Malawi Newborn Health Program
Final Evaluation Report

National Level - Expanded Impact Project

(with learning activities in the districts of
Chitipa, Dowa, Thyolo, Mzimba, Mchinji)

Cooperative Agreement No.: GHS-A-00-06-00016-00
30 September 2006 – 30 September 2011

Submitted to USAID/GH/HIDN/NUT/CSHGP
December 31, 2011
by:

Save the Children Federation, Inc.
54 Wilton Road, Westport, CT 06880
Telephone: (203) 221-4000 - Fax: (203) 221-4056

Contact Persons:
Eric A. Swedberg, Senior Director, Child Health and Nutrition
Carmen Weder, Associate Director, Department of Health & Nutrition

Principal writers and editors: John Murray, External Team Leader; Karen Z. Waltensperger, Senior Advisor, Health-Africa Region; Nathalie Gamache, Associate Director, Country Support & Coordination, Saving Newborn Lives; Evelyn Zimba, Malawi Newborn Health Program Manager; Joby George, Senior Health Program Manager; Sharon Lake-Post, Editorial Consultant

This report is made possible by the generous support of the American people through the United States Agency for International Development USAID). The contents are the responsibility of Save the Children and do not necessarily reflect the views of USAID or the United States Government.

Acronyms and Terms

ACCESS	Access to Clinical and Community Maternal, Newborn and Women's Health Services (USAID-funded project)
ACSD	Accelerated Child Survival and Development
Agogo	Grandparent(s) in Tumbuka
AMTSL	Active Management of the Third Stage of Labor
ANC	Antenatal Care
CBMNC	Community-Based Maternal and Newborn Care (package)
CCAP	Church of Central Africa Presbyterian
CCM	Community-Based Case Management
CHAM	Christian Health Association of Malawi
c-IMCI	Community-Integrated Management of Childhood Illnesses
CS-22	USAID/CSHGP - 22nd cycle
CSHGP	Child Survival and Health Grants Program
DHMT	District Health Management Team
DHO	District Health Officer
DHS	Demographic and Health Survey
DIP	Detailed Implementation Plan
EHO	Environmental Health Officer
EHP	Essential Health Package
EHRP	Emergency Human Resource Programme
EIP	Expanded Impact Project
Ekwendeni	Ekwendeni CCAP Mission Hospital (Synod of Livingstonia)
ENC	Essential Newborn Care
EmONC	Emergency Obstetric and Newborn Care
EOP	End of Project
FANC	Focused Antenatal Care
FB	Facility Birth
GNI	Gross National Income
GOM	Government of Malawi
HB	Home Birth
HC	Health Center
HF	Health Facility
HH	Household
HHS	Household Survey
HIS	Health Information System
HIV/AIDS	Human-Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HMIS	Health Information Management System
HSA	Health Surveillance Assistant
HW	Health Worker
ICH	Institute of Child Health
IHME	Institute for Health Metrics and Evaluation
IMCI	Integrated Management of Childhood Illnesses
IMNC	Integrated Maternal and Newborn Care
IPT	Intermittent Presumptive Treatment

IR	Intermediate Result
KMC	Kangaroo Mother Care
KPC	Knowledge, Practices and Coverage (survey)
LBW	Low birth-weight
LQAS	Lot Quality Assurance Sampling
MNCH	Maternal, Newborn and Child Health
MCHIP	Maternal and Child Health Integrated Program (USAID-funded project)
MDG	Millennium Development Goal
MDHS	Malawi Demographic and Health Survey
MICS	Multiple Indicator Cluster Survey
MNH	Maternal and Newborn Health
MNHP	Malawi Newborn Health Program (Save the Children)
MOH	Ministry of Health
NMR	Newborn Mortality Rate
NN	Neonatal
NNT	Neonatal Tetanus
PNC	Postnatal Care
RHU	Reproductive Health Unit
SC	Save the Children
SNL	Saving Newborn Lives (funded by the Bill & Melinda Gates Foundation)
SO	Strategic Objective
SWAp	Sector Wide Approach
TBA	Traditional Birth Attendant
TOT	Training of Trainers
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nation's Children Fund
USAID	United States Agency for International Development
WHO	World Health Organization

A. PRELIMINARY INFORMATION (Executive Summary)

The Malawi Newborn Health Program (MNHP) is a five-year Expanded Impact (CS-22 cycle) project implemented at the **national-level** (100% maternal and newborn health [MNH] with focus on the newborn). The project is co-funded from two complementary sources: the United States Agency for International Development (USAID)/Child Survival and Health Grant Program (CSHGP) and Save the Children's Saving Newborn Lives (SNL Phase II – match and cost-share), supported by the Bill & Melinda Gates Foundation. Program implementation for both streams of funding covers the period 2006-2011.

The overall goal of the MNHP is to reduce newborn morbidity and mortality at scale in order to contribute to the achievement of Malawi's Millennium Development Goals by 2015. The strategic objective of the MNHP is *increased sustainable use of key MNH services and practices.* The project aims to expand maternal and newborn interventions throughout Malawi. In addition, the project implements learning activities in five districts-Chitipa, Dowa, Thyolo, Mzimba, and Mchinji. The districts of Chitipa, Dowa and Thyolo were chosen by the Ministry of Health (MOH)for early implementation and documentation of the national Community-Based Maternal and Newborn Care (CBMNC) package. The District of Mzimba is the site of development and implementation of a community-based approach to improve MNH practices using *agogo* (grandparents), conducted by sub-grantee, the Ekwendeni Church of Central Africa Presbyterian (CCAP) Synod of Livingstonia Mission Hospital (Ekwendeni). Mchinji District is the site of MaiMwana, a community-based cluster randomized trial of strategies to reduce perinatal mortality carried out by the Institute for Child Health in London and funded by SNL.

The project focus is on delivering a core package of interventions at each level of the continuum of care for the mother and newborn. There are four main project components:

1. Strengthening of the national capacity to implement newborn health activities. Through the project, Save the Children works closely with the Reproductive Health Unit (RHU) of the Ministry of Health (MOH) and other partners. A national *Integrated Maternal and Newborn Care (IMNC) Training Manual* for facility-based health workers was developed and implemented nationally.

2. Development and implementation of the CBMNC package. The package was implemented most intensively in three CBMNC focus districts - Chitipa, Dowa, and Thyolo - and replicated in four additional districts through MCHIP in which Save the Children is a partner. Roll-out of the community-based package is led by the MOH RHU, with leadership, technical, and material support from Save the Children and UNICEF.

3. Expansion of the Kangaroo Mother Care (KMC) approach. The MNHP updated national KMC guidelines and collaborated with MOH and District Health Management Teams (DHMTs) to scale-up KMC services nationally.

4. Testing of community-based approaches to promoting the use of essential newborn care (ENC). The MNHP supported the testing and dissemination of alternative community-based approaches to promoting the use of ENC in two districts. Findings from these projects were

Summary of key results

Between 2004 and 2010, Malawi Demographic and Health Survey (MDHS) data show improvements in the national coverage of several maternal and newborn interventions. Upward trends in coverage are noted for facility-based deliveries, deliveries by skilled providers, maternal postnatal care (PNC) contacts within two days of delivery, early breastfeeding (within one hour of delivery) and exclusive breastfeeding for newborns. High rates of antenatal care (ANC) coverage (at least one visit during pregnancy) and newborns protected against neonatal tetanus at birth were sustained nationally during this period; and 85% of women report birth spacing of at least 24 months. In the three CBMNC focus districts where activities were implemented more intensively, there were additional improvements in the quality of post-delivery practices (washing, drying and delayed early bathing), early PNC for newborns, weighing of the newborn, and maternal knowledge of key home practices. Taken together, these data suggest that MNHP project activities contributed to improvements in newborn intervention coverage in the three CBMNC focus districts. The link between project activities and improvements in national coverage is harder to make due to the multiple possible inputs from both the MOH and other development partners – although there is evidence that the Save the Children effort contributed to improved awareness about critical newborn health challenges and increased availability of neonatal interventions throughout the country.

The main conclusions of the evaluation include:

1. Available data suggest that project inputs contributed to improvements in availability, quality and demand for newborn interventions - and improved intervention coverage - in the three CBMNC project focus areas; and possibly nationally.

2. The capacity of the MOH/RHU to plan and implement newborn health activities has been strengthened. The MNHP built local capacity by advocating for newborn health, using data to inform decisions, building consensus among partners, and coordinating the development and adaption of key policies and guidelines.

3. The CBMNC package has been adopted as the primary national approach for community-based MNC - and good progress has been made expanding the approach nationally (now rolled out in 17+ districts). Community-based management of newborn sepsis has been authorized and adopted, and training materials are available, although it has so far been piloted in only one district. The case-management protocol allows health surveillance assistances (HSAs) to classify sick newborns and treat with the first dose of amoxicillin.

4. The IMNC package for facility-based health workers has been adopted as the primary approach for training facility-based workers in MNH - good progress has been made in expanding training nationally.

5. The KMC approach for managing low birth weight babies has been expanded nationally. The MNHP coordinated the revision of KMC guidelines to include ambulatory and community care. Guidelines were incorporated into the national IMNC and CBMNC training materials.

6. Expansion of the CBMNC approach will require the roles, training methods and support of Health Surveillance Assistants (HSAs) to be reviewed and revised. Currently HSAs have responsibility for a number of vertical program activities and packages – and are overburdened. Many are not making household visits to pregnant women or new mothers in the postnatal period.

7. Quality of MNC provided by facility-based staff remains an important challenge. Available data suggest quality needs to be improved in all areas. Opportunities to provide PNC for mothers and newborns are often missed. Shortages of midwives remain an important barrier to delivering maternal and newborn services in health facilities. Costed plans for addressing midwife shortages are available, but have not yet been implemented.

The main recommendations of the evaluation are:

1. Continue advocacy and technical support at all levels to ensure that newborn health continues to be incorporated into routine planning.

2. Focus on increasing **quality** of MNC. Better use opportunities provided by high facility delivery attendance rates. An increased focus on improving quality of facility-based delivery care, ENC, PNC care and KMC for low birth-weight (LBW) babies is needed. It is proposed that a coordinated approach to improving quality of care around the time of delivery be developed in close collaboration between the RHU and development partners. Improvements in quality will need a number of system areas to be addressed, including, supervision, drugs, equipment and supplies and approaches to referral. As a part of this review, the in-service training methods/strategy for IMNC should be reviewed, in order to address concerns that the current approach does not change practice on the ground. Consideration should also be given to modifying training modalities to make them competency and practice oriented.

3. Continue to roll-out CBMNC in districts, through District Health Offices (DHOs) with partner support. Ensure that training activities are linked to approaches to improve quality of care, including supervision. As a part of further implementation consider: better integration of HSA training and supervision among vertical programs; and development of methods for HSAs to identify and track pregnant women in communities, such as through better use of core group members and use of cell phones to contact the HSA directly. Review the feasibility of continued community-based CBMNC surveillance.

4. Collaborate with partners to roll-out training in management of newborn sepsis, using new training materials. Ensure that training activities are linked to approaches to improve quality of care, including supervision.

5. Coordinate the development and testing of an approach to address shortages of midwives. Also consider approaches to improve retention of nurse-midwives in districts by engaging district assemblies to provide local incentives.

6. Develop an approach to improve the capacity of district managers to plan and implement MNCH activities, including allocation of SWAp funds, and better engagement of district assemblies to support community-based activities.

Summary of Project Accomplishments

Project Inputs	Activities	Outputs	Outcomes
CBMNC **IMNC** Policy and planning technical support	• Formation of NN task force– regular meetings • Exchange visits – community-based NN care • Coordination of donor activities • Input into HMIS revision • Input into adaption of IMCI to include NN care	• Adoption of CBMNC package • Adoption of IMNC package • Adoption of policy on community-NN based sepsis management • Management of the sick newborn incorporated into IMCI	Key policies and curricula endorsed and adopted for national use Newborn health a part of the Safe Motherhood Task Force % of districts implementing IMNC: 93% % of districts implementing CBMNC: 61% IMNC incorporated into three of five pre-service courses
IMNC Technical support, Printing of materials, Training, Vehicles and fuel for site visits.	• Development and testing of training materials • Training of trainers • Training of health workers • Regular supervision with district staff	% of facilities with at least one HW trained in IMNC: 37% % of facilities with at least one health worker trained in IMNC (3 MNHP districts : 88%	**National (DHS 2004, 2010)** Facility-based deliveries: 54% - 73% Delivery with skilled attendant: 54% - 71% PNC contact within two days for mother: 18%-43% Newborns breastfed within one hour of birth: 70% - 93% **Three districts (HH surveys 2008, 2011)** Facility-based deliveries: 70% - 92% Delivery by a skilled attendant: 64% - 91% PNC contact within two days for mother: 39%-54% PNC contact within two days for newborn: 8%-31% Newborns breastfed within one hour of birth: 61%-95%
CBMNC Printing of materials, Training, Vehicles and fuel for site visits.	• Development and testing of training materials • Training of trainers • Training of HSAs and supervisors • Regular supervision with district staff	% HSAs trained in CBMNC nationally: 17% % HSAs trained in CBMNC (three MNHP districts): 81%	**National (DHS 2004, 2010)** Newborns exclusively breastfed: 75% - 93% **Three districts (HH surveys 2008, 2011)** Newborns exclusively breastfed: 25%-75% PNC contact within two days – home deliveries: 6% - 20%
KMC Training, Resources for supervision, Equipment and Supplies.	• Update of materials • Incorporation into IMNC and CBMNC • Training: HWs+ HSAs • Supervision and supply visits	121 facilities in 27 districts have KMC introduced 741 health workers trained 917 HSAs trained	**Three districts (HH surveys 2008, 2011)** Babies weighed at birth: 70%-93%

B. OVERVIEW OF THE PROJECT STRUCTURE AND IMPLEMENTATION

1. Goals and objectives

The overall goal of the Malawi Newborn Health Program (MNHP) is to reduce newborn morbidity and mortality at scale in order to contribute to achievement of Malawi's Millennium Development Goals by 2015. The strategic objective of the MNHP is *increased sustainable use of key MNH services and practices.* There are four intermediate results that support attainment of the strategic objective:

- *IR-1.Increased availability of and access to key MNC services;*
- *IR-2.Improved quality of key MNC services;*
- *IR-3.Improved household-level knowledge and attitudes related to key ENC and related maternal care behaviors; and*
- *IR-4.Improved policy and enabling social environment for MNH.*

2. Project location

The MNHP is a national level Expanded Impact Project (EIP) that aims to expand maternal and newborn interventions throughout Malawi. In addition, the project implements learning activities in five districts - Chitipa, Dowa, Thyolo, Mzimba, and Mchinji. The districts of Chitipa, Dowa and Thyolo were chosen for early implementation of the national Community-Based Maternal and Newborn Care (CBMNC) package (the MOH selected one district from each of the three administrative regions in Malawi – Northern, Central and Southern). The district of Mzimba is the site of development and implementation of a community-based approach to improve use of key MNH services and practices through trained *agogo* (grandparents), conducted by sub-grant partner CCAP, Synod of Livingstonia. Mchinji District is the site of MaiMwana, a community-based cluster randomized trial of strategies to reduce perinatal mortality funded by SNL and carried out by the Institute for Child Health (ICH) in London.

3. Estimated project area population

The primary target population for the EIP is the national population of pregnant women, postnatal women and newborns (0-28 days). A secondary beneficiary group is all women of childbearing age. The estimated total population of Malawi in 2007 was 13,187,632, including 3,165,032 women of child bearing age, 456,460 pregnant women, and 44,274 newborns, at the beginning of the project. The total number of pregnant women and newborns each year was therefore estimated to be around 500,000. These figures are projections to 2007 based upon actual counts in the 1998 census. In the three CBMNC focus districts (Chitipa, Dowa and Thyolo) sub areas were chosen for early implementation. Selection criteria included health facilities with larger catchment areas and health centers (HC) with at least two health workers. The total population across the three districts is estimated to be 1,323,205. The catchment population in the selected program areas is approximately 630,000 representing 48 percent of the total population of the three districts. Each year it is estimated that there are approximately 21,268 pregnant women. At the time of the DIP review, Save the Children and USAID CSHGP agreed to report on a national beneficiary population of 500,000.

4. Technical and cross-cutting interventions

The project focus is on delivering a core package of interventions at each level of the continuum of care for the mother and newborn. Interventions were selected because they have been demonstrated to be effective in reducing newborn morbidity and mortality. Intervention packages at each level of the continuum of care include: (1) Pregnancy: Focused antenatal care (FANC): (2) Delivery and one hour post-delivery: Skilled delivery care, ENC and emergency obstetric and newborn care (EmONC); and (3) Newborn period: Postnatal care (PNC), Special care for LBW babies; and IMNCI.

In order to deliver intervention packages on the ground, the project implemented activities in several cross-cutting program areas, including: advocacy, financing and policy development, human resources development (including pre-and in-service training), health promotion and behavior change, community mobilization, systems development including, supervision, referral, improved availability of essential drugs, equipment and supplies, and monitoring and evaluation.

5. Project Design

The MNHP is a five-year EIP (CS-22 cycle) project at the **national-level** (100% MNH with focus on the newborn). The project is co-funded from two complementary sources: the United States Agency for International Development (USAID)/Child Survival and Health Grant Program (CSHGP) and Save the Children's Saving Newborn Lives (SNL Phase II – match and cost-share), supported by the Bill & Melinda Gates Foundation. Program implementation for both streams of funding covers the period 2006-2011.

The MNHP is guided by the *Road Map for Accelerating Reduction of Maternal and Newborn Mortality and Morbidity in Malawi* (Road Map), the national framework adopted by the GOM in 2005 and launched officially in March 2007. The *Road Map* lays out details of interventions that cross nine strategic areas including improving the availability and access to quality services, strengthening human resources, and empowering communities. Resources to implement *Road Map* activities are drawn from the GOM Program of Work or Sector Wide Approach (SWAp), comprising an Essential Health Package (EHP) of interventions and basket of funds made up of government and donor health sector resources. The year before the launch of the *Road Map*, the GOM endorsed the *Integrated Management of Childhood Illness for Accelerated Child Survival and Development in Malawi (ACSD/IMCI)* as the primary approach for reducing child morbidity and mortality. Implementation of all maternal, newborn and child health activities is done in the context of a decentralized health system, in which districts develop annual implementation plans, budget these plans and submit plans for funding from the SWAp.

The MNHP was designed to be consistent with the *Road Map* and directly support the government's plans to take to scale a community-based newborn care package as articulated in the *ACSD/IMCI* and the EHP. The program has four main components:

1. Strengthening of the national capacity to implement newborn health activities

The MNHP aligns closely with the RHU of the MOH. The project's primary role is as a reference, advocate and technical resource for newborn health. The aim is to improve the technical quality of newborn health programming through the national system and to increase resources allocated for

implementation of newborn health activities, in order to expand newborn health activities to all 28 districts in the country. Activities include the development or revision of national policies, guidelines and training materials, better coordination of partners, advocacy and documentation and dissemination of lessons learned. The MNHP has worked in close collaboration with the MOH/RHU and other partners to develop a national *Integrated Maternal and Newborn Care (IMNC) Training Manual* for facility-based health workers. This integrated manual incorporates ENC, basic emergency obstetric and newborn care, KMC and postnatal care, which had previously been taught separately.

