



Grand Cape Mount Child Survival Program
Improved Child Health in a Transitional State through IMCI
October 2006 - September 2010
Final Evaluation Report

Child Survival and Health Grants Program (CSHGP)
Cooperative Agreement No. GHS-A-00-06-00019

Medical Teams International in partnership with
Grand Cape Mount County Health Team and Christian Health Association of Liberia

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Acronyms and Abbreviations:

ACT	Artemisinin-Combination Therapy
AHA	Africa Humanitarian Action
CCM	Community Case Management (Pneumonia, Malaria and Diarrhea)
CERF	Central Emergency Response Fund
CG	Care Groups
CHAL	Christian Health Association of Liberia
CHC	Community Health Committees
CHDC	Community Health and Development Committees
CHP	Community Health Promoters
CHT	County Health Team
C-IMCI	Community-based Integrated Management of Childhood Illness
CM	Certified Midwife
COPE	Client Oriented, Provider Efficient
CS	Child Survival
CSP	Child Survival Project
CSHGP	Child Survival and Health Grants Program
CSSA	Child Survival Sustainability Assessment
CSTS+	Child Survival Technical Support Plus Project
DIP	Detailed Implementation Plan
EBF	Exclusive Breastfeeding
FGD	Focus Group Discussions
gCHVs	General Community Health Volunteers
GCMC	Grand Cape Mount County
HF	Health Facility
HHP	Household Health Promoters
HMIS	Health Management Information System
IMC	International Medical Corps
IMCI	Integrated Management of Childhood Illness
INGO	International Nongovernmental Organization
IPTp	Intermittent Presumptive Treatment (of malaria) during pregnancy
IR	Intermediate Result
ITN	Insecticide Treated Net
IYCF	Infant and Young Child Feeding
JSI	John Snow, Inc.
KPC	Knowledge Practice Coverage
LLIN	Long Lasting Insecticide-treated Net
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring & Evaluation
MIS	Malaria Indicator Survey
MoHSW	Ministry of Health and Social Welfare
MTE	Mid-Term Evaluation
MTI	Medical Teams International (formerly known as Northwest Medical Teams)
NGO	Nongovernmental Organization
PA	Physician's Assistant

PMI	President's Malaria Initiative
POU	Point-of-Use Water Treatment
PVO	Private Voluntary Organization
QIVC	Quality Improvement Verification Checklist
RBHS	Rebuilding Basic Health Services
R-HFSA	Rapid Health Facility Assessment
SO	Strategic Objective
SP	Sulphadoxine-Pyrimethamine
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
U5	Under Five

A. Executive Summary

The Medical Teams International (MTI) Grand Cape Mount Child Survival Project (GCM CSP) served a population of 127,076 in rural northwestern Liberia and was implemented in the immediate post-conflict environment from October 1, 2006 until September 30, 2010. This was the first Child Survival and Health Grants Program (CSHGP) grant that MTI received and was followed with a successful application for a Malaria Communities Program grant and a second CSHGP grant both in Uganda. MTI is now applying many of the programmatic and technical lessons learned from participating in the CSHGP to their health programs around the world.

The goal of the four year project was to reduce morbidity and mortality of children under five and improve the health of women of reproductive age within Grand Cape Mount County (GCMC). The strategic objective of the project was improved health outcomes through appropriate household practices and use of quality health services within a supportive sustainable environment by 2011. The four project Intermediate Results included:

- 1) Communities assume responsibility for their own health with strengthened community structures, linkages with health facility staff, and enhanced human resource capacity
- 2) Improved health behaviors and actions at the household level
- 3) Improved quality of care in health facilities through implementation of Integrated Management of Childhood Illnesses (IMCI) and capacity-building of the health staff in complementary activities
- 4) Strengthened institutional capacity of MTI and partners to implement effective CS activities

Community mobilization and social and behavior change for key household practices implemented in partnership with the Christian Health Association of Liberia (CHAL) were delivered through the Care Group Model that has successfully increased coverage of multiple high-impact child survival indicators in other countries but had not been applied in Liberia. The community component was complimented with capacity building in IMCI at the health facilities managed by the County Health Team (CHT). The GCM CSP was also remarkable as the target population has the highest percentage of Muslims which are a minority group in Liberia.

The GCM CSP was implemented during a time of significant change in Liberian society as well as the health care system. From 2006 until 2008, many international nongovernmental organizations (NGOs) were providing direct health services using short term emergency funding. Sustainability and community capacity building were not major components of those programs. In 2009 many of these INGOs closed or transitioned their programs into the USAID funded Rebuilding Basic Health Services (RBHS) project.

Quantitative measurements at baseline, midterm (2008) and final (2010) evaluations confirmed that the MTI CSP achieved significant increases in almost all project impact indicators and significantly exceeded project targets in many cases¹. Annual Lot Quality Assurance Sampling (LQAS) measurements as well as qualitative triangulation during evaluations confirmed obvious changes in key child survival and maternal health behaviors, decreased morbidity levels and perceived reductions in child and maternal mortality.

¹ The Rapid Catch Indicator Table and the full KPC report Annexes 5 and 6, respectively of this report.

MTI has shown that it was up to the challenges and steep learning curves of designing and implementing a very effective community-based child survival project in a rapidly changing and challenging environment. This required MTI to add staff at MTI headquarters and shift their programming orientation from the emergency assistance projects implemented during and just after the war to the sustainable development programs implemented with local partners. MTI is applying the organizational technical strengthening obtained through participation in the CSHGP in all of their programs worldwide.

Table 1: Summary of Major Project Accomplishments			
Intermediate Result 1: Communities assume responsibility for their own health with strengthened community structures, linkages with Health Facility staff, and enhanced human resource capacity			
Project Inputs	Activities	Outputs	Outcome
<ul style="list-style-type: none"> ➤ Social and Behavior Change Strategy ➤ Support and mentoring for Community Health Committees and Care Groups ➤ Pictorial referral cards 	<ul style="list-style-type: none"> ➤ 4 project Supervisors and 20 Community Health Promoters trained in Care Group approach ➤ 132 Community Health Committees trained in Participatory Learning and Action, development of emergency transport plans, and conflict prevention 	<ul style="list-style-type: none"> ➤ 59 Care Groups established and meeting regularly ➤ Structured referral system between communities and local health facilities established and functioning ➤ 82% Community Health Committees meet regularly 	<ul style="list-style-type: none"> ➤ 59 Care Groups promoting appropriate health services utilization and facilitating prevention activities in their communities ➤ 87% of Community Health Committees have emergency transport systems ➤ 87% Community Health Committees report applying skills in learned in conflict prevention ➤ 507 Household Health Promoters provide early identification of sick U5 children and referral services
Intermediate Result 2: Improved health behaviors and actions at the household level.			
<ul style="list-style-type: none"> ➤ Social and Behavior Change Strategy ➤ C-IMCI curriculum ➤ C-IMCI flip charts ➤ Support and mentoring for Household Health Promoters ➤ Monitoring and evaluation tools ➤ Provided non monetary incentives to HHPs 	<ul style="list-style-type: none"> ➤ 520 Household Health Promoters trained in C-IMCI ➤ Monthly supervision and support visits provided for HHPs ➤ Monthly Care Group sessions held 	<p>507 Household Health Promoters providing home visits and referrals</p>	<p>Household health behaviors improved as reflected in final evaluation KPC results</p>

Intermediate Result 3: Improved quality of care in health facilities through the implementation of IMCI and capacity building in complementary areas.			
<ul style="list-style-type: none"> ➤ Support to Ministry of Health and Social Welfare and Grand Cape Mount County Health Team to pilot IMCI ➤ Consultancy in facilitative supervision ➤ Monitoring and evaluation tools ➤ Matching funds for essential drugs ➤ Logistics support ➤ Provision of medical equipment needed for maternal and newborn care services based on health facilities needs 	<ul style="list-style-type: none"> ➤ 86 physicians, registered nurses and certified midwives trained in IMCI and 132 health facility support staff provided with orientation to the components of IMCI relevant to their roles ➤ Supportive supervision and on-the-job mentoring provided for health facility staff ➤ Procurement and distribution of medical equipment for MNC services 	<ul style="list-style-type: none"> ➤ 32 health facilities delivering IMCI services ➤ 32 health facilities have adequate medical equipment for maternal and newborn care services. ➤ Capacity of health facilities enhanced to deliver MNC services 	<ul style="list-style-type: none"> ➤ 83% of health facility clinical encounters result in treatment appropriate to diagnosis for malaria, pneumonia and diarrhea ➤ Caretaker whose child was prescribed antibiotic, anti-malarial or ORS can correctly describe how to administer all prescribed drugs during 72% of health facility clinical encounters ➤ 94% of health facilities received external supervision at least once in the last three months
Intermediate Result 4: Strengthened institutional capacity of MTI and partners to implement effective CS activities			
<ul style="list-style-type: none"> ➤ Capacity-building plan for MTI and project partners ➤ Sustainability strategy ➤ Regular meetings with partners 	<ul style="list-style-type: none"> ➤ Sustainability workshop during DIP development process ➤ Capacity building workshops for MTI, CHAL and CHT staff in project cycle management, M&E, facilitation skills, facilitative supervision for quality improvement, conflict prevention, social and behavior change, and other direct CS areas of intervention including essential nutrition actions, IMNCI, C-IMCI and maternal health ➤ 8 MTI and CHAL staff trained in supply chain management 	<ul style="list-style-type: none"> ➤ MTI/CHAL/CHT joint planning, training, implementation and evaluation of project activities ➤ Annual review of sustainability strategy ➤ Organizational capacity of MTI, CHAL and CHT enhanced 	<ul style="list-style-type: none"> ➤ 18 of 19 indicators for capacity building have been met ➤ 7 out of 8 sustainability indicators met ➤

