic acid prophylaxis and anemia management. Since complications associated with pregnancies are not always predictable, emergency obstetric care is an important intervention to prevent maternal morbidity and mortality. The RCH Program aims at strengthening the emergency Obstetric Care Services and making First Referral Units operational.

b. Child Health components
The initiatives for improved child health as part of the RCH program are:
1. Control of deaths due to A.R.I. by standard case management,
2. Control of deaths due to diarrheal diseases by promoting the use of ORT.
3. Provision of essential new born care
4. Vitamin-A supplementation to children 6 months to 3 years of age.
5. Iron Folic Acid supplementation to children under five years of age.
6. Implementation of Exclusive breast feeding upto to the age of 6 months and appropriate practices related to complementary feeding.
7. Integrated Management of Neonatal and Childhood Illnesses(IMNCI): This program offers a comprehensive package for the management of the most common causes of childhood illnesses i.e sepsis, measles, malaria, diarrhea, pneumonia and malnutrition

(See Appendix E for a brief description of the NRHM)

1.4. Project Objectives and Strategies

GOAL

The goal of the Parivartan Child Survival program is to improve nutrition among children under the age of five and reduce mortality among mothers and newborns through building and sustaining community capacity.

OBJECTIVES

Over the five-year program period, Parivartan seeks to achieve four strategic objectives in the project area, which are:

1) Strengthen Public Private Partnerships for Maternal and Child Health services
2) Improve utilization of Quality maternal and new born care
3) Improve nutrition among children
4) Prevent and properly treat infectious diseases among women and children, including Malaria, Diarrheal disease and Pneumonia

Areas of Technical Intervention include:

a. Maternal Newborn care (40% effort)
b. Breastfeeding and Nutrition (20%)
c. Immunization (10%)
d. Prevention of Diarrhoeal Disease (10%)
e. Prevention and control of Malaria (10%)
f. Pneumonia Case management (10%)

BROAD STRATEGIES

The Parivartan project works in synergy with the Government at State and local levels enhancing the reach and effectiveness of the interventions already being delivered by the personnel of the Health & FW department and of the ICDS. The Ministry of Health and Family welfare, Government of India has developed a new position under the National Rural Health Mission (NRHM) called the Accredited Social Health Activist (ASHA), locally called a *Sahiyya*. The ASHA is a Community Health Volunteer that is recognized by the Government of India. Some of the duties of the ASHA include creating awareness and providing information to the community, counseling women on reproductive and child health issues, mobilizing the community to access health services available at the village/HSC/PHC, accompanying pregnant women and children requiring treatment or admission to the nearest pre-identified health facility and acting as a depot holder for essential provisions being made available to every village.

The policy of the Government is to encourage delivery at institutions, and minimize home deliveries. However, in those cases where home deliveries do take place, the Government model includes the training of Traditional Birth attendants, so that skilled assistance may be available during home delivery in the form of Trained Traditional Birth Attendants (TTBAs).

The Parivartan project works with and through the health care personnel of the RCH program. It strengthens their capabilities through training and support of the ASHA and TTBA and complements their services by playing an enabling role. Some of the strategies being planned are as follows:

a. Maternal Newborn care

The CS project focuses on a set of essential services for mothers and newborns by training and capacity building of service staff. Interventions include strengthening Village Health Committees (VHCs), training Traditional Birth Attendants (TBAs), and building the capacity of the Health Sub Centers (HSCs) and the Anganwadi Centers (AWCs). The curricula have been developed by EFICOR with technical assistance from ICDS, the NRHM and Prem Jyoti Hospital. The trainings are integrated with GOI programs including RCH, ICDS, NRHM and the IMNCI strategy. The training focuses on ten high-impact, low-cost, community-based interventions including Birth preparedness, Administration of TT vaccine, Clean delivery and infection prevention, Referral link to emergency obstetric care and newborn care, Cord care, Thermal care, Immediate and exclusive breastfeeding, Referral and treatment of maternal and newborn infections, Adequate maternal nutrition and Prevention/treatment of anemia.

b. Breastfeeding and Nutrition

The Nutrition strategy aims at improving nutritional status of children by improving access of children in the district for growth monitoring and supplementary nutrition services at AWKs. This is being done by training of AWWs and by lobbying at the district level to ensure that growth monitoring hardware in the form of functioning weighing scales and growth monitoring cards are available.

c. Immunization

The Parivartan project collaborates with ICDS and the NRHM to deliver the basic WHO schedule of immunizations to children in the first year of life. Vaccination cards are distributed during the first visit of the ASHA to each household following the birth of a child. Project staff visit the routine immunization sites and provide supportive supervision to the ANMs, AWWs, ASHAs and Anganwadi Helpers to improve quality of services. Action plans are prepared with the aid of the ANMs and MOIC to find the 'left out' and 'hard to reach' areas. Absence of government staff at immunization sites is brought to the attention of concerned government officials, and it is ensured that adequate staff are present at each session.

d. Prevention and treatment of Infectious Disease

The CS project works with the National Vector Borne Diseases Control Program to bring comprehensive, multi-faceted public health interventions to each village in Sahibganj. Parivartan uses advocacy and lobbying to make ITNs available to families with pregnant women and children under the age of five at a subsidized cost. ASHAs will also provide preventive treatment for pregnant women to reduce maternal anemia and low birth weight. The project works to enhance the availability and use of ORS during an episode of diarrhea, while encouraging the mothers to seek care for their child's illness. The use of safe water is encouraged, and health care providers at the sub centre and PHC level are trained on the danger signs of childhood illness including Acute Respiratory Infection.

CROSS CUTTING STRATEGIES

The cross cutting strategies which the project employs in order to achieve the objectives include community mobilization, supportive supervision, behavior change communication, quality improvement and sustainability.

a. Community Mobilization

The Community mobilization strategy of the Parivartan project is largely centred around the Village Health and Sanitation committee concept of the NRHM. The VHCs are organizations formed of members from a village, who are responsible for selecting

the ASHA for the village, and for overseeing the implementation of all National Health programs at the village level.

While the formation and establishment of the VHCs has been entrusted by the NRHM to other NGOs, the Parivartan project has been assisting with training and technical support to the VHCs. The project staff conduct regular meetings at the villages and have helped 212 VHCs to open bank accounts and obtain untied funds to place in the account. Coordination meetings have been organized with Primary Health Center (PHC) and VHC members at the PHC level, one of the benefits of which is that VHCs learn about current available health services.

b. Behavior Change Communication

The Parivartan project has used the BEHAVE framework to improve behavior change communication efforts. The BEHAVE framework, enables managers, planners, local staff, and the community to strategically plan for behavior change in a variety of settings. Specific methods of BCC used by the project include Kalajathas (story-dramas), individual and group counseling, and the preparation and distribution of printed educational material.

c. Supportive supervision

The Parivartan project recognizes that the ultimate service provider in the district is the Government, through the Integrated Child Development service (ICDS) which runs AWKs, and the Department of Health and Family Welfare, which is responsible for service delivery through the PHCs. The project therefore has developed a good relationship with the staff at the AWKs (of the ICDS) and the PHC/HSC (of the Department of H & FW), assisting them in delivery of services like Immunization and Growth monitoring. Project staff are not seen as "fault-finders", rather are seen as "co-workers" who help in resolving problems at the field level. This close partnership has resulted in the Government staff achieving better levels of coverage in their service areas.

1.5. Survey Objectives

The purposes of this KPC Mid Term Survey are primarily two-fold:

1. To document the Mid Term levels of knowledge and practices of mothers of young children, and the coverage of certain health services in the project area, with reference to maternal and child health

2. To refine project objectives and indicator target levels based on the existing knowledge, practice and coverage levels at Mid Term

Additional goals and benefits of the KPC process are the following:

1. An increased capacity of local project and partner staff to collect, analyze and use information for decision-making.

2. A credible database of the maternal and child health status of the region, which can be presented to the Government of Jharkhand and the District administration as a status document

2. PARTNERSHIP AND CAPACITY BUILDING

2.1. Involvement of local partners / stakeholders in the KPC survey

The Government of Jharkhand and USAID were kept informed regarding the Mid Term survey process. It was not planned to involve government personnel in conducting actual interviews due to their existing schedules and responsibilities, and the potential for bias to enter into the study. Contact and communication between survey and Government personnel like the ANM or AWW was encouraged, building on the relationship that has been built up during project implementation.

Results of survey data will be shared with the Government at district and State levels, for eliciting feedback as to possible reasons and implications of particular results.

2.2. Capacity-Building of Project staff

All the Block Co-ordinators and some of the cluster supervisors of the Parivartan project were involved in the survey process. The Project manager, M&E officer and all block co-ordinators served as members of the Survey Core Team, with the M&E officer playing the role of survey co-ordinator. Many the staff of the program were involved in the baseline KPC survey, so the Mid Term survey served as an refresher exercise in the area of quantitative assessment. Before the survey trainer arrived, key staff of EFICOR at Delhi and CRWRC had been given a preliminary plan of survey implementation and logistics, with advance guidelines sent by the trainer as a preparation “checklist”. Additionally, they had completed an adaptation and necessary modification of the Hindi survey questionnaire used at baseline. The Director-Programs of EFICOR played a vital role in communicating the preparatory steps with staff members at Jharkhand.

During the survey training, the Core team including the Survey co-ordinator, Project Manager and Block co ordinators worked with the survey trainer during training sessions. This way, Core Team staff experienced at first hand the training of supervisors and interviewers, which should enable them to implement similar training in the future. Additionally, the Manager-Direct Programs from EFICOR HQ was present during training and the first day of data collection. During the data collection process, Core Team members coordinated the activity with the assistance of the ST. Also, block co ordinators of the project accompanied the survey teams so that they could get a first hand experience with data collection.

The Survey trainer designed the data entry files, and oriented the Survey co-ordinator to the process of data entry. Data entry staff were hired locally and trained on data entry using EPI INFO version 6.04c.

3. METHODS

3.1. Questionnaire Development

The questionnaire consisted of 76 questions, most of which were related to the principal project objectives and were designed to collect information from mothers of children under 24 months of age. Questionnaire development started with the CSTS KPC 2000+ modules, with appropriate questions added from the latest version of the Rapid CATCH instrument. Questions not found relevant to current objectives were removed, and questions added to capture important information. The draft was prepared by the survey trainer and was e-mailed to the project Core team and to EFICOR/CRWRC. Following discussion, adaptation and modification of the Hindi questionnaire was undertaken by project staff and the final questionnaire for use was prepared.

3.2. KPC indicators

3.2.1 Core indicators

The Parivartan CSP has project indicators in the areas of Maternal and Newborn Care, Immunization, Nutrition and Prevention, treatment of Malaria, Control of Diarrheal Disease and Pneumonia Case management. Mid Term levels of key indicators in these four areas can be measured through a KPC survey. Those project indicators are the following:

Objectives	Indicators
1. MATERNAL AND NEWBORN CARE	
a. Increase community-based antenatal care for women aged 15-49	o *Percentage of mothers of children aged 0-23 months having three or more antenatal visits when they were pregnant with their youngest child* o *Percentage of mothers of children aged 0-23 months who received at least two TT vaccinations before the birth of their youngest child* o *Percentage of mothers of children aged 0-23 months who received/bought iron supplements while pregnant with their youngest child*
b. Increase use of clean delivery practices	o *Percentage of births where a cord was cut with a new or clean instrument or a clean birth kit was used* o *Percentage of children age 0-23 months whose births were attended by skilled personnel*
c. Improve home-based post-partum care for mothers age 15-49 and newborns during the first 6 weeks of life.	o *Percentage of mothers of children age 0-23 months who received a post-partum visit from an appropriate trained health worker within three days after the birth of the youngest child* o *Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after the birth of the youngest child*
d. Improve thermal care of newborns.	o *Percentage of children age 0-23 months who were dried and wrapped with a warm cloth or blanket immediately after birth (before the placenta was delivered)*

Objectives	Indicators
e. Increase knowledge about maternal and newborn danger signs among mothers.	o *Percentage of mothers able to report at least three known maternal danger signs during the post-partum period* o *Percentage of mothers able to report at least three known newborn danger signs*
2. NUTRITION	
a. Increase immediate and exclusive breastfeeding practices among mothers.	o *Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal feeds*
b. Increase exclusive breastfeeding up to 6 months.	o *Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours*
c. Improve infant and young child feeding practices.	o *Percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices* o *Percentage of infants who received breast milk and solid/mushy foods at age 6 to 9 months*
d. Increase coverage of vitamin A supplementation for children under 5.	o *Percentage of children age 9-23 months who received a dose of vitamin A in the last 6 months*
e. Improve nutrition among pregnant women and nursing mothers	o *Percentage of women who have a low BMI (<18.5 kg/m2)*
f. Decrease underweight among children less than five years of age.	o *Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)*
C. IMMUNIZATION	
a. Increase rate of immunization among children age 12-23 mos.	o *Percentage of children age 0-23 months who received BCG, DPT3, and measles vaccines before they reached 12 mos*
b. Improve access to immunization services.	o *Percentage of children age 12-23 months who received a DPT1 vaccination before they reached 12 months*
c. Improve health system performance regarding immunization services.	o *Percentage of children age 12-23 months who received a DPT3 vaccination before they reached 12 months*
d. Increase rate of measles vaccination among children < five	o *Percentage of children age 12-23 months who received a measles vaccination*
D. MALARIA – PREVENTION AND TREATMENT	
Improve malaria prevention efforts among pregnant women and children less than five years of age.	o *Percentage of children age 0-23 months who slept under an ITN the previous night*
Increase coverage of ITN among households	o *Percentage of households of children 0-23 months that own at least one ITN*
Increase coverage of IPT among pregnant women.	o *Percentage of mothers of children 0-23 months who took anti-malarial medicine to prevent malaria during pregnancy.*
E. CONTROL OF DIARRHEAL DISEASE	
Diarrhea – ORT use *Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea*	o *Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea*
Diarrheal disease – place of treatment	o *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of diarrhea*
Diarrheal disease –treatment with Zinc	o *Percent of children under 2 years of age who were treated with a medication containing Zinc during their episode of diarrhea*
F. PNEUMONIA CASE MANAGEMENT	
ARI – place of treatment	o *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of acute respiratory infection*

Mid Term levels of these key project indicators as measured in this survey are presented later in the report.

3.2.2 Other Indicators of Interest

Several other indicators related to and expanding on project objectives were also of interest to project and partner staff, and additional questions were included in the questionnaire to specifically measure those areas. Those specific indicators (listed below) and resulting Mid Term levels are presented after the results of key indicators.