2. Development and implementation of the Community-Based Maternal and Newborn Care (CBMNC) package

SNL matching funds are primarily focused on design, development, and evaluation of a community-based maternal and newborn care (CBMNC) package. The package was implemented most intensively in three CBMNC focus districts - Chitipa, Dowa, and Thyolo. Roll-out of the community-based package is led by the MOH/RHU with inputs from UNICEF and technical and material support from the MNHP. The CBMNC package trains HSAs to identify pregnant women and visit them in the home, where they provide counseling on ANC and delivery, ensure that women deliver at a health facility (HF), and make postnatal visits. HSAs use community registers to record and track pregnant women – summary forms are completed monthly and sent to HCs, as part of a community-based surveillance system. The project and the MOH/RHU have coordinated the development and testing of the CBMNC package, including training materials on how to conduct home visits and community mobilization, counseling cards and job aids, and the community-based surveillance system.

3. Expansion of the KMC approach

The first phase of the Saving Newborn Lives initiative (SNL 1) in Malawi, begun in 2001, developed national training guidelines for KMC and trained trainers in KMC. In collaboration with Zomba Central Hospital, KMC units were established in five hospitals at both the central and district levels. The KMC unit at the Zomba Central Hospital was established as a training site. The MNHP built on these efforts and further expanded adoption of the KMC approach. KMC training materials were incorporated into the national IMNC training materials for facility-based health workers. In addition, the project supported further training-of-trainers and facility-based health workers, helped equip KMC units at hospitals and HCs, and conducted supervision of facilities in collaboration with MOH staff. In addition, KMC guidelines on ambulatory and community-based KMC were included in CBMNC training materials for HSAs.

4. Testing of community-based approaches to delivering ENC

CSHGP funds were used to support the testing and dissemination of alternative community-based approaches to delivering ENC in two districts. Findings from these projects were used to inform the development of the CBMNC package and approaches to community mobilization and behavior change. The two approaches supported by the project were:

- Testing and dissemination of the *Agogo* Approach in Mzimba District. A sub-grant was provided to Ekwendeni Mission Hospital (Ekwendeni) - a Christian Health Association of Malawi

- Ensuring that lessons learned from the SNL-funded MaiMwana study, a randomized controlled trial carried out in Mchinji District, were used to help develop approaches to designing the CBMNC package. MaiMwana, originally entitled "Improving Essential Maternal and Newborn Care in Poor, Rural Communities in Malawi," is a multi-year research study conducted by the ICH with the aim of evaluating the impact of two community-based intervention approaches.

5. Partnerships and collaboration

The MNHP has operated by supporting MOH policies, strategies, and programs; and by building the capacity of the district-level health authorities to deliver high-impact MNC interventions. It has supported the collection and use of data to inform the development of improved newborn health strategies. Collaboration between partners has been central to developing new materials and methods and to increasing resources for newborn health, particularly at the community level. Important partners have included:

- MOH/RHU. The RHU has overseen the revision of policies and guidelines and training materials. An important element of RHU collaboration was formation of a national task force on the CBMNC package. This body was chaired by the RHU and brought together all partners working in this area for monthly updates and planning with Save the Children serving as Secretariat.

- MOH/IMCI unit. The project collaborated with the IMCI unit to help revise the national IMCI guidelines to include management of the sick newborn. It has ensured that the IMCI unit is kept up-to-date on progress with the CBMNC package and been a part of discussions to implement community-based management of newborn sepsis, as a part of c-IMCI.

- District Health Management Teams (DHMTs). Project activities in the three CBMNC focus districts are run through routine district systems. For this reason, the project has worked closely with the DHO to help ensure that MNH activities are incorporated in annual district implementation plans. At the local level, community activities are planned and implemented in collaboration with Health Service Assistants (HSAs), health facilities, and traditional village leaders.

- International organizations. The MNHP has worked closely with UNICEF, WHO, UNFPA, and USAID (ACCESS and MCHIP projects). All of these organizations were members of the national CBMNC task force. The task force was responsible for the development of IMNC and CBMNC materials and teaching methods, and for helping to plan approaches to implementation. UNICEF collaborated on the development of the CBMNC package, and funded CBMNC training and facility development activities in the three CBMNC focus districts. Other partners have since joined to support implementation of the newborn package in districts for which they had been given primary responsibility. Roles of partners are summarized in the partner matrix in Annex 12.

- MaiMwana. This project conducted a randomized clinical trial in Mchinji District to evaluate the impact of two community-based approaches (women's groups and infant feeding counselors) to improving use of MNC. Funding was provided by SNL. Lessons learned from this study contributed to the development of the CBMNC package and other community-based interventions in Malawi.

- Mai Khanda. This project tested the MaiMwana women's group intervention approach in three districts – Lilongwe, Salima and Kasungu. Site visits to the three CBMNC focus districts were arranged for staff to observe activities in the three early implementation districts.

- Christian Health Association of Malawi (CHAM). This is a non-profit organization which collaborates with the MOH to provide MNH services through its 171 member health facilities across the country. It runs nursing training colleges and a College of Health Sciences. ENC/KMC content was institutionalized into the CHAM nurse training curriculum. The project trained providers at CHAM's clinical sites in KMC and facilitated the establishment of KMC sites at all student training facilities.

- Professional associations, including: the Medical Council of Malawi; the Nurses and Midwives Council of Malawi; and the Malawi Pharmacy, Medicines and Poisons Board. These organizations were involved with discussions about the capacity of HSAs to administer antibiotics for newborn sepsis. The Malawi Nurses and Midwives Council were involved in the decision to incorporate up-to-date ENC/KMC content into national pre-service nurse training curricula.

6. Relationship with USAID in Malawi

Both the Child Health Specialist and the Reproductive Health Specialist from the USAID Mission in Malawi participated in the development of the DIP. The project was aligned with the Mission's then Strategic Objective (SO) 8: *Adopting behaviors that reduce fertility, the risk of HIV/AIDS and improve child health*, and contributed to Intermediate Result (IR) 3: *reduced child mortality* and IR 3.4: *improved prevention and management of childhood illnesses and increased use of malaria prevention practices*. USAID mission staff were included in key de-briefings, meetings to disseminate findings on various topics and technical updates, and received annual project reports. The project collaborated and shared information with the ACCESS and MCHIP projects, in order to ensure that lessons learned from early implementation were incorporated into activities implemented by these projects. Save the Children has been an operational partner in both its ACCESS and MCHIP initiatives in Malawi. ACCESS was a primary contributor to development of the community mobilization guidelines for the CBMNC package with Save the Children taking the lead in that area. MCHIP rolled-out the CBMNC package in its four focus districts, again with Save the Children leading in community mobilization. The DIP workplan and status of planned activities are presented in Annex 4.

C. EVALUATION ASSESSMENT METHODOLOGY AND LIMITATIONS

The final evaluation of the MNHP was conducted by a team led by an external evaluator, assisted by a national evaluation consultant. The team included representatives from Save the Children headquarters, SNL, and the region; MOH staff from the RHU; MNHP project staff; and representatives from UNICEF and MCHIP. The evaluation was conducted between September 12

and September 30, 2011. It had originally been scheduled for the period August 15-26, 2011, but was delayed due to anti-government protests and the threat of civil unrest.

Four principal methods were used for the evaluation: 1) Review of survey data including: the national DHS and MICS; a national assessment of EmONC; and household surveys and HF assessments from Mzimba and the three MNHP early implementation districts. 2) Document review, including policy documents, program reports, technical reports, reports of evaluations or study findings, training and health education materials. 3) Field visits to Chitipa, Dowa, Mzimba and Thyolo districts. Site visits were made to district and sub-district health facilities and communities, and in-depth interviews were conducted with district staff, HF staff, and community members. 4) In-depth interviews with partners and stakeholders at the national level. All findings were discussed and synthesized by the evaluation group. A final summary of main findings and recommendations was reviewed and discussed with MNHP program staff and the staff of UNICEF, USAID, MOH/RHU on September 29, 2011. Following these meetings, evaluation findings and recommendations were further revised and finalized.

Program data, documents and reports were generally available to the evaluation team, and interviews were conducted with key stakeholders at all levels. Limitations included:

- Quality of survey data. Analysis of follow-up household and facility surveys had not been completed at the time of the evaluation, and some data were not available to the evaluation team. There were some inconsistencies between data collected by the baseline and follow-up surveys; in some cases standard indicators had not been calculated. Data issues are further discussed in Section D.

- Lack of community-based surveillance data. The community-based surveillance system is not yet operational, and as a result data on HSA activities in focus districts were not available.

- Areas visited for district field visits. The team attempted to select health facilities and communities in the focus districts randomly. However, remote and less-accessible areas could not be visited in the time available, especially given security conditions prevalent at the time. It is therefore possible that field findings did not reflect conditions in less accessible areas.

Details of the evaluation approach, team members and persons interviewed for the evaluation are presented in Annexes 8, 9 and 10.

D. DATA QUALITY AND USE

National-level data

At the national level, the project evaluated progress using large-sample population-based surveys. DHS surveys were conducted in 2004 and 2010, and a MICS in 2008. These surveys were conducted using standard questionnaires and procedures and the quality of data is high. The SNL1 project added an indicator on early PNC to the 2004 DHS. Save the Children provided technical input to the 2008 MICS in order to: 1) add a module to re-assess the Newborn Mortality Rate (NMR); 2) increase the sample size to improve the accuracy of data collected at the district level; 3) add questions on PNC; and 4) cross-tabulate data relevant to newborns. Data from the national

surveys were used to measure mortality (impact) and intervention coverage (outcomes). Data on newborn mortality from the large-sample surveys were supplemented with estimates from the IHME and UNICEF – these estimates use data from all available sources, including surveys, research studies and the HMIS to estimate mortality rates using modeling. Potential limitations of the national large-sample household surveys for evaluating the program include:

- Smaller-scale changes at the district or sub-district level will not be detected.

- Difficult to ascribe causality. This is particularly true of mortality change in the five years prior to the 2010 DHS, but also related to intervention coverage. There are a number of inputs both within the health system and outside of the health system that will potentially influence changes in these data; project-specific contributions are difficult to quantify.

- DHS and MICS surveys still do not collect data on key practices in the early post-delivery period, including: use of a clean instrument to cut the cord, drying and wrapping, and delayed bathing and weighing of the newborn. Therefore, it is not possible to track progress in these areas.

Mzimba KPC Survey

As the three CBMNC districts had not yet been identified by MOH at the time of the project's DIP, and the EIP was being implemented at the national level, it was agreed between Save the Children and CSHGP that the required Rapid CATCH data would be collected in Mzimba District. This report is found in Annex 5.

CBMNC three-district data

Household surveys

In the three CBMNC focus districts the project used a household survey designed by SNL to evaluate whether targets for intervention coverage were met. Background characteristics of the sample population at baseline and endline were similar. The sampling frame for the baseline survey comprised the entire population of the three early implementation districts. Implementation of the CBMNC package was subsequently conducted most intensively in a sub-population of each district. For this reason the endline survey sampled only from those areas where implementation had been conducted most intensively. In order to do comparisons of baseline and endline data, 19 clusters (187 women) that had been sampled from outside the implementation areas at baseline were excluded from the analysis; the final baseline sample was713 women. Coverage indicators used were consistent with standard international indicators. Issues that will affect interpretation of the household survey data from the implementation districts include:

- Data reflect a sub-sample of each district and do not necessarily reflect district-wide results.

- Some endline indicators were not collected at baseline. For these indicators it is not possible to determine whether changes in knowledge or practices are associated with project activities. Indicators not collected at baseline that were included in the endline survey include: protection of newborns against neonatal tetanus (NNT) at birth, some post-delivery practices, care seeking practices for newborn illness and messages on newborn health received. Matching surveys to

- Different indicator definitions used for PNC contacts at baseline and endline. The baseline survey asked women who had delivered at a HF whether they received a pre-discharge PNC check, but not whether they received a post-discharge PNC check. The endline survey asked about all PNC contacts to women who had delivered at facilities. It is possible, therefore, that the baseline survey under-estimated the proportion of women receiving early PNC contacts. As a consequence, the effect of the project on improving early PNC contacts may not be as large as shown by the current data.

- Maternal understanding of "PNC". A high proportion of women reported that their baby was weighed after delivery. A much lower proportion of women reported that their newborn received any PNC. Since weighing of the newborn is a component of a postnatal check, this finding raised two possibilities; 1) newborns are often weighed, but the full postnatal check is often not done; 2) newborns are often receiving postnatal checks, including weighing, but mothers are not aware that they were being done. Anecdotal reports suggest that PNC is often not done systematically, and that weighing is often the only PNC task being completed. It was therefore assumed that maternal reports were an accurate measure of PNC received. In the longer term, the relative sensitivity and specificity of reported PNC received by mothers needs to be further investigated.

Health facility assessments

HF assessments on the quality of MNC were conducted at baseline and endline. Surveys measured availability of facility supports including essential medicines, supplies and equipment, availability of services, and some aspects of health worker knowledge and clinical practice. Standard facility assessment tools were used and adapted for local use. The surveys conducted a census of all health facilities providing maternal and newborn services in the three CBMNC early implementation districts. In some cases indicators measured at baseline and follow-up were not the same. Comparisons over time were not possible for these measures. Some facility indicators selected for tracking program performance may have limited program value because they: 1) are not clearly defined; 2) are composite indicators that are difficult to interpret; 3) cannot be easily measured. A more critical process of indicator selection and evaluation would limit the list to only those that are measurable and with a clear programmatic value.

Process evaluation data

The project tracked project inputs and outputs in five areas: 1) Policy, guidelines and coordination; 2) CBMNC and IMNC trainings conducted by district and facility; 3) Status of KMC implementation, including health workers trained and KMC units supplied; 4) A scale-up readiness matrix for the principal project interventions, using 37 key benchmarks; 5) A partner matrix, highlighting chief partners of the MNHP and their respective roles and contributions to MNH programming.

Process data were useful for helping to determine "adequacy of implementation", and therefore the likelihood that project activities had contributed to changes in project outcomes. The systematic

approach taken to documenting the chief inputs and outputs proved useful and a valuable example for other projects implementing activities both nationally and locally with many partners and stakeholders.

Health Information System (HIS) data

The community-based surveillance system was not fully operational during the project as data entry and processing were not complete and could not be used for project monitoring. More information on the community-based surveillance system is presented in Section 2.5. Data from the routine HMIS were available and used for following trends in some key indicators, including ANC visits, timing of ANC visits, facility deliveries and PNC visits.

E. PRESENTATION OF PROJECT RESULTS

Indicator Table: Malawi Newborn Health Program

		NATIONAL LEVEL				**THREE FOCUS DISTRICTS** Chitipa, Dowa, and Thyolo		
Objective/ Result	**Indicator**	**2004 DHS**	**2006 MICS**	**2010 DHS**	**EOP Target**	**HHS 2008**	**HHS 2011**	**EOP Target**
Goal: To reduce newborn mortality and morbidity at scale to meet Malawi's MDGs by 2015	Newborn mortality rate	27/1000 live births	33/1000 live births	31/1000 live births	25/1000			
	Newborn mortality as a proportion of under 5 MR	20%	27%	28%				
	Prevalence of LBW	16%	14%	12%	15%	11%	7%	-
IR1: Increased availability of and access to key MNC services	Proportion of mothers who received at least four ANC visits	57%	-	46%	80%	49%	40%	63%
	Proportion of mothers who received TT2+ during pregnancy	66%	71%	69%	80%	56%	57%	73%
	Proportion of newborns protected against NNT at birth	-	89%	89%	95%	-	-	-
	Proportion of deliveries by skilled birth attendants	56%	54%	71%	60%	64%	91%	79%

		NATIONAL LEVEL				THREE FOCUS DISTRICTS Chitipa, Dowa, and Thyolo		
Objective/ Result	**Indicator**	**2004 DHS**	**2006 MICS**	**2010 DHS**	**EOP Target**	**HHS 2008**	**HHS 2011**	**EOP Target**
	Proportion of deliveries at a HF	57%	54%	73%	60%	70%	92%	71%
	Proportion of rural pregnancies with c-section	3%	-	4%	5-15%	-	-	-
	Proportion of mothers who had a care contact in the first two days after delivery	21% - home births	18%	43%	30%	47%(FB) 7% (HB) 39% (All)	57% (FB) 5% (HB) 54% (All)	73% (HB)
	Proportion of newborns who had a care contact within two days after delivery	-	3% (home births)	-	30%	8% (FB) 6% (HB) 8% (All)	32% (FB) 20% (HB) 31% (All)	73% (HB)
IR 2: Improved quality of key MNC services	Proportion of mothers women who received iron tablets or syrup during pregnancy	79%	81%	91%	86%	88%	94%	90%
	# of pregnant women who took 2 doses of Sp as IPT during pregnancy	81% (IPT at ANC)	47%	55%	60%	-	-	
	Proportion of babies who had the cord cut with a clean instrument	-	-	-	-	-	91%	94%
	Proportion of babies who were dried, wrapped immediately after birth	-	-	-	-	73% (D) 86% (W)	69% (D) 92% (W)	83% 83%

		NATIONAL LEVEL				THREE FOCUS DISTRICTS Chitipa, Dowa, and Thyolo		
Objective/ Result	**Indicator**	**2004 DHS**	**2006 MICS**	**2010 DHS**	**EOP Target**	**HHS 2008**	**HHS 2011**	**EOP Target**
	Proportion of children age 0-23 months whose first bath was delayed at least 24 hours after birth	-	-	-	-	60%	81%	83%
	Proportion of mothers who initiated BF within one hour of birth	70%	-	95%	65%	61% (no PLF)	95%	98%
	Proportion of babies weighed at birth	-	48%	-	100%	70%	93%	-
IR 3: Improved household level knowledge and attitudes for key ENC and related maternal care behaviors	Proportion of pregnant women who slept under an ITN the previous night	15%	26%	35%	40%	31% (under bednet – not ITN)		65%
	Proportion of newborns exclusively breastfed	75%	-	93%		25%`	75%	
	Percentage of infants age 0-5 months exclusively breastfed	53%	57%	71%	80%	53%	64%	
	Proportion of children born in the last five years who were born least 24 months after the previous surviving child	85%	70%	85%	90%			
		WHO National Health Accounts						
		2004	**2006**	**2008**				
IR4 Improved policy and enabling social environment	Percentage of government spending allocated to	7%		12%	15%			

		NATIONAL LEVEL				THREE FOCUS DISTRICTS Chitipa, Dowa, and Thyolo		
Objective/ Result	**Indicator**	**2004 DHS**	**2006 MICS**	**2010 DHS**	**EOP Target**	**HHS 2008**	**HHS 2011**	**EOP Target**
for MNH	health sector							
	Total allocation to health sector: cost per capita	10%		11%				