B. Overview of the Project:

The goal of the four year CSP in GCMC, Liberia was to reduce morbidity and mortality of children under five and improve the health of women of reproductive age within GCMC. The strategic objective of the project was improved health outcomes through appropriate household practices and use of quality health services within a supportive sustainable environment by 2011. The four IRs were:

- 1) Communities assume responsibility for their own health with strengthened community structures, linkages with health facility staff, and enhanced human resource capacity
- 2) Improved health behaviors and actions at the household level
- 3) Improved quality of care in health facilities through implementation of IMCI and capacity-building of the health staff in complementary activities
- 4) Strengthened institutional capacity of MTI and partners to implement effective CS activities

MTI's used four primary strategies in order to reach the Strategic Objective of the project:

- 1) **Targeted behavior change** at the household level. Key family practices, and subsequently health status, will be improved at the household level using the Care Group model based on the experience of other NGOs by developing a network of volunteers implementing Community IMCI and improved social and behavior change methodologies.
- 2) **Community mobilization through capacity building of community organizations and leaders** including planning and evaluation, development of emergency transport systems, and activities for sustainable positive health outcomes. Activities were implemented in 131 communities.
- 3) **Quality of care and access at the clinic level** was to be improved by implementing IMCI through training, mentoring, supportive supervision, the use of the Client Oriented, Provider Efficient (COPE) quality assurance methodology, provision of drugs and supplies, and strengthening of referral and logistics systems.
- 4) **Institutional capacity building for MTI and partners** focusing on improved program quality and technical skills, strengthened project monitoring and evaluation, and institutionalization and dissemination of lessons learned.

The project was guided by an evidence-based approach to community mobilization that has been proven effective and includes continuous collection and use of information for decision making at all levels. A comprehensive monitoring and evaluation plan allowed for the efficient collection of qualitative and quantitative information throughout the funding cycle and beyond. This system was revised and streamlined when the original database was found to be too cumbersome to be practical. Project indicators were measured using a variety of tools including: Knowledge, Practice and Coverage (KPC) surveys, LQAS monitoring, health facility assessments, organizational capacity surveys, and a community-based health management information system (HMIS) linked with the health care system. All Rapid CATCH indicators were also collected. No operations research was included in the project design as MTI was a new partner and operations

research would likely have been overly ambitious for a first CSHGP project. MTI has disseminated lessons learned and best practices through its International Program Manual, national and international presentations, MTI’s web site, and annual conferences as well as post-final evaluation debriefings. The multi-year Detailed Implementation Plan (DIP) for the GCM CSP was prepared through a participatory approach that engaged all partners and input from beneficiary communities.

Acknowledging that population estimates in post-conflict environments can be unreliable, the project used the best-available estimates in their proposal and at midterm updated them according to the 2008 census total county population of 127,076. Interestingly, the census showed a significant gender imbalance in Grand Cape Mount County of 107.7 men for every 100 women².

Population Estimates For Grand Cape Mount County, Liberia		
2008 National Population And Housing Census		
<i>Beneficiary</i>	<i>Population</i>	<i>Percentage of total population</i>
Infants: 0-11 months	3,920	3.08%
Children: 12-23 months	3,026	2.38%
Children: 24-59 months	14,483	11.40%
Children 0-59 months	21,429	16.86%
Women 15-49 years (WRA)	29,941	23.56%
<i>Total Population</i>	127,076	

The project reached most of the rural communities in GCMC, missing only some remote and sparsely populated communities in the northeast of the county that were very difficult to access.

Major activities of the project included building the capacity of the County Health Team and health staff in 30 Health Clinics and one centrally-located Health Center which is slated to be upgraded to a hospital. The county’s only referral hospital, in Robertsport, is difficult to access by the majority of the population.

The project was strongly based on an evidence-based, successful social and behavior change and community mobilization approach, the “Care Group model”. The Care Group approach involves household to household visits by female volunteers linked through Community Health Committees (CHCs) to Community Health Development Committees (CHDCs) at health facilities. All activities included continuous collection of information for decision making at each level, making it possible to assess morbidity and mortality in the project catchment area. Coverage estimate increases were inserted into the Lives Saved Calculator to estimate the number of children who would have died if the interventions had not been in place.

The intervention mix was: Immunization 10%, control of Diarrheal Disease 20%, Pneumonia Case Management 20%, Nutrition 30% and Malaria 20%.

² MTI CSP Midterm Evaluation Report, 2008.

The project supported the Ministry of Health and Social Welfare (MoHSW) to pilot IMCI in GCMC and establish joint supervision and mentoring. In 2008 the MoHSW adopted the more comprehensive Integrated Management of Neonatal and Childhood Illnesses (IMNCI). The project also provided technical support to the national NGO partner, Christian Health Association of Liberia (CHAL), to develop their capacity for intensive community mobilization and health education for behavior change using the Care Group model. Household Health Promoters (HHPs) serve similar functions to “Care Group Mothers” or “Care Group Volunteers” in projects implemented by other USAID grantee Private Voluntary Organization (PVOs). These volunteer women are linked to local health facilities through a well-developed and effective community referral system to Community Health Committees (CHCs) at the community level and to Community Health and Development Committees (CHDCs) at the district/health facility level for decision-making and community feedback. As Liberia had no policy to support community based treatment, HHPs function was solely to promote preventive household behaviors and prompt referral in case of illness or pregnancy. They provided no treatment or medications.

MTI’s collaboration with the USAID Liberia Mission expanded when MTI was awarded a contract in July 2009 through the RBHS grant funded by USAID and implemented through John Snow, Inc (JSI) to support implementation of Liberia’s National Health Policy and Plan. The RBHS project has the goal of increasing access to basic health services and strengthening decentralized management of the health system. MTI is supporting RBHS implementation of the national Basic Package of Health Services at 25 health facilities, including 22 health facilities in Grand Cape Mount County, two clinics in Bomi County, and one health center in Montserrado County.

While the RBHS project provides several opportunities to strengthen and extend many of the activities that were implemented through the GCM CSP beyond September 2010, the departure of several direct-service INGOs has decreased the 24 hour-7 day access to health providers.³ This has limited the extent to which MTI’s CSP could increase utilization of health services such as skilled delivery and treatment for childhood illness within 24 hours.

The Work Plan Activity Status Table is included as Annex 3. All but two of the 27 planned activities were completed. CHDCs were established or revitalized at only 23 of 30 health facilities. MTI offered assistance to the CHT to establish CHCDs at the remaining seven facilities, though the CHT has not taken the initiative to do so. The plan to provide zinc supplementation was not rolled out during the project lifetime due to unavailability of zinc through the National Drug Service. In October 2010, however, the MoHSW made zinc available and the RBHS project is currently supporting community distribution.

C. Data Quality: Strengths and Limitations

At the beginning of the program, the national HMIS was very fragmented and ineffective, and MTI’s responsibility in health services was limited to supporting five health facilities. All health facility strengthening efforts, including the facility HMIS, are now the responsibility of the

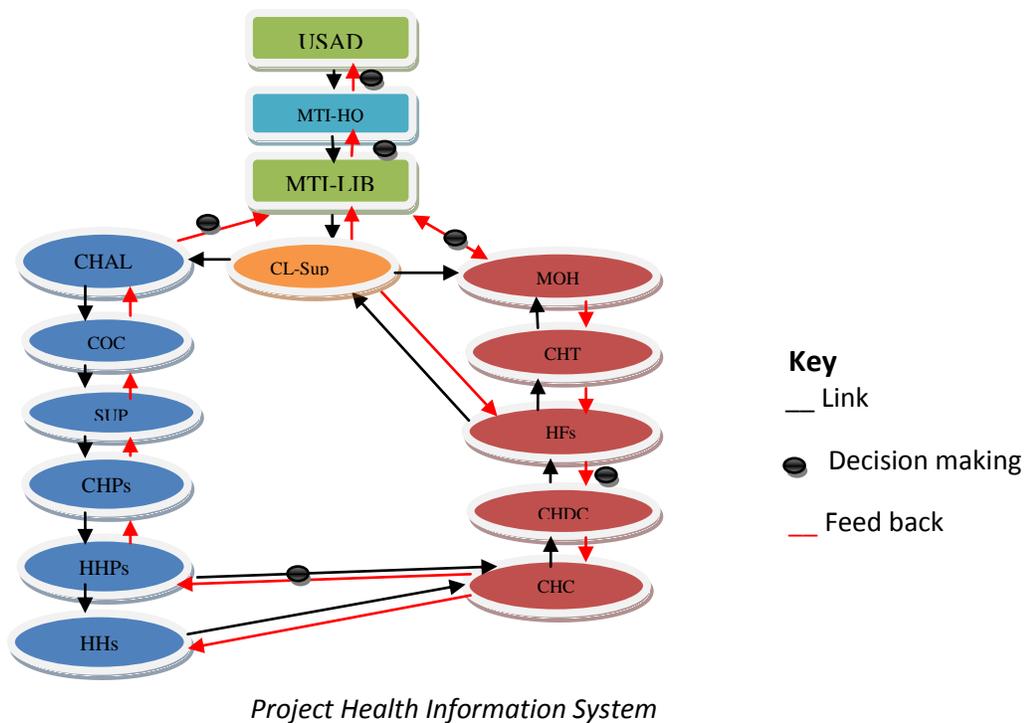
³ MTI CSP Health Facility Assessment August 2010.