RESPONDENT BACKGROUND CHARACTERISTICS	
Maternal Literacy	*Percentage mothers of children under two years of age who can read a sentence from the standard literacy card*
CHILD SPACING	
Adequate Child Spacing	*Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child*
Birth Spacing	*Percentage of children age 0- 23 months who were born at least 36 months after the previous surviving child*
MATERNAL NEWBORN CARE	
Prenatal Care	*Percentage of mothers of children 0-23 months who visited a qualified person for prenatal care*
Prenatal care – knowledge of pregnancy danger signs	*Percentage of mothers of children 0-23 months who can state at least three danger signs in pregnancy*
Institutional delivery	*Percentage of mothers of children 0-23 months whose last delivery was in a health care institution*
Birth Preparedness	*Percentage of mothers of children 0-23 months who made at least two preparations during their pregnancy with their youngest child*
BREASTFEEDING & NUTRITION	
Breastfeeding – colostrum administration	*Percentage of children 0-23 months who were fed colostrum in the first three days of birth*
Breastfeeding – persistence of breastfeeding	*Percentage of children 20-23 months who are currently being breastfed*
MALARIA – FEVER TREATMENT	
Immediacy of treatment for fever	*Percentage of children 0-23 months with fever in the last two weeks who were taken for treatment on the same day or the next day*
Fever- treatment with antimalarial	*Percentage of children 0-23 months with fever in the last two weeks who were treated with an antimalarial*
Mothers knowledge regarding malaria transmission	*Percentage of mothers of children 0-23 months of age who can state that malaria is transmitted through mosquito bite*
WATER & SANITATION	
Point of Use (POU)	*Percentage of households of children age 0-23 months that treat water effectively*
Sanitation – use of soap for handwashing	*Percentage of households of children age 0-23 months that have soap or detergent which is normally used for handwashing*
DEWORMING	
Deworming:	*Percentage of children 12-23 months of age who were given anthelminth medicine in the 6 months preceding survey*

3.3. Sample Size Determination

The sample size for this survey was calculated using the following formula:

$$n = Z^2 (p \times q) / d^2$$

where n = sample size; Z = statistical certainty chosen; p = estimated prevalence / coverage rate; q = 1 - p; and d = precision desired.

The value of p was defined by the coverage rate that requires the largest sample size (p = .5). The value d was the precision, or margin of error, desired (in this case d = 0.1). The statistical certainty was chosen to be 95% (Z = 1.96). Given the above values, the following sample size (n) needed was determined to be:

n = (1.96 x 1.96)(.5 x .5)/(.1 x .1)
n = (3.84)(.25)/.01
n = 96

It would be very time-consuming to randomly select an identified individual from the survey population, and then perform this selection 96 times to identify a sample of n = 96. A random selection of this nature would also require a sampling frame including every mother of a child under two years in the project area. Census lists exist in this project area, but limited time frame did not permit verification of their completeness and assurance that they were up-to-date. This survey, therefore, followed the two-stage cluster sample survey method in which the population is divided into clusters, and several individuals within each cluster are selected to reach the required sample size. In order to compensate for the bias which enters the survey from interviewing persons in clusters, rather than as randomly selected individuals, experience has shown that the sample size used in a cluster survey should be approximately double the number of that required for a simple random sample (calculated using the formula above). This yields a figure of 192 (96 x2). In the surveys used to estimate immunization coverage, the figure of 192 was increased to 210, so as to yield 7 individuals in each of 30 clusters. In the case of cluster sampling for a KPC survey, a sample size of 300 (10 respondents in each of 30 clusters) is generally used so as to ensure that sub-samples are large enough to obtain useful management type information. The Mid Term KPC survey for the Parivartan CS project used a sample size of 300.

3.4. Selection of the Sample

Respondents were selected following the cluster sampling method described in the literature and used and recommended by the WHO and others. The sample consisted of 300 mothers of children younger than 24 months from 30 “clusters”. The census population list for Sahibganj district was used as the sampling frame, with villages being the unit of sampling. The 30 clusters were chosen throughout the 9 blocks of the district using a population-weighted systematic sampling method. Since the blocks have different populations, different numbers of clusters were randomly chosen in each block. The populations used in the sampling process, along with the chosen clusters are shown in Appendix B.

In one case, there were three clusters located in a single town - Sahibganj. Survey personnel were assisted with maps and definitions of potential cluster boundaries, and from these cluster sites were randomly selected and further sub-divided when necessary. When the survey teams reached their designated cluster sites each day, the center of the community was located, and an initial direction was randomly selected. The houses in the direction were counted, reaching to the periphery of the cluster or sub-division, and then a random number equal to or less than the number of houses was chosen, usually by serial numbers on a currency note. The team supervisor was in charge of the process of selection of first household; once the first household was chosen, the interviewers proceeded by always choosing the closest house to the one just interviewed till the required number of mothers with children less than 23 months of age (10) were identified.

3.5. Training

The overall coordination of the training schedule and sessions was facilitated by the Parivartan project survey Core team. They had also briefed the survey personnel in advance of the survey trainer's arrival. All the personnel were from the local area, and were familiar with the language and culture of the district. It was decided to deviate somewhat from the standard procedure of training only supervisors for the first day, followed by supervisors and interviewers together for an additional three days. Rather, all individuals were included in three days and a half of training. The first two days and a half were spent in teaching general methodology and rationale of the cluster survey process to all participants, and individual supervisor training was provided after field-testing of the instrument on the fourth day of training. It was found useful to include a session on basic issues relating to Maternal and Child Health to orient the core team, supervisors and interviewers to the issues and terminology used in a KPC survey of a CS project. (See Appendix D for the training schedule.)

3.6. Data collection and quality control procedures

Data collection for all 300 households took place over three days, conducted by ten teams of three persons each (one supervisor and 2 interviewers). Surveys took approximately 30 minutes per household. Several steps were taken to ensure quality control at all steps of the process:

- Design of survey instrument: Checks on the translation were made by several members of the Survey Core Team and by survey personnel during training, and a final check was made during field testing.
- Selection of first household: Core team members went to the field during the field testing, during actual data collection and supervisors reported on the first household selection procedure every day
- Conducting of Interviews: Supervisors were asked to observe one interview of each interviewer each day, randomly selected. Three block co ordinators of the project (members of the Survey Core team) accompanied three randomly picked teams to cluster sites and observed the process of data collection each day.
- Evening review: The supervisors were met by the survey trainer and co-ordinator every evening for a quick review of the survey forms and process.
- Accuracy of data entry was verified by checking a randomly selected 20% of questionnaires entered by each of the three data entry operator teams.

In initial planning of the survey process, it was decided that the primary route of data analysis would be through computer tabulation using Epi info 6.04c which would be used also at the analysis stage. Three teams of two members each were engaged full-time for four days to assist in data entry and verification. All three data entry teams had some previous experience with computer use but the data entry process used in this survey was new. It was therefore necessary to use the whole of day 1 of data entry in training and practice entries. The project M&E officer/survey co-ordinator, who had participated in similar data handling prior to this, co-ordinated the process along with the Survey Trainer.

Percentages, medians and means were the primary point estimates calculated for project indicators. Additionally, 95% confidence intervals are given for the key project indicators. These confidence intervals were calculated using the CSample module of Epi Info 6.04c, which takes into account the design effect (potential inflation of sampling error) produced through using the cluster sampling methodology.

4. SURVEY RESULTS

4.1. Results of Key Project Indicators

Indicators	NUMERATOR	DENOMINATOR	MID TERM PERCENT	CONFIDENCE LIMITS *(design effect)*	BASELINE LEVEL
MATERNAL AND NEWBORN CARE					
54.3Community Based Antenatal Care					
o *Percentage of mothers of children aged 0-23 months having three or more antenatal visits when they were pregnant with their youngest child*	163	300	54.3	44.6-64.0 (2.9)	23.3
o *Percentage of mothers of children aged 0-23 months having four or more antenatal visits when they were pregnant with their youngest child*	31	300	10.3	5.9-14.7 (1.6)	8.66
o *Percentage of mothers of children aged 0-23 months who received at least two TT vaccinations before the birth of their youngest child*	257	300	85.6	80.8-90.5 (1.5)	69.0
o *Percentage of mothers of children aged 0-23 months who received/bought iron supplements while pregnant with their youngest child*	226	300	75.3	67.1-83.5 (2.8)	46.67
Clean Delivery Practices					
o *Percentage of births where a cord was cut with a new or clean instrument or a clean birth kit was used*	288	300	96.0	94.2-97.7 (0.6)	89.0
o *Percentage of children age 0-23 months whose births were attended by skilled personnel*	112	300	37.3	25.6-49.0 (4.5)	26.66
Post Partum Care					
o *Percentage of mothers of children age 0-23 months who received a post-partum visit from an appropriate trained health worker within three days after the birth of the youngest child*	122	300	40.6	29.7-51.5 (3.85)	26.0
o *Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after the birth of the youngest child*	113	300	37.6	25.9-49.3 (4.5)	25.67
Thermal Care					
o *Percentage of children age 0-23 months who were dried and wrapped with a warm cloth or blanket immediately after birth (before the placenta was delivered)*	255	300	85.0	79.5-90.4 (1.8)	69.33

Indicators	NUMERATOR	DENOMINATOR	MID TERM PERCENT	CONFIDENCE LIMITS *(design effect)*	BASELINE LEVEL
Maternal Knowledge regarding Danger signs					
o *Percentage of mothers able to report at least three known maternal danger signs during the post-partum period*	230	300	76.6	67.0-86.2 (4.02)	1.67
o *Percentage of mothers able to report at least three known newborn danger signs*	216	300	72.0	62.8-81.1 (3.2)	4.33
NUTRITION					
Breastfeeding- Early Initiation					
o *Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal feeds*	114	300	38.0	30.0-45.9 (2.1)	19.33
Breastfeeding- Exclusive					
o *Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours*	41	73	56.1	40.5-71.7 (1.8)	70.37
Complementary feeding					
o *Percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices*	67	227	29.5	20.9-38.0 (2.1)	25.52
o *Percentage of infants who received breast milk and solid/mushy foods at age 6 to 9 months*	21	73	28.8	16.3-41.2 (1.4)	44.18
Vitamin A Supplementation					
o *Percentage of children age 9-23 months who received a dose of vitamin A in the last 6 months*	88	170	51.8	42.3-61.3 (1.6)	20.64
Maternal Nutrition					
o *Percentage of women who have a low BMI (<18.5 kg/m2)*	119	300	39.7	31.5-47.7 (2.1)	41.83
Children - underweight					
o *Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)*	123	300	41.0	34.0-48.0 (1.6)	44.89
CHILDHOOD IMMUNIZATION					
Full Primary Immunization					
o *Percentage of children age 0-23 months who received BCG, DPT3, OPV3, and measles vaccines before they reached 12 months*	30	130	23.1	13.9-32.1 (1.6)	9.52
Immunization - Access					
o *Percentage of children age 12-23 months who received a DPT1 vaccination before they reached 12 months*	70	130	53.8	43.6-64.1 (1.4)	29.36
Immunization - Performance					
o *Percentage of children age 12-23 months who received a DPT3 vaccination before they reached 12 months*	52	130	40.0	29.5-50.5 (1.6)	21.42
Measles vaccine					
o *Percentage of children age 12-23 months who received a measles vaccination*	51	130	39.2	11.64 – 28.03 (1.9)	19.84
MALARIA – PREVENTION AND TREATMENT					

Indicators	NUMERATOR	DENOMINATOR	MID TERM PERCENT	CONFIDENCE LIMITS *(design effect)*	BASELINE LEVEL
ITN Use o *Percentage of children age 0-23 months who slept under a bednet the previous night*	237	300	79.0	71.0-86.9 (3.0)	33
ITN Possession o *Percentage of households of children 0-23 months that own at least one bednet*	263	300	87.6	82.2-93.0 (2.1)	62.33
Antenatal Malaria prophylaxis o *Percentage of mothers of children 0-23 months who took anti-malarial medicine to prevent malaria during pregnancy.*	71	300	23.7	15.6-31.7 (2.8)	2.6
CONTROL OF DIARRHEAL DISEASE					
ORT use *Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea*	67	131	51.2	38.1-64.1 (2.3)	45.5
Place of treatment *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of diarrhea*	42	131	32.1	21.6-42.5 (1.7)	34.6
Treatment with Zinc *Percent of children under 2 years of age who were treated with a medication containing Zinc during their episode of diarrhea*	19	129	14.7	6.7-22.7 (1.7)	18.8
PNEUMONIA CASE MANAGEMENT					
ARI – place of treatment *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of acute respiratory infection*	77	119	64.7	52.6-76.7 (1.9)	40.7
Indicators	**NUMER-ATOR**	**DENOM-INATOR**	**MID TERM PERCENT**	**CONFIDENCE LIMITS** *(design effect)*	**BASELINE LEVEL**
CONTROL OF DIARRHEAL DISEASE					
ORT use *Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea*	67	131	51.2	38.1-64.1 (2.3)	45.5
Immunization - Performance o *Percentage of children age 12-23 months who received a DPT3 vaccination before they reached 12 months*	52	130	40.0	29.5-50.5 (1.6)	21.42
Measles vaccine o *Percentage of children age 12-23 months who received a measles vaccination*	51	130	39.2	11.64 – 28.03 (1.9)	19.84
MALARIA – PREVENTION AND TREATMENT					
ITN Use o *Percentage of children age 0-23 months who slept under a bednet the previous night*	237	300	79.0	71.0-86.9 (3.0)	33
ITN Possession o *Percentage of households of children 0-23 months that own at least one bednet*	263	300	87.6	82.2-93.0 (2.1)	62.33
Antenatal Malaria prophylaxis o *Percentage of mothers of children 0-23 months who took anti-malarial medicine to prevent malaria during pregnancy.*	71	300	23.7	15.6-31.7 (2.8)	2.6
CONTROL OF DIARRHEAL DISEASE					

Indicators	NUMERATOR	DENOMINATOR	MID TERM PERCENT	CONFIDENCE LIMITS *(design effect)*	BASELINE LEVEL
ORT use *Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea*	67	131	51.2	38.1-64.1 (2.3)	45.5
Place of treatment *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of diarrhea*	42	131	32.1	21.6-42.5 (1.7)	34.6
Treatment with Zinc *Percent of children under 2 years of age who were treated with a medication containing Zinc during their episode of diarrhea*	19	129	14.7	6.7-22.7 (1.7)	18.8
PNEUMONIA CASE MANAGEMENT					
ARI – place of treatment *Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of acute respiratory infection*	77	119	64.7	52.6-76.7 (1.9)	40.7

DESCRIPTION OF RESULTS – KEY INDICATORS

A. Maternal and Newborn care

Antenatal care - Visits: 163 of the 300 mothers (54.3%) stated that they made 3 or more visits to a health care provider when they were pregnant with their youngest child (23.3% at baseline). 31 of 300 (10.3%) stated that they made 4 or more visits during their pregnancy (8.6%)

Antenatal care – Tetanus immunization: 257 of the 300 mothers (85.6%) stated that they received 2 or more doses of Tetanus toxoid vaccine before the birth of their youngest child (69%)

Antenatal care – Iron Folic acid supplementation: 226 of the 300 mothers (75.3%) stated that they bought or received Iron supplements when they were pregnant with their youngest child (46.6%)

Intranatal Care - 288 of 300 (96%) mothers stated that the umbilical cord was cut with a new instrument, or a clean birth kit was used during the delivery of their youngest child less than 2 years of age (89%).

Intranatal Care – 112 of 300 (37.3%) mothers stated that the birth of their youngest child was attended by a skilled health care provider (26.6%)

Postnatal Care : 122 of 300 (40.6%) mothers of children age 0-23 stated that they received a post-partum visit from an appropriate trained health worker within three days after the birth of the youngest child (26%).