F. DISCUSSION OF THE RESULTS

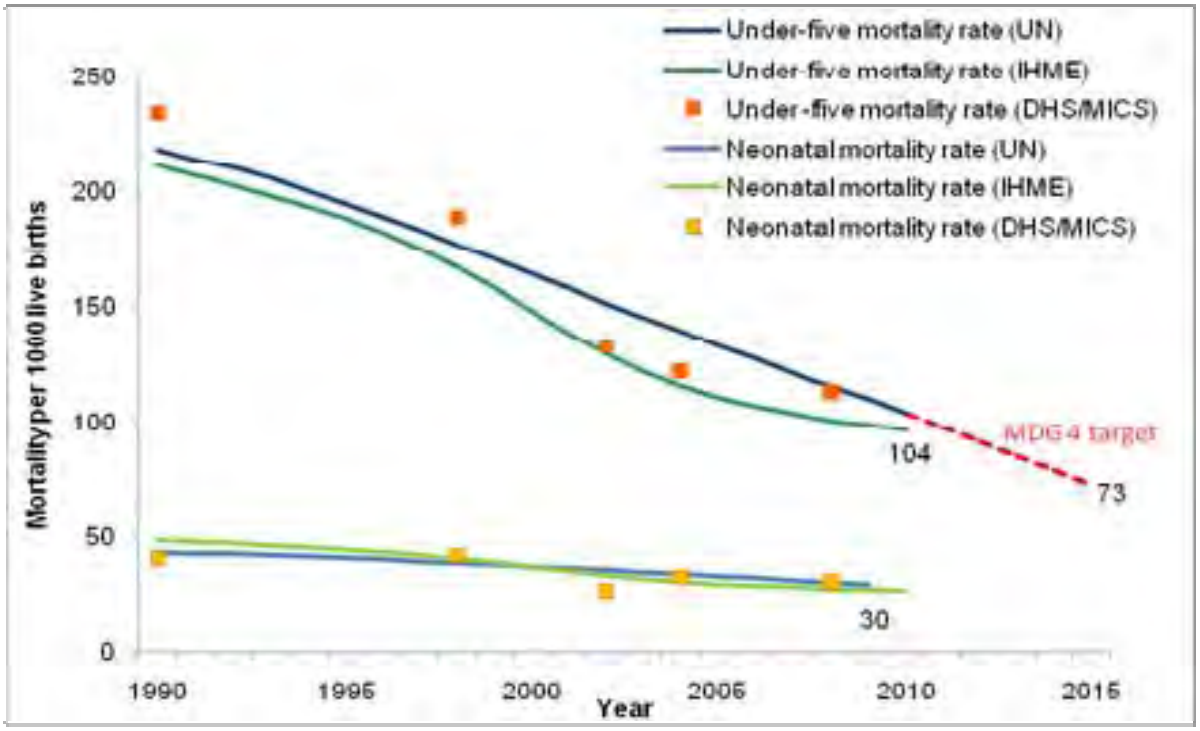
1. SUMMARY OF INDICATORS BY PROJECT GOAL AND OBJECTIVES

1.1 Goal: Reduce newborn morbidity and mortality

Newborn mortality has declined since 1990 according to all available data sources (Figure 1). From 1990 to 2009, newborn mortality estimates for Malawi from the UN and the IHME decreased from 43 to 30 and 49 to 28, respectively[1] . The average annual rate of reduction for NMR from 1990 to 2009 is 1.98% per year; it is 3.07% per year when using the IHME estimates. During the period of MNHP implementation the average annual rate of neonatal mortality decline was 2.53% per year, an increase over the average rate for the previous decade. The three leading causes of newborn death (preterm, infection, and birth asphyxia) account for nearly 85% of all newborn mortality. Cause-specific mortality estimates do not suggest marked trends with the exception of a reduction in newborn tetanus, and a less marked reduction in diarrhoea, both of which account for a smaller proportion of newborn deaths. Malawi was certified for elimination of maternal and newborn tetanus in 2004.

[1] Oestergaard MZ, Inoue M, Yoshida S, *et al.* 2011. Newborn mortality rates for 193 countries in 2009 with trends since 1990: progress, projections and priorities.
Rajaratnam JK, Marcus JR, Flaxman AD, *et al.* 2010. Newborn, postnewborn, childhood, and under-5 mortality for 187 countries, 1970-2010: a systematic analysis of progress towards Millennium Development Goal 4. *Lancet,* **375**: 1988–2008.

Figure 1: Trends in Under-Five and Newborn Mortality, Malawi, 1990-2011*



**Data sources: DHS 1992, 2000, 2004 and preliminary 2010. MICS 2006. UN: Oestergaard et al 2011 (Oestergaard et al., 2011) PloS. IHME: Rajaratnam JK et al, Lancet 2010.*

It is difficult to attribute causes for the mortality decline. The causes are multi-factoral and involve factors from both outside and within the health system. Between 1990 and 2009 female literacy increased from 34% to 66%, GNI increased from US$180 to US$280, and there was a slight decline in total fertility from 7 to 6. Between 2004 and 2010, DHS data show improvements in several coverage indicators that suggest that more key interventions are reaching mothers and children nationally. Increases in coverage are noted for facility-based deliveries, deliveries by skilled providers, maternal PNC contacts within 24 hours of delivery, early breastfeeding (within one hour of delivery) and exclusive breastfeeding for newborns. High rates of ANC coverage and newborns protected against newborn tetanus at birth were sustained nationally during this period, and 85% of women report birth spacing of at least 24 months. In the three CBMNC focus districts where activities were implemented more intensively, there were additional improvements in quality of post-delivery practices (washing, drying and delayed early bathing), early PNC for newborns, and maternal knowledge of key home practices. Taken together these data make it plausible that MNHP project activities contributed to improvements in availability, demand and quality of maternal and newborn interventions in the three CBMNC focus districts and possibly nationally. The project's aim was to align with and support national-level programs at scale. Sections 2 and 3 discuss in more detail the changes in intervention coverage, and project contributions to these results.

The MOH and the MNHP made a number of policy and systems inputs likely to influence availability, quality and demand for MNH interventions. Project contributions in these areas are described in Section 1.5. Key policy inputs from the MOH during the period 2004-2011 include:

- Service agreements with CHAM facilities to provide services for free to mothers and children (CHAM provides around 39% of facility-based services in Malawi).

- Development of the Sector Wide Approach (SWAp) mechanism to support the implementation of an Essential Health Package of key interventions, aimed at addressing the 11 most important causes of mortality in Malawi. The SWAp 2004-2010 was a comprehensive framework to unify donor and government health policies, strategies, implementations and financing. Newborn interventions were included in the EHP.

- The MOH six-year Emergency Human Resource Programme (EHRP). This aimed to increase the number of professional health workers through additional training, incentives and salary top ups and strengthening the capacity of all health training institutions. As a result of this programme, between 2004 and 2009, there was an increase of professional health workers (including doctors and nurses) from 5,500 to 8,400 and of HSAs from 4,900 to 10,500[2]. Both of these key systems inputs are likely to have affected access, availability and demand for maternal and newborn services.

- Development of the 'The Road Map for Accelerating Reduction of Maternal and Newborn Mortality and Morbidity in Malawi' (MOH, 2005). This outlined the main strategies required for reducing mortality, including ENC KMC and improved community demand. It was used to focus planning and increase resource allocation for MNH from the SWAp.

- Redefinition of the roles of Traditional Birth Attendants (TBA). A 2006 assessment of TBA roles in Malawi by MOH and WHO recommended that TBAs no longer conduct home deliveries and promote facility-based deliveries[3]. In 2008, leaders in many communities introduced by-laws that fined households and TBAs when home deliveries were conducted, unless they could prove that the case was an emergency and the woman was unable to reach facility care.

In summary, factors that are likely to have contributed to national improvements in availability, quality and demand for key maternal and newborn interventions between 2004 and 2011, and a decline in neonatal mortality, include factors both outside and within the health system. Health systems factors include those initiated by the MOH, and MNHP-specific policy and program inputs in which the project was either a facilitating partner or primary contributor.

1.2 Improved access and availability of key maternal and newborn services

Summary: Improvements in coverage for facility-based deliveries and early PNC contacts are noted nationally and in the three CBMNC focus districts. ANC coverage for at least one visit is high, but little change is noted in women making more than four ANC visits. Further, visits continued to be made after the first trimester. A relatively low proportion of women report being visited by HSAs during pregnancy or after delivery in the three CBMNC focus districts.

[22] Dfid, Management Sciences for Health. 2010. *Evaluation of Malawi's Emergency Human Resource Progromme*. Cambridge, MA: Management Sciences for Helath.

[3] MOH [Malawi], WHO Malawi. 2006. *Assessment of Future Roles of Traditional Birth Attendants (TBAs) in Maternal and Neonatal Health in Malawi*. Lilongwe, Malawi: Ministry of Health Malawi.

Antenatal care Over 90% of women report making at least one ANC visit and most ANC is provided by a skilled provider. In the three CBMNC focus districts at endline, 95% of women received at least one ANC contact from a skilled provider; a small increase over baseline. However, nationally and in the three focus districts, less than half of the women report making four or more ANC visits; this has not changed over the course of the project. The national standard is for four ANC visits with the first visit in the first trimester, in order to identify and manage problems early. In the three early implementation districts, only 36% of women report receiving a home visit from an HSA during pregnancy. The CBMNC package recommends that HSAs visit pregnant women at home once in each trimester (for a minimum of three home visits).

Delivery and immediate post-delivery period A dramatic increase in the proportion of women delivering at health facilities, and with a skilled provider, is noted both nationally and in the three CBMNC focus districts. The national policy decision in 2008 prohibiting TBAs from conducting deliveries may have contributed to this increase. In many areas maternity waiting homes have also helped improve access to facilities. If available, women can arrive early to stay in waiting homes when near term, which allows access to the facility at the onset of labor. In the three CBMNC focus districts, only 31% of mothers report that the HSA was notified of the birth. Of those cases where the HSA was informed of the birth, 54% (151/280) received at least one home visit from an HSA within the first month after birth compared with only 7% of those where the HSA was not informed (46/620). These data suggest that informing HSAs is important for ensuring that home visits take place.

Newborn period Early maternal PNC contacts, within two days of birth, has shown an upward trend both nationally and in the three CBMNC focus districts. Early newborn PNC contacts have shown a marked upward trend in the three CBMNC focus districts. In the three focus districts, 22% of mothers report that they received a PNC visit from an HSA, suggesting that improvements in PNC coverage have occurred even when home visits are not being made. Half of the health facilities in the three CBMNC focus districts report that they offer KMC services.

1.3 Improved quality of key maternal and newborn services

Summary: Available data suggest that many elements of FANC are provided at ANC contacts, although gaps remain. Rates of immediate breastfeeding have shown marked improvements. In the three CBMNC focus districts some post-delivery practices have shown upward trends. Missed opportunities to provide PNC for the mother and newborn at the time of facility deliveries are common. In general, there are limited data on the quality of delivery, post-delivery and ENC.

Antenatal care A high proportion of newborns are protected against newborn tetanus at birth nationally (89%) and a high proportion of women receive iron during pregnancy. These rates have not changed over the life of the project. In the three CBMNC focus districts, the proportion of women counseled on danger signs during pregnancy has shown improvement between baseline and endline surveys. National survey data show that a number of key elements of the FANC package are provided to pregnant women, including weighing, checking blood pressure, taking blood for anemia and syphilis screening and key counseling tasks. Reported use of at least two doses of SP during pregnancy to prevent malaria has declined nationally over time.

Delivery and immediate post-delivery period Early breastfeeding rates (within one hour of birth) have shown dramatic improvements nationally and in the three CBMNC focus districts. The CBMNC focus districts also show improvements in post-delivery practices, including: delayed bathing, drying

and wrapping, and proportion of babies weighed at birth. Health worker knowledge of newborn danger signs and care seeking and management of LBW babies have shown improvements. Detailed data on changes in clinical practices such as cord care, AMTSL and newborn resuscitation are not available. Fifty-percent of facilities in the three focus districts report having a functional bag and mask available for newborn resuscitation. Increasing facility deliveries has put pressure on facilities and often resulted in a lack of beds, equipment and supplies. High numbers of women coming to facilities makes it more difficult to apply quality standards.

Newborn period Data from the three CBMNC focus districts show that more early PNC checks are reported for mothers than for newborns, suggesting that newborn PNC checks are not always done at the time of PNC checks for the mother. The proportion of women receiving PNC checks is much lower for home deliveries than for facility deliveries. Nevertheless, early PNC checks are still not conducted for all women who deliver at health facilities, suggesting that opportunities to provide PNC are being missed before discharge home. Household survey data from three districts show that over 55% of women report spending at least 24 hours at the facility after delivery. This did not change over the life of the project. No observational data are available on the quality of PNC or of KMC for LBW babies.

1.4 Improved household knowledge and attitudes in the area of MNH

Summary: There is increasing demand for facility-based deliveries. Exclusive breastfeeding rates for newborns and children under five months old has shown positive trends. In the three CBMNC focus districts, mothers' knowledge of newborn danger signs has shown improvement. Mothers tend to make the first ANC visit after the first trimester.

Antenatal care A high proportion of women report making their first visit ANC after the first trimester (86% nationally). This has not changed over the life of the project. The first ANC visit should take place in the first trimester in order to identify and manage problems early. Use of insecticide bednets by pregnant women has shown steady improvements over time. In the three CBMNC focus districts, improvements are noted in maternal knowledge of danger signs in pregnancy.

Delivery and immediate post-delivery period The upward trend in facility-based deliveries suggests that demand for facility delivery has increased both nationally and in the three focus districts. The change in demand is likely to be associated both with changes in national policy, improved availability of maternity waiting homes, and with increased awareness and community support for facility births.

Newborn period An upward trend for rates of exclusive breastfeeding for newborns and infants 0-5 months old, is noted both nationally and in the three CBMNC focus districts. In the three CBMNC focus districts, improvements are noted in maternal knowledge of danger signs for seeking care with their newborns.

1.4 Improved policy and enabling social environment for MNH

The MNHP worked at the national level to institutionalize newborn health into the government system, improve technical quality and increase coordination between partners. The program has provided strong national leadership in the area of newborn health and has been instrumental in the development of key maternal and newborn policies and guidelines. The MOH/RHU has strong

ownership of its national strategy and program and all policy and planning decisions have been made and endorsed by the MOH/RHU. In addition, the project provided an advocacy role in a number of areas, and has been active in disseminating information on newborn health and building consensus on policies. Key MNHP policy and guidelines inputs are summarized in Table 1. An expanded list of policy and advocacy inputs is presented in Annex 12.

Main project achievements

- Development, adoption and implementation of the CBMNC package as the primary approach for community-based MNC. HSAs are trained to make home visits to pregnant women during pregnancy and the first week after delivery. The approach includes community-mobilization guidelines, job-aids and counselling cards. Guidelines were developed and rolled-out nationally (17/28 districts had begun training HSAs in 2011, and 17% of all HSAs nationally had been trained). Development was closely coordinated with the MOH, UNICEF, ACCESS/MCHIP and other partners.

- Development, adoption and implementation of the IMNC package for facility-based health workers on material and newborn health. Curricula training of first-level health workers in all key aspects of maternal, delivery, ENC and PNC, including emergency newborn and obstetric care was conducted. Development of the integrated materials required close collaboration both within the MOH and between development partners. Technical standards were reviewed and updated. Using this manual the program developed fifteen master trainers and an additional 20 national trainers for use by both MOH and partners. Guidelines were rolled-out nationally (30% of facilities nationally had at least one health worker trained in IMNC in 2011).

- Revision of KMC guidelines to include ambulatory and community care, and integration of KMC into the national IMNC guidelines. The KMC approach for management of LBW babies was expanded (121 facilities in 27 districts had been given support to provide KMC services by 2011, and training in KMC had been conducted for 742 first-level health workers).

- Contribution to development of an approach to community-based management of newborn sepsis. Newborn sepsis management has been integrated in the CCM approach. The case-management protocol allowing HSAs to classify sick newborns and treat them with the first dose of oral amoxicillin and then refer them, has been adopted nationally. CCM guidelines for treatment of the young infants 0-2 months old, are now ready to be rolled out.

- Improved donor planning and coordination for MNH. A task force on community-based MNC was established; monthly meetings were funded by the MNHP and UNICEF. This body was later incorporated into the National Safe Motherhood Task Force, a sub-committee of the Sexual and Reproductive Health Working Group. Collaboration improved the technical inputs into development of guidelines, and also resulted in more resources being made available for rolling out packages in other districts in the country. A summary matrix of the roles of partners is presented in Annex 12.

- Improved coordination. The MNHP facilitated collaboration between development partners and the MOH, to both develop and roll-out IMNC and CBMNC.

- Improved availability of financial resources for roll-out of IMNC and CBMNC packages. The engagement of partners in the development and implementation of the IMNC and CBMNC packages has mobilized resources for expansion of these approaches more widely.

Program gaps and continuing challenges – policies, guidelines and coordination

- On-going support is needed to drive the newborn health agenda forward and ensure coordination between partners.

- Better integration of HSA training and supervision is needed. A number of different program areas are currently using HSAs to deliver intervention packages on the ground. Each vertical program area has a different training package with different responsibilities. This approach is cost-ineffective and is placing an increasing burden on community-based staff.

- Costing of the CBMNC package has not yet been completed. A costing study has been undertaken by SNL but results were not available at the time of the final evaluation. A clear analysis of costs of implementing the package will be important for planning further implementation and expansion of the approach.

- Support for implementation of the community-based management of neonatal sepsis approach is now needed. Training guidelines for HSAs are now available. Implementation of this package will likely be coordinated by the IMCI Unit at MOH as a component of CCM. Problems with availability of oral amoxicillin still need to be resolved in many areas.

Table 1: Key MNCP Inputs: Policies, guidelines and coordination, September 2011 (See Malawi Newborn Survival Policy and Program Timeline, Annex 12A, for complete details on these and other policies)

Activity area	Indicator	Project role	Output 2011
Policies and guidelines	Management of sick newborn incorporated into IMCI guidelines	Contributor	Yes (2007)
	Community-IMCI adopted as national strategy	Contributor	Yes (2007)
	IMNC training materials developed and endorsed as national approach by MOH	Primary	Yes (2007)
	CBMNC package developed and endorsed as national approach by the MOH	Primary	Yes (2008)
	National KMC guidelines revised to include ambulatory and community care	Primary	Yes (2009)
	Launch of WHO/UNICEF joint statement on postnatal care visits	Contributor	Yes (2009)
	Addition of newborn sepsis management component to CCM guidelines	Contributor	Yes (2010)

Activity area	Indicator	Project role	Output 2011
Coordination	National task-force on community-based MNC established in MOH/RHU and meeting monthly	Primary	Yes (2007)
	National CBMNC task force integrated with national safe motherhood task force sub-committee	Contributor	Yes (2009)

2. MNHP CONTRIBUTIONS TO RESULTS BY PROGRAM ACTIVITY AREAS

2.1 Human resources development

In-service training The MNHP contributed substantively to design and implementation of the IMNC package nationally, and the CBMNC package in the three CBMNC focus districts (as well as the four MCHIP districts). As the CBMNC package has rolled out nationally, other collaborating partners have taken responsibility for other districts. As a result of this collaboration, the package is now available in 17+ of Malawi's 28 districts, with more coming on line. IMNC in-service training for facility-based health workers (in both DHMT and CHAM facilities) has been expanded to 26/28 districts nationally, with an estimated 37% of all health facilities having at least one health worker trained. Similarly, 17/28 districts have begun training in the CBMNC package and an estimated 17% of HSAs nationally have been trained. In-service training in the IMNC package requires a three-week residential training; the CBMNC package requires ten days; the community mobilization component of CBMNC requires an additional seven days of training. Training coverage is summarized in Table 2 below.