RBHS project. The CSP was able to use the 2007 Demographic and Health Survey (DHS) for planning and analysis purposes. However, since data was reported by region and not down to the county level, and the survey was conducted just as the program was starting, it was not useful for measuring project progress. MTI revised population estimates after the 2008 census was completed. Final malaria indicators were compared to the 2009 Malaria Indicator Survey (MIS) findings which were also reported at the regional and not the county level.

The multi-level data reporting and analysis included information collected and reported by female HHPs, the majority of whom could not read. The information was entered into project database for the first two years of project implementation, but timely retrieval of information proved to be time consuming and difficult to analyze. The new Project Manager, hired in April 2009 re-organized the HMIS to aggregate data by month, quarter, year and supervision area. LQAS surveys were conducted in years 2 and 3 and provided the quantitative measurements used for the midterm evaluation (MTE). For the first two years of the project, data collected by HHPs was sent to the project, and feedback was channeled back to the community through CHCs. For sustainability, however, HHPs started sharing data directly with communities during the last two years of the project.

MTI also used a variety of qualitative methods for planning, implementing and evaluating the project. This included a workshop with Muslim and Christian religious leaders, focus group discussions (FGDs) with both men and women community members, and interviews with health facility staff. FGDs and doer/non-doer surveys were utilized to identify barriers and facilitators for adopting key maternal and child health practices. The findings were used to update the social and behavior change framework and adapt training materials and methods. Based on information gathered by project staff during the DIP development, malaria was added as a fifth project intervention and the Care Group model was included as a project strategy for improved community coverage. During the MTE, the COPE methodology for assessing health facility quality of care was dropped in favor of using the Child Survival Technical Support Plus Project (CSTS+) Rapid Health Facility Assessment (R-HFA) tool, specifically designed for PVO child survival projects.

Annual LQAS assessments allowed the project to determine if the project was maintaining positive trends towards end of project targets. The project's elaborate system of data collection, feedback, reporting and return feedback was impressive. Equally impressive was the ease with which MTI and CHAL field staff could explain the HMIS system and how it was used. These are skills that many global health monitoring and evaluation professionals often do not have. During final evaluation workshops, project staff and partners were able to diagram the entire information reporting system in a short time and clearly explain the flow of information to an audience largely unfamiliar with information systems in health programs. The diagram below illustrates the data flow and information feedback system used in the project. This demonstrates exceptional local health system capacity building by MTI and is a significant contribution to sustainable Liberian health capacity. MTI would be wise to continue efforts to integrate these skills into future programs working with the CHT in GCMC as well as sharing how this system was developed with partners at the national level. The system is easy to understand and effectively links community-level information with the national health system.



Time limits did not allow for extensive analysis of the rich information stored in the community HMIS database still retained by the CSP project manager who will remain employed by MTI Liberia. More work could be done to mine the rich information for additional lessons learned and possible publication from the CSP.

At the time of the MTE in 2008, quantitative and qualitative findings revealed that key project infant and young child feeding (IYCF) messages, primarily related to complementary feeding, were not well understood or acted upon by beneficiary mothers. The MTE qualitative assessments explored this further. MTI acted upon these findings and devoted additional project efforts to understand the barriers to appropriate practices and adjusted social and behavior change activities accordingly. Quantitative and qualitative findings at the end of the project indicate significant improvements in the targeted behaviors that were weak at midterm. In spite of significantly increased coverage of key child feeding behaviors, the question arose why this was not reflected in a statistically significant drop in weight for age malnutrition by the end of the project. There are many possible explanations, but this would require further analysis of the data, including whether the sample size in the age group affected was large enough to measure change.

During the final evaluation, baseline, midterm and final KPC and HFA findings were reviewed and used to develop focus group questionnaires to triangulate and understand the factors that led the final results.

The R-HFA tool was used at project start up and midterm and final evaluations. The CSP was not designed to impact all of the indicators in the R-HFA that needed improvement, but provided valuable contextual information about health services provided to project communities. A few selected indicators measured CSP capacity-building impact in specific areas at health facilities. These were largely related to quality of IMNCI clinical performance.

D. Presentation of Project Results

The Project Monitoring and Evaluation Matrix, Rapid Catch Table and FE KPC and R-HFA reports can be found as Annexes 4, 5, 6 and 7.

E. Discussion of the Results

Critical design change decisions made by MTI after the baseline studies and first version of the DIP, and again after the MTE, significantly contributed to the successful increases in the behavior change and health system improvements achieved by the project. Addition of a malaria intervention was an essential response to address the epidemiologic patterns revealed in the baseline assessments as well as feedback from the DIP reviewers. A staffing change was made when MTI assumed responsibility for hiring and mentoring the Community Outreach Coordinator that was originally under CHAL’s supervision.

IR 1: Communities assume responsibility for their own health with strengthened community structures, linkages with Health Facility staff, and enhanced human resource capacity

Intermediate Result 1: Communities assume responsibility for their own health with strengthened community structures, linkages with Health Facility staff, and enhanced human resource capacity			
Indicator	Baseline Value	Final Value	Final Target
<i>% of HHPs referring patients to clinic</i>	<i>0%</i>	<i>100%</i>	<i>75%</i>
<i>% of HHPs who received a supervisory visit during the last three months</i>	<i>0%</i>	<i>100%</i>	<i>75%</i>
<i>% of communities using information from community HIS for decision making</i>	<i>0%</i>	<i>63%</i>	<i>40%</i>
<i>% of CHCs with one or more women participating on the committee.</i>	<i>0%</i>	<i>75%</i>	<i>65%</i>
<i>% of health facilities with active CHDCs who have met in the last three months</i>	<i>0%</i>	<i>77%</i>	<i>80%</i>
<i>% of communities with an economic plan for emergency health needs</i>	<i>0%</i>	<i>89% with 52% reporting it is working well</i>	<i>60%</i>
<i>% of communities with an emergency transport plan</i>	<i>0%</i>	<i>87%</i>	<i>65%</i>

Six of the seven project indicators for strengthening community capacity were met. The community referral system was working well and CHCs had been revitalized and implementing emergency transport systems and economic plans. The indicator “% of health facilities with active CHDCs who have met in the last three months” was not met as CHDCs were established or revitalized at only 23 of 30 health facilities. MTI offered assistance to the CHT to establish CHCDs at the remaining seven facilities, though the CHT has not taken the initiative to do so.

The DIP process that led to adopting the Care Group approach after the beginning of the program is a lesson in sustainable capacity building. MTI contracted as a consultant and trainer an experienced Liberian nurse midwife who was familiar with community-based MCH programs

and Care Groups and who also had years of experience working with both the MoHSW and NGO programs. The project was able to introduce Care Groups in GCMC in a culturally-sensitive and practical way. The approach makes it possible to reach every woman in the target population on a regular basis without overwhelming community volunteers and has proven feasible and effective in increasing child survival intervention coverage in case after case in multiple community contexts in Africa and beyond. Although not yet thoroughly studied, there are anecdotal reports from the MTI CSP, and other similarly designed projects being involved as a Care Group volunteer enhances women volunteers' self-esteem, and increases respect from their families and community members. There are also reports of greater recognition and appreciations of "what women are capable of" from influential members of the community.

IR 2: Improved health behaviors and actions at the household level.

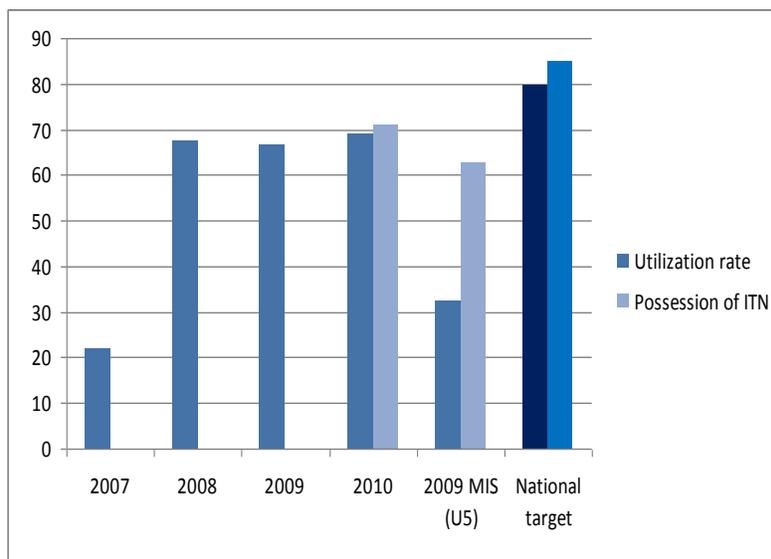
Intermediate Result 2: Improved health behaviors and actions at the household level.				
CSHGP Intervention Area	Indicator	Baseline Value	Final Value	Final Target
Nutrition	<u>Immediate and exclusive breastfeeding of newborns:</u> Percent of newborns who were put to the breast within one hour of delivery and did not receive prelactal feeds	33.7% (28.3%-39.3%)	87.0% (82.7%-90.6%)	50% raised to 60% at MTE
	<u>Introduction of complimentary foods:</u> % infants 6-9m receiving breastmilk and complementary foods	37.5% (22.7%-54.2%)	76.3% (65.2%-85.3%)	65%
	<u>Vitamin A Supplementation in the last 6 months:</u> Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months (Mother's recall).	76.2% (67.8%-83.3%)	91.4% (86.5%-94.9%)	85%
Immunization	<u>Health System Performance regarding Immunization services:</u> Percentage of children 12-23 months who received DPT3 before they reached 12 months by the time of the interview, card verified.	30.6% (22.2%-40.1%)	71.1% (61.0%-79.9%)	50%
	<u>EPI Coverage:</u> Percentage of children aged 12-23 months who are fully vaccinated (received BCG, DPT3, OPV3, and measles vaccines) by 12 months of age, card verified	18.9% (12.1%-27.5%)	52.6% (42.2%-62.8%)	40% raised to 55% at MTE