Newborn Care - visit: 113 of 300 (37.6%) mothers of children age 0-23 months stated that their youngest child received a visit from an appropriate trained health worker within three days of the child's birth (25.7%)

Newborn Care - Thermal care : 255 of 300 mothers (85%) stated that their youngest child 0-23 months was dried and wrapped with a warm cloth or blanket immediately after birth (69.3%)

Maternal Knowledge – Danger signs - Postpartum: 230 of 300 mothers (76.6%) were able to state at least 3 danger signs in the post partum period.(1.7%)

Maternal Knowledge – Danger signs – Newborn – 216 of 300 (72%) mothers were able to report at least 3 known newborn danger signs (4.3%)

B. Nutrition

Breastfeeding - Early Initiation: Of the 300 mothers, 114 (38%) stated they put the child to the breast within the first hour after birth and did not administer any prelacteal feed (19.3%)

Breastfeeding - Exclusive breastfeeding: Of 73 children 0-5 months of age, 41 (56.1%) were exclusively breastfed during the 24 hours preceding survey (70.4%)

Complementary feeding - appropriate feeding practice: 67 out of 227 children 6-23 months of age (29.5%) were fed according to a minimum of appropriate feeding practice (25.5%)

Complementary feeding – solid/mushy food: 21 of 73 children aged 6-9 months (28.8%) were fed with solid / mushy food in addition to breastmilk in the 24 hours preceding survey (44.2%)

Vitamin A supplementation: 88 of 170 children aged 9-23 months (51.8%) received a dose of Vitamin A in the last 6 months (Mother's recall)(20.6%)

Maternal nutrition: Of the 300 mothers surveyed, 119 (39.7%) had a Body Mass Index of less than 18.5 (41.83%)

Child nutrition – underweight: 123 of 300 children (41%) whose weight was taken were found to be underweight (< -2 SD from the median weight for age and sex according to the NCHS/CDC standard)(44.89%)

C. Childhood Immunization

Full immunization: Of 130 children aged 12-23 months in the survey, 30 (23.1%) were fully immunized with BCG, DPT3 and Measles vaccine before their first birthday (card verified) (9.5% at baseline)

Immunization – Access: 70 of 130 children 12-23 months of age (53.8%) had received the DPT1 vaccine before their first birthday (card) (29.4%)

Immunization – Performance: 52 of 130 children 12-23 months of age (40%) had received the DPT3 vaccine before their first birthday (card) (21.4%)

Measles vaccination: 51 of the 130 children aged 12-23 months (39.2%) were immunized against measles at the time of the survey (card) (19.8%)

D. Malaria – Prevention and Treatment

Bednet possession: Mothers in 263 of the 300 households with children aged 0-23 months (87.6%) stated that their household possessed a mosquito net.

Bednet Use: 237 of the 300 mothers (79%) stated that their child aged 0-23 months slept under a bednet in the night preceding survey. (33%)

Antenatal Malaria prophylaxis: 71 of 300 mothers (23.7%) stated that they took antimalarial prophylaxis during the pregnancy with their youngest child.(2.6%)

F. Control of Diarrheal Disease

Diarrhea – ORT use: Of 131 mothers reporting that their child 0-23 months had diarrhea in the two weeks preceding survey, 67 (51.2%) said that they administered an acceptable form of oral rehydration therapy (ORT) at home.(45.5%)

Diarrhea - Care-seeking : Of 131 children 0-23 months with diarrhea in the two weeks preceding survey, 42 (32.1%) sought treatment from a qualified provider (34.6%)

Diarrhea- treatment with Zinc: of 131 children with diarrhea in the 2 weeks preceding survey, 19 (14.5%) reportedly received treatment with a medication containing Zinc (18.8%)

G. Pneumonia Case Management

ARI - Care seeking: Of the 119 children with danger symptoms of ARI in the 2 weeks preceding survey, 77 (64.7%) sought treatment from a qualified provider (40.7%)

4.2. Additional Indicators of Interest

Indicators	NUMER-ATOR	DENOM-INATOR	PERCENT
RESPONDENT BACKGROUND CHARACTERISTICS			
Age and Sex distribution of children in the survey			
Sex			
Male children 0-23 months	152	300	50.7
Female children 0-23 months	148	300	49.3
Age			
0-5 months	73	300	24.3
6-8 months	57	300	19.0
9-11 months	40	300	13.3
12-23 months	130	300	43.3
Fever, Diarrhea and ARI children 0-23 mos			
Children 0-23 months with fever in the 2 weeks preceding survey	164	300	54.7
Children 0-23 months with diarrhea in the 2 weeks preceding survey	131	300	43.7
Children 0-23 months with cough or difficult breathing in the 2 weeks preceding survey	119	300	39.7
Maternal Literacy *Percentage mothers of children under two years of age who can read a sentence from the standard literacy card*	55	289[20]	19.03%
CHILD SPACING			
Adequate Child Spacing *Percentage of children age 0-23 months who*	157	206	76.2	68.9-83.5	72.27

[20] 11 mothers stated that they could read the sentence in a language which was not represented on the literacy card

were born at least 24 months after the previous surviving child				(1.6)	
Birth Spacing *Percentage of children age 0- 23 months who were born at least 36 months after the previous surviving child*	80	206	38.8	31.8-45.9 (1.1)	39.01
MATERNAL AND NEWBORN CARE					
Prenatal Care *Percentage of mothers of children 0-23 months who visited a qualified person for prenatal care*	228	300	76.0	67.8-84.1 (2.8)	48.66
Prenatal care – knowledge of pregnancy danger signs *Percentage of mothers of children 0-23 months who can state at least three danger signs in pregnancy*	185	300	61.7	51.2-72.1 (3.6)	0.7
Institutional delivery *Percentage of mothers of children 0-23 months whose last delivery was in a health care institution*	84	300	28.0	15.7-40.3 (5.8)	14.66
Birth Preparedness *Percentage of mothers of children 0-23 months who made at least two preparations during their pregnancy with their youngest child*	129	300	43.0	30.9-55.4 (4.6)	Not assessed
NUTRITION					
Breastfeeding – colostrum administration *Percentage of children 0-23 months who were fed colostrum in the first three days of birth*	240	300	80.0	75.8-84.2 (1.5)	60.7
Breastfeeding – persistence *Percentage of children 20-23 months who are currently being breastfed*	37	40	92.5	84.7-100 (0.9)	85.71
Deworming: *Percentage of children 12-23 months of age who were given anthelminth medicine in the 6 months preceding survey*	45	130	34.6	26.3-42.8 (1.0)	15.07
MALARIA – TREATMENT AND PREVENTION					
Immediacy of treatment for fever *Percentage of children 0-23 months with fever in the last two weeks who were taken for treatment on the same day or the next day*	118	164	71.9	61.9-81.9 (2.1)	56.19
Fever- treatment with antimalarial *Percentage of children 0-23 months with fever in the last two weeks who were treated with an antimalarial*	42	164	25.6	12.5-38.7 (3.8)	5.71
Mothers knowledge regarding malaria transmission *Percentage of mothers of children 0-23 months of age who can state that malaria is transmitted through mosquito bite*	274	300	91.3	85.5-97.1 (3.3)	53.33
WATER & SANITATION					
Point of Use (POU) *Percentage of households of children age 0-23 months that treat water effectively*[21]	94	300	31.3	21.8-40.8 (3.2)	37.00
Sanitation – use of soap for handwashing *Percentage of households of children age 0-23 months that have soap or detergent which is normally used for handwashing*	127	300	42.3	34.6-50.1 (1.9)	33.66

[21] Defined as boiling or using bleach. The baseline indicator included filtration and solar disinfection in addition.

DESCRIPTION OF RESULTS – ADDITIONAL INDICATORS

A. Respondent Background characteristics

Age and sex distribution: Of the 300 children 0-23 months surveyed, 152 (50.7%) were male, and 148 (49.3%) were female. Of children 0-23 months surveyed, 73 were between 0-5 months (36%), 57 children between 6 and 8 months,40 between 10-11 (14.3%), and 130 children were between 12 and 23 months of age (43.3%).

Fever, Diarrhea and ARI in the 2 weeks preceding survey: Mothers of 164 children (54.7%) 0-23 months stated that their child had fever in the 2 weeks preceding survey, 131 (43.7%) stated that the child had diarrhea in the 2 weeks preceding survey and 119 (39.7%) stated that the child had symptoms of Acute Respiratory Infection in the 2 weeks preceding survey.

Maternal Literacy: 55 of 289 (19.03%) mothers stated that they could read the sentence shown on the literacy card.

B. Child Spacing

Adequate child spacing: Of 206 children who had an older surviving sibling, 157 (76.2%) were born at least 24 months after the sibling and 80 (38.8%) were born at least 36 months after the older sibling.

C. Maternal and Newborn Care

Prenatal Care – qualified person: 228 of 300 mothers (76%) visited a qualified person for care when pregnant with their youngest child.(48.7% at baseline)

Prenatal care – maternal knowledge: 185 of 300 mothers (61.7%) could state at least 3 danger signs in pregnancy.(0.7%)

Institutional delivery: 84 of 300 mothers (28%) stated that they delivered their youngest child below two years of age in a health care institution (14.7%)

Birth Preparedness: 129 of 300 mothers (43%) stated that they made at least TWO preparations for the delivery of their last child (form saving money, arranging a blood donor, arranging transport, taking help of mother/relatives, arranging for a health personnel to be present.

D. Nutrition

Breastfeeding – Colostrum administration: 240 of 300 (80%) mothers stated that they gave their child under 2 years colostrum in the 3 days following delivery of the child (60.7%)

Breastfeeding – persistence: 37 of 40 children aged 20-23 months (92.5%) were given breastmilk in the 24 hours preceding survey (85.7%)

Deworming: Of 130 children 12-23 months of age, 45 (34.6%) were given an anthelminth medication in the 6 months preceding survey (15.1%)

E. Malaria – prevention and treatment

Malaria – Immediacy of fever treatment : 118 of the 164 children (71.9%) with fever in the 2 weeks preceding survey were taken for treatment on the same day or next day (56.2%).

Malaria – treatment of fever with antimalarial: 42 of the 164 children 0 -23 months (25.6%) who had fever in the 2 weeks preceding survey were treated with an antimalarial (5.7%).

Malaria – Maternal knowledge regarding transmission: 274 of the 300 mothers of children 0-23 months (91.3%) stated that malaria is caused following a mosquito bite.(53.3%)

F. Water and Sanitation

Water – Point of use: Mothers in 94 of the 300 (31.3%) households stated that they treat water effectively before consumption (37%)

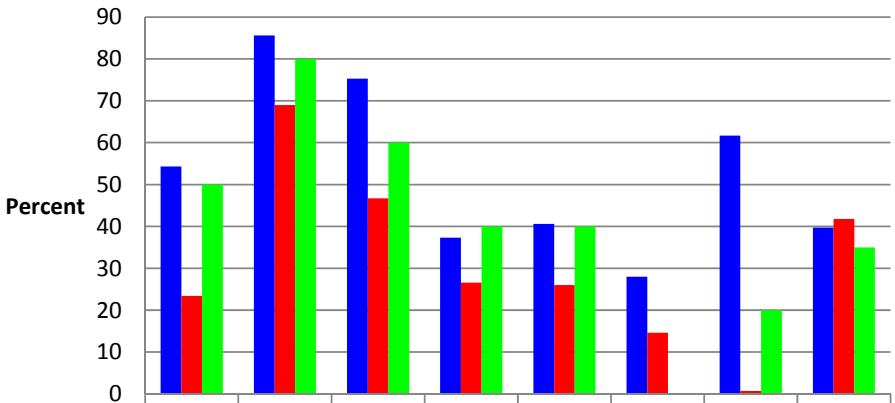
Sanitation – use of soap : 127 of the 300 households (42.3%) had soap or detergent at the place normally used for handwashing (33.7%).

5. DISCUSSION OF SURVEY FINDINGS

In general, the levels of key indicators are higher at the mid term when compared with the levels at baseline. Comparisons and programmatic implications will be addressed in the sections below by health intervention area.

5.1 Maternal and Newborn Care

Table 1
KEY INDICATORS - MATERNAL AND NEWBORN CARE



	3 ANC visits	2 TT vacc	Iron recd	Skill asst	PNC visit - moth er	Inst del	Know 3 ANC	Mat low BMI
Mid term 2010 %	54.3	85.6	75.3	37.3	40.6	28	61.7	39.7
Baseline 2008 %	23.4	69	46.7	26.6	26	14.6	0.7	41.8
TARGET %	50	80	60	40	40		20	35

A. Background information

The number of boys in the survey is 152 and the number of girls is 148, yielding a sex ratio of 974 girls per 1000 boys aged less than 2 years. The sex ratio in the population

of the district in the age group 0-6 years is 972 females per 1000 males[22] and in the whole population is 942 females per 1000 males. In the population of Scheduled tribes, however, the sex ratio is 999.8 females per 1000 males, showing a better status of women among the tribal population.

The literacy levels of the mothers as assessed at mid term was low, with 19.03% of them being able to read a sentence on the standard literacy card. The higher levels of most key indicators at mid-term could indicate that the design of messages used in BCC activity has been verbal and pictorial in preference to written. If this has been the case, it should continue since the ability of the mothers to read written messages may be low. Even the written matter in standard material used by the Government in its RCH program, like the vaccination card, must be accompanied by verbal based communication if behavior change should sustain.

B. Antenatal Care

Three important aspects of Antenatal care were assessed as part of the survey – Antenatal visits, Tetanus immunization and Iron supplementation. The proportion who had made at least 3 antenatal visits to a health care provider during their last pregnancy was 54.3%, and those who made 4 visits or more was 10.3%, baseline data showed the level as being 23.3% and 8.66% respectively. The proportion of mothers who said that they received/bought Iron supplements when they were pregnant with their youngest child was 75.3%, compared with 46.7% at baseline. The proportion of mothers who stated that they received iron supplements during their last pregnancy was 75.3%, (46.7% at baseline) while the proportion of those who consumed more than 90 tablets of iron in their pregnancy is 45.6%, which was less than 5% at baseline. The consumption of iron is based on maternal recall, converting the number of months she remembers to have taken supplements into number of tablets consumed, hence may suffer some inaccuracy. Tetanus immunization rates are higher, with 85.6% of mothers stating that they had received at least 2 doses of TT vaccine before the birth of their youngest child aged <24 months. The higher levels of TT/IFA coverage probably points to the fact that discrete items like a vaccine or a tablet/syrup are more available than a consultation, or care given by a health care provider. Even then, NFHS 3 data shows that the statewide figure for *consumption* of Iron supplements for at least 90 days during pregnancy is 14.6%, which indicates that getting the supplement does not necessarily indicate consumption. The levels of knowledge indicators is remarkably high at mid term with more than 70% of mothers stating 3 danger signs in pregnancy, in the postnatal period and in the newborn. Perhaps the qualitative study could inquire into the strategies for raising knowledge-BCC – which worked and continue emphasizing these in the remaining project period. An additional indicator added at the time of Mid Term was Birth Preparedness, defined as the number of mothers who made preparations (saving money, arranging blood donor, arranging transport, arranging mother/relative to help, arranging health worker to help). The indicator measured the proportion of mothers who made at least TWO preparations – 129 of 300 mother, (43%), This information could be used at individual counseling which accompanies Antenatal Care.