Main project achievements include:

- Positive increases in training coverage nationally are noted. The most intensive training and best coverage, can be noted in the three CBMNC focus districts. Training has been initiated in other districts by partners including; MCHIP, UNICEF, WHO, and UNFPA. Training will continue through donors.

- Increased availability of trained staff is associated with improvements in key coverage measures, particularly facility deliveries, delivery by skilled attendants, and PNC contacts for both mother and newborn.

- Training packages are endorsed by the MOH and now used nationally. Content includes updated guidelines on ANC, delivery care, ENC and KMC.

- The TOT approach, in which district trainers are trained and are then available to conduct local trainings, has worked well.

- DHMTs and DHOs strongly support the training packages and want training to continue.

Program gaps and continuing challenges – in-service training

- Quality of IMNC training. Some national trainers expressed the view that this training should be more practice based – similar to the approach used in Helping Babies Breath for asphyxia management. In addition, some senior trainers believe that the training approach for facility-based workers should be on-the-job/mentor based in areas where health workers are based.

- Lack of follow-up/supervision after training has limited skill uptake. Many health workers need clinical support when they return to their jobs in order to reinforce skills learned in training.

- Training costs have so far been covered by donors and districts have not yet used SWAp funds for training costs (Please see Section 2.4 on district planning and management).

Pre-service training The MNHP worked to incorporate revised training packages into pre-service education courses. In the long term, this is essential to enhancing and sustaining health worker practices. Up-to-date technical content for IMNC modules has been integrated into training for registered nurse midwives, nurse/midwife technicians and midwife training courses. The core content of the CBMNC package is currently included in the HSA pre-service training curriculum, although there are gaps in some areas that need to be strengthened, in particular the identification and management of LBW babies.

Table 2: IMNC and CBMNC package training coverage, September 2011

Activity area	Indicator	National	Three districts
Human resources *Estimates of number of health workers from SC MNN program reports **Estimates of the number of health facilities from: Malawi 2008 Census Report (including hospitals, HCs, dispensaries and maternity units). ***Estimates of the total number of HSAs from: Evaluation of the Malawi Emergency Human Resources Program, MSH, 2010	Proportion of districts that have begun training in IMNC	26/28 (93%)	3/3 (100%)
	Proportion of health workers trained in IMNC*	489/6695 (7%)	184/582 (32%)
	Proportion of health facilities with at least one health worker trained in IMNC**	194/525 (37%)	51/58 (88%)
	Proportion of districts that have begun training in CBMNC	17/28 (61%)	3/3 (100%)
	Proportion of HSAs trained in the CBMNC package***	1781/10322 (17%)	917/1134 (81%)
	Proportion of pre-service courses that have incorporated IMNC technical modules into the pre-service curriculum	3/5 (60%)	-
	Proportion of pre-service courses that have incorporated CBMNC technical modules into the pre-service curriculum	1/7 (14%)	-

Program gaps and continuing challenges – pre-service training

- Shortages of nurse midwives remain an important problem nationally. Many facilities are understaffed, which is exacerbated by an increase in facility deliveries. The Clinton Health Access Initiative with the MOH has analyzed and costed staff needs. This report has been submitted to the Human Resources for Health Technical Working Group of the SWAp, although there is no current strategy for addressing gaps. Retention of midwives, particularly in rural areas, is also a problem. A number of key informants wanted more attention given to retaining midwives at their posts. Some of the solutions mentioned include encouraging district assemblies to support nurse midwives in their areas by providing accommodation, land and assistance with farming.

- The IMNC package is not yet incorporated into pre-service training for medical assistants and clinical officers. These cadres are often involved in providing maternal and newborn services at HCs.

- The CBMNC package is not yet incorporated into pre-service training for facility-based health workers. Currently only HSAs are trained in this package. Many senior staff report that the content should be incorporated into pre-service training for facility-based health workers. Better links between facility and community-based workers are increasingly recognized as important to motivate and support HSAs.

2.2 Quality of care

Detailed data on quality of clinical practice, particularly delivery care, ENC and PNC are not available. The standard facility assessment approach does not collect detailed data in these areas, since it requires longer periods of observation, more detailed observation questionnaires, and increased cost. In the three CBMNC focus districts, activities to support quality were shared with UNICEF and the district MOH. The MNHP trained health workers, supported quarterly supervisory visits and provided equipment and supplies for KMC. Equipment, supplies and medicines were supplied by UNICEF. The district MOH was responsible for routine supervision and all other costs of routine activities. In other districts, interventions to improve the quality of MNC varied considerably and were generally shared between the district MOH and development partners. In some areas, development partners supported intensive quality improvement activities at health facilities, and some routine costs, including the costs of routine supervision. In the "hard-to-reach" areas of the 28 districts currently implementing CCM, the costs of medicines and supplies, as well as the costs of routine supervisory visits to HSAs, are supported by development partners.

Main project achievements include:

- In three focus districts, improvements in quality of some elements of antenatal and immediate post-delivery care have been noted (Please see Section 1).

- Expansion of the KMC approach. The KMC approach has been expanded to almost half of all facilities in the CBMNC focus districts. Nationally, at least one facility providing KMC services has begun in 27 of the 28 districts. Under SNL 1, SC supported intensive KMC implementation in seven health facilities. The MNHP built on these activities by: coordinating revision of KMC

Program gaps and continuing challenges – quality of care

- Survey data show gaps in some aspects of quality including: ANC tasks and delivery of early PNC for both the mother and newborn. There are limited observational data available on the quality of the technical components of delivery care, post-delivery care or ENC. Observational data are needed to identify gaps and develop approaches to addressing these gaps.
- Quality of KMC: Although KMC units are now established in a number of hospitals and HCs, concerns remain about the quality of KMC provided. Site visits found a number of potential problems, including: lack of adequate space to care for LBW babies; existing registers not being used to record newborns receiving KMC; lack of understanding of the cutoff weight for LBW (in one facility a cutoff of 2000g was being used to define LBW), lack of staff to adequately supervise feeding practices and skin-to-skin positioning in the KMC unit; and lack of follow-up of babies discharged for ambulatory care (the national policy is for babies 1800g and above who are feeding well to be discharged and followed-up as out-patients). In general there are weak links between facility staff and HSAs in communities. There is a need for ongoing supervision and support for facilities that have initiated KMC.

- Quality of supervision: In the three focus districts, facility survey data show that approximately 65% of health workers/HSAs report at least one supervisory visit in the previous six months, but the quality of supervision is often limited. Supervisors often do not use a checklist, give feedback or solve problems. Some supervisors complained of lack of supervisory skills.

- Stock-outs of essential medicines, equipment and supplies still occur relatively frequently; including weighing scales for mothers and babies, blood pressure machines, sterile gloves, and several essential drugs. Facility survey data show that a functional bag and mask was available in only 50% of three district facilities in 2010.

- Referral remains a challenge in all areas for several reasons, including: lack of vehicles, lack of money to pay for fuel or transportation, distance and concerns about the quality of care at facilities. Local ambulances work well in some areas, but are less available for remote areas, and there are not enough of them to meet needs. In some cases, phones or airtime are not available for calling ambulances.

- There are gaps in the quality of Basic and Comprehensive EmONC in most referral hospitals, according to the facility assessment conducted in 2010[4]. Although the MNHP has not worked directly on EmONC, increases in facility deliveries are likely to increase referrals for emergency care. DHS data show that rural cesarean section rates did not change between 2004 and 2010.

2.3 Community-based maternal and newborn care

The CBMNC package has been implemented intensively in three focus districts. The intention was to gain experience with this approach, learn lessons and use this information to inform scale-up more widely. HSAs are the primary implementers of the CBMNC in communities. HSAs receive 12 weeks of basic training and are government salaried. Their primary role is to live in communities and to provide health education and counseling on key topics; in some areas they provide CCM services. The CBMNC package includes two components including home visit guidelines and community mobilization guidelines.

CBMNC home visit guidelines: Training in the CBMNC home visit package takes ten days. HSAs are trained to identify pregnant women, make three visits during pregnancy, one visit within 24 hours of childbirth, and two PNC visits at days three and eight. At these visits they give counseling and refer the woman and child for routine care or emergency care if needed. HSAs receive basic supplies, including: a weighing scale, a thermometer, a community register, counseling cards for home visits, picture cards for community mobilization sessions, guidelines for facilitating the community action cycle, and a bag for carrying supplies. In some areas, HSAs are given bicycles for making home visits. HSAs are supervised by both HC and district staff; HC supervisors include senior HSAs, medical assistants and nurses; district supervisors are Environmental Health Officers. HSAs complete community registers; for each pregnant woman they record home visits, deliveries and any maternal and newborn deaths (Please see Section 2.5 for more information on the community-based surveillance system).

CBMNC community mobilization guidelines: Community mobilization guidelines were developed by Save the Children in collaboration with the MOH/RHU, UNFPA, UNICEF, ACCESS/MCHIP and other stakeholders. The mobilization training is seven days in duration and uses the "community action cycle" approach developed by Save the Children. The training is designed to provide HSAs and their supervisors with the skills necessary to facilitate community interaction and dialogue for improved MNC. HSAs work with Village Health Committees and influential leaders in villages to mobilize "core groups" of women and men who are willing to work on newborn health. These groups identify barriers to recommended practices and help develop and implement local activities to make improvements.

Data on HSA activities in communities and on community mobilization activities are shown in Tables 3 and 4.

[4] Republic of Malawi MOH. Malawi 2010 EmONC Needs Assessment. Draft Report. November 2010. MOH, UNICEF, UNFPA, WHO, AMDD.

Main project achievements include:

- A high proportion of HSAs have been trained in the CBMNC package in the three CBMNC focus districts. Nationally, 17/28 districts have begun training in the CBMNC package and an estimated 17% of HSAs nationally have been trained (see Section 2.1 on human resources).

- Improvements in key coverage measures in several areas, including facility-based deliveries, post-delivery practices and PNC contacts are noted in the three CBMNC focus districts, and are associated with improvements in HSA training coverage. Improvements in maternal knowledge of postpartum and newborn danger signs are noted in the three CBMNC focus districts (increasing from 35%to 86%, and 17% to 75%, respectively). These improvements have been seen despite the fact that data show that not all pregnant women are being visited by HSAs at home (Please see Table 3). A number of informants felt that it is plausible that HSAs influence knowledge and practices through community mobilization and health education sessions even when home visits are not being made.

- HSAs are well accepted and seen as effective communicators by community members. Many are making home visits and providing counseling using community registers and job aids. Community mobilization skills training is reported to provide useful skills for working in communities.

- The core group approach is liked and well accepted where it has been introduced. In some communities the core group is responsible for identifying pregnant women and notifying the HSA, so the HSAs do not conduct home visits. HSAs report that the core group is essential to making community activities work.

- The majority of HSAs are completing monthly summary reports and submitting them to HCs. Reports are often not being compiled and sent up the system, however, and the community surveillance system is not yet operational (Please see Section 2.5 on monitoring and evaluation).

Table 3: Community mobilization activities reported by mothers, household survey, Chitipa, Dowa and Thyolo Districts, June 2011 (The report of the CBMNC endline survey in Chitipa, Dowa, and Thyola, funded by SNL, is due to be published in early 2012.)

Activity area	Indicator	Three districts
	Proportion of mothers who received at least one visit from an HSA during pregnancy	36%
	Proportion of mothers who report that an HSA was informed about their most recent birth	31%
	Proportion of mothers who received at least one visit from an HSA in the first month after delivery	22%
	Proportion of mothers of young children reporting that there is a core group in their community	34%
	Proportion of mothers who report a core group who were visited by a member of core group at least once during their pregnancy	28%

Program gaps and continuing challenges – community-based maternal and newborn care

- Multiple vertical programs are using HSAs to deliver activities in the ground, including CCM, malaria, tuberculosis and family planning. Multiple responsibilities increase the workload for HSAs and potentially compromise the quality of their activities. Multiple trainings are inefficient and take HSAs away from their communities.

- HSAs often do not have all of the basic equipment. A functional bicycle is most often not available and spare parts are often difficult to procure. Transportation in and among villages, and to HCs and back, remains a problem for many HSAs.

Table 4: Activities of HSAs in communities from Health Services Assessment Chitipa, Dowa and Thyolo Districts, June 2011 (The report of this Health Services Assessment, funded by SNL, is due to published early in 2012.)

Activity area	Indicator	Three districts
Systems – community	Proportion of HSAs that reside in their catchment area	47%
	Proportion of HSAs with all equipment and supplies	26%
	Proportion of HSAs that report at least one supervisory visit in the last 6 months	68%
	Proportion of HSAs that report spending 3 or fewer days in the community in the last week	54%
	Proportion of HSAs that report spending 3 or more days at the HF in the last week	27%
	Proportion of HSA with knowledge of 2 pregnancy danger signs	66% - during pregnancy 51% - after delivery
	Proportion of HSAs that have submitted a report on MN activities in the previous 3 months	86%

- In the three CBMNC focus districts, many HSAs do not live in their communities, which limits their ability to provide home visits, particularly early PNC visits. Reasons for not living in communities include lack of available housing, and marriage to a spouse who needs to live outside of the district. A regular presence in the community is central to the role of the HSA.

- Most communities still do not have a core group in place. In communities where they have been established, core group members often request incentives such as training and t-shirts.

- 68% of HSAs report that they received a supervisory visit in the previous six months. Many HSAs visited in the field report that they need more supervision. HSAs report that the CCM program provides better supervision; in these areas the program pays facility and district–based staff costs of supervision.

- HSAs often do not make home visits to women before and after delivery. Fewer home visits are partly the result of HSAs living outside of communities. In addition, there is pressure on HSAs to work at health facilities or health posts and most spend one to two days a week at government health facilities helping to provide preventive services. In areas implementing

2.4 District planning and management

All program activities have been implemented through district systems, in close collaboration with DHMTs and DHOs. Districts have coordinated training activities, quarterly supervision visits with MNHP staff, and distribution of equipment and supplies. The MNHP has advocated for the inclusion of maternal and newborn activities into annual implementation plans. By encouraging the inclusion of key activities into annual plans, the project aims to have the costs of these activities funded by SWAp funds, which in the long term, is hoped to facilitate the sustainability of these activities.

Main project achievements include:

- Districts are engaged with MNH activities and have supported roll-out of CBMNC, IMNC and KMC packages. There is increased district awareness of the importance of newborn health. Districts have generally included MNH activities in annual plans for SWAp funding.

- The three CBMNC focus districts have allocated staff to newborn and maternal health. EHOs have assumed responsibility for supervising HSAs implementing the CBMNC package, and overseeing the community-based surveillance system.

- There are good links between project staff and district staff. The MNHP has supported joint supervisory visits to HCs and HSAs quarterly in the three CBMNC focus districts. Districts feel that their capacity in this area has increased.

Program gaps and continuing challenges – district planning and management

- SWAp funds are often inadequate to complete annual implementation plans. Funds for newborn health are allocated to districts under a reproductive health budget line, but there is no earmarking of funds. If newborn activities are not prioritized by district staff then funds may not be allocated to this area. A new financial management system is currently being implemented which prevents districts from moving funds between budget lines. This means that all reproductive health funds must be used for reproductive health activities, and not transferred out for another purpose. Better allocation of available resources is required in order to sustain newborn health activities.

- District staff often have no formal training in planning and management. Essential MNH activities are sometimes not prioritized, especially when SWAp funds are limited. Managers report that they are more likely to drop activities if they think that development partners will have funds to cover costs directly. SWAp funds are often released late making it difficult to implement activities effectively.

- Funds for supervision of HSAs are often not available. EHOs, who are responsible for supervising HSAs, often do not have resources available to make field visits. In many cases they rely on quarterly MNHP-funded supervisory visits to reach field sites.

2.5 Monitoring and evaluation

The MNHP has worked to ensure that newborn health indicators are included in the HMIS and in national surveys. In addition, it has worked to establish a community-based MNH reporting system. In the three CBMNC focus districts HSAs use household registers to complete recording forms monthly and submit them to HCs. HC staff complete summary forms and submit them to the district. The district enters forms and sends reports to the national level. Reviews of the system in 2009 found that HSAs and health workers found forms too complicated to complete routinely. Forms were revised and shortened. HSAs are currently being trained in use of the revised forms. A database for the new forms is not yet available, nor are revised community registers. A CBMNC Monitoring and Evaluation Coordinator, funded by SNL, has recently been placed in the RHU. This position has a number of responsibilities, including rolling out the new HSA recording forms, supervising staff responsible for data, and assisting district staff to enter and use data. The coordinator will be responsible for summarizing data as indicators and sharing findings with RHU staff and stakeholders. This support position is funded for 18 months; after that the RHU has secured CDC funds to continue support of this position for a further two years.

Main project achievements include:

- In the focus districts, HSAs have been able to complete community registers and recording forms. Community registers have acted as "job-aids" which HSAs find useful for tracking pregnant women.

- The MNHP and RHU have contributed to revisions of the HMIS which is currently in development. Proposed modifications to the HMIS include: addition of newborn health indicators to routine facility reporting forms; and addition of indicators of home practices collected from HSA community registers. The revised system proposes to use web-based data entry at the district level. Since the HMIS is still in development, it is not yet clear which indicators will be included for routine collection.

- The MNHP has developed a clear plan for the community-based surveillance system, and data collection forms for each level. It has worked intensively with districts to train staff in the approach. The first version of the system included a data entry database for use at the district level. The project recognized that the first version of the system needed to be simplified, and has made efforts to revise forms and re-train health staff in how to use them.

- District and national staff generally feel that routine community-level surveillance data will be useful for tracking progress and planning in the long term.

Program gaps and continuing challenges

- Currently the community-based information system for CBMNC is a parallel system, running alongside the routine HMIS. Overburdened HF personnel often do not have time to complete

- The community-based surveillance system is not functional. Implementation of the revised system has slowed roll-out. Currently HSAs are still being re-trained, revised community registers have not yet been sent to the field, and there is no data-entry program for use by districts. HSAs often lack new recording forms. No summarized data are available from the community-based reporting system.

- Staff at community and facility levels are generally not using the data they collect for local planning or decision-making.

- Sustainability. There remain concerns about the sustainability of the community-based surveillance system. It adds an extra work burden on already over-burdened staff. It is still reliant on outside project funding, and will require this support for some time in order to become functional. Without oversight by MNHP staff, it is unlikely that local staff will continue completing and submitting forms. Links with the CCM community surveillance system should be considered in order to better integrate supervision and reporting of HSAs.