	<u>Maternal TT Vaccination:</u> Percentage of mothers with children age 0-23 months who were protected against Tetanus before the birth of the youngest child. (Protected refers to receiving at least 2 TT or Td injections before the birth of the youngest child sufficiently close to that birth to provide protection.)	61.3% (55.6%-66.9%)	94.7% (91.5%-96.9%)	80%
Control of Diarrhea	<u>ORT use:</u> Percentage of children 0-23 months with diarrhea in the last two weeks who received Oral Rehydration solution (ORS) and/or recommended home fluids.	74.2% (63.8%-82.9%)	84.1% (69.9%-93.4%)	85%
	<u>Increased fluid intake during diarrheal episode:</u> Percentage of children 0-23 months with diarrhea in the last two weeks who were offered more fluids during the illness	51.7% (40.8%-62.4%)	88.6% (75.4%-96.2%)	70%
	<u>Point of Use (POU):</u> Percentage of households of children 0-23 months that treat water effectively.	21.7% (17.1%-26.8%)	18.7% (14.4%-23.5%)	40%
	<u>Appropriate Hand washing Practices:</u> Percentage of mothers of children 0-23 months who live in households with soap at the place for hand washing that washed their hands with soap at least 2 of the appropriate times during a 24 hour recall period.	19.0% (14.7%-23.9%)	87.7% (83.4%-91.2%)	40% raised to 70% at MTI
ARI/Pneumonia	<u>Appropriate Care Seeking for Pneumonia:</u> Percentage of children age 0-23 months with chest-related cough and fast/difficult breathing in the last two weeks who were taken to an appropriate health provider.	43.2% (35.3%-51.4%)	90.8% (83.3%-95.7%)	65% raised to 85% at MTE
Malaria	<u>Child sleeps under an insecticide-treated bed net:</u> Percentage of children 0-23 months who slept under an insecticide-treated bed net (in malaria risk areas, where bed net use is effective) the previous night.	17.7% (13.5%-22.5%)	69.3% (63.8%-74.5%)	35% raised to 70% at MTE
	<u>Child with fever receives appropriate antimalarial treatment:</u> Percentage of children	3.6% (1.0%-8.9%)	32.5% (24.3%-40.7%)	65%

	<i>0-23 months with a febrile episode that ended during the last two weeks who were treated with an effective anti-malarial drug within 24 hours after the fever began.</i>			
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Among the 13 KPC indicators in the project M and E Matrix for IR 2, the final KPC survey found the project to have met or exceeded 11 of the 13 indicators (85%). The indicators for point of use water treatment and timely treatment of suspected malaria were not met.

Coverage of several health practices indicators was also significantly higher in comparison to regional or national levels. For example, insecticide treated net (ITN) utilization rates were much higher in the project KPC (under 2 years) than the NW region in the 2009 MIS.



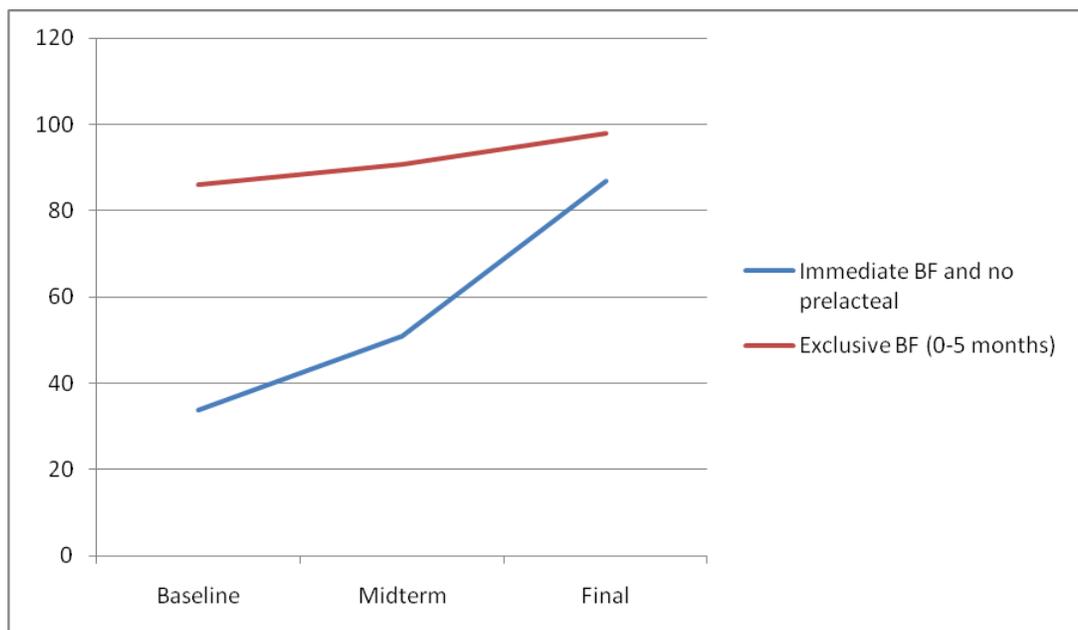
The 2009 MIS (U5) figures in the graph represent only the Northwest Region in 2009.

For some indicators, increases should clearly be attributed to the MTI-CHT-CHAL partnership, and also highlighted significant contributions from the CHT with support from the MoHSW. Examples include immunizations and vitamin A outreach which extended community access for preventative services to communities beyond the reach of health facilities. The National Malaria Control Program (NMCP), with support the President’s Malaria Initiative (PMI) and the Global fund was largely responsible for ITN supply. Although the RBHS project is now operating in GCMC, activities only started in health facilities during the last year of the CSP, but significant positive trends in health worker behavior, especially in areas targeted for CSP capacity building, were evident before that time. The 2008 MTE R-HFSA assessment was already able to measure improvements in supervision visits in the past three months (<5% to 56%), performing all required clinical assessments (9% to 28%), and correct diagnosis and treatment of childhood illness (46% to 89%) from the beginning of the program.⁴

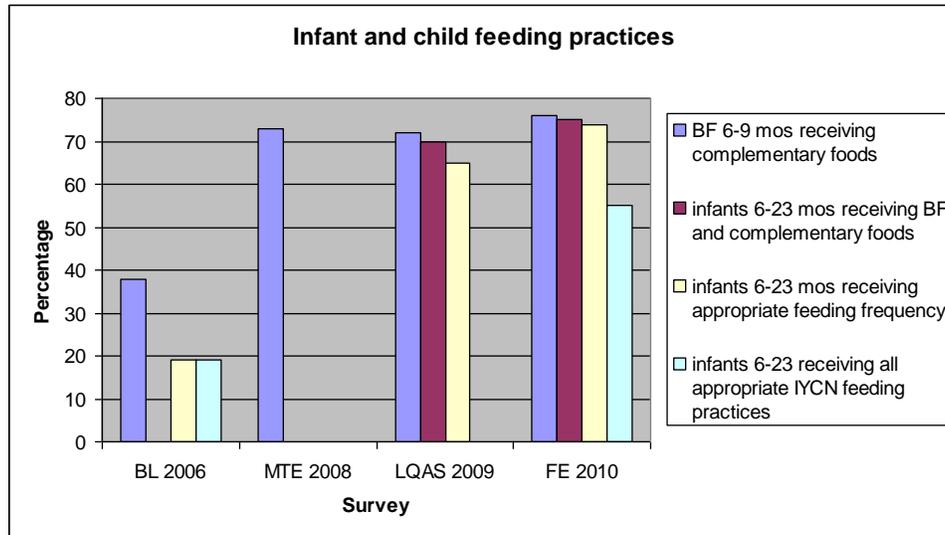
⁴ Jennings, J., Grand Cape Mount Child Survival Project (MTI) Midterm Evaluation Report, October 2008.

Attribution directly to effect of the CSP is much stronger for improvements in household practices, including infant feeding, hand washing, basic hygiene and care-seeking for illness. When CHT health workers were asked why they felt their clinical performance and reporting had improved since the beginning of the project, they gave most of the credit to training, mentoring and supervision they had received through the CSP. Supportive supervision and mentoring was done jointly with CHT managers.