C. Intranatal Care

28% (14.2% at baseline) of mothers surveyed said their last birth was at a health care institution, which is more than the figure for Jharkhand state- 19.2% (NFHS3). While this level is higher than the baseline level, this still indicates that the percentage of women delivering in non institutional settings like their home is 72%. Given this high

[22] District Information on Sahibganj at www.sahibganj.nic.in

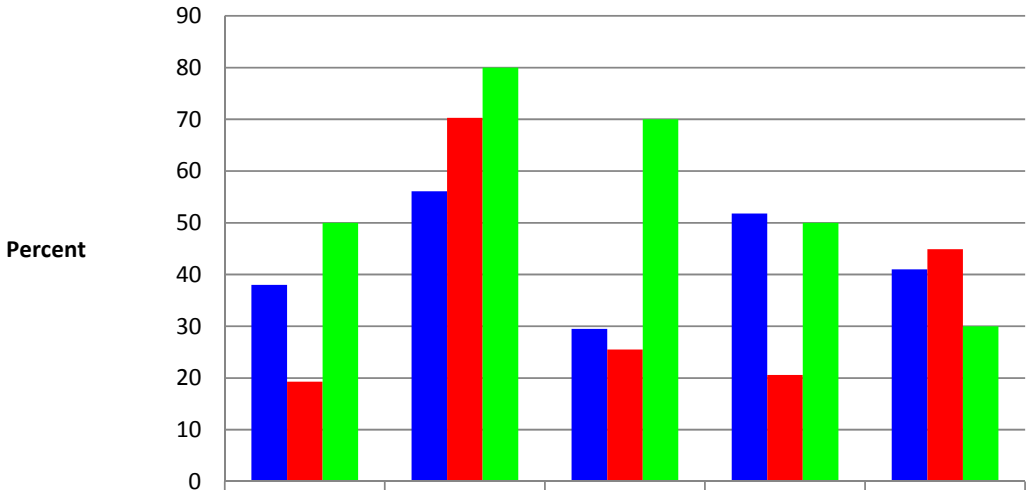
figure, surprisingly, the cord was cut with a new/clean instrument or a safe delivery kit was used in 96 % of deliveries, and thermal care – wiping the baby dry and wrapping in a blanket – was adequate in 85% of deliveries. Also, the proportion of mothers who received skilled assistance during delivery is 37.3%, higher than the figure for Jharkhand, which is 28.7% (NFHS3). This proportion is higher than the proportion of institution deliveries. This indicates that skilled assistants – doctors, Nurses and ANMs – are involved with conducting deliveries at non institutional settings, like the home. This could also be probed, since a community-based skilled assistant would represent an important category of health resource in the project.

D. Postnatal Care and Newborn Care

The indicators of postnatal care show that 40.6% of mothers were visited by an appropriately trained worker within 3 days of the delivery of their youngest child, and 37.6% of the children aged 0-23 months received a similar visit within 3 days of their birth. The corresponding figure for Jharkhand State (NFHS3) is 17.2 %, but this reflects a postnatal visit made to the mother within 2 days of delivery. The survey figure may be an overestimate, because mothers may have reported the care they received as part of the delivery in some cases, though interviewers were trained to explain the meaning of the question. The figures are higher than the baseline figures of 26 % and 25.6% respectively. The National RCH program stipulates that women will receive a visit in the 6 weeks following delivery, but the severe shortage of trained personnel at the PHC level, poor infrastructure and connectivity may be causes for the low level of postnatal visits at baseline. It would be useful to probe if the postnatal care received included a visit at home, apart from the care given immediately following delivery in an institutional setting, since the data shows that whereas 88% of mothers who delivered in institutions reported a postnatal visit, only about 50% of those who delivered at home reported a visit.

5.2 Nutrition and Breastfeeding

Table 2: KEY INDICATORS - NUTRITION AND BREASTFEEDING



	Early Initn	Exclusive BF	Comp feed	Vit A	Child Underwt
Mid term 2010 %	38	56.1	29.5	51.8	41
Baseline 2008 %	19.3	70.3	25.5	20.6	44.9
TARGET %	50	80	70	50	30

A. Breastfeeding

Breastfeeding appears to be a universal practice, with 292 of the 300 mothers surveyed (97.3%) having ever breastfed their child, and 37 of 40 mothers of children 20-23 months of age (92.5%) persisting with breastfeeding. 80% of the 300 mothers stated that they gave colostrum to their youngest child under 2 years in the three days following birth (60.7% at baseline). Of the 73 infants 0-5 months of age, 41 (56.1%) stated that they were not giving any food other than breastmilk to their child at the time of survey (70.3% at baseline), and the corresponding figure for the state of Jharkhand is 57.8% (NFHS 3). Hence the promotion of breastfeeding and the practice of exclusively breastfeeding their children are concepts which appear to be present in the population, but could be built up further. The initiation of breastfeeding within one hour of birth in the absence of prelacteal feeding was practiced by 38% of the 300 mothers surveyed (19.3% at baseline). The corresponding figure for the State of Jharkhand is 10.9% (NFHS 3). Of the 292 mothers who practiced breastfeeding, 75 (25.8%) stated that they gave their child something other than breastmilk in the first three days following delivery, which is also a cultural practice which needs understanding, in order for the BCC message of the project to be locally relevant.

B. Complementary feeding

29.5% of the 227 children 6-23 months of age (25.5% at baseline)were fed complementary foods according the minimum of appropriate feeding practices, and 28.8% of 43 children 6-9 months of age received solid / mushy food in the 24 hours preceding survey (44.2%). Complementary feeding practices are not necessarily decided by the mother of the child alone. They are often influenced by the older members of the household, and depend upon the pattern of food consumption followed in the household. Interventions aimed at promoting complementary foods would do well with a house-based BCC strategy, since one-to-one communication may be required, by a trained person like the *Sahiyya.*

C. Vitamin A

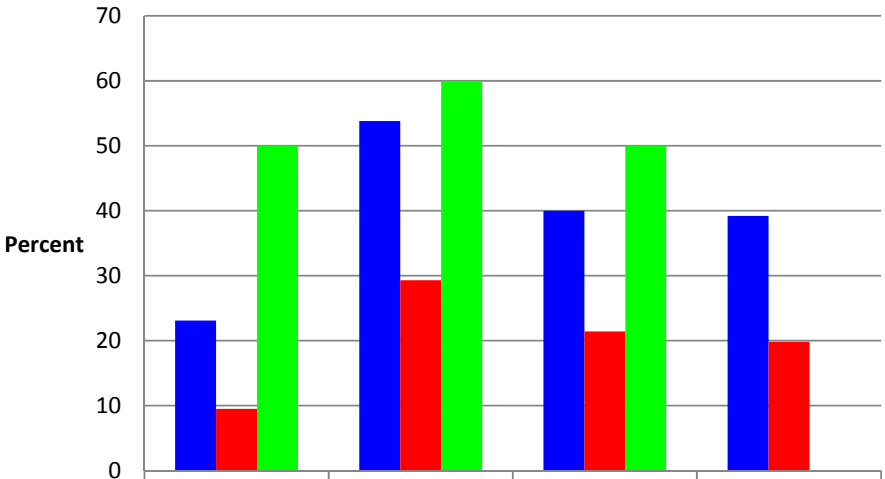
More than half (51.8%) of 170 children 9-23 months of age received a dose of Vitamin A in the last 6 months. (20.6% at baseline) NFHS 3 assessed the Vitamin A supplementation levels among children 12-35 months of age, and found it to be 23.3%. The delivery of Vitamin A syrup to children takes place at three sites – the PHC, the HSC and at the Anganwadi centre. The service strengthening component of the project has definitely helped in this area, it needs to be strengthened to reach the remaining children.

D. Anthropometry

Of the 300 mothers, 119 (39.7%) had a BMI less than 18.5 (41.8% at baseline). This is comparable to the NFHS3 finding of 42.6% among currently married women 15-49 years of age in Jharkhand State. 41% of children 0-23 months in the survey were found to be underweight (< 2 SD below the median wt for age according to the NCHS/CDC standard), which is lower than the 59.2% of children 0-35 months found to be underweight in Jharkhand State (NFHS 3). The baseline figure was 44.9%. The limitation to the baseline KPC survey data with respect to the child weight indicator was that the mode of recording weight in children was to measure the weight of both mother and child using the adult weighing scale, remove the child, measure the weight of the mother and record the difference. This was corrected at the mid term KPC survey, which used appropriate child weighing scales, hence the estimate may be more accurate. Malnutrition is multifactorial in its causation, and the project can contribute to its improvement, but real changes can happen when the macro-environment is worked upon, which requires a high level of political will.

5.3 Childhood Immunization

Table 3
KEY INDICATORS – CHILDHOOD IMMUNIZATION



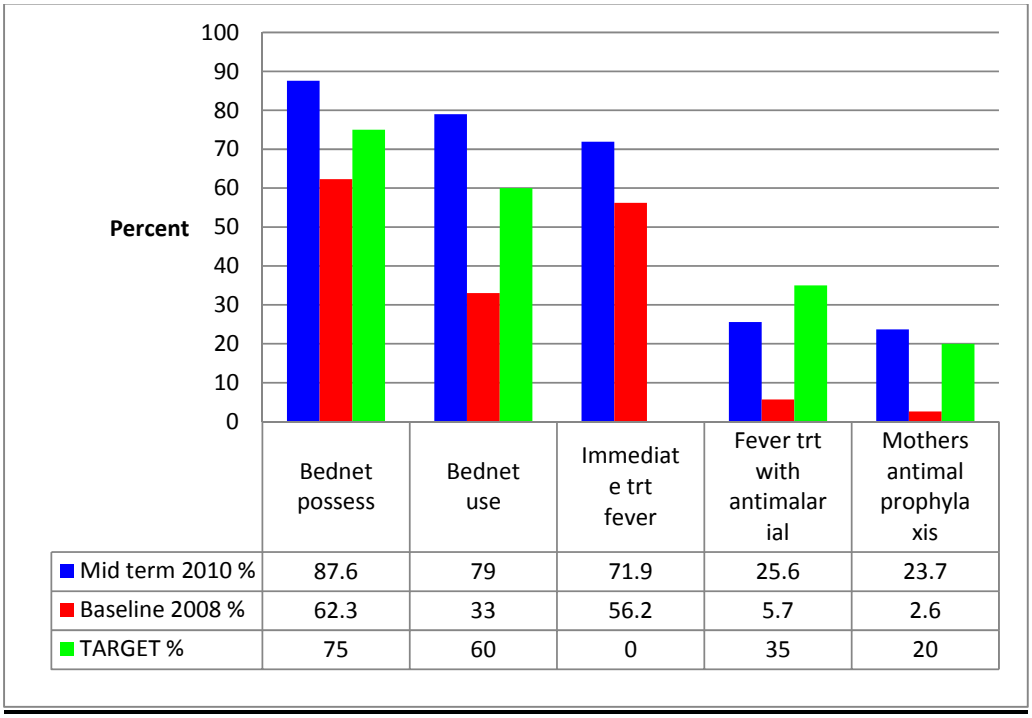
	Full Imm	Imm access - DPT1	Imm perform - DPT3	Measles vacc
Mid term 2010 %	23.1	53.8	40	39.2
Baseline 2008 %	9.5	29.3	21.4	19.8
TARGET %	50	60	50	0

71% (47% at baseline) of mothers had a vaccination card for their child less than 2 years of age at the time of the survey. Of the 130 children 12-23 months of age in the survey, 30 (23.1%) had been fully immunized with BCG, DPT3 and Measles as documented in the immunization card. (9.52% at baseline). The EPI access indicator which measures the proportion of children 12-23 months who received the DPT1 vaccine was 53.8% (29.4%). 52 children (40%) 12-23 months received the DPT3 vaccine, which is the EPI performance indicator (21,42% at baseline) , and 39.2% of children 12-23 months had received the measles vaccine (19.84 % at baseline), all before their first birthday. The proportions of fully immunized children, those who received DPT3 and Measles vaccine for the state of Jharkhand (NFHS 3) are 34.5%, 40.3% and 48%, which are higher than the mid term survey estimates. The higher levels than baseline may point to the effectiveness of the supportive supervision strategy and of the co-operative effort (public private partnership) at the level of the immunization sessions. Qualitative assessments could also explore people's perceptions regarding immunization and its importance, so that resistance at the level of the beneficiary, if any, may continue to be explored.

5.4 Malaria – Prevention and Treatment

Table 4

KEY INDICATORS – MALARIA, TREATMENT AND PREVENTION



	Bednet possess	Bednet use	Immediate trt fever	Fever trt with antimalarial	Mothers antimal prophylaxis
Mid term 2010 %	87.6	79	71.9	25.6	23.7
Baseline 2008 %	62.3	33	56.2	5.7	2.6
TARGET %	75	60	0	35	20

A. Bednet possession and use

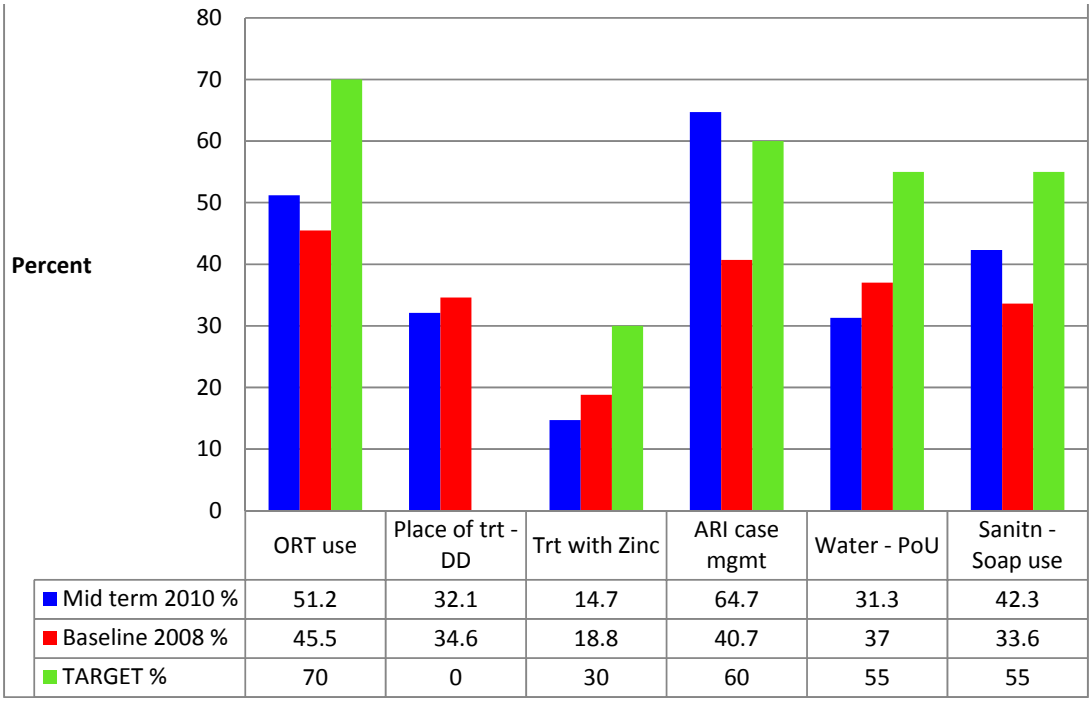
263 (87.6%) mothers of the 300 (62.3% at baseline) surveyed stated that they had a bednet in their house. 237 of the 300 children 79% (33% at baseline) slept under the bednet the night previous to the survey. These levels show that a significant proportion of the population possesses and uses bednets. However, the survey showed that only 5.9% of the mothers who possessed bednets stated that they had been treated with insecticide in the past. While the levels of possession and use are higher than the baseline levels, the project could probably focus in treatment with insecticide, which will add to the quality of the malaria intervention.