2.6 Testing of approaches to delivering community-based ENC

The MNHP has supported testing of two community-based approaches to improve newborn health practices. Both have produced information that has influenced the development of approaches to community mobilization.

Ekwendeni Mission Hospital *Agogo* Approach

In 2004, with funding from SNL-I, the Ekwendeni Mission Hospital, a CHAM member facility, designed an innovative *Agogo* Approach to improve community practices in the area of MNH. This effort trained *agogo* (grandparents) to give counseling and health education on key MNH topics. *Agogo* are trusted and listened to in their communities. Grandmothers are close advisors to their daughters and daughters-in-law and grandfathers carry a great deal of influence in the household and in the community. *Agogo* are also gatekeepers and custodians of traditional practices, some of which are harmful to newborns. Communities selected *agogo* for training who were over 50 years old, had at least one grandchild, were good communicators, knew the traditions, and were respected in their community. *Agogo* educate pregnant and recently delivered women through group and individual counseling. They promote early ANC, delivery at facilities, PNC, ENC, recognition of danger signs, and family planning. Information on pregnancies, deliveries, and postnatal care is recorded in a project register (one per village). *Agogo* are supervised by HSAs and the primary health committee chairman. HSAs collect data from the *agogo* registers monthly and submit it to the hospital for tracking.

The MNHP continued to support Ekwendeni's *Agogo* Approach through a sub-grant from September 2007 to March 2009 (with CS-22 funds). During the period of the sub-grant, Ekwendeni staff trained 4,100 *agogo* (1,635 males and 2,375 females). Trained *agogo* are from 487 villages representing 100% coverage of the Ekwendeni catchment area and approximately 90% coverage of the four local government HC areas (Mtwalo HC, Enukweni Maternity, Khuyuku HC, Emsizini HC) that Ekwendeni serves under a service agreement with the district.

Main project achievements include:

- The *Agogo* Approach shows promise as a method for changing community norms and practices in the area of MNH. *Agogo* remain in their own villages, are respected and have a strong influence on traditional practices and beliefs.
- Data from an LQAS survey in 2009 indicate that the majority of trained *agogo* have knowledge of MNH messages, including danger signs for seeking care, delivery practices, postnatal care practices and feeding.

- The approach has been documented; a summary report is available for use by local and international partners. Testing of the approach in Malawi has added to the global understanding of this method.

- The *Agogo* Approach informed the development of the CBMNC package, especially the community mobilization component. Lessons learned locally contributed to the development of the national approach.

Program gaps and continuing challenges

- Although the *Agogo* Approach has been documented and disseminated, a comprehensive package of materials for use by community-based organizations that might like to apply it in their own areas is not available, except for the training manual itself. Additional materials could include training and monitoring tools, facilitator guidelines, and health education materials. Without clear guidelines, uptake of the approach will be more limited.

- Sustainability of the approach. Close project supervision and training ceased when funding ended. Without ongoing inputs, it remains unclear whether *agogo* will continue working in their communities. Support from local HSAs and community leaders is expected to continue and it is hoped that this will mean that *agogo* will continue to promote key messages.

The MaiMwana Randomized Control Trial

MaiMwana was implemented in Mchinji District in the Central Region. It was a cluster randomized control trial (RCT) involving 72 population clusters and a total study population of 170,000. It aimed to test two community-based approaches: 1) participatory women's groups to improve perinatal care and outcomes in a poor rural community, and 2) home-based infant feeding counseling to improve breastfeeding, use of family planning, and household best practices for MNC. MaiMwana's primary indicator of impact is a decrease in perinatal mortality. The main program intervention (women's groups) is an adaptation of the "community action cycle" used by the Warmi model (Save the Children and MotherCare in Bolivia) to increase demand for care and build community capacity to address MNC problems. Additional elements of MaiMwana are HF

strengthening and reinforcement of community-facility linkages. SNL provided funding for the study through March 2009; thereafter funding continued from the Wellcome Trust and other donors. A final report of study findings is not yet available.

Main project achievements

- MaiMwana has extensively documented the process of implementation in a number of areas including: motivation of community-based health workers, community-facility linkages and partnering with traditional and districts structures. It has used several communication strategies including community-oriented radio programming.

- Some elements of the MaiMwana community package have been adapted and are being replicated by organizations in other districts. MaiKhanda (formerly the Health Foundation) has adapted the women's group community action cycle in the districts of Lilongwe, Salima, and Kasungu where it is also assisting DHOs with quality improvement. In Ntcheu District, Women and Children First also implemented an adaptation of the MaiMwana community package.

- The MNHP has ensured that lessons learned from MaiMwana, including tools and materials have been used in the development of a number of community-based methods, including: 1) adaptation of the training manual for HSAs; 2) review and adaptation of health promotion materials (e.g., counseling cards, posters, etc.) for the CBMNC package; 3) input into the national community initiatives workshop; 4) development of the community mobilization approach and training materials for the CBMNC package; and 5) development of the approach to community-based management of newborn sepsis.

- MaiMwana has made a commitment to Malawi and Mchinji District. It is incorporated as an NGO in Malawi and will continue as a "research and development" project. Its immediate plan is to extend all interventions to the whole of Mchinji District and seek funding to take its package to scale in other districts. MaiMwana is however being encouraged by both Save the Children and the RHU to support the national CBMNC package which is rolling out in Mchinji rather than its own parallel package.

Program gaps and continuing challenges

- The final findings of the MaiMwana randomized control trial area not yet available. These data are needed in order to understand the effectiveness of the approach used, and whether it should be expanded more widely.

- MaiMwana has not had strong links with the MOH/RHU. MaiMwana is in a position to influence methods used to roll-out the CBMNC approach. In Mchinji District at least, it should inform district-wide expansion of the CBMNC package.

G. DISCUSSION OF POTENTIAL FOR SUSTAINED OUTCOMES, CONTRIBUTION TO SCALE, EQUITY, COMMUNITY HEALTH WORKER MODELS, GLOBAL LEARNING AND DISSEMINATION/INFORMATION USE

1. Contribution to sustained outcomes

The project has made a number of efforts to make activities sustainable in the longer term. These have been articulated in previous sections. In summary, features that are believed to contribute to sustainability include:

- Ownership of the project by the MOH/RHU. The MNHP has operated by building the capacity of the MOH to implement MNH programs. Key policies, guidelines and strategies have been jointly developed, endorsed and adopted by the national program. These are consistent with the national *Road Map* and *ACSD/IMCI* strategies.

- Implementation conducted using routine staff and systems. DHMTs have been responsible for implementation. HSAs are salaried government employees. The project has not contributed funds for routine activities such as staff costs, routine supervision or referral care. In the three CBMNC focus districts, in collaboration with UNICEF, resources have been provided for early implementation of the IMNC and CBMNC packages, including training, medicines and equipment, support for the community-based surveillance system, and periodic supervisory visits.

- Establishment of mechanisms for better coordination between the MOH, donors and other local and international partners. As a result, activities have been planned more effectively, and donor resources have been made available. Collaboration between partners has been central to developing new materials and methods and to increasing resources for newborn health, particularly at the community level. Partner coordination is essential in the longer term for ensuring that maternal and newborn activities continue.

There are two important barriers to sustainability. First, SWAp funds are currently inadequate to cover all current routine district implementation costs. It is therefore unlikely that SWAp allocations will cover the additional costs required to further expand and support IMNC and the CBMNC packages. Second, the capacity of HSAs remains limited. It is recognized that HSAs who are central to the delivery of the CBMNC package, are under pressure due to multiple competing responsibilities. This is not sustainable in the long term. Alternative approaches to supporting and sustaining HSAs in communities are needed.

2. Contributions to Scale

The project elaborated a comprehensive framework of "Scale-up Readiness" benchmarks (see Annex 12B: Summary of Scale-Up Readiness Benchmarks for Newborn Health in Malawi). The 27 benchmarks include; key policies for newborn health; human resources and training; health system development; availability of resources; monitoring; and sustainability. By 2011, Malawi had achieved 15 of the 27 benchmarks, with seven additional benchmarks in progress, and only one benchmark not yet initiated. The scale-up readiness matrix is presented in Annex 12.

3. Equity

In the DIP, the project acknowledged that both mortality and coverage indicators showed variations between sub-groups, including wealth quintile, region and district, rural/urban residence, mothers' education, age of the mother, birth order and birth interval. For this reason, the primary project strategy is to reach all women at the household level using a community-based approach. The CBMNC package is delivered by door-to-door household visits by HSAs, and uses a variety of community mobilization methods including core groups and, in some cases, trained *agogo*. Formative research and data from field studies were used to develop these approaches, including counselling and education materials, so that they would be appropriate for local women in communities. By working through existing community structures, using community leaders as well as HSAs, this approach aimed to identify all women and newborns. Household survey data from the three CBMNC focus districts show that in some areas HSAs are not routinely conducting household visits, or identifying all pregnant women. This raises the possibility that some women and newborns are being missed. Strategies for ensuring that HSAs visit and track all pregnant women in their communities are needed as the approach is further expanded.

4. Role of community health workers

A key element of the MNHP has been the use of HSAs to implement the CBMNC package. The use of HSAs to deliver the community approach is described and discussed in Sections 1 and 2.3.

5. Contributions to Global Learning

Because the MNHP is linked to Save the Children's SNL initiative, results and findings from the Malawi program inform and are influenced by activities in other countries. A number of mechanisms have been used by the MNHP to contribute to global dissemination, including:

- Development and publication of policy documents. These include: *Opportunities for Africa's Newborns*: *Practical data, policy and programmatic support for newborn care in Africa* (2007) which has become a key reference for newborn health in the region; and the *Joint Statement: Home visits for the newborn – a strategy to improve survival* (WHO/UNICEF, USAID and Save the Children).
- Publication and dissemination of findings of research studies – from MaiMwana (upcoming) and Ekwindeni.
- Publication of a *Health Policy and Planning* supplement in 2012: Newborn Survival: analysis of a decade of change (2000-2010) and future implications. One section of this report will focus on Malawi's story.
- Publication of end of study and end of program reports, for use by the Bill & Melinda Gates Foundation and SNL in designing the next phase of SNL. These reports are available for the development of future projects.
- Participation in international meetings and conferences at which elements of the MNHP approach, including CBMNC, have been presented and discussed.
- Linking with USAID MCHIP and ACCESS. Strategies tested by MCHIP were further expanded by these projects to four additional districts in Malawi, and technical and training materials were shared and replicated more widely.

- Linking with Save the Children's SNL global country programs. Experiences with implementation have been used to inform approaches to community-based newborn programming in other SNL countries.

6. Dissemination and information use

In addition to the global learning activities described above, information about project activities and research findings have been disseminated using a number of mechanisms, including:

- Local meetings, workshops, trainings and technical updates;
- Presentations at international and regional conferences and meetings;
- Local exchange study tours – staff visit other districts to observe local practices;
- International exchange study tours. Save the Children staff from Tanzania and Mozambique visited KMC facilities in Malawi. Save the Children staff from Zambia made field visits to Malawi to learn about CBMNC; and
- Program reports, technical documents, training material, facilitators guidelines, and health education materials. All have been available for review and use by the MOH and other donors and partners.

A full list of project publications and presentations is presented in Annex 2. The MNHP final evaluation report will be shared with all stakeholders and further discussed at meetings of the Safe Motherhood Sub-Committee. Approaches to addressing the main findings will be developed. Save the Children has succeeded in leveraging a number of alternate funding mechanisms that will allow it to continue supporting Malawi's MNH programming, and to further build on progress made by the MNHP.

H. CONCLUSIONS AND RECOMMENDATIONS

The principal conclusions of the evaluation are:

1. Available data suggest that project inputs contributed to improvements in the availability, quality and demand for newborn interventions, and improved intervention coverage in the three MNHP project focus areas. In addition, the project has contributed to improved availability of newborn interventions nationally; project contributions to improvements in intervention coverage nationally are more difficult to quantify.

2. The capacity of the MOH/RHU to plan and implement the newborn health activities has been strengthened. The MNHP built local capacity by advocating for neonatal health, using data to inform decisions, building consensus between partners, and coordinating the development and adaption of key policies and guidelines.

3. The CBMNC package has been adopted by the MOH as the primary national approach for community-based maternal and newborn care, and good progress has been made expanding the approach nationally. The CBMNC approach appears to improve household knowledge and practices, even if HSAs are not always making household visits.

4. The IMNC package for facility-based health workers has been adopted as the primary approach for training facility-based workers in MNH and good progress has been made in expanding training nationally.

5. The KMC approach for managing LBW babies has been expanded nationally. The MNHP coordinated the revision of KMC guidelines to include ambulatory and community care. Guidelines were incorporated into the national IMNC and CBMNC guidelines.

6. Community-based management of newborn sepsis has been authorized and adopted and is ready to be rolled out nationally. The MNHP has been a contributing partner to the development of this approach. Community-based management of newborn sepsis has been adopted and training materials are available, although it has so far been piloted in only one district. The case-management protocol allows HSAs to classify sick newborns and treat them with the first dose of oral amoxicillin.

8. Expansion of the CBMNC approach will require the roles, training and support of HSAs to be reviewed and revised. Currently HSAs have the responsibility for a number of vertical program activities and are overburdened. Many are not making household visits to pregnant women or during the postnatal period.

9. Quality of MNC remains an important challenge. High facility delivery rates present an important opportunity to provide high quality delivery, ENC and PNC. Available data suggest quality needs improvement in all areas. Opportunities to provide PNC for mothers and newborns are often missed. KMC is often not practiced according to guidelines. System issues that will need to be addressed include: quality of training, supervision, availability of essential medicines and supplies and approaches to training. Shortages of midwives remain an important barrier to delivering maternal and newborn services in health facilities. Costed plans for addressing shortages are available, but have not yet been implemented. Alternative approaches to improving retention of nurse midwives in districts are needed.

10. Sustainability of some aspects of MNH programming needs to be carefully reviewed. Although the MNHP has focused on building local capacity and working through routine systems, some elements of the approach remain vulnerable when project activities cease. These include: capacity of districts to continue training and supervision of facility and community-based workers when project activities cease, due to limited planning capacity and inadequate SWAp fund allocation; and the community-based surveillance system using HSAs.

<u>The principal recommendations of the final evaluation of this EIP MNHP are:</u>

1. Continue advocacy and technical support at all levels to ensure that newborn health continues to be incorporated into routine planning.

2. Focus on increasing **quality** of MNC. <u>Better use opportunities provided by high facility delivery attendance rates.</u> An increased focus on improving quality of facility-based delivery care, ENC, postnatal care and KMC for LBW babies is needed. It is proposed that a coordinated approach to improving quality of care around the time of delivery be developed in close collaboration between the RHU and development partners. Improvements in quality will need a number of system areas to be addressed, including, supervision, drugs, equipment and supplies and

3. Continue to roll-out CBMNC in districts, especially those districts with partner support. Ensure that training activities are linked to approaches to improve quality of care, including supervision. As a part of further implementation consider: better integration of HSA training and supervision between vertical programs; and development of methods for HSAs to identify and track pregnant women in communities such as better use of core group members and use of cell phones to contact the HSA directly. Review the feasibility of continued community-based CBMNC surveillance.

4. Collaborate with partners to roll-out training in management of newborn sepsis using new training materials. Ensure that training activities are linked to approaches to improve quality of care, including supervision.

5. Coordinate the development and funding of an approach to address midwife shortages. Also consider approaches to improve retention of nurse-midwives in districts by engaging district assemblies to provide local incentives.

6. Develop an approach to improve the capacity of district managers to plan and implement MNCH activities, including allocation of SWAp funds, and better engagement of district assemblies to support community-based activities. Completion of the CBMNC costing study would help quantify resources required to deliver the package in districts and help with planning in the future.

See Annex 14: Grantee plans to address final evaluation findings.

ANNEX 1: RESULTS HIGHLIGHT
Community-Based Maternal and Newborn Care Package

Malawi is one of the first countries in Africa to implement a community-based package to improve maternal and newborn care. To achieve this, the Ministry of Health (MOH) took advantage of a national cadre of salaried community-based health workers called Health Surveillance Assistants (HSAs), who have been active in Malawi for over 40 years. Each HSA receives 12 weeks of basic training and serves a population of about 1,100. Their primary role is to live in communities and provide key health education/counseling; in some areas they provide case-management services.

In 2006, UNICEF sponsored the first of two study tours to India for Malawi's MOH policymakers. In Maharashtra State they visited SEARCH, a highly successful home-based neonatal care initiative.[1] Enthusiastic to tailor the SEARCH model to the Malawian context, the MOH Reproductive Health Unit (RHU) working with Save the Children, UNICEF, and over 60 key stakeholders, designed a CBMNC package. The RHU then partnered with Save the Children and UNICEF to pilot the CBMNC package in three districts – Chitipa, Dowa and Thyolo. The package was subsequently rolled out to other districts with support from MCHIP, WHO, UNICEF and UNFPA.

Training in the CBMNC package takes ten days. HSAs receive a package of basic supplies, including a weighing scale and counseling materials. They are trained to identify pregnant women, make three visits during pregnancy, one visit within 24 hours of childbirth, and two PNC visits at days three and eight. At these visits they give counseling and refer the woman and neonate for routine care or emergency care if needed. Small babies receive extra visits and are referred for KMC.

At the end of September 2011, more than 1,700 HSAs had been trained in the CBMNC package in 17 of Malawi's 28 districts. Endline assessments conducted in mid-2011 in the three focus districts showed upward trends in a number of key maternal and newborn coverage indicators, including: facility-based deliveries, deliveries by skilled providers, maternal and newborn PNC contacts within two days of delivery, early breastfeeding (within one hour of delivery) and exclusive breastfeeding for neonates. In addition improvements were noted in the quality of post-delivery practices (washing, drying and delayed early bathing), weighing of the newborn, and mothers knowledge of key home practices. These improvements were noted despite the fact that HSAs are often not able to make home visits. Field reviews suggest that HSAs improve knowledge and practices through several channels including health education sessions, and the use of community core groups to promote key messages. Data from the early implementation districts show that several different programs are increasingly using HSAs to delivery primary health care; in many areas they provide community case-management are required to work at health posts. For this reason, their primary role – home visits and one-on-one counseling – is sometimes compromised. In the longer term how HSAs are trained and used in communities will need to be better coordinated and organized by the MOH. This has become a priority for the next phase of program implementation.

The CBMNC package shows great promise for the future. The encouraging results from focus districts suggest that community-based maternal and newborn care can improve demand for essential services and result in better home practices.

[1] Source: Bang AT, et al. Effect of home-based neonatal care and management of sepsis on neonatal mortality: field trial in rural India. *Lancet* 1999; 354: 1955-61.