MTI devoted significantly more attention to IYCF interventions than most recent CSHGP programs. This was confirmed by “digging deeper” into the project data and probing into infant feeding practices during FGDs. Late initiation of breastfeeding and use of prelacteals was assessed and compared to the standard the EBF (last 24 hours) indicator.



Baseline investigations determined that the main reasons for the high rates of moderate and severe child malnutrition in the project infant and young child population were related to the fact that only 20% of mothers with children aged 6-23 months who were still breastfeeding and 17% of mothers who were not breastfeeding fed their child the recommended number of feedings of solid foods per day. The graph below depicts how the MTI CSP was able to significantly increase important child survival nutrition practices.



A small increase was seen in non-breastfeeding mothers, but the number of those mothers is too low to detect a significant difference using the KPC.⁵ Continuation of breastfeeding from 6-23 months was not measured in the baseline KPC, only in the 2009 LQAS and 2010 KPC. These impressive increases in infant feeding practices are particularly important in preventing chronic malnutrition as measured by height for age (stunting) which was close to 40% in Northwest Region, and approached 50% nationally in children 24-35 months in the 2007 DHS.⁶

Late introduction and inadequate frequency of complementary feeding were given specific, intensified, and detailed attention in social and behavior efforts at various levels of the program. Although the entire project area is considered to be economically poor, feeding practices and not overall household food availability was determined to be most important contributing factor to poor complementary feeding practices. Intensive qualitative assessments conducted at the MTE pinpointed some of the barriers to changing these key behaviors and they were used to revise the project social and behavior change strategy.

There was no significant change in household point of use (POU) water treatment from baseline to the final evaluation. Analysis of the KPC findings, as well as discussion of the final evaluation results indicated low perceived risk of illness by the community due to the “improved water sources” (primarily covered wells) as well as a much lower diarrhea prevalence rate than the national levels. The prevalence of diarrhea (30%) at baseline would not be considered low, but fell to less than 15% by the final evaluation survey. Most of the covered wells, along with periodic chlorination, were provided by the NGOs and donors during the emergency period of the war. At the time of the final evaluation, it was observed that some of the water pumps were beginning to fail and were possibly contaminated which raised concerns about the sustainability of the clean water sources. This indicates that contamination of household water sources may become a greater concern to communities in GCMC in the future and demand for POU water treatment might increase.

⁵ Final KPC report, 2010.

⁶ Liberia DHS 2007

IR 3: Improved quality of care in health facilities through the implementation of IMCI and capacity building in complementary areas

Indicator	Baseline Value	Final Value	Final Target
<i>% of HF that offer growth monitoring (at least 30 days per month per R-HFSA)</i>	0%	94%	85%
<i>% of HF's clinical encounters in which all assessment tasks are made by the HW for sick child (check ability to drink or breastfeed, vomits everything, convulsions, presence of cough or fast/difficult breathing, diarrhea, fever, assess nutritional status, feeding practices, check vaccination status)</i>	9%	67%	85%
<i>% of HF clinical encounters in which treatment is appropriate to diagnosis for malaria, pneumonia and diarrhea. (Record review)</i>	46%	83%	85%
<i>% of HF clinical encounters in which the caretaker whose child was prescribed antibiotic, anti-malarial or ORS can correctly describe how to administer all prescribed drugs</i>	49%	72%	75%
<i>% of HF that received external supervision at least once in the last THREE months (2 or more: deliver supplies, check records/ reports, observe work, provide feedback)</i>	5%	94%	75%
<i>% of HF utilizing information from the HMIS for decision making</i>	NA	100%	75%

Liberia first began implementing IMCI in 2002. The program and services were interrupted in 2003 due to the civil war. The GCM CSP facilitated the first reactivation of IMCI national training post-conflict. Since first piloting IMCI, the MoHSW has included IMCI in the National Basic Package of Health Services. The RBHS project includes IMCI as a key component. MNCI has now been scaled up in all 15 counties of Liberia.

A future challenge for the National IMNCI program will be establishing a strong monitoring and supervision component. At present, Grand Cape Mount is the only county with a decentralized supervision and support system. Supervision in other counties is provided by MoHSW supervisors from Monrovia. After training, the Grand Cape Mount Child Survival IMNCI Coordinator and Mentor conducted follow-up supportive supervision visits to health facility staff to mentor them in the application of their new skills, visiting each facility at least once a quarter. A Quality Improvement Verification Checklist form similar to the World Health Organization *Supervisory Checklist for Monitoring/Supervision of IMCI Activities* was used during IMCI mentoring visits. Findings are reviewed with the health facility staff themselves and CHT leadership.

At the recommendation of the MTE consultant, MTI replaced the COPE health facility quality of care assessment tool included in the project proposal and DIP with the R-HFA developed by the CSTS+ project. The R-HFA, which was designed to identify child health-specific services that must be in place and of sufficient quality to complement community/household and care-seeking

behavior changes promoted in the community component of the program, provides a more relevant assessment of IMNCI components at the health facility level than the COPE tool. Several R-HFA indicators were used to provide information about quality of care in referral facilities and a few indicators measured impact of project health worker capacity building effectiveness. Although the R-HFA question 10 that measures “% of HF where key assessment tasks are routinely performed (check presence of general danger signs, assess feeding practices, assess nutritional status, check vaccination status” fell somewhat short of the (very ambitious) 85% target, the increase in quality of performance from 9% to 67% was dramatic and significant.

Most PVOs experience challenges in facility-level IMCI performance targets. This is primarily due to factors over which they have little control such as routine rotation of health facility staff, staff migration to cities, limited training budgets that prohibit training the majority of health workers, and national requirements to contract certified (and expensive) IMCI trainers for any training conducted. Although some of these factors were present in GCMC, MTI is credited with major improvements with health worker performance in several key IMNCI services. During the final evaluation, health facility staff reported that the training and support they received to implement IMNCI helped them deliver more effective services. Feedback from community FGDs also indicated their perception that the quality of MCH services at health facilities has improved. When mothers of children under 2 years were asked about their most recent visits to health facilities, they said they were treated well and that their children were given medicines that made their child better. An example of effective treatment and counseling presented itself during FGDs with mothers. One woman explained how she had inappropriately demanded to be given more drugs for malaria than the health worker prescribed. The health worker explained to her that the new drugs were more effective and convinced her to try them and return if her child did not improve. The child recovered and she was satisfied.

For some indicators the upper limits of possible improvements that MTI could achieve were limited by factors outside of their control. Examples include ITN supply which impacts the ITN usage in last 24 hours indicator and the significant decrease to 6% of HFs providing 24/7 services since 2006 which impacts the ability to increase skilled delivery, postnatal checkups and sick child treatment within 24 hrs. Most health facilities in GCMC are open five days per week and several are only open four and a half days per week. The HFA indicator of “open 30 days per month” cannot be met in these facilities. These limitations are outside the control of the MTI CSP, but point the way for increased advocacy at the county and national levels for policy or human resources changes necessary to increase availability of 24 hour care.

MTI’s involvement in implementing the RBHS project provides a way to monitor whether access to health services increases over time. For example, the network of CHC/CHDCs developed by the CSP could be used for periodic surveys to see if emergency transport systems they have developed are used as well as whether families are able to find services available when they seek care, especially on weekends. Community Case Management (CCM) could partially address the gap, but only if the government of Liberia ensures a reliable supply of antibiotics for treating pneumonia at the community level as well as including newborn care in the service package community health workers provide. Distances are too large to realistically expect families to consistently travel to the health center in Sinje to seek a safe delivery or emergency care for life-threatening maternal and child conditions. Through the RBHS project, MTI is

currently supporting the roll out of CCM for diarrhea in Garwula district and will support CCM for pneumonia and malaria when a reliable source of commodities is available.

IR 4: Strengthened institutional capacity of MTI and partners to implement effective CS activities.

Intermediate Result 4: Strengthened institutional capacity of MTI and partners to implement effective CS activities.			
Indicator	Baseline Value	Final Value	Final Target
<i>% of organizations with a functional financial management system</i>	<i>This indicator was dropped as not relevant. Partners have functional financial management systems.</i>		
<i>% organizations (CDHCs) using information from HMIS for decision making</i>	0%	79%	100%
<i>% of organizations and health facilities meeting approved Standard Health Plan.</i>	0%	<i>An accreditation assessment of all 32 Grand Cape Mount health facilities in January 2010 resulted in an average score of 73%.</i>	50%
<i>% of indicators for capacity building are achieved</i>	0%	<i>Action has been taken to improve approximately 94% of indicators for all three partner agencies: MTI Liberia, CHAL, and GCM CHT.</i>	80%
<i>Use of CSSA is institutionalized (annual reviews are being conducted)</i>	No	Yes	Yes
<i>Lessons learned and best practices are disseminated utilizing at least three different media (program manual, presentations, conferences, web site, articles, etc.)</i>	No	<i>Internal presentations of MTE results and discussions of lessons learned have been held at MTI headquarters and field offices and MTE results posted on the MTI website.</i> <i>Lessons learned from the Liberia Child Survival Project have been disseminated and used in MTI community health programs in Africa and Asia.</i> <i>GCM CSP project strategies are being scaled up in other counties. IMNCI has been scaled up in all the 15 counties of Liberia. The project Social behavior change and community mobilization strategy based on the Care Group approach has been scaled up in Gparpolu County by a UNICEF funded child survival project.</i> <i>In June 2010 MTI hosted Curamericas for a cross visit to learn about the Grand Cape</i>	Yes

Intermediate Result 4: Strengthened institutional capacity of MTI and partners to implement effective CS activities.			
Indicator	Baseline Value	Final Value	Final Target
		<p><i>Mount Child Survival Project Care Group and C-IMCI strategies. Since the cross visit, Curamericas has used the MTI C-IMCI modules and training methodology.</i></p> <p><i>During year 3, project staff shared experience during workshops to develop the national Child Survival Strategy for Community Health Volunteers.</i></p>	
<i>% of annual national budget dedicated to health</i>	<i>This indicator was dropped as the project has limited ability to influence and measure influence the annual national budget.</i>		

MTI Liberia and headquarters staff provided support to CHAL and the GCM CHT to put in place administrative and financial systems needed to ensure appropriate management of the sub-grant. Problems encountered in the implementation as planned by project partners during Years 1 and 2 were resolved with the replacement of the CHAL Community Outreach Coordinator and three of the four Supervisors, and through intervention by County Health Team leadership regarding the health facility use of motorcycles which were donated by MTI during a previous Central Emergency Response Fund (CERF) grant.