B. Treatment for fever

Of the 164 children with fever in the 2 weeks preceding the survey, 118 – 71.9% (56.2% at baseline) were taken for treatment on the same day or the next day to the appearance of the fever. However, 42 (25.6%) of the 164 children with fever (5.7% at baseline) were reportedly treated with an antimalarial medication. 23.7% of mothers stated that they had received an antimalarial medication as prophylaxis in their past pregnancy. (2.6% at baseline). The Government program on antimalarials and insecticide treatment of bednets should receive attention in the remaining life of the project, considering knowledge levels regarding the transmission of malaria are high - the fact that malaria is transmitted through mosquito bite was stated by almost all – 91.3% of mothers (53.3% at baseline).

5.5 Control of Diarrheal Disease, Pneumonia Case management and Water/Sanitation

Table 5
DIARRHEA, ARI AND SANITATION



	ORT use	Place of trt - DD	Trt with Zinc	ARI case mgmt	Water - PoU	Sanitn - Soap use
Mid term 2010 %	51.2	32.1	14.7	64.7	31.3	42.3
Baseline 2008 %	45.5	34.6	18.8	40.7	37	33.6
TARGET %	70	0	30	60	55	55

A. Diarrheal Disease

131 children of 300 (43.7%) had diarrheal disease in the 2 weeks preceding survey. Of them, 51.2% (45.54% at baseline) were given an acceptable form of ORT – powdered OR Salt which could be reconstituted, or ready mixed ORS or an accepted home available fluid. NFHS 3 shows that the corresponding figure for Jharkhand State is 17.8% (children given ORS). 42 children (32.1%) were taken for treatment to a qualified provider when the child showed signs of diarrhea (34.6% at baseline). NFHS 3 reports 32.5% as the figure for the State of Jharkhand. 19 of the 131 mothers (14.5%) of children who had diarrhea stated that they gave the child a medication containing Zinc (18.8% at baseline). This needs to be confirmed, since the ability of the interviewer to decide on Zinc content, based on direct observation of the medication, would still be limited. The survey was conducted in the summer season, which is the normal season for occurrence of diarrheal disease, explaining the somewhat high rate of occurrence. The lack of sufficient qualified health care providers in the area could be a factor in the low rate of care seeking, which points to a need to train local providers in control of diarrhea and the treatment of dehydration. Home management of diarrhea needs to be emphasized. The addition of the control of Diarrheal Disease (CDD) to the project is the right decision, given the high level of diarrhea among the study children. The levels of indicators do not show much change from baseline, indicating that CDD needs to figure in the areas of focus of the project.

B. Acute Respiratory Infection

119 mothers of 300 surveyed stated that their youngest child less than 24 months of age showed signs of cough and difficult breathing in the 2 weeks preceding survey. Of them, 77 (64.7%) took the child for treatment to a qualified provider – (40.7% at baseline, 46.3% is the figure for Jharkhand State (NFHS 3). Acute respiratory infection was marginally less frequent than diarrheal disease among the children surveyed,

which is to be expected in the summer season. Since both these diseases are among the major causes of death among infants in India, program strategies need to incorporate BCC and quality improvement in these areas as well. Data from qualitative studies will document care seeking patterns in the area, and the project must ensure that all mothers whose children show signs of pneumonia and diarrhea must take them to qualified health care. Educational messages should be targeted toward seeking proper qualified help. Training local health care providers in recognizing danger signs and to make proper and immediate referrals to medical facilities would be an important consideration in the project as well.

C. Water and sanitation

Mothers in 94 of the 300 households surveyed (31.3%) stated that they treat water using one of two methods – boiling and beach application. The filtering of water using a cloth and solar disinfection, which were also considered in the baseline survey as being acceptable methods, were not taken into consideration, since the quality of purification using these methods is variable. The occurrence of diarrhea in those households which practiced any form of purification of water was 76 of 172 (44.1%), and the occurrence of diarrhea in houses which did not use any of these methods to purify their water was 55 of 128 (42.9%). The difference is not statistically significant. (Chi sq=0.04, df=2, p>0.05) If this suggests that the methods of purification of water at the household level are not effective, then the BCC strategy needs to take this into consideration. 42.3% of the 300 households had soap or detergent present at the place designated to wash hands. (33.7% at baseline) Handwashing is a proven strategy to reduce the incidence of childhood infection. The project should re-emphasise this in the BCC, following qualitative assessment as to perceptions and practices regarding handwashing, including the availability of water.

D. Child Spacing

76.2% of children less than 2 years of age were born at least 24 months after their older sibling (72.3% at baseline) , and 39% were born at least 36 months after their older sibling (38.8%). USAID-funded studies that show that spacing births three to five years apart cuts the mortality rate for infants and young children by 20–30 percent. Allowing time between births also makes it more likely that mothers will survive and be healthy. The studies also show that birth intervals of three years or longer substantially decrease mortality and nutritional risks, compared to intervals of two years or less. In developing countries, three-year birth intervals were associated with fewer still-births, prenatal deaths, and newborn deaths, and reduced the risk of stunted and underweight infants. [23] While the Parivartan project does not actively work towards enhanced birth spacing, it recognizes that Family Welfare is one of the determinants of child health in Sahibganj district.

6. CONCLUSIONS AND RECOMMENDATIONS

The Mid Term KPC survey provides a quantitative estimate of the situation with respect to key indicators of Maternal and Child Health status in the population covered by the Child Survival Program. The survey needs to be followed up with detailed qualitative assessment to explore the reasons for levels assessed in the survey, potential resources in the community and possible strategic refinements which need to

[23] http://www.usaid.gov/our_work/global_health/pop/news/frontlines_dhs3.html

take place with respect to targets in the remaining life of the project. The suggested areas for exploration as part of the qualitative study are the following:

6.1. Next steps in information gathering – suggestions for qualitative assessment

Several issues and questions arose during analysis of these KPC results, and specific areas have already been suggested in the discussion section above for further information gathering. In summary, these questions are the following, presented according to intervention area:

6.1.1. Maternal and Newborn care

- What are the reasons women go for prenatal checks ?
- What are the reasons women do not go for prenatal check ?
- Where do women prefer to go for their prenatal check ? Why ?
- How many checks do Pregnant women think are adequate ? Why ?
- What are the problems associated with getting and consuming Iron tablets during pregnancy ?
- What are the preparations women make for their delivery ?
- Where do women prefer to go for their delivery ? What are the problems associated with accessing hospital care during delivery ?
- Who are the persons conducting deliveries at home in this area ? What is the training received by these persons ?
- What are the perceptions of mothers regarding complications which can occur during delivery ?
- What is the care given to mothers and children following delivery ? At hospital ? At home ?
- What are some of the problems women and newborn babies experience in the days following delivery ? What do they do when they experience problems?

6.1.2. Nutrition and Breastfeeding

- When are mothers, especially first time mothers, taught about breastfeeding ? Where do they get their information from – within the house, or at health facilities ?
- When should a mother start breastfeeding her baby ? Why ?
- Why should a woman breastfeed her baby?
- What are the reasons why some mothers do not breastfeed?
- What is given to babies in the first three days of delivery ? Why ?
- Why do some mothers not give the first milk that comes in the three days following delivery ?
- What can be done to encourage women to exclusively breastfeed their babies for the first six months of life?
- What are the advantages of practicing exclusive breastfeeding as perceived by mothers? As perceived by health facility personnel ?
- When do mothers usually start giving foods apart from breastmilk, and what are those additional foods ?
- Who decides on what foods the baby should receive in the first year of life ?
- What is Vitamin A ? Where is Vitamin A available for children in the area ?

6.1.3 Childhood Immunization

- What are the sources of immunization for children in the project area ?
- Why should children receive vaccinations ?
- Why do some mothers not take their children for vaccination ?
- What are problems associated with immunization services available to children in the area ?
- What is a vaccination card ? Why should mothers have a vaccination card for their children ?

6.1.4 Malaria – Prevention and Treatment

- Why do some people use bednets in their houses ? Why do some people not use bednets in their house ?
- What can be done to bednets to make them more effective in preventing mosquito bites, and malaria ?
- What is done when a child gets fever ?
- Where are children taken for treatment of fever ?
- Can malaria be prevented ? How ?
- What are the medications available for malaria in the area ? Why do some people not use medications when they get fever ?

6.1.5 Diarrheal disease/ Sanitation

- What do mothers perceive as the cause of diarrhea among their children ?
- What do mothers in the area do – at home – when their child gets diarrhea ? What do they do in the summer, in the winter ?
- What types of drinks would mothers usually prepare to give to their child during diarrhea or other illness?
- What do mothers feed their children with when their child has diarrhea ?
- What is ORS ? Where do mothers get ORS from ? How do they get it quickly when their child urgently needs it ?
- What are the signs of diarrhea which are considered dangerous ?
- Who/Where do mothers in the area prefer to go to when their child has diarrhea? What are the reasons for their preference ?
- What are the perceptions of mothers regarding handwashing ? What are the factors hindering regular handwashing at their homes ?
- How do mothers purify/treat the water which they use for drinking ? What are their perceptions regarding the need for purifying water ?
- What is Zinc ? What is its usefulness for children with diarrhea?

6.1.6 Acute Respiratory Infections

- What is meant by “rapid breathing ?” What is the local term for this ?
- What are the signs of pneumonia which are considered dangerous?
- What do mothers do at home when their child shows signs of pneumonia, in terms of home care and feeding ?
- Who/Where do mothers in the area prefer to go to when their child is sick? What are the reasons for their preference ?
- Why do mothers sometimes prefer to take their children later than the first day ?
- What is the quality of care available at the facilities to which they go ?
- What are the difficulties in taking a child for treatment promptly – on the same day ?

- What do health facility personnel consider as important signs of acute respiratory infection ?

6.2. Next steps – Target revision

A study looking at different ways to find out how population levels of health indicators changed in communities where PVO CS projects have worked, determined that one of the best measures for determining how much a project achieved compared to what was possible to achieve is called the Target Setting Performance Index. The Performance Index (PI) is a ratio of the absolute achievement in respect of the project indicators to the possible achievement, assuming a ceiling of 100%.
PI for a given indicator A = (final level^{A} – baseline level^{A}) / (100 – baseline level^{A}))

The baseline KPC survey (2008) yielded estimates of levels of Key Indicators which were used to suggest targets, based on the application of the Performance Index (PI).

The PIs for most indicators have been worked out from studying the performance of several CS projects all over the world, and are presented in the **Participant's Manual and Workbook** KPC Training Module 3: Training Post-Survey Analysis Team[24] - section TR3-11 of the manual. Those figures have been used in the calculations below.

The formula used in calculation of the possible final targets is
F = PI + ((1 – PI)* B), where:
F = Potential Final Target
B = Baseline level
PI = Performance Index
The current levels of indicators are presented below, and the PI has been used to arrive at possible final target levels for selected Key indicators. The PI is conventionally used with baseline data, to set targets, assuming that the entire life of the project is available to the organization to achieve the target. However, considering that the mid term estimates of several indicator levels have come close to or have exceeded some target levels, the midterm levels of indicators have been used to set final targets for the remaining life of the project.

SUGGESTED TARGETS

Objective	**Mid term level**	**PI** (from *KPC Training Module 3: Training Post-Survey Analysis Team - Participant's Manual & Workbook)*	**Probable Final level** (rounded off)	**Suggested Target,** to be assessed at Final survey
A. MATERNAL AND NEWBORN CARE		** - All figures in percent*		
1. Pregnant women will have at least 3 visits to a health facility for Antenatal care before birth of their child	54.3*	13 (2-24)	60	60
2. Pregnant women will receive at least two tetanus toxoid injections before the birth of their child	85.6	12 (3-21)	87	90

[24] Monitoring and Evaluation Working Group, CORE Group, *Knowledge, Practice, Coverage Survey Training Curriculum,* Washington, D.C.: December 2004.

Objective	Mid term level	PI (from *KPC Training Module 3: Training Post-Survey Analysis Team - Participant's Manual & Workbook)*	Probable Final level (rounded off)	Suggested Target, to be assessed at Final survey
3. Pregnant women will receive iron & folic acid during their pregnancy	75.3	12 (3-21) same as the PI for TT immunizations	78	80
4. Nursing mothers will have better nutrition, as assessed by their BMI	39.3	28	30	35
5. Mothers will have increased knowledge about danger signs during pregnancy	61.7	35 (32-55) The base PI chosen is at the lower range of the PI for knowledge re AN visits	75	75
6. Improve safe delivery practice – use of a clean/new instrument to cut the cord/ use of a safe delivery kit	96	13 (2-24) The base PI chosen is similar to the PI for most maternal health indicators	97	95
7. Improve safe delivery practice – adequate thermal care for newborns	85		87	85
8. Improve safe delivery practice – Skilled assistant at delivery	37.3		45	45
9. Improve postnatal care delivered to mothers in the area – Mothers will be visited by an appropriate health provider within 3 days of delivery	40.6		48	45
10. Improve care delivered to newborn babies in the area – Babies will be visited by an appropriate health provider within 3 days of birth	37.6		46	40
11. Improve knowledge of women regarding danger signs in the postnatal period in the mother	76.6	35 (32-55) The base PI chosen is at the lower range of the PI for knowledge re AN visits	85	75
12. Improve knowledge of women regarding danger signs in the postnatal period in the newborn baby	72		82	75
B. NUTRITION AND BREASTFEEDING				
1. Improve breastfeeding practice – early initiation	38	34 (24-44)	59	50
2. Improve breastfeeding practice – exclusive breastfeeding for 6 months	56.1	29 (14-43)	69	75
3. Improve infant feeding practice – appropriate complementary feeding	29.5	35	54	50
4. Improve vitamin A supplementation	51.8	33 (Immunization PIs are between 31%-36%)	68	60