ANNEX 2:
LIST OF PUBLICATIONS AND PRESENTATIONS RELATED TO THE PROJECT

Publication in press: SUPPLEMENT: A Decade Of Change For Newborn Survival, Policy and Programmes (2000 - 2010): A Multi Country Evaluation of Progress Towards Scale, Newborn Survival in Malawi: A decade of change (2000 -2010) and future implications. Corresponding author: Mary Kinney, Saving Newborn Lives/Save the Children, 11 South Way, Cape Town 7405, South Africa, Tel: +27 83 444 8211, Email: mvkinney@gmail.com

Authors:

First name	Surname	Affiliation	Qualification
Evelyn	Zimba	Save the Children	MRN and MRM, BSc, MSc, MPH
Mary	Kinney (corresponding)	Save the Children	BA, MSc
Fannie	Kachale	Reproductive Health Unit, Ministry of Health Malawi	MSc
Karen Z.	Waltensperger	Save the Children	MA, MPH
Hannah	Blencowe	London School of Hygiene and Tropical Medicine	MBChB, Msc, MRCGP, PGCert Med, MRCPCH
Tim	Colbourn	UCL Institute of Child Health, MaiKhanda Trust, and Parent and Child Health Initiative	MSc, PHD
Joby	George	Save the Children	B. Sc, MHA
Charles	Mwansambo	Ministry of Health and Kamuzu Central Hospital	MBChB, BSc, DCH, MRCP, MRCPCH
Martias	Joshua	Zomba Central Hospital	MBBS, MPH
Harriet	Chanza	World Health Organization	RNM, MSc.(RH)
Dorothy	Nyasulu	UNFPA	
Grace	Mlava	UNICEF	RNM, Diploma in Psychiatric Nursing, BSc, MPH
Nathalie	Gamache	Save the Children	BSc, MSc
Abigail	Kazembe	Kamuzu College of Nursing, University of Malawi	MRN, MRM Mlw, BSc (Hons)
Joy	Lawn	Save the Children	B MedSci, MB BS, MRCP (Paeds), MPH PhD

Malawi Newborn Change and Future Analysis Group (alphabetical)

First name	Surname	Affiliation
Semuh	Banda	Zomba Central Hospital
Hannah	Blencowe	London School of Hygiene and Tropical Medicine
Agatha	Bula	City University London and Mai Mwana Project
Harriet	Chanza	World Health Organization
Gerald	Chidzankufa	MaiKhanda Trust
Tim	Colbourn	UCL Institute of Child Health and MaiKhanda Trust
Clifford	Dedza	Ministry of Health, IMCI CCM unit
Nathalie	Gamache	Save the Children
Joby	George	Save the Children
Edwin JDM	Gondwe	Zomba Central Hospital
Tanya	Guenther	Save the Children
Martias	Joshua	Zomba Central Hospital
Fannie	Kachale	Reproductive Health Unit, Ministry of Health Malawi
Kate	Kerber	Save the Children
Mary	Kinney	Save the Children
Sonia	Lewycka	Mai Mwana Project and UCL Institute of Child Health
Reuben	Ligowe	Save the Children
Charles	Makwenda	MaiKhanda Trust
Florida	Malamba	Mai Mwana Project

First name	Surname	Affiliation
Bernard	Mijoini	UNFPA
Grace	Mlava	UNICEF
Allisyn	Moran	Save the Children
Martin	Msukwa	MaiKhanda Trust
Charles	Mwansambo	Ministry of Health and Kamuzu Central Hospital
Bejoy	Nambiar	UCL Institute of Child Health and MaiKhanda Trust
Dorothy	Nyasulu	UNFPA
Tambosi	Phiri	Mai Mwana Project
Tambudzai	Rashidi	MCHIP/Jhpiego
Karen Z.	Waltensperger	Save the Children
Evelyn	Zimba	Save the Children

Note: Group reviewed findings and provided input to the manuscripts.

MALAWI NEWBORN HEALTH PROGRAM PRESENTATIONS

Presenter	Topic	Dates	Name of Meeting	Location
Evelyn Zimba & SC Country Director Matthew Pickard; Joby George, Senior Health Manager	Maternal and Newborn Health Program	September 8, 2011	Save the Children Health Programs, Orientation session to the Parliamentary Committee on Health	
Evelyn Zimba	The Role of Save the Children in Child Health	September 5, 2011	Masters Degree Students	Kamuzu College of Nursing-University of Malawi
Guest of Honor: First Lady, Madam Callista Mutharika, National Coordinator for Maternal, Newborn	Malawi's Success in Reducing Child Mortality by President Bingu wa Mutharika	May 19, 2011	State of the World's Mothers Report	Malawi
Carolyn Myles, SC President & Evelyn Zimba		May 18, 2011	Roll-out of EveryOne Campaign	Dowa District Assembly
Joy Lawn, Saving Newborn Lives	Missing Midwives Report Launch in Malawi	May 5, 2011	Press briefing at the Cross Roads Hotel in Lilongwe	Cross Roads Hotel, Lilongwe
Evelyn Zimba, Senior MNH Program Manager	Health Policy and Planning-MNH	May 5, 2011	Telling the Story (TTS) Stakeholders Meeting	Cross Roads Hotel, Lilongwe
Ruben Ligowe, MNH Program Coordinator	Community Case Management and Kangaroo Mother Care in Malawi	February 19, 2011	Zambia Exchange visit	Malawi
MNHP hosted journalists and a celebrity from the UK	Implementation of CBMNC program	February 9-17, 2011	UK Celebrity Visit	Malawi
Rose Gondwe, Ekwendeni PHC Dept. & Karen Waltensperger, Africa Regional Health Advisor		December 14, 2010	National Dissemination of *Agogo* Approach	Lilongwe Hotel, Lilongwe
Evelyn Zimba	KMC and CBMNC in Malawi	November 13, 2010	Innovations for Change and Scale-up, From Pledges to Action Conference	New Delhi, India

Presenter	Topic	Dates	Name of Meeting	Location
Joby George, Evelyn Zimba	CBMNC (Thyolo) and Neonatal Sepsis	September 13-14, 2010	National Workshop on Maternal, Newborn and Child Survival	Malawi
Evelyn Zimba	Institutionalization of CBMNC Package - Malawi Experience	August 29-September 4, 2010	Saving Newborn Lives (SNL) Africa Regional Workshop	
Evelyn Zimba	Malawi is on track for MDG 4 and has significantly reduced NMR – analysis of changes over time, role of KMC	August 4-9, 2010	26th Annual International Pediatric Association Congress 2010	Johannesburg, South Africa
Evelyn Zimba facilitated HBB training for pediatricians	Masters of Trainers in Helping Babies Breathe (HBB)	August 4, 2010	The 26th Annual International Pediatric Association Congress	Johannesburg, South Africa
Evelyn Zimba	HBB Session	June 28-July 2, 2010	Save the Children Health and Nutrition Program Learning Group (PLG)	Norwalk, CT
Evelyn Zimba	Planning and Scaling up Kangaroo Mother Care in Malawi	June 19-22, 2010	The 8th International Conference on Kangaroo Mother Care	Canada
Evelyn Zimba	Scale-up of CBMNC Package in Malawi	June 7-9, 2010	Women Deliver Conference	Washington, DC
Deputy Director of RHU, Fannie Kachale, and MCHIP Community MNH Advisor Anna Chinombo	CBMNC and Community Mobilization	June 7-8, 2010	Malawi Ministry of Health (MOH) Reproductive Health Unit (RHU) Dissemination Workshop	Lilongwe, Malawi
Edward Chigwedere	Innovative Approached for Improved MNH	May 2010	Towards 4+5 Dissemination Conference	London, England
Evelyn Zimba provided TA for development of communiqué and joint action plan.	Progress on the Maputo Plan of Action (MPoA) on Sexual and Reproductive Health and Rights (SRHR.)	April 17-18, 2010	Continental Conference on Maternal, Infant and Children Health in Africa/ AU International Conference of Civil Society Experts Consultation on Maternal and Child Health	Addis Ababa, Ethiopia
Fannie Kachale, RHU, & Evelyn Zimba	1) Progress of the OR on CBMNC, and 2) KMC Scale-up in Malawi	February 22-26, 2010	Africa Newborn Research and Program learning workshop	Addis Ababa, Ethiopia
Evelyn Zimba	CBMNC in Malawi	November 30-December 5, 2009	The 7th Africa Midwives Research Network (AMRN) Biennial Scientific Conference	Dar es Salaam, Tanzania
Evelyn Zimba	Results of the MBHP MTE	August 12, 2009	Bi-annual Review Meeting of the Six Districts Implementing CBMNC	
Evelyn Zimba	-Marketplace session: Essential Childbirth Practices for Maternal and	June 2009	Save the Children Department of Health & Nutrition Program Learning Group meeting	Norwalk, CT US

Presenter	Topic	Dates	Name of Meeting	Location
	Newborn Health and Nutrition: AMTST and ENC. -Demonstration on AMSTL and immediate ENC.			
Reuben Ligowe	KMC in Malawi	June 15-19, 2009	BASICS Conference on Advocacy to Care for the Newborn	Darkar, Senegal
George Chiundu, M&E Officer	Mini-LQAS Survey in Thyolo District	June 15, 2009		
Patrick Zygambo	Newborn Health	June 10, 2009	National Children's Manifesto Workshop	Kalikuti Hotel, Lilongwe
Edward Chigwedere	Preliminary Findings of the mini-LQAS survey in Dowa District	May 25, 2009	District Stakeholders Meeting	
Patrick Zygambo	Newborn Health	May 5, 2009	Day of the African Child-Children's Parliament Technical Committee	Kalikuti Hotel, Lilongwe
Edward Chigwedere		February 12, 2009	Malawi Community Newborn Sepsis Management Consultative Meeting	Lilongwe, Malawi
Evelyn Zimba	IMCI Training Manual	February 2-6, 2009	ACCESS Meeting to integrate in PMTCT policy into the BEmONC Training Manual	Blantyre, Malawi
Reuben Ligowe	CBMNC Package	January 19-23, 2009	Mai Khanda (formally known as Health Foundation) Strategic Planning Meeting	Kambiri Lodge, Salima District
Communications Officer Patrick Zygambo	Role of Media for Advocacy in Newborn Health	January 15, 2009	White Ribbon Alliance Workshop	Riverside Hotel, Lilongwe, Malawi
Evelyn Zimba	Results of Malawi's KMC Retrospective Study Poster Presentation	October 8-11, 2008	1st European Conference on Kangaroo Mother Care and KMC Workshop	Uppsala, Sweden
Edward Chingwedze	Malawi NBH Program's Plan for Process Documentation	July 2008	Save the Children/Saving Newborn Lives Program Manager's Meeting	Bangkok, Thailand
Evelyn Zimba	KMC Scale-Up in Malawi	July 2008	Save the Children/Saving Newborn Lives Program Manager's Meeting	Bangkok, Thailand
Evelyn Zimba	KMC Scale-Up	May 19-23, 2008	SC-Department of Health and Nutrition PLG	Easton, MD US
Evelyn Zimba	KMC Scale-Up at the	April 17-19, 2008	Countdown to 2015: Maternal, Newborn and Child Survival	Cape Town, South Africa
Health Economist Emmaunelle Daviaud	Workshop for three learning districts, MON/RHU representative, and	March 25, 2008	CBMNC Costing Workshop	Lilongwe

Presenter	Topic	Dates	Name of Meeting	Location
	other stakeholders.			
Evelyn Zimba and KPC Consultant Anne-Marie Bergh	Results of the KMC Retrospective Study conducted in July 2007	March 18-19, 2008	Malawi Ministry of Health (MOH)/Reproductive Health Unit (RHU) Dissemination Workshop	Lilongwe, Malawi
Evelyn Zimba	Results of the Malawi KMC Retrospective Study	March 11-14, 2008	Priorities on Perinatal Care Conference	Pretoria, South Africa
Evelyn Zimba	KMC Scale-Up	January 21-25, 2008	WHO-AFRO Inter-Country Workshop for Strengthening Neonatal Health in Maternal and Child Health Programs	Blantyre, Malawi
Edward Chigwedere, Research M&E Manager	Results of the Formative Research conducted in the three learning districts to guide design of CBMNC package	November 12-16, 2007	SNL 2nd Africa Research Workshop	Blantyre, Malawi
Evelyn Zimba	Results of Malawi's KMC Retrospective Study	October 8-11, 2008	1st European Conference on Kangaroo Mother Care and KMC Workshop	Uppsala, Sweden
NBH Program Officer Reuben Ligowe accompanied Grace Tutiwe Ngoto, her daughter Tuntufye, and Hilalpi Kunkeyani, Senior Nursing Officer of Maternity and Gynecological Services and Save the Children (UK) Midwives Award recipient		July 15, 2008	US Global Leadership Campaign Tribute Speech to Defense Secretary Robert Gates	Washington, DC
Edward Chingwedze & Evelyn Zimba	-The Malawi NBH Program's plan for process documentation; -KMC scale-up on Malawi.	July 2008	Save the Children/Saving Newborn Lives Program Manager's Meeting	Bangkok, Thailand
Evelyn Zimba	KMC Scale-Up	May 19-23, 2008	Save the Children, Department of Health & Nutrition, Program Learning Group Meeting	Easton, MD
Evelyn Zimba	KMC Scale-up in Malawi	April 17-19, 2008	Countdown to 2015: Maternal, Newborn and Child Survival	Cape Town, South Africa
Evelyn Zimba	Results of the Malawi KMC Retrospective Study	March 11-14, 2008	Priorities on Perinatal Care Conference	Pretoria, South Africa
Evelyn Zimba	Panel discussion on Post-natal Care and the CBMNC package	October 18-20, 2007	Women Deliver Conference	London, England

Presenter	Topic	Dates	Name of Meeting	Location
Evelyn Zimba	Postnatal Care: A Missing Link to Save the Lives of Women and Newborns	October 18-20, 2007	Women Deliver Conference	London, England
Edward Chigwedere & Dr. Charles Mwansambo, MOH/Head of Pediatrics, Kamuzu Central Hospital		September 26-28, 2007	Expert Consultation in Community Neonatal Sepsis Management	London, England
Evelyn Zimba	Issues and new trends in newborn health	May 3-4, 2007 June 20, 2007	workshop organized by MOH/RHU organized for Integration of the Basic Emergency Obstetric and Newborn Care training manual	Livingstonia Beach Hotel in Salima; and Cresta Crossroads Hotel
Evelyn Zimba	Scale-up strategy for the Malawi Newborn Health Program	June 18-22, 2007	SNL Strategic Planning for Scale-up Workshop	Dubai
Evelyn Zimba	MAMAN Bazaar and demonstrated ENC and KMC.	June 4-8, 2007	CSHGP Mini-University Workshop	Baltimore, MD
Evelyn Zimba	BC and Community Mobilization Interventions	May 14-18, 2007	Skill-building Workshop	Washington, DC
Evelyn Zimba	Malawi's Newborns: Gaps and Opportunities	October 2006 and April 2007	White Ribbon Alliance Regional Advocacy Workshop; The National PMNCH Workshop	Malawi Sun N' Sand Holiday Resort Mangochi, Malawi

=Denotes global presentation made outside of Malawi.

ANNEX 3: PROJECT MANAGEMENT EVALUATION

This section focuses on four management issues the final evaluation team thought to be critical to program success: flexibility and responsiveness, planning, human resources and staff management, and technical support. A fifth management issue, information management, is highlighted as an area in need of consideration and strengthening.

Flexibility and Responsiveness

Since the time of Save the Children's Expanded Impact Project (EIP) application, its Malawi country office has experienced five country office directors, two major re-organizations of its administrative/finance and technical units, and a successful transition to "Unified Presence," making Save the Children US the "managing member" in Malawi. Save the Children in Malawi (SCiMw) is now joining the global process of transition operationally to Save the Children International (SCI) effective in mid-2012. This involves moving over to an entirely new set of operational systems as Save the Children country offices worldwide join a new global organization. Although partnership with the MOH has been strong and productive, the Malawi Newborn Health Program has had to relate to three Ministers of Health, a succession of four Principal Secretaries, a prolonged period of national economic stress and fuel shortages, and recent civil unrest. Notwithstanding, during the entire period of the cooperative agreement, the MNHP itself has benefited from a strong and highly collaborative partnership with the MOH and consistent committed leadership at the RHU.

In this constantly challenging environment, SCiMw and the MNHP have weathered the changes well, and the country office's health sector has expanded in scope and coverage around the MNHP. For example, as a core partner in MCHIP, Save the Children has been an active MCHIP implementer in-country and is now a sub on two USAID Mission-funded bilateral projects recently awarded for strengthening service delivery (SSD) and behavior change communication/community mobilization (CONCERT). Save the Children has also been awarded a CS-27 cycle cooperative agreement with family planning supplement in Blantyre District to develop a model for an integrated community package in collaboration with MOH and the District Health Management Team and Malawi College of Medicine.

Planning

As an EIP, the MNHP supported the RHU and its *Road Map for the Accelerated Reduction of Maternal and Neonatal Mortality in Malawi* framework. Save the Children engaged in the national-level planning process as a technical partner and catalyst to move the newborn health agenda forward. Save the Children is a member of the Safe Motherhood Sub-Committee of the Sexual and Reproductive Health Technical Working Group (SRHTWG). In 2007, that group authorized an ad hoc Neonatal Care Technical Working Group to oversee development and piloting of the CBMNC package in the three focus districts (Chitipa, Dowa, Thyolo). Save the Children served as secretariat for this ad hoc working group until it was absorbed into the SMTWG in 2009. With its "seat at the table," Save the Children supported national (RHU) and district- and zonal-level planning cycles, contributed to SWAp planning discussions, and coordinated with RHU, districts, and partners to provide technical assistance and material support. The project's Detailed Implementation Plan (DIP) was developed to be flexible to accommodate emerging priorities and opportunities and was practical for the working

model used. Timing was always an issue, as real partnership results in some loss of control and constant readjustment to the timelines of others.

Human Resources and Staff Management

The evaluation team found that all essential Save the Children personnel policies and procedures were in place. Turnover of members of the project team itself was minimal, and the Program Manager stayed in the position from beginning to end. Many team members have been or will be re-assigned to other Save the Children maternal and newborn care initiatives, including the two USAID bi-laterals and CS-27. For example, the MNHP Manager, Evelyn Zimba, is Save the Children key personnel and will serve as technical lead for newborn and child health on the USAID Mission-funded SSD cooperative agreement awarded to JHPIEGO. Program Coordinator Reuben Ligowe and others will be retained with funding from Save the Children-Italy, SNL "bridge," and other resources.

One issue that did affect the morale, cohesion and working relationships of project personnel deserves mention. When the current Research and M&E Manager was recruited in 2007, the country office organizational chart was changed so that the position reported directly to the Deputy Director for Programs and not to the MNHP Manager. This position was funded by SNL and is now also supported by CIDA funds. The incumbent in the post now reports to the Senior Health Manager (a new position). This rupture in the reporting structure has resulted in instances of lack of coordination, team cohesion, and accountability and has affected project outcomes in the area of information management described in the section below.

Information Management

The MNHP team had two FTE M&E staff supported by the various funders at the start of the program and 1.75 FTE at the end (.25 FTE of Research and Evaluation Manager is for SC's CCM program.) The M&E team is based in Lilongwe and conducts frequent trips to the field. In 2011, with match funding from SNL, Save the Children seconded an M&E Coordinator to the MOH/RHU, a position that will continue under the SNL "bridging" period and eventually by MOH support.