MTI has shown their capability to introduce state of the art child survival strategies to Liberia and is now adopting similar strategies in their programs in other countries. Although much of the focus has been on the Care Group volunteer in the effectiveness of the methodology, it is actually the “whole package” of the Care Group approach, including capacity building of the CHC/CHDCs to organize themselves and fully contribute to community changes and support the HHPs, that is considered essential to achieve program impact. Quantitative self-assessment of CHC/CHDC capacity was conducted in August 2009 and repeated in March 2010. A report of the CHC/CHDC self assessments is included as Annex 8. Large improvements were found in frequency of meetings, documented meeting minutes, processes to ensure equal participation, prioritizing community needs, using Care Group data for planning which more than doubled, providing guidance for using clinic resources, developing workplans, emergency funds, and transport systems and conflict prevention (palava). “Active support for HHPs by providing material support” did not improve, and remained low at 16%. The project would have benefited from using this tool before the second half of the project, but since MTI will continue working in GCMC, there remain opportunities to strengthen the HHP support component which is essential for sustainability of project achievements over time. HHP support need not require a lot of money, but CHCs will need additional encouragement to perform this critical role in linking households to the health system as part of C-IMCI.

The conflict prevention training provided to the CHCs by the project is particularly interesting. Over two thirds of the 129 CHD members were trained in conflict prevention and of those 88% said they had “used skills learned during the training to prevent or settle conflict or “palava.” In community interviews, FGD participants from several sectors of community members and

multiple locations reported that the conflict prevention skills learned in the CSP have led to decreases in domestic violence and violence against women specifically. The final evaluation team was not able to pinpoint the exact elements of the program that might have contributed to these observations but similar reports have come from other Care Group programs in other countries. How much the combination of Care Group community mobilization coupled with conflict prevention training has actually decreased the high levels of violence in post-conflict GCMC cannot be determined from project data, but is worthy of additional investigation for multiple reasons.

Annex 9 outlines progress made in reaching MTI, CHAL and GCM CHT Technical Assistance Plans for Institutional Capacity Building.

Lives Saved Estimates:

A summary Lives Saved estimates is included as Annex 13. The calculations of estimated lives saved are based on the Lives Saved Tool (LiST)¹. A consortium of academic and international organizations, led by the Institute of International Programs at the Johns Hopkins Bloomberg School, and supported by a Gates Foundation grant to the US Fund for UNICEF, has developed this modeling system that looks at the estimated impact of different intervention packages and coverage levels for countries, states or districts. These scenarios, developed with the LiST tool, provide a structured format for program managers or ministry of health personnel to combine the best scientific information about effectiveness of interventions for maternal, neonatal and child health with information about cause of death and current coverage of interventions to inform their planning and decision-making, to help prioritize investments and evaluate existing programs. The LiST tool utilizes data collected at baseline and final evaluations of the Liberia project to estimate the number of lives saved through the project’s interventions. Running within Spectrum, an existing software package developed by the Futures Institute, the tool’s LiST module works by:

- specifying the current demographic projection (either reading directly from the demographic projections of the United Nations Population Division or from national or provincial demographic projections);
- cause of death information for children under five and maternal mortality, again either standard estimates from the WHO or based on local data;
- current levels of coverage of key health interventions that affect child and maternal mortality which in this case are taken from Baseline and Final results; and
- Estimated effectiveness of interventions on cause-specific neonatal, child and maternal mortality.

RESULTS

Additional Deaths Prevented in Children 0-60m	2006	2007	2008	2009	2010
Total (0-60m)	0	65	140	204	262
<1 m	0	8	15	26	34
1-59m	0	57	125	178	228

Mortality Rates Summary	2006	2007	2008	2009	2010
Maternal Mortality Ratio	990	987	984	940	933
Neonatal Mortality Ratio	34	32	31	29	27
Under 5 Mortality Rate	142	129	115	103	93

A total of 671 lives of children aged 0-60 months are estimated to have been saved during the 4 years of the project (2006-2010). This is an estimated overall reduction of the under 5 mortality rate of 34%. This consists of a total of 83 infants under 1 month of age and 588 children aged 1-59 months. In addition, the maternal mortality ratio (per 100,000 live births) is estimated to have been lowered from 990 to 933 over the course of the project. The neonatal mortality rate (per 1,000 live births) is estimated to have been lowered from 34 to 27, and the under 5 mortality rate (per 1,000 live births) is estimated to have been lowered from 142 to 93 over the life of the project.

Role of Key Partners

CHAL: CHAL was subcontracted to implement the community component of the project and was responsible for hiring and supervising the field staff. CHAL is a membership organization that consists of a variety of Christian organizations of different denominations working in health throughout Liberia. Before partnering with the MTI CSP, CHAL traditionally served as a clearing house for technical training and support for their members and was not involved in providing direct services as an organization. In 2006 CHAL also began directly implementing HIV/AIDS services. Normally, partnership with CHAL would be through a member organization located in the project area. GCMC is predominantly Muslim. Even though there are a few CHAL member organizations in the county, none were considered strong enough to fulfill the local partner NGO role needed for the CSP. CHAL as an organization has had mixed experiences partnering with other INGOs. “Sometimes they promise a lot if they get the grant, then we never hear or receive anything after that.” CHAL said this was not the case in their partnership with MTI and they received a lot of support and capacity building from MTI. CHAL was responsible to directly hire and supervise the majority of the field staff. MTI provided managerial and upper level supervisory support. Even though official employment ended for CHAL staff with the end of the grant, several CHAL staff already found other jobs. Others were optimistic about finding employment in other community health projects.

CHT: As the management authority for all government health facilities and workers in the county, MTI’s collaboration, coordination and capacity building with the CHT was intended to improve the quality of maternal and child health care services provided in the system and decrease the severity of disease and disability through preventive behaviors and early care-seeking. MTI trained, mentored, and provided joint supportive supervision to develop child health care skills through IMNCI training at health facilities. MTI also developed and implemented a highly effective pictorial referral form used by HHPs and CHCs to refer sick children and mothers to health facilities.

F. Discussion of Potential for Sustained Outcomes, Contribution to Scale, Equity, Community Health Worker Models, and Global Learning

1. Progress Toward Sustained Outcomes

During the DIP process, 11 Child Survival Sustainability Assessment (CSSA) indicators were established. At midterm these were better defined and reduced to eight indicators covering three dimensions. Progress made in reaching sustainability indicators is outlined below:

Dimension I: Health Outcomes and Services

Indicator	Targets at final	Progress as of September 2008	Progress as of September 2010
Ia. Improvement in indicators for health behaviors at community level and at health facility level	See M and E table,	See M and E table	See M and E table

Ib. % of communities using a HMIS for decision making	40% of communities using a HMIS for decision making	0 CHCs using HMIS for decision making	63% CHCs discuss Care Group data and use for it planning
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Both indicators for health outcomes and services were met by the end of the project based on KPC and HMIS results.

Dimension II: Organizational Capacity and Viability

Indicator	Targets at final	Progress as of September 2008	Progress as of September 2010
IIa. % of organizations using the HMIS to make decisions	75% Health facilities and CHDCs using HMIS for decision making	44% health facilities using HMIS for decision making 0% CHDCs using HMIS for decision making	100% of health facilities using HMIS for decision making to follow disease trends, monitor coverage of EPI. 79% of CHDCs using HMIS for decision making
IIb. % of community structures and health facilities coordinating and implementing activities based on an approved Standard Health Plan	50% of health facilities meet accreditation standards for the BPHS by December 2008 and 70% by the December 2009.	The pre-accreditation assessment of 15 Grand Cape Mount health facilities in June 2008 resulted in an average score of 75%.	An accreditation assessment of all 32 Grand Cape Mount health facilities in January 2010 resulted in an average score of 73%.

Both indicators for organizational capacity and viability were also met. By March 2010, all health facilities and 79% of CHDCs used HMIS for decision-making. An accreditation assessment of all 32 Grand Cape Mount health facilities in January 2010 resulted in an average score of 73%.