Objective	Mid term level	PI (from *KPC Training Module 3: Training Post-Survey Analysis Team - Participant's Manual & Workbook)*	Probable Final level (rounded off)	Suggested Target, to be assessed at Final survey
C. CHILDHOOD IMMUNIZATION				
1. Improve access to immunization – DPT1 coverage	53.8	36 (26-45)	70	60
2. Improve immunization system performance – DPT3 coverage	40	34 (26-42)	60	50
3. Improve measles immunization – measles coverage	39.2	31 (23-39)	58	50
4. Improve immunization coverage – children fully immunized before their first birthday	23.1	36	51	50
D. MALARIA – TREATMENT AND PREVENTION				
1. Increase coverage of ITN in households- Bednet possession	87.6	30 *PI chosen close to other coverage indicators*	91	90
2. Increase coverage of ITN in households- Bednet use	79		85	80
3. Increase coverage of malaria prophylaxis – mothers who took antimalarial prophylactic medication during pregnancy	23.7	30	47	30
E. CONTROL OF DIARRHEAL DISEASE				
1. ORT Use Children given an acceptable form of ORT during their episode of diarrhea	51.2	38	70	60
2. Care seeking - DD Children who were taken to an appropriate care provider when they had diarrhea	32.1	12	40	40
3. Treatment with Zinc Children given medication containing Zinc during their diarrheal episode	14.1	10	23	20
F. PNEUMONIA CASE MANAGEMENT				
1. Care seeking - ARI Children who were taken to an appropriate care provider when they had an episode of ARI	64.7	12	69	65

6.3. Other Recommendations

6.3.1 Lessons learned for Future surveys

The Mid Term KPC survey of the Child Survival project of CRWRC/ EFICOR/ Government of Jharkhand served as a learning opportunity for the staff of the organization. The following will be some of the lessons leaned:

a. Timing

The survey was carried out in the first half of June which is the hot season in Jharkhand, expected to be the "diarrhea season". Despite this, the sub sample size for the ARI module was larger than expected.

b. Preparation

The preparation for the survey was initiated ahead of the survey. Compared to the Baseline, there was a palpable increase in the capacity of the organization and of the core team in preparation and organization for the survey. The participation of the Core team in all aspects of survey – training, data collection (one of the Block co-ordinators/Core team members served as survey supervisor for one team) was good, and the survey co-ordinator has a good grip on the KPC survey.

c. Infrastructure

The entire process of training, data collection and data entry was based at the CASA resource centre at Taljhari. This necessitated the entire team of Survey Trainer, Core team, Interviewers and Supervisors to stay together for the duration of the survey. This was a good initiative, and it promoted a good level of communication between all members.

d. Training

The Manager- Direct Programs, EFICOR, the project manager and the block co ordinators actively participated in the training of the interviewers and supervisors. This should enable them to carry out such training on their own in future, and is one step in the building of training capacity among the staff of the program.

e. Data collection

The nature of the population – scattered, living in sometimes remote, difficult-to-reach locations did not pose problems for the interviewers and supervisors. A team of 23 interviewers and 10 supervisors carried out the data collection over three days in 10 teams. Each supervisor was in charge of 2-3 interviewers. Each of 10 teams completed one cluster each day, which meant that 10 clusters were planned to be completed per day, and 30 clusters in 3 days, with a Sunday (rest day) intervening between data collection days 2 and 3. This appeared to be a feasible level of effort. The block co ordinators accompanied teams for data collection, which gave them a first hand experience of the field situation.

f. Supervisors and interviewers

The supervisors and interviewers used in this survey were local residents, form the same district as the program, with a sound knowledge of conditions and culture in the area. The minimum educational qualification was 10 th class pass. The training schedule was spread over 4 days, considering that some sessions would need to go slow. This was more than compensated for, however, by the energy and enthusiasm showed by the group. In the hot weather, 2 interviewers and 1 supervisor reported sick/were found unsuitable, and having reserve members helped ensure adequate team composition.

g. Analysis

The data entry was done by 3 teams of 2 persons each. The data entry was spread over 4 days, with the first day devoted to training of the data entry team. This was a good investment, as subsequent quality checks revealed a very low error rate. The exercise was co-ordinated by the Project M&E officer with assistance from the survey trainer. It should be possible for the M&E officer to take charge of data entry and analysis of project related information in future.

Annex 6: CHW Training Matrix

Type of Personnel	Focus of Training	Project Staff & Cluster Supervisors	Govern-ment Staff	Paid or Volun-teer	Total for Life of Project
Project Staff	Primary Health Care for PM, M&EO, BCs & CSs	**35 + 22**			**57**
	PHC for PM, M&EO & BCs by Jamkhed	**22**			**22**
	Primary Health Care (Other)	**1**			**1**
	HMIS development and Lot Quality Assurance Sampling (LQAS) for PM, M&EO, and BCs	**7**			**7**
	Child Survival Sustainability Assessment (CSSA) and community capacity building for PM, M&EO, BCs & CSs	**7**			**7**
	Designing for Behavior Change (DBC) for EFICOR HQ staff, PM, M&EO, and BCs	**7**			**7**
	Financial management for accountant, BCs, PM, and M&EO	**8**			**8**
AWWs	Antenatal care counseling and care		**1278**		**1278**
	Post-natal and newborn care		**1278**		**1278**
	Malaria prevention and intermittent preventive treatment of malaria for pregnant women		**1278**		**1278**
	Growth Monitoring and Promotion		**1548**		**1548**
	Prevention and detection of diarrhea and in home-based diarrhea management		**1278**		**1278**
	Prevention, detection & referral for ARI		**1278**		**1278**
Sahiyas	Antenatal care counseling and care		**841**		**841**
	Childhood immunization schedules		**841**		**841**
	Prevention and detection of diarrhea and home-based diarrhea management		**841**		**841**
	Post-natal and newborn care		**841**		**841**
	Malaria prevention, intermittent preventive treatment of malaria for pregnant women & presumptive treatment of malaria for children < 5		**841**		**841**
	Prevention, detection and referral for ARI		**841**		**841**
TBAs	Safe / clean delivery, recognition of danger signs, importance of referral etc.			**653**	**653**
	Postnatal care immediately after delivery			**653**	**653**
Tradi-tional healers	Traditional healers in the differences between safe and harmful practices			**133**	**133**
VHC members	VHC members in VHC Self Scoring Sheet .		**650**		**650**

Annex 7: Evaluation Team Members and their Titles

1) Franklin Baer, Team Leader
2) Nancy TenBroek, Health Advisor (CRWRC-Asia)
3) Alan Talens, Health Advisor (CRWRC-US)
4) Sanjeev Bhanja, Director of Progras, EFICOR
5) Prashant Missel, Parivartan Project Manager
6) Sraban Kumar Badanayak, M&E Officer, Parivartan Project
7) Monoroma Tudu, Block Coordinator, Parivartan Project, EFICOR
8) Rakeshh Nayak, Block Coordinator, Parivartan Project, EFICOR
9) Lawrence Hansda, Block Coordinator, Parivartan Project, EFICOR
10) Soni Kerketa, Block Coordinator, Parivartan Project, EFICOR
11) Punita Minz, Training Consultant, Parivartan Project, EFICOR
12) Grace Kreulen, Volunteer Evaluator, MSU)
13) Dave Kreulen, Volunteer Evaluator, MSU)
14) Amanda Hazel, Student Intern, U of M

Annex 8: Evaluation Assessment Methodology

The evaluation began in New Delhi with briefing meetings with USAID and EFICOR, and followed by travel by plane and overnight train to the project site in the Sahibganj District of Jarkhand State. The evaluation process with the full evaluation team began on Aug. 3, and followed the eight steps noted below:

1) Agree on what we should evaluate (day 1)
2) Decide the questions to ask & who to interview (day 2)
3) Make field visits to conduct interviews (day 2, 3 & 4)
4) Compile the information collected (day 5)
5) Discuss findings and draft conclusions (day 5, 6)
6) Develop consensus on recommendations (day 6)
7) Prepare summary elements for presentation (day 6, 7)
8) Present findings to partners (days 7, 8, 10)

Step 1: Agree on what we should evaluate

The mid-term evaluation (NTE) methodology followed closely the 2009 *Guidelines for Mid-Term Evaluation* as published by USAID/GH/HIDN/NUT. These guidelines were provided to each evaluator along with a summary/checklist of key points. The team agreed to concentrate on answering five key questions from those guidelines:

- **P**rogress: Has the project been implemented as planned?
- **A**chievements: Is the project on track to achieve its objectives?
- **S**ufficiency: Are the approaches being used sufficient to reach objectives?
- **I**dentification of Barriers: What challenges has the project faced?
- **R**ecommendations: What needs to be changed to improve project implementation?

Step 2: Decide the questions to ask & who to interview

The evaluation team collected information from 1) Review of project documents & reports; 2) the MTE KPC survey results; 3) Discussions with Project Staff who were part of the evaluation team; and 4) Field interviews with selected groups (see Table 1).

Table 1: Groups Interviewed

- Government Authorities (6 interviews)
- Cluster Supervisors (9 persons)
- Health Sub Center & Auxiliary Nurse Midwives (4 facilities)
- Sahiyas (4 groups)
- Anganwadi Workers (4 groups)
- Trained Traditional Birth Attendant (4 groups)
- Village Health Committees (4 groups)

In preparation for the field visits the evaluation team prepared a set of questions for each group that was to be interviewed (see Box 1).

Step 3: Make field visits to conduct interviews:

The evaluation team split into teams A and B for the field trips. Each team included 3 or 4 Hindi speakers – one to facilitate the group interview, one or two note-takers, and one translator. Four of the nine project "blocks" were identified for visits. Within each blocks interviews were conducted with the groups mentioned in table above

Box 1 : Parivartan Child Survival Project MTE Questions (Selected) – Step 2

I. Questions for Gouvernement Autorités

1) How has the project helped you in accomplishing the targets (for example Immunization coverage) in your district? Follow-up questions: How effective is the support? Do you have specific examples? (CS & DPO) -
2) CDPO: How has the project helped to build the capacity of the service providers (AWW,ANM,ASHA)? Are you generally satisfied with the progress In this area? How will this sustain? (CS & DPO)
3) We understand that a lot of effort is being made to strengthen Health sub centre for delivery care by training SBAs. How will they be equipped and authorized to do deliveries at that level?
4) The data shows good improvement in immunization/ANC but there are still many children/mothers left out/dropped out. What are the problems in accomplishing total immunization? How can this project help?
5) What are your recommendations for the project for the next 2.5 years?

II. Questions for Auxiliary Nurse Midwives (ANM)

1. How has this project assisted with improving immunization rates? Howe effective? How to improve?
2. How has this project assisted with your work in controlling malaria? How effective? How to improve?
3. How has this project assisted with your work in improving ANC, delivery referral, and PNC?
4. How has this project assisted with diarrhea and pneumonia? Follow-up questions: How effective was the assistance that you received from EFICOR? How might it be improved?
5. Equity question; what are the cultural, religious, geographic, or gender barriers that you experience in improving health status of your community?
6. Safe delivery questions: In the last 3 months how many pregnant women from your HSC had their delivery in the PHC? Do you have delivery kits at your HSC? Are you giving it to the pregnant women? Are you willing to do the delivery in your HSC? If yes, how can this happen?
7. How has the Parvartan Child Survival Project helped you in strengthening the HSC? Follow-up questions: Do you conducting meetings at the HSC? What are the benefits of having a HSC meeting? Will the HSC strengthening meetings continue after the project is completed in a few years?
8. What other recommendations do you have for how we can better work with you to achieve these goals?

III. Question for Sahiya & Anganwadi Workers (AWW)

1. (AWW & Sahiya) Has this project assisted with your work? If so, how? Follow-up questions: How effective was the assistance that you received from the child survival project? How might it be improved?
2. (AWW) What counseling do you give to the parents of malnourished children? Are you satisfied with how parent follow the counseling? Can you give an example? Follow-up questions: How effective was the assistance that you received from the child survival project? How might it be improved?
3. (AWW & Sahiya) What methods do you find work best to change health practices of communities (pregnant women, lactate mothers, mother in-law and husband)? Can you give an example?

   Follow-up questions. What other better way could be to improve their health practices?
4. (AWW & Sahiya) Are the mothers giving their children exclusive breast milk till six months of age? If not why, is they are not giving their child exclusive breast feeding?
5. (AWW & Sahiya) In past two years fully immunization coverage has increased from 10 to 23 percentages. That's good but how do you get to the rest 77 percentages of children?
6. (AWW) Half of the children having with diarrhea get ORS and very few get zinc, how do you think can be improved?
7. (Sahiya & AWW) What role do you play in the VHC? Are you satisfied with your role? How do you think VHC can be made sustainable?

V. Questions for Village Health Committees (VHC)

1. How is the VHC helping the community? Can you tell us a specific story?
2. How has the health of the people benefited from your health program?
3. What future changes you want to see in your village? What would be the VHC role in that change?
4. What barriers are there that get in the way of your VHC activities?
5. Do you have suggestions to give you more knowledge or skills to make you more effective to run your VHC?
6. How Parivartan (EFICOR) is has helped to strengthen your VHC?

Step 4: Compile the information collected:

Both evaluation sub-teams A and B spent Saturday morning compiling their notes into bulleted findings for reporting back. In the afternoon, each group presented their findings to the entire group. Box 2 illustratively shows the compiled notes from Team B from their interviews with ANMs. For purposes of continuity of ideas we found it best to have both groups report for a specific group, e.g., ANMs, before moving to the next group.

Box 2: Compiled Notes from ANM Interview (Team B) – Step 4

1. How has this project assisted with your work in improving immunization rates?

- Project helped in immunization coverage, helped in updating due list for immunization
- Because Project trained AWW and Sahiya about the immunization schedule, they are contributing more
- Project is strengthening VHC, therefore VHC motivating the people also the ANM
- Due to BCC activities, people became aware of the importance of ANC, PNC, Prevention of Malaria, Diarrhea and Pneumonia. This have increase the health indicators

Suggestions:

- Due list must be updated
- Sahiya must work actively to mobilize the community
- In VHC meeting, members must discuss about the immunization

2. How has this project assisted with your work in improving ANC, delivery referral, and PNC?

- Trained the Sahiya and AWW on ANC, delivery referral and PNC. By this, this two service providers do the counsel to Pregnant and Lactating mother.
- Promoted the institutional delivery
- Project is encouraging Sahiya and AWW to do counsel

Suggestions:

- She should be given the SBA training
- She must get one more assistant because of the work load
- Every village should be covered with the BCC activities on the importance of ANC, PNC and institution delivery

3. How has this project assisted with your work in controlling diarrhea and pneumonia?

- Sahiya and AWW were trained to help the ANM in controlling diarrhea & Pneumonia.
- CSP helped spread the messages on the uses of ORS, ZINC and Co trimoxasol

Suggestions:

- AWW and Sahiya must have ORS, Zinc with them every time
- There should not be stock out of ORS and Zinc in PHC
- People should made aware of how to use ORS and Zinc
- Must visit the hard to reach area twice in a month

4. Equity question: What are the cultural, religious, geographic, or gender barriers that you experience in improving health status of your community?

- Hard to reach areas
- Some Muslim community do not bring the child for immunization

5. Safe delivery questions: Do you have delivery kits at your HSC? Are you giving it to the pregnant women? Are you willing to do the delivery in your HSC? If yes, how can this happen?

- Delivery kit is available in both the HSC and given to all pregnant women during 3 ANC
- Yes, willing to do the delivery but must a SBA trainer

6. Do you conducting meetings at the HSC? What are the benefits of having a HSC meeting? Will the HSC strengthening meetings continue after the project is completed in a few years?