As an EIP, the MNHP's M&E plan included in the DIP focused on national population-based data and service statistics. These were extracted at baseline and endline from key sources, primarily the Multiple Indicator Cluster Survey (MICS), Demographic and Health Survey (DHS) and the MOH Health Management Information Bulletin. At the time of the final evaluation, the final DHS report for 2010 had not yet been released and only preliminary data was available.

Mzimba District KPC baseline/endline surveys

Even though this EIP operated at the national level, CSHGP asked Save the Children to provide district-level Rapid CATCH values for baseline and endline. At the time of DIP preparation, the match-funded CBMNC focus districts had not yet been selected by the MOH/RHU. Accordingly, Save the Children and CSHGP agreed that the Rapid CATCH indicator values would be collected in Mzimba District where the Ekwendeni sub-grantee partner was located. A baseline population-based 30-cluster KPC survey was conducted by Millennium Consulting Group that collected data for

Rapid CATCH indicators, as well for MNC indicators drawn from the KPC 2000+ and Minimum Activities for Mothers and Newborns (MAMAN) questionnaires. At endline, the 30-cluster survey was repeated. Intentional oversampling in the Ekwendeni catchment area was later adjusted (weighted) to get district-level values. Millennium Consulting Group had gone out of business and a private consultant was engaged to carry out the endline survey. Save the Children experienced a number of difficulties with the quality of this consultant's work, and the analyses, frequency tables, and report itself was sent back at least three times for improvement. Save the Children has found that, while outsourcing surveys is necessary as costs rise and the country office does not have the human, vehicular, and temporal resources to conduct its own field surveys, quality can suffer given limited in-country options. The baseline and endline surveys for the upcoming CS-27 will be conducted by the College of Medicine in Blantyre or an affiliated agency, and Save the Children expects better quality in the future.

M&E for three-district CBMNC pilot package

At sub-national level, the MNHP had a robust monitoring and evaluation plan for piloting of the three-district CBMNC package, developed after the DIP was submitted. The project undertook formative research aimed at understanding the acceptability of HSAs in executing maternal and newborn care roles and knowledge and practice of maternal and newborn care at the household level. Findings informed the design of the CBMNC intervention package. In 2008, following the implementation and analysis of a baseline assessment, which included both a household survey and a health facility assessment, in the three CBMNC pilot districts, the project set targets in collaboration with district health management teams. During the course of project implementation, the project prepared quarterly progress reports for internal use and annual progress reports for submission to USAID.

The baseline three-district household survey and health facility assessment were successfully contracted out; however the firm that did the work is no longer in business. Following a standard bid process as required, Save the Children selected a new firm to conduct the endline assessments. The company selected, however, failed to complete the assignment – data collection and single data entry were completed, but no analysis or written report was submitted. This led to significant delays. A Save the Children M&E specialist based in Washington, DC, did a preliminary analysis of the data for review and discussion during the final evaluation; however, a consultant had to be engaged to complete the analysis and produce the two final reports, which were still pending at the time of the final evaluation.

A midterm evaluation (MTE), led by an external consultant, was conducted in 2009.

A small survey (using Lot Quality Assurance Survey methodology) of mothers from select catchment areas in the three pilot districts was conducted in March 2009, to gauge implementation progress prior to the MTE. The project adhered to a major recommendation of the MTE which was to not pursue the addition of sepsis management in the three-district pilot.

The routine monitoring system in the three-district pilot areas instructed HSAs to fill in household visit details in a project register. HSAs then needed to recopy the data onto a photocopy of the register and submit these forms to their supervisor at the health center. At the health center the HSA household visits forms were summarized and then submitted to the district health office for data entry into a SC designed database. However, during monitoring and supervision visits

conducted by SC, many health centers were not summarizing the forms but submitting all the individual HH visit forms. The system was very cumbersome resulting in delays in reporting, under-reporting, and a backlog of reports requiring data entry once submitted. Ultimately, there was very little data flowing into the district HMIS or back to the facility and community level workers for feedback. In addition, SC did not have access to the data needed for program monitoring or routine reporting.

To improve routine program monitoring, a revision of the CBMNC data flow and monitoring system was conducted in partnership with MOH/RHU, MCHIP and other stakeholders. Consensus was built on national and programmatic indicators and a series of tools developed: (1) household visit form for use by HSAs during antenatal and postnatal visits; (2) HSA summary form to summarize an individual HSA's household visit forms; and (3) Health Facility Summary forms summarizing the HSA summary forms from the facility's catchment area. At the time of the evaluation (September 2011), the system was in the early stages of implementation. All HSAs in the three-district pilot areas had been oriented to the new system and feedback from those interviewed at all levels (HSA to DHO) said the new forms and system was much simpler. But due to a lack of an updated database, any forms reaching the DHO cannot be entered and therefore, there once again will not be data available for routine monitoring. This is an area the M&E team must address as the revision of the national HMIS system is unlikely to be completed in the near future.

Realizing the importance of assessing whether trained HSAs were reaching mothers and newborns as expected in the program, RHU and partners (Save the Children, UNICEF, Zonal Offices and the three implementing districts) conducted quarterly joint supervisions to provide an opportunity for the districts and partners to share experiences and ideas. Since May 2009, representatives from each of the major partners, travelled together to supervise progress in each district. These visits were participatory and effective in highlighting implementation strengths so and also identify areas that required additional support. Also annual reviews were organized in Lilongwe bringing together all the partners to discuss implementation of the CBMNC package.

SC developed a very in-depth supervision form for use by HSA supervisors that tracks knowledge and skills (included in the original process documentation plan). However, this was not being used, not even by SC staff during the visits. It is quite long and might be more likely to be used if a shortened version is developed that hones in on key performance areas.

At the facility level, review systems included joint and independent supervisions. Several monitoring checklists were reviewed, and the supervision reports summarized highlights of progress since the last visit, identified new issues, summarized the debriefing sessions and outlined main challenges at various levels. The original supervision requirements involved supervising HSAs during home visits; supervisors found this requirement time consuming as a supervisor needed to spend an entire day observing one HSA.

A great deal of effort was undertaken to document program achievements and processes albeit retroactively. An End of Study report documents the process involved in the design and implementation of the CBMNC package in the 3 pilot districts. An End of Project report (still under development) documents the results, approaches, processes, and lessons learned throughout the course of the overall Malawi newborn health program. Several tools were completed to gauge the reach of various MNH interventions. The training tracker disaggregates by district the number of health workers trained in IMNC and KMC and the number of HSAs trained in CBMNC. The

KMC facility matrix provides a listing of all health facilities by district offering KMC services (in-patient or out-patient with follow-up known as ambulatory KMC). A timeline of policy and program milestones for newborn health in Malawi up to 2010 at national level, and not limited to SC activities, was developed with input from partners. All of these tools will continue to be updated by the MNHP team in collaboration with the RHU M&E coordinator as new trainings occur, facilities begin KMC services, and new newborn health milestones achieved in 2011 and beyond.

Learning from the MNHP has extended beyond the Malawi borders. See Annex 2 for a list of 57 program presentations, 30 of these presented in global fora. During the course of the project, Save the Children has hosted visitors from Mali, Mozambique, and Tanzania to learn from Malawi's success with facility-based KMC. Earlier this year, Save the Children in Zambia and Lufwanyama District partners visited to take back lessons learnt and ideas for the integrated newborn and CCM package being implemented under LINCHPIN (CS-25).

As part of an effort to document a decade of change for newborn health, Save the Children's SNL program is working with partners to prepare a series of papers that will include Malawi. According to UN estimates, Malawi is on track to reach MDG4, one of a few Africa countries to do so (see Section F of the evaluation report). However, the newborn mortality rate is declining at a slower pace than the under-five mortality rate. Malawi's paper will focus on what may have contributed to progress, what could accelerate it and what may be of relevance to neighboring countries. How effective was the system to measure progress towards project objectives?

Technical and Administrative Support

Technical backstopping and support from Save the Children headquarters has been consistent and committed, and the project has leveraged extensive research, technical, programmatic, and advocacy resources from being part of the Saving Newborn Lives global initiative. During the past five years, SNL has put $2 million into this project to support CBMNC package development and training, costing, documentation, technical assistance, and support for KMC scale up, among others.

ANNEX 4: MALAWI NEWBORN HEALTH PROGRAM - WORKPLAN

Objectives/Activities	Objective Met	Activity Status
Program Management		
Activity 1: Recruit and hire staff		Completed
Activity 2: Project start-up activities		Completed
Operational Research: Increase use of key neonatal care services and practices in Malawi: Community-based maternal and newborn care package piloted in 3 districts (match funding)	**MET**	
Activity 1: Finalize proposal and budget with MOH, UNICEF and 3 districts for community PNC pilot		Completed
Activity 2 : Finalize tool and conduct Health Facility Assessment		Completed
Activity 3: Collaborate with partners to design, conduct and analyze population-based survey in 3 learning districts		Completed
Activity 4: Design sepsis management protocol		Co-sponsored national technical consultation. Provided technical assistance to partners for sub-district pilot; to be taken up by SC under SSD project (USAID mission bilateral).
Activity 5: Finalize design of district pilot (sepsis to come later)		Completed; sepsis component was not included in this pilot.
Activity 6: Contribute to adaptation of MNH training package for HSAs in collaboration with UNICEF and MOH (timing to be confirmed with UNICEF)		Completed
Activity 6B: TOT for HSA training package (with UNICEF)		Completed
Activity 7: Assist with development of OR plans and postnatal care protocols on ANC and PNC home visitation, community management of LBW babies, and newborn sepsis		Completed through Safe Motherhood technical working; newborn sepsis was not included.
Activity 8: With RHU and districts and other key stakeholders, establish and support system for ongoing training/capacity assessment (pre-post tests, training evaluations, trainer assessment checklists) for facility health workers and HSAs		Completed; part of IMNC and CBMNC packages

Objectives/Activities	Objective Met	Activity Status
Activity 9: Facilitate/support development of job aides (visit checklists, counseling cards) and supportive supervision at facility and community levels		Completed
Activity 10: Support development of IEC/BCC strategies and materials for HSAs community mobilization work with communities		Completed
Activity 11: Support (TA/financing) costing study for community MNH package		Data collection completed, analysis in progress
Activity 12: Conduct quarterly joint monitoring/TA support visits to each learning program district		Completed; joint participation between SC, RHU, UNICEF, and DHMTs
Activity 13: Facilitate and participate in partner monthly and quarterly task force meetings for 3 learning program districts		Completed; Newborn health Taskforce eventually absorbed into Safe Motherhood technical working group
Activity 14: Facilitate and participate in periodic (annual) program reviews and broader information sharing at country level with stakeholders		Completed on semi-annual basis
Activity 15: Assist in the final revision of community PNC protocols based on learning		National protocol standard has adopted international guidelines for postnatal care within 2 days; Indicator included in HMIS revision
Activity 16: Facilitate continuous learning and scale-up in other districts through ACCESS/MCHIP, UNICEF, and other interested organizations and donors through meetings and information/resource sharing		Completed; CBMNC package introduced in at least 17 (out of 28) districts
Mai Mwana Randomized Controlled Trial(funded by SNL)completed/results disseminated	**NOT MET**	
Activity 17: Conduct quarterly monitoring of progress on Mai Mwana subgrant		Completed in coordination with SC home office.
Activity 18: Conduct quarterly financial monitoring on compliance of Mai Mwana subgrant		Completed in coordination with SC home office.
Activity 19: Facilitate annual CHAM & MOH visits to Mai Mwana		Completed
Activity 20: Organize/facilitate joint dissemination event		Not completed. RCT data has not been released; Mai Mwana did contribute its lessons learnt and BCC materials to design of CBMNC package
Activity 21: Assist in publication of results		Not completed. RCT data has not been released or published.

Objectives/Activities	Objective Met	Activity Status
Increase use of key neonatal services and practices in Malawi: Kangaroo Mother Care	**MET**	
Activity 22: Conduct KMC retrospective study and develop recommendations for scale-up related to outcomes, operational tools, and efficiencies for staff, training and infrastructure		Completed
Activity 23: Support development of prototypes to support scale-up (key job aides, wall charts, ward guidelines, monitoring tools, BCC materials)		Completed
Activity 24: In collaboration with RHU and ACCESS disseminate retrospective KMC study results to key stakeholders		Completed.
Activity 25: Design community KMC strategy and adapt materials		Completed; National guidelines revised to include ambulatory and community KMC.
Activity 26: Design prototype materials for HSAs to counsel mothers in community KMC		Completed; Included in HSA in-service training curricula and counseling cards.
Activity 27: Facilitate work planning for district scale-up		Completed: participated in annual planning in 8 districts
Activity 28: Provide TA for district scale-up and supportive supervision at facility and community level		Completed – 120 government and CHAM facilities in 26/28 districts have KMC units or services
Activity 29: Participate in annual SNL Africa Research Workshop		Completed (last one held 2010)
Collaboration and Partnership Improve enabling environment for increased use of key neonatal services and practices in Malawi: Support national Road Map through technical leadership and catalytic inputs; partner with MOH/RHU and stakeholders	**MET**	
Activity 1: Road Map launch activities		Completed. SC had a booth.
Activity 2: PMNCH Malawi country plan		Completed. Participated in the initial planning meeting and subsequent meetings.
Activity 3: Global PMNCH Meeting – REMOVED		Not applicable
Activity 4 : Define roles, responsibilities between partners		Completed. Roles and responsibilities defined for partners involved in CBMNC package.
Activity 5: MOU/agreement with MOH/RHU		Not necessary because SC has a standing MOU with MOH and does enter into separate MOUs

Objectives/Activities	Objective Met	Activity Status
		with MOH units.
Activity 6: MOU/agreement with WRASM-Mw		Completed
Activity 7: MOU/agreement with UNICEF, MOH, 3 districts (community-based) neonatal care pilot		No signed MOUs; followed roles and responsibilities agreed to by partners by Task Force.
Activity 8: Sub-grant agreement with Ekwendeni (*Agogo* Approach)		Completed
Activity 9: Participate actively in Maternal and Newborn Sub-committee of RHU Sexual and Reproductive Health Committee		Completed
Activity 10: Advocate for revised indicators and targets in HIS supportive of newborn health priorities		Completed. Consensus built on indicators. HMIS revision and roll-out is in process. SC is providing TA to RHU for the HMIS revision.
Activity 11: Participate in joint planning with MOH, ACCESS and other key stakeholders on MNC care pre and in-service education		Completed. IMNC and CBMNC packages designed and curricula developed.
Activity 12: Assess status of pre-service ENC/KMC in partnership with ACCESS		No formal assessment conducted but supported skills building of tutors and establishment of KMC units for clinical practice.
Activity 13: Advocate with RHU for revision of postnatal visitation schedule in RH Guidelines currently being finalized		Completed. Policy revised from PNC within 1 week to 3 days. HMIS revision includes PNC within 2 days adopting international indicator.
Activity 14: Support set-up of system for training assessments and supervision (pre-post tests, training evaluations, assessment checklists and supervision checklist for both trainers and trainees)		Completed; part of IMNC and CBMNC packages.
Activity 15: Facilitate/support development of job aides, supportive supervision at national level		Completed
Activity 16: Review/revise health education/BCC materials for use by facility and community HWs (counseling cards, posters, black and white brochures)		Materials completed but national BCC strategy not yet finalized.
Activity 17: Attend quarterly meetings to review progress and develop action plans		Completed; fully engaged in national, zonal, district planning cycles.
Activity 18: Develop H/MIS and indicators (process and quality emphasis) and support district implementation		Completed; consensus built on indicators. Monitoring data system and tools revised. HMIS

Objectives/Activities	Objective Met	Activity Status
		revision and roll-out is in process. SC is providing TA to RHU for the HMIS revision and roll-out.
Activity 19: Participate with all partners in the development of RHU annual work plan		Completed
Activity 20: Assist RHU with providing support for annual District Implementation Plan (DIP) by facilitating development of a schedule of DIPs for all the districts and ensure there is representation at all times for maternal and newborn care		Completed; participated in annual planning in 8 districts
Activity 21: Participate in DIP development meetings for 7 MOH districts (3 pilot districts, 3 ACCESS districts, and Mzimba)		Completed; participated in annual planning in 8 districts (MCHIP added one additional district to original 3 ACCESS districts)
Activity 22: Work with partners to monitor and ensure adequate equipment/ supplies at facility level through DIPs and other donor resources		Completed
Activity 23: Participate in quarterly meetings at national level on MNC, i.e. Health Foundation, Perinatal Care, Women and Children First		SC has been active in attending national meetings as they occur.
Activity 24: Attend partnership meetings on MNCH		SC has been active in attending national meetings as they occur.
Activity 25: Attend monthly White Ribbon Alliance meetings		Housed WRA and funded/participated in WRA meetings until the Secretariat in Malawi was temporarily suspended and is in process of reorganizing.
Activity 26: In collaboration with MOH and other key stakeholders provide TA/support monitoring visits for scale-up of community-based maternal and newborn care package		Completed; joint supervision/monitoring visits completed on quarterly basis to each district; complemented by monthly visits by SC.
Activity 27: DIP data review and DIP writing		Completed
Activity 28: Develop plan of process documentation for MOH/RHU partnership		Completed
Activity 29: Participate in annual SNL Program Manager meetings		Completed
Activity 30: Participate in SNL newborn health scale-up meeting		Completed

Objectives/Activities	Objective Met	Activity Status
Policy, Advocacy, Networking Improve enabling environment for use of key neonatal services and practices in Malawi: Provide technical leadership, advocacy, networking to develop enabling environment.	**MET**	
Activity 1: Policy review and dialogue with RHU		Continuous
Activity 2: Advocate for revised postnatal visitation schedule		Policy revised from PNC within 1 week to 3 days. HMIS revision includes PNC within 2 days adopting international indicator.
Activity 3: Advocate in partnership with MOH and other stakeholders for effective HSAs recruitment		On-going advocacy to recruit more female HSAs and those who will commit to live in catchment areas.
Activity 4: Using lessons learned from the 3 OR district advocate for policy review and dialogue on community management of newborn sepsis by HSAs		Co-sponsored national technical consultation. Provided technical assistance to partners for sub-district pilot; to be taken up by SC under SSD project (USAID Mission bilateral).
Activity 5: Facilitate revitalization of ENC/KMC TOTs Network by conducting a census of TOTs trained during SNL1		Completed
Activity 6: Facilitate advocacy training/capacity building for selected MOH, Civil Society organization, CHAM and professional association members		Completed through ACCESS with SC technical assistance.
Activity 7: Participate in regional & international global meetings for NBH, i.e., PLG and regional exchange visits		Completed
Mainstreamed Training, TA Support to MOH Program Management Increase access/availability, quality, demand for use of key neonatal services and practices in Malawi: Support design, development, implementation of government training packages for newborn health.	**MET**	
Activity 1: In collaboration with MOH, ACCESS, WHO, UNFPA, UNICEF consolidate and adapt various packages (Safe Motherhood, Life Saving Skills, BEmONC, SNL and KMC) into one standard competency-based package on Essential Obstetric and Newborn Care		Completed; IMNC training curricula designed and rolled out
Activity 2: Using lessons learned from the KMC retrospective assessment provide TA during the harmonization/integration of RHU training manuals		Completed; KMC integrated into IMNC curricula.