Dimension III: Community Competence and Political Environment

Indicator	Targets at final	Progress as of September 2008	Progress as of September 2010
IIIa. # of CHP and HHPs providing homes visits and referrals	At least 266 HHPs (51%, ~2 per each of 132 communities) providing home visits and referrals.	20 CHPs, 520 HHPs providing home visits and referrals	20 CHPs and 507 HHPs providing home visits and referrals

IIIb. # of communities with CHCs and health facilities with CHDC who have met in last 3 months.	132 communities have CHCs who have met within the past 3 months	126/132 (95.5%) of communities have CHCs who have met within the past 3 months	89% of communities have CHCs who have met within the past 3 months
	At least 24 (80% of 30) health facilities have CHDCs who have met in the last 3 months	16 of 30 (53%) health facilities have CHDCs who have met in the last 3 months	23 (77% of 30) of health facilities have CHDCs who have met in the last 3 months

Community competence and political environment were assessed by tracking HHP services and CHC and CHDC meetings. Indicators for percent of communities with at least two HHPs providing home visits and referrals and regularity of CHC meetings were both met. The 23 CHDCs which have been revitalized are also meeting on a regular basis.

HHPs, CHCs and CHDCs have all been included for continuation in the RBHS project activities. The integration of Care Groups into the CHT/RBHS structure is depicted in Annex 11. There will not, however, be as many field staff with regular contact with the communities as was the case during the CSP. CHT district health officers will assume many of the support and supervisory functions that MTI and CHAL staff had done during the project. The volunteer dropout rate has been very low in spite of very limited material support from the project. Behavior change messages delivered house to house by these volunteers has changed cultural norms that have proven to be sustained after other similar projects have ended. This was measured in Mozambique where volunteer activity and household behavior changes remained at high levels without additional outside support for at least two years after the project ended.⁷ Penetration of child survival and household behavior change into the community at large was verified during FGDs that were conducted with grandmothers and fathers of children under two years who were not directly targeted by the project, but who nevertheless were able answer household and community behavior change questions accurately. In addition, emergency transport plans and community emergency funds have moved beyond the planning stage and are being implemented.

The sustainability measurements of the CSSA are useful in targeting key changes to sustain child health, but child survival projects rarely have control of all of the factors in each dimension. Hence, health system-dependent indicators are largely outside of the project's total control. The project did not address financial sustainability of health services, but the Care Group model is largely volunteer based and can continue as long as volunteers and support structures are motivated and supported by their communities.

The community structure of the project is a wonderful foundation for other activities that can be supported through other programs. If MTI were to build on this foundation with other activities, for example community based distribution for family planning, Global Fund community activities for malaria or HIV/AIDS, these projects would provide additional support for volunteers to remain active.

⁷ World Relief Vurunga project, Gaza Province Mozambique.

2. Contribution to Scale up

GCM CSP project strategies are being scaled up in other counties. IMNCI has been scaled up in all the 15 counties of Liberia. The project Social behavior change and community mobilization strategy based on the Care Group approach has been scaled up in Gparpolu County by a UNICEF funded child survival project.

In June 2010 MTI hosted Curamericas for a cross visit to learn about the Grand Cape Mount Child Survival Project Care Group and C-IMCI strategies. Since the cross visit, Curamericas has used the MTI C-IMCI modules and training methodology.

3. Equity

FGDs with husbands and influential male community leaders indicated that the women HHPs had shown them how much positive impact women who cannot read can have in their households and communities. In many cases wives of community leaders were active HHPs. Focus group participants perceived that the overall quality of life improved for everyone and fewer children in their community became ill or died. Since HHPs were all female, women were an essential component of the program. They were well represented in the CHAL field supervisors and community health promoters.

The CHC self-assessments conducted by the project in August 2009 and March 2010 measured several indicators of participation. Over 78% of members stated that there was good participation from both men and women, as well as youth and adults in meetings. The utilization of processes such as voting to ensure equal participation increased from 31% to 51%. Just over one-third of CHC leaders were trained in group facilitation, indicating a capacity area that could be further developed and lead to increases in other indicators.

The CHC self-assessment tool is valuable for pinpointing capacity building opportunities to address inequity, justice and problem-solving in many areas. It was introduced during the second half of the project. The project probably would have benefited if the tool had been conducted when the committees were first formed and more time had elapsed between assessments. Nevertheless, the tool was able to show improvements in several areas where MTI specifically worked to increase capacity and should prove useful for further development work with CHCs in the future.

The selection of GCM for this CSP promoted equity in Liberia. GCM contains a high percentage of under-represented and vulnerable populations. Nationwide, Liberia has a religious affiliation of 82% Christians and 16% Muslim. GCM has the highest concentration of Muslims in the country-- 90% Muslim and 9% Christian. GCM is 69% Vai, a group which is only represented by 5.6% of the population nationally. MTI is the only major health development NGO remaining with a long-term commitment to the county. Purposefully targeting an area where there are the minorities is a positive effort to achieve equity. Understanding family structures, such as polygamous households within their communities facilitated adaptation of the Care Group model to those families.

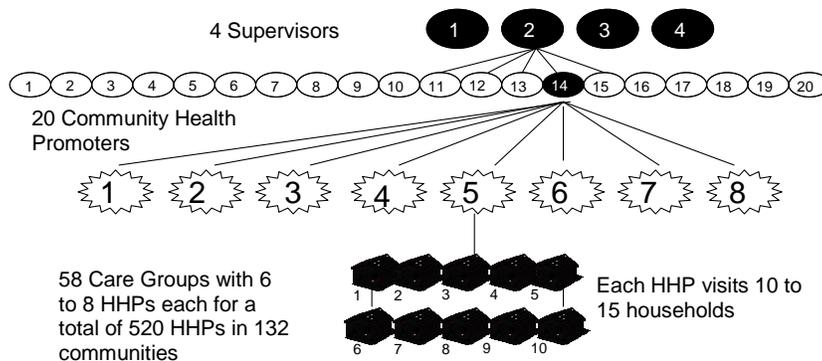
See “Other Issues Identified by the Team” for unreached populations that were not intended to be served by the MTI CSP.

4. Role of Community Health Workers

CHWs were included in the Liberian primary health care system in the 1980s but were not supported during the war and became inactive. General Community Health Volunteers (gCHVs) are now included as part of the revitalization of the Liberian health system. Several HHPs and CHC members involved in CSP activities in GCMC were identified as potential gCHVs for this new cadre of volunteer and will be trained by the RBHS project. As reading is an MoHSW requirement for gCHVs, only HHPs who could read have been absorbed into the program. The role of the gCHV is similar to that of the CSP Community Health Promoter and the HHPs will work with gCHVs as community health supporters.

Utilizing the Care Group approach ensured good household coverage as depicted in the diagram below. HHPs’ ability to reach every household as well as the community for targeted and effective social and behavior change messages are largely the reason health practices changed. Their ability to have input into the health system through the CHCs also provided an important “feedback loop” to health workers about their work.

Structure of Care Groups



HHPs worked solely on a voluntary basis and received supportive supervision from CSP field staff. When interviewed, HHPs reported that the training they received, the positive changes in community health behaviors, and the recognition they received for their contributions to their communities were the factors that motivated them to continue their work. They reported that they felt that their workload as volunteers was manageable. Organizing and supporting volunteers through Care Groups has helped to address concerns about after-training support and supervision that arose in earlier CSPs. In the past, high household/volunteer ratios and lack of supervision led to high volunteer drop-out rates and inconsistent volunteer performance quality.

As noted in the data quality and results sections, further increases in important MCH indicators such as timely treatment with medications for malaria and pneumonia as well as skilled delivery and essential newborn services are dependent on increased health systems strengthening and

access to health services. HHPs and CHCs can and do mobilize communities to access essential MCH services, such as immunization campaigns and ITN distributions (when available), but do not provide the services nor commodities themselves. Connecting communities to the formal health system through the CHCs and empowered community members is also an important venue for advocating effective health services. MTI has retained the Community Outreach Coordinator from the CSP to continue to strengthen the health system-community connections in their RBHS grant. In that sense, the Care Group structure developed in the CSP will now be a part of the formal, health system in GCMC.

Using a broad definition that includes HHPs in the definition of CHW, a CHW Training Matrix is included in Annex 10.

4 Contribution to Global Learning

MTI appropriately targeted malnutrition for high level of effort in the project as it contributes to between 30-50% of child deaths in high mortality settings. MTI devoted significant effort to understanding what was needed to change poor child feeding practices, especially during the critical newborn and weaning periods of the child's life. CSHGP projects are often challenged to implement quality nutrition interventions and other PVOs can learn a lot from what MTI has done. As a learning organization, MTI was open and responsive to MTE findings and took the actions necessary to impact IYCF indicators. An update on progress addressing midterm evaluation recommendations is summarized in Annex 12. The CSP demonstrated that focused attention to designing interventions as well as monitoring and evaluation methodologies directed toward individual IYCN practices is very important and targeted IYCN behavior change activities can achieve significant improvements in child feeding practices.

MTI demonstrated that the Care Group model was feasible, acceptable and appropriate in the immediate post-conflict environment while the Liberian government and health system were undergoing tremendous change as external emergency health programs implemented by INGOs ended and emphasis changed to developing a sustainable system. As the first CSHGP project in Liberia, MTI introduced both the Care Group approach and IMCI.

Although MTI and CHAL are faith-based Christian organizations, the program and approach was highly acceptable to communities in a predominantly Muslim area of the country. This adds another example of how the approach is appropriate for community mobilization in a wide variety of ethnic and religious communities in multiple countries.