- Yes, Conducting regular monthly meeting on one Wednesday in a month
- ANM would continue the HSC meeting because it helps her work

7. What other recommendations do you have for how we can better work with you to achieve these goals?

- HSC meeting must be regular
- VHC meetings must be regular
- Household counseling must be regular

Step 5: Discuss findings and draft conclusions:

Following the presentation on the findings for each group interviews, an opportunity was provided for evaluators to propose some tentative conclusions and/or recommendations based on the information that was presented. This exercise was extremely helpful and resulted in a "starter list" of almost 40 recommendations for consideration (see Box 3). At this point in the process we did not bother remove duplicate ideas or try to consolidate similar ideas.

Box 3- Brainstorming Possible Recommendations - Step 5

I. HSC and ANMs

1) Develop concept of monthly meetings with Sahiya & AWW. Find a good name to promote it.
2) Organize periodic training meetings and/or conferences of ANMs at the block level
3) Examine Muslim cultural influences for deliveries and immunizations
4) Reinforce/Upgrade selected HSCs to increase safe delivery points.
5) Reinforce ANM skills
6) Reinforce Household level counseling by ANMs
7) Reinforce HSC/ANM links to VHCs
8) Get ORS and Zinc to the community level for distribution by Sahiya and AWW

II. Anganwadi Workers

1) Commendation concerning the availability of scales during MTE.
2) Identify priority topics for nutrition promotion, e.g., a "green leafy campaign"
3) Reinforce/Establish monitoring system for technical supervision of growth monitoring, e.g., not just if the weights are note correctly, but if they are weighing all kids
4) Reinforce and encourage more household counseling by AWWs
5) The "Take Home Ration" needs strengthening
6) Continue/Reinforce BCC and counseling to husbands and mother-in-laws

III. Sahiyas

1) Assess how to streamline (decentralize) incentive payments to ensure prompt payments.
2) Ensure that Sahiyas know their proper roles and responsibilities
3) Reinforce timed counseling training
4) Reinforce BCC messages for ORS and Zinc
5) Consider how to improve usage of the "Due List" and to sustain this important tool for both children and pregnant women
6) Promotion of Immunizations at community and VHC levelU
7) Use Behavior Change Framework to identify areas/behaviors for emphasis, e.g., Muslim cultural influence on deliveries, immunizations and EBF.
8) Assess how to increase equity of incentives between AWWs and Sahiyas.

IV. Trained TBAs

1) More training for TTBAs where institutional deliveries are few (Map out deliveries)
2) Continue Support to TTBAs
3) Clarify how delivery kit distribution to TBAs is to be done (and at what cost)
4) Explore possibility of providing TTBAs with a solar-powered flashlight (BOGO light)
5) Examine how incentives are provided (or not) to TTBAs?

V. Village Health Committees

1) Establish member recognition for VHC members.
2) Clarify responsibilities of VHC regarding sending patients directly to the hospital
3) Scale up use of the VHC self-scoring system for capacity building.
4) Organize exchange visits between VHCs to encourage cross-learning
5) Provide leadership training for VHC leaderships, especially president, treasurer and secretary
6) Explore possibility of organization of VHCs at the block level, e.g., into federations.
7) Examine the positive developments of VHCs during the past to help in future development.

VI. Recommendations from Cluster Supervisors

1) Training of the VHCs
2) Focus on HSC meeting
3) Follow up training for Sahiyas and AWW

Step 6: Develop consensus on recommendations:

Using the list of suggestions for actions from Box 3, we re-organized them by project intervention area as shown below in Box 4. This allowed the evaluators to easily see ideas that were related to an intervention area.

Box 4: Developing a Consensus on Recommendations – Step 6

Maternal and Newborn Care

1) Examine Muslim cultural influences for deliveries and immunizations
2) Reinforce/Upgrade selected HSCs to increase safe delivery points.
3) Use Behavior Change Framework to identify behaviors for emphasis in areas of Religious influence.
4) More training for TTBAs where institutional deliveries are few (Map out deliveries)
5) Continue Support to TTBAs
6) Clarify how delivery kit distribution to TBAs is to be done (and at what cost)
7) Explore possibility of providing TTBAs with a solar-powered flashlight (BOGO light)

Immunization

1) Examine Muslim cultural influences for deliveries and immunizations
2) Promotion of Immunizations at community and VHC levels
3) Use Behavior Change Framework to identify behaviors for emphasis in areas of Religious influence.

Control of Diarrheal Disease

1) Get ORS and Zinc to the community level for distribution by Sahiya and AWW
2) Reinforce BCC messages for ORS and Zinc

ARI

Malaria

Nutrition

1) Commendation concerning the availability of scales during MTE.
2) Identify priority topics for nutrition promotion, e.g., a "green leafy campaign"
3) Reinforce/Establish monitoring system for technical supervision of growth monitoring, e.g., not just if the weights are note correctly, but if they are weighing all kids
4) The "Take Home Ration" needs strengthening
5) Use Behavior Change Framework to identify behaviors for emphasis in areas of Religious influence.

Community mobilization and CSSA

1) Reinforce HSC/ANM links to VHCs
2) Establish member recognition for VHC members.
3) Clarify responsibilities of VHC regarding sending patients directly to the hospital
4) Scale up use of the VHC self-scoring system for capacity building.
5) Organize exchange visits between VHCs to encourage cross-learning
6) Provide leadership training for VHC leaderships, especially president, treasurer and secretary
7) Explore possibility of organization of VHCs at the block level, e.g., into federations.
8) Examine the positive developments of VHCs during the past to help in future development.
9) Training of the VHCs

Behavior Change Communications

1) Reinforce Household level counseling by ANMs
2) Reinforce and encourage more household counseling by AWWs
3) Continue/Reinforce BCC and counseling to husbands and mother-in-laws
4) Reinforce timed counseling training
5) Reinforce BCC messages for ORS and Zinc

Quality improvement

1) Develop concept of monthly meetings with Sahiya & AWW. Find a good name to promote it.
2) Focus on HSC meeting
3) Organize periodic training meetings and/or conferences of ANMs at the block level
4) Reinforce ANM skills
5) Improve usage of the "Due List" to sustain this important tool for both children and pregnant women

Role of Community Health Workers

1) Ensure that Sahiyas know their proper roles and responsibilities
2) Assess how to increase equity of incentives between AWWs and Sahiyas.
3) More training for TTBAs where institutional deliveries are few (Map out deliveries)
4) Assess how to streamline (decentralize) incentive payments to ensure prompt payments.
5) Examine how incentives are provided (or not) to TTBAs?
6) Follow up training for Sahiyas and AWW

The re-organization of suggestions by intervention areas greatly facilitated the consolidation of ideas into a common recommendation. Table 2 provides an example of that consolidation process. Some of the suggestions if not covered specifically in the recommendation would be included a suggested step for implementation of the recommendation.

Table 2: Consolidation of Suggestions into a Key Recommendation		
1) Develop concept of monthly meetings with Sahiya & AWW. Find a good name to promote it. 2) Focus on HSC meeting 3) Organize periodic training meetings and/or conferences of ANMs at the block level 4) Reinforce ANM skills 5) Consider how to improve usage of the "Due List" and to sustain this important tool for both children and pregnant women		Recommendation # 1) Develop the capacity of ANMs to facilitate monthly HSC "Convergence" meetings with Sahiyas & AWWs to plan and coordinate activities within the HSC catchment area.

Once there was an agreement on several key recommendations, the evaluation team got into the rhythm of the process and the identification of additional recommendations gleaned from the findings became easier. The discussion of findings, review of suggestions for action, consolidation of actions into recommendations, and formulation of the recommendation continued for an additional day and eventually resulted in twelve key recommendations for project improvement.

Step 7: Prepare summary elements for presentation:

A description of the evaluation process, including the recommendations was constructed as a PowerPoint presentation. The outline and "chapters" for the presentation included the following:

1) Welcome and Introduction
2) Overview of CRWRC, EFICOR, CSP
3) Evaluation Methodology
4) KPC Results
5) Field Visits and Findings
6) Conclusions & Recommendations
7) Questions and Comments
8) Closing

Step 8: Present findings to partners:

For this evaluation, four presentation meetings were organized. This is somewhat unusual for a Child Survival MTE, but justified due to the distance between the project areas in the Sahibganj District and the EFICOR and USAID offices in New Delhi. The four presentations included:

1) The 30 project Cluster Supervisors;
2) District authorities partner projects;
3) USAID health officers; and
4) EFICOR staff and partner projects.

Annex 9: List of Persons Interviewed and Contacted

Groups/Persons Contacted	Number
Government Authorities & NGO	6 persons
Health Sub-Centers & ANMs	4 facilities
Sahiyas	4 groups
Anganwadi Workers	2 groups
Village Health Committees	4 groups
Trained TBAs	4 groups
Cluster Supervisors	9 persons

Government and NGO Officials:

1) Mr. Dewakar Kamat, Civil Surgeon
2) Mr. Vinay Kumar, District Program Manager
3) Mr. Praveen Kumar, District Program Coordinator (VHC & Sahiyya)
4) Mr. Nagendranath Ray, District Program Officer
5) Mrs. Meena Kumari Child Development Program Officer Barhait Block
6) Mr. Kalwari Oraon, Medical Officer In Charge, Borio
7) Mr. Nilanshu Kumar, District Manager, Vistar Project, NGO

Date	Filed Visit Site	Persons or Groups Met
Group A Aug. 5	HCS Pual	ANM - Anita Hembram
	Pual	Sahiyya- 9
	Pual	AWW -6
	Pual	TTBA - 2
	Simaljori	VHC – 1
	Sahibganj	CS- 3, Dorothy, Manoj Das, Kamlesh (Cluster supervisors)
Group B Aug. 5	HSC Phulbanga	ANM - Subhadra Devi
	Phulbanga	Sahiyya – 14
	Babupur	VHC -1
	Babupur	AWW – 12
	Babupur	TTBA – 4
Group A Aug. 6	HSC Lakhipur	ANM - Kalpana Sarkar
	Lakhipur	Sahiyya – 22
	Jamnagar	AWW – 20
	Jamnagar	VHC-1
	Sahibganj	CS -2 Anju , Zafar (Parivartan Cluster supervisors)
Group B Aug. 6	HSC – Srikund	ANM – Preyabala Murmu and Mandakini Hansdak
	Srikund	Sahiyya – 18
	Choliya	VHC -1
	Choliya	AWW- 13
	Choliya	TTBA – 7
	CDPO- Barhait	Meena Kumari (CDPO)
	Barharwa	Anita, Sebastian, Manoj Pandey, Sushil, Usha, Rani, Bahamuni. (Cluster supervisors)

Annex 10: Project Data Sheet

Child Survival and Health Grants Program Project Summary (Sep-08-2010)

Christian Reformed World Relief Committee (India)

General Project Information

Cooperative Agreement Number:	GHS-A-00-07-00025
CRWRC Headquarters Technical Backstop:	Alan Talens
CRWRC Headquarters Technical Backstop Backup:	Stephanie Sackett
Field Program Manager:	Prashant Missal
Midterm Evaluator:	Frank Baer
Final Evaluator:	
Headquarter Financial Contact:	Stephanie Sackett
Project Dates:	10/1/2007 - 9/30/2012 (FY07)
Project Type:	Standard
USAID Mission Contact:	Manju Ranjan Seth
Project Web Site:	

Field Program Manager

Name:	Prashant Missal (Child Survival Program Manager)
Address:	308 Mahatta Tower, 54 B Block New Delhi 110058 India
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Grant Funding Information

USAID Funding: $1,148,555 **PVO Match:** $406,872

General Project Description

The goal of the Parivartan Project is to reduce mortality among mothers, newborns and children under the age of five through building and sustaining community capacity. Over the five-year program period, CRWRC and EFICOR seek to achieve four strategic objectives in the Sahibganj district of Jharkhand, India. The strategic objectives are in alignment with Intermediate Result 3 of USAID India's Health Strategic Objective (SO 14) to "increase use of key child survival interventions" as well as the GOI National Health Policy (2002) and National Population Policy (2000). 1) Strengthen public-private partnerships for maternal and child health services. 2) Improve access to quality maternal and newborn care. 3) Improve nutrition among children. 4) Prevent and properly treat infectious diseases among women and children.

Project Location

Latitude: 26.32 **Longitude:** 84.92

Project Location Types:	Rural
Levels of Intervention:	Health Center Health Post Level Home Community
Province(s):	--
District(s):	Entire Sahibganj District in Jharkhand State
Sub-District(s):	--

Operations Research Information

OR Project Title:	Factors in Childhood Malaria Mortality in Sahibganj District, Jharkhand State, India
Cost of OR Activities:	$17,873
Research Partner(s):	EFICOR
OR Project Description:	Malarial deaths in children in some parts of India are frequent occurrences, and yet there are reasons to believe that these cases are under-reported due to lack of certification and reporting mechanism (especially in private sectors where 2/3 of cases are seen and the paucity of infrastructure in the rural areas. The Operation Research will look in to mortality cases of children under -5 in the past one year and the report cases of malaria in the same locality in the past year with no mortality (control). The OR is designed to yield information relating to the factors at the individual and household level whcih are associated with a higher risk fo child death due to malaria in the Sahibganj District. The data could form as the bases for project activity aimed at malaria control over the life of the project. Findings will be shared with the Government of Jharkhand for potential impact on the policy of the health department regarding malaria control and prevention , and with the National Vector -borne Disease Control Program for the same purpose. It will also be shared with other USAID grantees working in the area of malaria control and with the larger scientific community through publication of scientific papers.

Partners

Evangelical Fellowship of India Commission on Relief (Subgrantee)	$691,285

Strategies

Social and Behavioral Change Strategies:	Group interventions Interpersonal Communication
Health Systems Strengthening:	Quality Assurance Conducting capacity assessment of local partners Referral-counterreferral system development for CHWs Community input on quality improvement
Strategies for Enabling Environment:	Advocacy for policy change or resource mobilization
Tools/Methodologies:	BEHAVE Framework Sustainability Framework (CSSA) Rapid Health Facility Assessment LQAS Participatory Rapid/Rural Appraisal MAMAN Framework

Capacity Building

Local Partners:	Local Non-Government Organization (NGO) Traditional Healers Dist. Health System Health Facility Staff Health CBOs Other CBOs Faith-Based Organizations (FBOs)

Interventions & Components

Immunizations (10%) - Classic 6 Vaccines - Vitamin A - Cold Chain Strengthening - Mobilization - Measles Campaigns - Community Registers	IMCI Integration	CHW Training HF Training
Nutrition (20%) - ENA - Complementary Feeding from 6 mos - Continuous BF up to 24 months - Growth Monitoring - Maternal Nutrition	IMCI Integration	CHW Training HF Training
Vitamin A	IMCI Integration	CHW Training HF Training
Micronutrients	IMCI Integration	CHW Training HF Training

Pneumonia Case Management (10%) - Case Management Counseling - Access to Providers Antibiotics - Recognition of Pneumonia Danger Signs	IMCI Integration	CHW Training HF Training
Control of Diarrheal Diseases (10%) - Water/Sanitation - Hand Washing - ORS/Home Fluids - Feeding/Breastfeeding - Care Seeking - Case Management/Counseling - POU Treatment of water - Zinc	IMCI Integration	CHW Training HF Training
Malaria (10%) - Training in Malaria CM - Access to providers and drugs - ITN (Bednets) - Care Seeking, Recog., Compliance - IPT	IMCI Integration	CHW Training HF Training
Maternal & Newborn Care (40%) - Emergency Obstetric Care - Neonatal Tetanus - Recognition of Danger signs - Newborn Care - Post partum Care - Integation. with Iron & Folic Acid - Normal Delivery Care - Emergency Transport	IMCI Integration	CHW Training HF Training
Healthy Timing/Spacing of Pregnancy	IMCI Integration	CHW Training HF Training
Breastfeeding	IMCI Integration	CHW Training HF Training
HIV/AIDS	IMCI Integration	CHW Training HF Training
Family Planning	IMCI Integration	CHW Training HF Training
Tuberculosis	IMCI Integration	CHW Training HF Training

Operational Plan Indicators

Number of People Trained in Maternal/Newborn Health			
Gender	**Year**	**Target**	**Actual**
Female	2010		2804
Male	2010		158
Female	2011	0	

Number of People Trained in Maternal/Newborn Health			
Male	2011	0	
Female	2012	0	
Male	2012	0	
Number of People Trained in Child Health & Nutrition			
Gender	**Year**	**Target**	**Actual**
Female	2010		2421
Male	2010		158
Female	2011	0	
Male	2011	0	
Female	2012	0	
Male	2012	0	
Number of People Trained in Malaria Treatment or Prevention			
Gender	**Year**	**Target**	**Actual**
Female	2010		2151
Male	2010		158
Female	2011	0	
Male	2011	0	
Female	2012	0	
Male	2012	0	

Locations & Sub-Areas

Total Population: 927,770

Target Beneficiaries

	India - CRWRC - FY07
Children 0-59 months	161,950
Women 15-49 years	188,511
Beneficiaries Total	350,461

Rapid Catch Indicators: DIP Submission

				Sample Type: 30 Cluster
Indicator	**Numer-ator**	**Denom-inator**	**Percen-tage**	**Confidence Interval**
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child	**207**	**300**	**69.0%**	**10.8**
Percentage of children age 0-23 months whose births were attended by skilled personnel	**80**	**300**	**26.7%**	**7.7**
Percentage of children age 0-23 months who received a post-natal visit from an appropriately trained health worker within three days after birth	**78**	**300**	**26.0%**	**7.6**
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	**76**	**108**	**70.4%**	**18.0**
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall	**32**	**155**	**20.6%**	**9.6**
Percentage of children age 12-23 months who received a measles vaccination	**25**	**126**	**19.8%**	**10.4**
Percentage of children age 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey	**37**	**126**	**29.4%**	**12.4**
Percentage of children age 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey	**27**	**126**	**21.4%**	**10.8**
Percentage of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	**6**	**105**	**5.7%**	**6.4**
Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids	**46**	**101**	**45.5%**	**16.4**
Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider	**46**	**113**	**40.7%**	**14.8**
Percentage of households of children age 0-23 months that treat water effectively	**111**	**300**	**37.0%**	**8.8**
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing	**101**	**300**	**33.7%**	**8.5**
Percentage of children age 0-23 months who slept under an insecticide-treated bednet (in malaria risk areas, where bednet use is effective) the previous night	**99**	**300**	**33.0%**	**8.4**
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)	**132**	**294**	**44.9%**	**9.5**
Percentage of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices	**49**	**192**	**25.5%**	**9.4**

Rapid Catch Indicators: Mid-term				Sample Type: 30 Cluster
Indicator	**Numer-ator**	**Denom-inator**	**Percen-tage**	**Confidence Interval**
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child	**257**	**300**	**85.7%**	**11.2**
Percentage of children age 0-23 months whose births were attended by skilled personnel	**112**	**300**	**37.3%**	**8.8**
Percentage of children age 0-23 months who received a post-natal visit from an appropriately trained health worker within three days after birth	**113**	**300**	**37.7%**	**8.8**
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	**41**	**73**	**56.2%**	**20.6**
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months: card verified or mother's recall	**88**	**170**	**51.8%**	**13.2**
Percentage of children age 12-23 months who received a measles vaccination	**51**	**130**	**39.2%**	**13.7**
Percentage of children age 12-23 months who received DTP1 according to the vaccination card or mother's recall by the time of the survey	**70**	**130**	**53.8%**	**15.2**
Percentage of children age 12-23 months who received DTP3 according to the vaccination card or mother's recall by the time of the survey	**52**	**130**	**40.0%**	**13.8**
Percentage of children age 0-23 months with a febrile episode during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began	**42**	**164**	**25.6%**	**10.2**
Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution (ORS) and/or recommended home fluids	**67**	**131**	**51.1%**	**14.9**
Percentage of children age 0-23 months with chest-related cough and fast and/or difficult breathing in the last two weeks who were taken to an appropriate health provider	**77**	**119**	**64.7%**	**16.8**
Percentage of households of children age 0-23 months that treat water effectively	**94**	**300**	**31.3%**	**8.2**
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing	**127**	**300**	**42.3%**	**9.2**
Percentage of children age 0-23 months who slept under an insecticide-treated bednet (in malaria risk areas, where bednet use is effective) the previous night	**237**	**300**	**79.0%**	**11.1**
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)	**123**	**300**	**41.0%**	**9.1**
Percentage of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices	**67**	**227**	**29.5%**	**9.2**

Rapid Catch Indicator Comments: Handwashing: Different indicator based on feedback from CSTS+; Percentage of households of children age 0-23 months that have soap or detergent which is normally used for handwashing Vit. A: Different age of cohort (9-23 months); children do not start receiving VA until 9 months.

Annex 11: Key Project Indicators with Revised Targets

Degree of Progress in Achieving Project Objectives			
Excellent	Very Good	Satisfactory	Unsatisfactory

	DIP Indicators	Base-line	EOP Target	MTE	New EOP Target
1	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 months having three or more antenatal visits when they were pregnant with their youngest child	23%	50%	**54%**	**60%**
2	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 months who received at least two TT vaccinations before the birth of their youngest child	69%	80%	**86%**	**90%**
3	**MNC- Community-based Antenatal Care:** Percentage of mothers of children aged 0-23 months who received/bought iron supplements while pregnant with their youngest child	47%	60%	**75%**	**80%**
4	**MNC - Clean Delivery Practices:** Percentage of births where a cord was cut with a new or clean instrument or a clean birth kit was used	89%	95%	**96%**	**95%**
5	**MNC - Clean Delivery Practices:** Percentage of children age 0-23 months whose births were attended by skilled personnel	27%	40%	**37%**	**40%**
6	**MNC - Post Partum Care:** Percentage of mothers of children age 0-23 mos who received a post-partum visit from an appropriate trained health worker within 3days after the birth of youngest child	26%	40%	**41%**	**40%**
7	**MNC - Post Partum Care:** Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after the birth of the youngest child	26%	40%	**38%**	**45%**
8	**MNC - Thermal Care:** Percentage of children age 0-23 months who were dried and wrapped with a warm cloth or blanket immediately after birth (before the placenta was delivered)	69%	80%	**85%**	**85%**
\9	**MNC - Maternal Knowledge:** Percentage of mothers able to report at least three known maternal danger signs during the post-partum period	2%	25%	**77%**	**80%**
10	**MNC - Maternal Knowledge:** Percentage of mothers able to report at least three known newborn danger signs	4%	25%	**72%**	**75%**
11	**NUT - Breastfeeding- Early Initiation:** Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal feeds	19%	50%	**38%**	**50%**
12	**NUT - Breastfeeding- Exclusive:** Percentage of children 0-5 months who were exclusively breastfed during the last 24 hours	70%	80%	**56%**	**80%**
13	**NUT - Complementary feeding:** Percentage of children age 6-23 months fed according to a minimum of appropriate feeding practices	25%	50%	**30%**	**50%**
14	**NUT - Vitamin A:** Percentage of children age 9-23 months who received a dose of vitamin A in the last 6 months	21%	50%	**52%**	**55%**
15	**NUT: Maternal Nutrition:** Percentage of women who have a low BMI (<18.5 kg/m2)	42%	35%	**40%**	**35%**
16	**NUT - Children - underweight:** Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population)	45%	30%	**41%**	**30%**
17	**IMMUN - Full Primary Immunization:** Percentage of children age 0-23 months who received BCG, DPT3, OPV3, and measles vaccines before they reached 12 months	10%	50%	**23%**	**50%**
18	**IMMUN - Access:** Percentage of children age 12-23 months who received a DPT1 vaccination before they reached 12 months	29%	60%	**54%**	**60%**
19	**IMMUN - Performance:** Percentage of children age 12-23 months who received a DPT3 vaccination before they reached 12 months	21%	50%	**40%**	**50%**
20	**MALARIA - ITN Use:** Percentage of children age 0-23 months who slept under a bednet the previous night	33%	60%	**79%**	**80%**
21	**CDD: ORT USE:** Percent of mothers of children under 2 years of age who gave their child an accepted form of ORT when the child had diarrhea	46%	70%	**51%**	**70%**
22	**CDD: Treatment with Zinc:** Percent of children under 2 years of age who were treated with a medication containing Zinc during their episode of diarrhea	19%	30%	**15%**	**30%**
23	**ARI – place of treatment:** Percent of mothers of children under 2 years of age who seek care from a qualified provider when their child shows danger signs of acute respiratory infection	41%	60%	**65%**	**65%**

Annex 12:
Operations Research Study on Risk factors for mortality due to malaria among children under six years in Sahibganj district – Preliminary report

Introduction

A Case Control study was performed in Sahibganj district of Jharkhand State to assess the risk factors for mortality in *P falciparum* Malaria among children under six years of age. This study is an Operations research initiative of the *Parivartan* Child Survival project of USAID, EFICOR, CRWRC and the Government of Jharkhand, which aims to sustainably improve the health status of children under five and their mothers in Sahibganj district. 40 cases of children who died of documented slide-positive *P falciparum* malaria in the past 18 months were compared with 120 age, gender and locality matched controls, who were children affected with documented slide-positive *P falciparum* malaria in the same period who survived. Cases and controls were identified in the community based on records of the Government District Malaria Office and of laboratories and other private health facilities. A questionnaire was developed, translated, pre-tested and face-validated by experts and modified suitably prior to administration in the field. Data was collected over a three month period by data collectors who were trained in the use of the questionnaire. Data was analysed at the preliminary stage using Epi Info version 6.0. Significance was assumed at the 0.05 level.

Results

Preliminary results show the following:

Demographic details

1. The mean age of the cases was 28.54 months and the controls was 32.59 months. This was not significantly different..*t=1.0016 df 157 p>0.3*

2. 42% of the cases were female, 43.3 % of the controls were female children. This difference was also not significant. X^2 *0.01, p>0.9*

Risk factors – household demographics

3. Mothers schooling (*OR 0.82, 95% CI 0.31-2.15)* and fathers schooling *(OR 0.76 , 0.35-1.65)* [1] were not significantly associated with death due to PF malaria.

4. The risk of mortality was not significantly associated with mothers staying at home with no outside work. *(OR 1.35, 0.62-2.97)*

5. The presence of 1or 2 children in the house was not associated with increased mortality risk, compared with more than 2 children. *(OR 1.27, 0.58 – 2.78)*

[1] All results presented as *(Odds ratio, 95% CI of Odds ratio)*

6. A low standard of Living (SLI score 1) was not associated with a significantly higher risk of mortality compared with SLI scores of 2 or 3. *(OR 1.14 0.46-2.83)*

7. Attending anganwadi was not significantly associated with the risk of mortality *(OR 0.63, 0.26-1.46)* , as was attending school *(OR 1.56, 0.55-4.36)*

Symptoms at time of illness

8. Symptom wise,
   - Almost all cases and controls reported having fever and chills, with no difference between them.
   - Vomiting *(OR 2.16, 0.92-5.13)* diarrhea (*OR 1.12, 0.49-2.56),* convulsions *(OR 1.11, 0.51-2.42),* Jaundice *(OR2.15, 0.83-5.52)* and difficulty in breathing *(OR 1.5 0.68 – 3.33)* were not significantly associated with mortality in the group
   - **The presence of sweating was significantly less among cases when compared to controls (*OR 0.25, 0.09 – 0.63)***
   - **The presence of Loss of Consciousness was significantly associated with mortality *(OR 9.19, 3.79 – 22.6)***
   - **The reporting of dark colored urine was also significantly associated with mortality in this study *(OR 2.57, 1.14-5.82)***

Treatment – Home treatment

9. With respect to treatment at home, cases did not significantly differ from controls in
   - Receiving home treatment *(OR 1.88, 0.85 – 4.18)*
   - Receiving a home visit by a health worker *(OR 1.75, 0.52 – 5.69)*

Treatment – Treatment outside the home

10. Almost all cases (100%) and controls (97.5%) were taken outside the home for treatment.
    - Taking (or failure to take) the child for treatment on the first day of symptoms was not associated with mortality compared with taking the child later than day 1 *(OR 1.35, 0.62 – 2.97)*
    - Taking the child to government facility was not associated with mortality compared to taking the child to other facilities *(OR 0.59, 0.26 – 1.34)*
    - **However, the reported distance of the facility from the home was significantly different between cases and controls, with more controls reporting accessing a facility within 5 kilometers compared to the cases (*OR 0.37, 0.16 – 0.84)***
    - Most cases and controls reported receiving some form of treatment at the health facility, though they were not able to state the exact nature of drug received
    - **A significantly higher number of cases were admitted to hospital than controls (*OR 10.52, 4.27 – 26.37)***

Prevention

11. With respect to prevention and behavior regarding prevention
    - **A significantly less number of "case" households possessed a mosquito net compared with controls *(OR 0.32, fishers exact probability=0.03)***

- **Significantly less cases reportedly slept under the mosquito net than controls at the time of illness (*OR 0.27, 0.1 – 0.71)***
- The mother (*OR 0.41, 0.17 – 1)* or father (*OR 0.51, 0.23 – 1.14)* of the child sleeping under the net was not associated with mortality risk.
- The practice of soaking the mosquito net in insecticide was reported by very few case (10%) or control (5%) households, as also the reported spraying of households with insecticide.

Knowledge

12. Indicators of knowledge regarding malaria were compared between case and control households
    - The knowledge that mosquitoes spread malaria was not significantly associated with mortality risk *(OR 0.6, 0.27 – 1.35)*
    - The knowledge that protection against mosquito bite prevents malaria was also not significantly associated with mortality risk *(OR 0.6, 0.27 – 1.33)*

Summary of significant findings

a. If the children experienced loss of consciousness during the illness, or the passage of dark colored urine, there was a significantly higher risk of mortality
b. The presence of sweating appeared protective in this study, i.e. less cases experienced sweating than controls
c. If the children accessed a facility more than 5 kilometers away from the home there appeared to be a greater risk for mortaltiy
d. If the children were admitted to a hospital, the risk of mortality was higher

Perhaps, more importantly for a program aiming at prevention,

e. The risk of mortality was higher among households which did not possess a mosquito net, and in households where the child did not regularly sleep under a mosquito net.