Even though there was turnover of key staff members in the program and the CSP has now ended, MTI made significant contributions to Liberian health care capacity building as trained personnel have gone on to important jobs in Liberia. The physician hired as project manager for the first two years of the project is now Director of Family Health Services at the national level. The MTI IMCI Mentor will head clinical services for the GCMC CHT and the Community Outreach Coordinator from the program will continue working with communities as part of MTI's RBHS program in GCMC.

Maximum performance in CSHGP-supported PVO programs is achieved when the grantee (US PVO) avails itself of the multiple technical and managerial strengthening opportunities provided

from USAID Washington's technical partners in the program, including the former CSTS+ program, the new MCHIP program and the CORE group. MTI hired experienced technical backstops at the US HQ, including a designated M&E specialist. This demonstrated MTI's commitment to long term quality technical performance in all of their programs. As a CSHGP New Partner, MTI had to blend in with multiple PVOs that already had many years of technical capacity building and experience in the program. Participation in CORE meetings and working groups and consultation with USAID's technical partners benefitted MTI as an organization and ultimately the impact on project beneficiaries and their communities.

MTI's introduction of the Care Group approach, along with a linked system of data flow, analysis, and feedback from the community-based information system has proven that this approach is feasible and acceptable in GCMC and probably could be effective in other high-need rural areas of Liberia. The high level of collaboration, participation and trust between the partners certainly led to achieving high coverage as well as satisfaction with the program overall.

G. Conclusions and Recommendations

MTI CSP met, and in many cases, significantly exceeded targets in their quantitative impact child survival indicators. Only point of use water treatment made no progress possible due to low diarrhea prevalence and perceived access to clean water in communities. High commitment to learning and improving technical performance at every level from HQ to the household certainly contributed to these achievements. Lessons learned in developing and administering effective and cost-effective community based MCH programs can benefit other areas of Liberia and provide the basis for additional programs in reproductive health and MCH programs there and in other places.

Recommendation:

MTI share their experiences in addressing IYCN within a CSHGP-supported program, specifically the specific social and behavior change assessments and strategies they used, including Care Groups. Even though MTI is not a Title II implementing organization, they should offer to share these accomplishments with organizations working on preventing chronic malnutrition in those programs.

The CSP included health system (CHT) capacity building in IMNCI and supportive supervision. CHT members specifically mentioned this training as an important factor in their improved performance in MCH services. The addition of newborns to the IMCI (now IMNCI) algorithm was also important. Emphasis on early initiation of breastfeeding behaviors and maternal TT in the project will be important contributions to decreasing newborn mortality. More infants and mothers now receive post-natal checkups, largely due to increased facility deliveries.

Recommendation:

MTI should share their experiences with improving health worker performance, including successes in using quality assurance tools and checklists as well as challenges they encountered in achieving optimum outcomes, with RBHS and other partners working on health systems strengthening.

The CSP strategy to meet the community and household ownership for increased hygiene, and significantly better preventative and curative MCH behaviors was successful. The Care Group model, including the community structures (CHC) were cited as major reason for community and household behavior changes. The Government of Liberia is searching for successful and realistic community health care models.

Recommendation:

MTI should proactively seek opportunities to contribute to developing standards and approaches for community health care services in Liberia by sharing their strategies and results (including objective quantitative data) with appropriate MoHSW and partner organizations such as USAID's RBHS partners at the national level. In child survival forums such as CORE Group meetings, MTI should collaborate with other organizations that have experienced similar challenges in building health worker capacity in MCH services, including IMCI and skilled delivery. Specific experience MTI has had in improving complementary feeding practices should especially be shared.

Lessons Learned as expressed during workshop with final evaluation team and stakeholders

- Care Group programs result in positive changes in perceptions of women's capabilities and in their own self-esteem, even if they are not able to read.
- Baseline data for demonstrating impact is essential.
- Community HMIS and referral processes show that Liberian women who cannot read can be a vital part of improving family health outcomes. These methodologies provide valuable lessons learned for community health programs throughout Liberia.
- Give positive and constructive feedback at every level: community, health facility, CHT, and national.
- Tell volunteers about the positive things they are doing. They are motivated when they see the impact of what they do.
- The workload expected of each volunteer need to be manageable.
- Participatory planning improves accountability and capacity and results in a more realistic program.
- Midterm evaluations allow identification of strengths and weakness in time to correct weaknesses and build on strengths.
- LQAS provides annual quantitative data for decision-making and program planning.
- Be sure to include men, grandparents and community and religious leaders in social and behavior change strategies and solicit their feedback.
- Keep in mind national health targets in setting project objectives.

Other Issues Identified by the Team

These observations are no reflection on the performance of MTI's child survival project, but emerged during the fieldwork and stakeholder discussion conducted during the project's final evaluation. They are presented here for both MTI and USAID's considerations for future programs in GCMC.

- Reproductive health services, including STI and family planning programs are desperately needed in the project area. There is a high level of untreated STDs in the community. The road from Monrovia to Freetown which runs through GCMC is used by commercial truckers and promotes a high level of commercial sex trade. This indicates high risk of HIV/AIDS transmission. Knowledge of prevention measures remains low so prevention services are needed.
- There is need for more attention to maintaining the clean water supply provided to the area by NGOs during and shortly after the war. Point of use water treatment may become a more pressing need in the future.
- There are absolutely no mental health services available in the county. The CHT has urgent need for basic mental health services. Even the basic sedatives that are needed to transport psychotic safely patients to Monrovia are not available. There is a need for basic mental health training for CHT and health facility staff and the establishment of a referral system for serious cases.
- Services for disabled children are needed and are beyond current CHT capacity.
- Women's literacy programs are needed in the county.

Although neonatal mortality represents 25% or more of child mortality in Liberia, efforts to save their lives receives little focused attention from either health facilities or the community. Most deliveries still occur in the home. As U5 mortality rates decrease from increased immunization coverage and better control of diarrhea, pneumonia and malaria, the percentage of child deaths attributable to neonatal mortality will increase. More needs to be done in the area to meet the needs of newborns who largely remain in the home during the time when they are at most risk of dying. At current mortality levels, most newborns die within the first week of life (MIS4, 2009). Saving Newborn Lives (SNL) and USAID's previous ACCESS project addressed many of the challenges of reducing neonatal mortality and morbidity in other countries. Similar programs are needed in Liberia

Applying MTI's CSP Experience in the Future

MTI has made a long term commitment to facilitate health development in Liberia. They are already a USAID RBHS partner. MTI is an active member of the CORE group and will continue to collaborate with other child survival PVOs for technical strengthening for their programs.

Recommendation:

MTI should consider submitting proposals for additional programs in Liberia (they have already started doing this), including those supported by CSHGP and PMI in Liberia, as well as seek additional opportunities to partner with USAID Liberia and other programs such as the Global Fund. Another CSHGP grant in Liberia would be appropriate. This would probably require an expanded program area, or perhaps entry into other parts of Liberia.

MTI's plans to address final evaluation recommendations are outlined in Annex 14.

H. Changes in Grantee Organization Capacity

MTI availed itself of several of the multiple technical and managerial strengthening opportunities provided from USAID's CHSGPP technical partners including the former CSTS+ program, the new MCHIP program and membership in the CORE group working groups. As a learning organization, MTI was open and responsive to MTE findings and took the actions necessary to impact IYCF and other indicators and use regular monitoring to assess progress towards end of project targets in other interventions. The CSP demonstrated that using technical skills provided in the CSHGP helped MTI to focus attention on designing interventions with a social and behavior change approach as well as develop monitoring and evaluation methodologies. MTI hired experienced technical backstops at the US HQ that included a designated M&E specialist. This demonstrated MTI's commitment to long term quality technical performance in all of their programs. MTI enjoys an excellent reputation among many Liberian public health professionals and their former Project Manager is now Head of Family Health of the Liberian MoHSW.

As a CSHGP New Partner, MTI had to blend in with multiple PVOs that already had many years of technical capacity building and experience in the program. Collaboration with colleagues and other organizations that were implementing similar programs benefitted MTI as an organization and ultimately had a positive impact on project beneficiaries and their communities.

The high level of collaboration, participation and trust between the partners certainly contributed to achieving high coverage in CSP indicators as well as satisfaction with the program overall. MTI has been invited by MCHIP to share their experiences implementing a community-based health project using Care Groups during the December 2010 Care Group Technical Advisory Group meeting.

MTI's collaboration with the USAID Liberia Mission while implementing the CSP was expanded when MTI was awarded a contract in July 2009 through the RBHS grant funded by USAID and implemented through JSI. The RBHS objective is to support implementation of Liberia's National Health Policy and Plan. John Snow, Inc (JSI) conducted an assessment of NGO capacity for performance-based contracting in Liberia and found that MTI has sufficient financial management systems in place and experience in following USAID financial rules and reporting requirements, to qualify to manage funds for a sub-grant from RBHS. MTI shared the results of the CSP with the USAID mission and RBHS technical manager and is exploring collaboration with other USAID partners to implement additional community-based health programs.

An evaluation of project management is included in Annex 15.

ⁱ LiST: The Lives Saved Tool, An evidence-based tool for estimating intervention impact, JHSPH; <http://www.jhsph.edu/dept/ih/IIP/list/index.html>