Objectives/Activities	Objective Met	Activity Status
Activity 3: Facilitate development of a monitoring system for the trainings		Completed
Activity 4: Facilitate development of supervision tools during trainings and follow-up sessions		Completed
Activity 5: Conduct a refresher course of trainers trained under SNL1 (about 30 to be confirmed after census) using the new Essential Obstetric and Newborn Care package		Completed; now call Integrated Maternal and Newborn Care package
Activity 6: Co-fund and provide TA for TOT trainings in Essential Obstetric and Newborn care (60)		Completed; now call Integrated Maternal and Newborn Care package
Activity 7: Supervise the training sessions to ensure quality		Completed
Activity 8: Follow-up TOT implementation plans		Completed
Activity 9: In collaboration with MOH provide TA during roll-out of Essential Obstetric and Newborn Care trainings at district level throughout the country		Completed
Activity 10: Co-fund a training session for 15 tutors from health training institutions for effective pre-service competency based training on Essential Obstetric and Newborn Care		Completed with a focus KMC; ACCESS targeted the emergency obstetric components.
Activity 11: Conduct follow-up of the trained trainer implementation plans		Completed
Activity 12: Provide TA to Mzimba for in-service training of 50 health workers in Essential Obstetric and Newborn Care		Trained 30 health workers; partner who committed to funding remaining 20 did not follow through.
Activity 13: Facilitate first follow-up of trainees 6 months post training		Completed
Activity 14: Conduct regular joint supportive supervision of trained trainers		Completed
Activity 15: Participate in quarterly meetings to review progress of trainings and develop actions plans		Completed with zonal authorities.
Monitoring & Evaluation, Operations Research, Reporting and Documentation Satisfy M&E programmatic objectives	**MET**	
Activity 1: Prepare and submit quarterly financial reports		Completed
Activity 2: Prepare and submit annual programmatic reports to CSHGP		Completed
Activity 3: Conduct qualitative assessment for *agogo* strategy		Completed
Activity 4: Conduct KPC Survey in Mzimba		Completed
Activity 5: Facilitate HFA in Mzimba District		No HFA in Mzimba due to lack of funds at

Objectives/Activities	Objective Met	Activity Status
		district level; HFA completed in Thyolo, Chitipa, and Dowa.
Activity 6: DIP review at Mini-University		Completed
Activity 7: Participate in biannual MOH HIS meeting		Completed annually
Activity 8: Conduct participatory mid-term evaluation		Completed
Activity 9: Conduct endline KPC survey Mzimba District (LQAS)		Completed KPC 30-cluster survey
Activity 10: Conduct final evaluation of Malawi Newborn Health Program		Completed
Planning and Reviews Engage in planning and review at national, zonal, district levels	**MET**	
Activity 1: Participate in biannual SWAp reviews		Completed annually
Activity 2: Participate in RHU annual work plan review & planning cycle		Completed
Activity 3: Submit detailed annual work plan to CSHGP		Completed
Ekwendeni Sub-grant Assist Ekwendeni CCAP Mission Hospital to document and disseminate Agogo Approach.	**MET**	
Activity 1: Assist Ekwendeni to develop and submit a program description and work plan on *agogo* approach		Completed
Activity 2: Provide TA for the review and revision of BEHAVE messages		Completed
Activity 3: Provide TA during the development of the *agogo* approach training curriculum and other training materials		Completed
Activity 4: Assist Ekwendeni develop M&E and documentation plan		Completed
Activity 5: *S*upply Ekwendeni with BCC materials		Completed
Activity 6: Provide TA to provide training to 1000 *agogo* and refresher training to 3000 *agogo*		Completed
Activity 7: Conduct monitoring visits to Ekwendeni		Completed
Activity 8: Conduct 6 months post-training monitoring of the trained *agogo*		Completed
Activity 9: Provide TA for process documentation and monitoring of the initiative		Completed
Activity 10: Provide TA for documentation and packaging of *agogo* approach		Completed
Activity 11: Arrange MOH and CHAM visit to Ekwendeni *agogo* initiative		Completed
Activity 12: Print package for dissemination		Completed

Objectives/Activities	Objective Met	Activity Status
Activity 13: Support dissemination of experience and manual to stakeholders		Completed; sponsored dissemination workshop. Materials available on www.healthynewbornnetwork.org
Activity 14: Provide TA for scale-up by interested stakeholders (faith based groups, local organizations, CBO)		Provided materials; follow-up to be done upon request
Activity 15: Conduct FE of Ekwendeni *agogo* initiative (as part of NBHP participatory MTE)		Completed

ANNEX 5: RAPID CATCH TABLE

Rapid Catch Indicators: Mzimba District, Malawi – 2007, 2011

	Baseline values	Confidence interval	Endline values	Confidence interval
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	90% [148/163]	85-94	94% [288/310]	89-95
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child	86% [260/300]	82-90	71%* [329/450]	68-77
Percentage of children age 0-23 months whose births were attended by skilled personnel	79% [238/300]	74-83	84% [379/450]	80-87
Percentage of children age 0-23 months who received a post-natal visit from an appropriate trained health worker within three days after birth	43% [131/300]	38-49	58% [193/381]	46-56
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	36% [41/112]	28-45	95%* [125/131]	90-98
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months (Mother's Recall)	76% [143/188]	69-81	83% [268/320]	80-87
Percentage of children age 12-23 months who received a measles vaccination	84% [95/112]	77-90	87% [164/198]	77-87
Percentage of children age 12-23 months who received DPT 1 vaccination before they reached 12 months	82% [92/112]	74-88	83% [162/198]	76-86
Percentage of children age 12-23 months who received DPT 3 vaccination before they reached 12 months	74% [83/112]	65-81	79% [152/198]	76-84
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	0%	0	38% [76/213]	30-42
Percentage of children age 0-23 months with diarrhea in the last two weeks who received oral rehydration solution and/or recommended home fluids	11% [13/110]	7-19	57%* [84/148]	49-64
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	51% [42/81]	41-62	75%* [82/109]	67-82
Percentage of households of children age 0-23 months that treat water effectively	21% [7/33]	10-38	25% [105/450]	20-27

	Baseline values	Confidence interval	Endline values	Confidence interval
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing and who washed their hands with soap at least 2 of the appropriate times during a 24 hour recall period	1% [5/300]	0.01-0.04	30% [110/450]	38-47
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	61% [184/300]	56-67	74%* [330/450]	70-77
Percentage of children age 0-23 months who are underweight (-SD for the median weight for age, according to WHO/HCHS reference population)	27% [72/262]	22-33	16%* [110/450]	11-17
Percent of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices	0.0% Not collected	0	0	0

ANNEX 6: REPORT OF ENDLINE KPC SURVEY – MZIMBA DISTRICT

Malawi Newborn Health Program

Expanded Impact - National Level

(with learning activities in the districts of Chitipa, Dowa, Thyolo, Mzimba, Mchinji)

Cooperative Agreement No.: GHS-A-00-06-00016
30 September 2006 – 30 September 2011

Submitted to USAID/GH/HIDN/NUT/CSHGP
December 31, 2011
by:

Save the Children Federation, Inc.
54 Wilton Road, Westport, CT 06880
Telephone: (203) 221-4000 - Fax: (203) 221-4056

Contact Persons:
Eric A. Swedberg, Senior Director, Child Health and Nutrition
Carmen Weder, Associate Director, Department of Health & Nutrition

Prepared by:
George Limbika Vilili, Noel Sangole, Dixie Maluwa Banda (Consultants)
Reviewed and edited by:
Joby George, Senior Health Manager; Karen Z. Waltensperger, Senior Advisor, Health-Africa Region; Carmen Weder, Associate Director, Department of Health and Nutrition, Sharon Lake-Post, Editorial Consultant

This report is made possible by the generous support of the American people through the United States Agency for International Development USAID). The contents are the responsibility of Save the Children and do not necessarily reflect the views of USAID or the United States Government.

Acknowledgements

This Knowledge, Practices and Coverage (KPC) endline survey has been a success due to the support that was rendered by various people and institutions. The team is indebted to them all. Firstly, the team would like to thank the following supervisors and enumerators for their commitment and hard work during the data collection exercise: Mrs. Sella Ngoma, Mr. Felix Kamanga, Ms.Wanagwa Gondwe, Ms. Sangwani Gondwe, Mr. Jimmy Mkandawire, Mrs. Cathy Chitsulo, Mr. Cosmas Hara, Mr. Peter Lungu, Mr. Tapika Mkandawire and Mr. Benard Kondowe.

Secondly, we would like to thank Mr. Joby George, Senior Health Manager; Mr. Edward Chigwedere, Research Monitoring and Surveys Manager; Evelyn Zimba, Senior MNH Program Manager; and late Mr. Joseph Jonazi, Survey Coordinator from Save the Children Malawi, for all logistical support and technical input during the entire process of conducting the survey. Special appreciation to Tanya Guenther, Senior Specialist Health Monitoring and Survey, and Karen Z. Waltensperger, Senior Advisor, Health--Africa Region, for their technical input in the analysis of the survey findings.

Thirdly, we would like to thank Mrs. Gondwe and Mr. Luhanga from Ekwendeni CCAP Mission Hospital Presbyterian for participating in the training of enumerators and for the provision of more details regarding the *Agogo* Approach. We also wish to appreciate the support from the Mr. Keystone Mhango during the preparation of this survey. Special appreciation to the National Statistics Office in Zomba for granting Save the Children permission to carry out this survey.

To the women of Mzimba District who participated in the survey, we appreciate your time and your responses during the data collection exercise. Without your participation, the entire process could have failed to achieve its intended results.

Table of Contents

List of Tables

Executive Summary

Save the Children in Malawi has been implementing a five-year national-scale USAID/CSHGP-funded Expanded Impact project entitled: *Advancing Malawi's Road Map to Reduce Newborn Mortality*. The project awarded a sub-grant to Ekwendeni Church of Central Africa (CCAP) Presbyterian Mission Hospital in Mzimba District to develop and document its *Agogo* Approach to train grandparents to promote demand for care, discourage harmful traditional practices, and strengthen referral and community linkages with the formal health system. As a CSHGP requirement, Save the Children conducted a population-based Knowledge, Practice, and Coverage (KPC) household survey at baseline in Mzimba District to measure values for key indicators relating to maternal and newborn care and child health, including a set of child survival indicators known as "Rapid CATCH." At the end of the project, an endline survey was commissioned with the following objectives: 1) to assess the knowledge, practice and, coverage of high-impact maternal, newborn, and child health services and practices in Mzimba District; 2) to measure changes in the indicator values from baseline; and 3) to provide data for the CSHGP Rapid CATCH indicators reporting requirement.

The endline KPC survey applied the tool that was used during the baseline survey in order to establish the changes that the project intervention has brought to the community. However, a new section was added to track the achievements of the *Agogo* Approach that has been implemented in the same impact area. The questionnaire was translated into the Tumbuka language, a language used by the majority of the people in Mzimba District. The topics that were covered by the questionnaire include; child spacing, exposure to the *Agogo* Approach, maternal and newborn care, breastfeeding/ infant and young child feeding, vitamin A supplementation, child immunizations, malaria, control of diarrhea, Acute Respiratory Infection (ARI)/pneumonia, water and sanitation and anthropometrics.

Cluster sampling, which was used for the baseline survey, was used in at endline, as well. At baseline, 30 clusters were sampled. At endline, there was over sampling of 15 clusters in the Ekwendeni catchment area where the *Agogo* Approach was being implemented. The survey used two-stage, random sampling technique. The first level of sampling was random selection of 45 clusters (enumeration areas). For this first stage, 30 clusters (enumeration areas) from Mzimba as a whole were first selected using probability proportional-to-size (PPS) (exactly the same as in the baseline). An additional 15 clusters were selected proportional-to-size from just the Ekwendeni catchment areas. Thus, of the 45 clusters selected at endline, 22 represent Ekwendeni program areas (15 from the oversample plus seven clusters from the original 30), providing a total sample of 220 women in Ekwendeni areas and 230 from non-Ekwendeni areas.

Data analysis was conducted using SPSS. Since the Ekwendeni catchment area was oversampled, key indicators in the survey were calculated separately for Edwendeni and non-Ekwendeni areas. For comparisons with baseline, overall indicator values were weighted.

Findings from the baseline and endline KPC surveys are indicated below.

Indicator	Baseline (300)	Weighted Endline (450)	CI for endline values only
Percentage of mothers with children age 0-23 months who are aware of trained *agogo*	Not conducted	13% (85/450)	15-22
Percentage of mothers with children age 0-23 months who participated in the *agogo* activities	Not conducted	52% (42/85)	39-59
Percentage of mothers with children age 0-23 months who got ante-natal care by a skilled health worker prior to the birth of her youngest child	96 %	97% (439/450)	95-99
Percentage of children age 0-23 months who were seen by a skilled health attendant at least 4 times or more during the pregnancy of her youngest child	68%	55% (250/450)	51-60
Percentage of mothers who received ante-natal care who were counseled on delivery preparations	97%	97% (438/450)	95-99
Percentage of mothers who received ante-natal care who were counseled on breast feeding	94%	87% (407/450)	87-93
Percentage of mothers who received ante-natal care who were counseled on child spacing	94%	86% (404/450)	86-92
Percentage of mothers who received ante-natal care who were counseled on immunization	96%	86% (406/450)	87-93
Percentage of mothers who received ante-natal care who were counseled on danger signs during pregnancy	89%	87% (398/450)	86-92
Percentage of mothers with children age 0-23 months who received at least two tetanus toxoid WHILE pregnant with their youngest child	75%	76% (333/450)	71-78
Percentage of mothers with children age 0-23 months who received at least two tetanus toxoid before the pregnancy of their youngest child	87%	72% (329/450)	68-77
Percentage of mothers with children age 0-23 months with a maternal card (interviewer checked)	63%	76% (340/450)	71-79
Percentage of mothers with children age 0-23 months who know at least two danger signs during pregnancy	36%	45% (188/450)	43-52
Percentage of mothers with children age 0-23 months who first seek care from a health facility when they have danger signs during pregnancy	97%	99% (447/450)	97-99
Percentage of mothers with children age 0-23 months who received or bought iron supplements while pregnant with their youngest child	96%	92% (430/450)	89-94
Percentage of mothers with children age 0-23 months who gave birth to their youngest child at a health facility	79%	85% (381/450)	81-88
Percentage of mothers with children age 0-23 months who gave birth to their youngest child	21%	15% (69/450)	12-19

Indicator	Baseline (300)	Weighted Endline (450)	CI for endline values only
outside a health care facility			
Percentage of children age 0-23 months whose births were attended by skilled health personnel	79%	84% (379/450)	80-87
Percentage of children age 0-23 months whose delivery involved use of clean birth kit or whose cord were cut by a new razor blade	93%	97% (383/391)	95-99
Percentage of children age 0-23 months whose births involved AMSTL by skilled birth attendant	58%	44% (182/381)	42-52
Percentage of newborns who were dried and wrapped with warm cloth or blanket immediately after birth (before placenta was delivered)	57%	90% (402/450)	86-92
Percentage of children age 0-23 months who were placed with the mother immediately after birth	40%	55% (270/450)	47-56
Percentage of children age 0-23 months whose first bath was delayed at least 24 hours after birth	48%	48% (105)	49-58
Percentage of mothers of children age 0-23 months who received a post-partum check up from an appropriately trained health worker within three days after the birth of the youngest child – health facility delivery	41%	58% (193/381)	46-56
Percentage of mothers of children age 0-23 months who received a post-partum check up from an appropriately trained health worker within three days after the birth of the youngest child – home delivery	13%	13% (8/69)	6-21
Percentage of children age 0-23 months who received a post-natal check up from an appropriately trained health worker within three days after birth	44%	72 (246/381)	59-70
Percentage of children age 0-23 months who received a post-natal check-up from an appropriately trained health worker within three days after birth – home delivery	8%	29% (19/69)	18-39
Percentage of mothers of children age 0-23 months who are able to report at least two known neonatal danger signs	29%	49% (194/450)	39-48
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child	91%	94% (255/310)	89-95
Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre-lacteal feeds	48%	48% (213/450)	43-52
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	37%	95% (125/131)	90-98
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months	76%	83% (268/320)	80-87
Percentage of children age 12-23 months who received a measles vaccination	85%	87% (164/198)	77-87

Indicator	Baseline (300)	Weighted Endline (450)	CI for endline values only
Percentage of children age 12-23 months who received a DPT 1 vaccination before they reached 12 months	82%	82% (162/198)	76-86
Percentage of children age 12-23 months who received a DPT 3 vaccination before they reached 12 months	79%	79% (152/198)	76-84
Percentage of mothers of children age 0-23 months who took an effective anti-malarial drug during pregnancy of their youngest child	88%	89% (402/450)	86-92
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	2%	38% (76/213)	30-42
Percentage of children age 0-23 months who slept under an insecticide-treated bednet the previous night (Q68=12) Malawi protocol	64%	74% (330/450)	70-77
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	12%	58% (84/148)	49-64
Percentage of children age 0-23 months with diarrhea in the last two weeks who were treated with zinc supplements	0%	0%	
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	52%	75% (82/109)	67-82
Percentage of households of children age 0-23 months that treat water effectively	21%	25% (105/450)	20-27
Percentage of mothers of children age 0-23 months who live in a household with soap at the place for hand washing and who washed their hands with soap at least 2 of the appropriate times during the last 24 hours	2%	30% (450)	38-47
Percentage of children age 0-23 months who are underweight (-2SD for the median weight for age, according to WHO/HCHS reference population)	28%	16% (110/450)	11-17

1.0 Background

Save the Children in Malawi has been implementing a five-year national-scale USAID/CSHGP-funded Expanded Impact project entitled: *Advancing Malawi's Road Map to Reduce Newborn Mortality*. Joined with Saving Newborn Lives-II, this project became known as Save the Children's Malawi Newborn Health Program and was part of a country-wide effort to support the *Roadmap for the Accelerated Reduction of Maternal and Newborn Mortality and Morbidity* and achieve the Millennium Development Goals (MDG) of reducing child and maternal mortality.

The project included a sub-grant to Ekwendeni Church of Central Africa Presbyterian (CCAP) Mission Hospital in Mzimba District to develop and document its *Agogo* Approach.

Under SNL-I (2001-2005) in Malawi, Ekwendeni Hospital, a member of the Christian Health Association of Malawi (CHAM), trained nearly 4,000 *agogo* (grandparents) to be mobilizers for positive change in maternal and newborn health. Ekwendeni decided to train *agogo* to support in support of its behavior change strategy because, as elders, they are trusted and listened to in their communities. Grandmothers function as close advisors to their daughters and daughters-in-law; and grandfathers carry a great deal of influence in the household and in the community, especially for decision making. *Agogo* are also gatekeepers and custodians of traditional practices, some of which may be harmful to the health of mothers and newborns. Communities selected *agogo* for training who were older than 50, had at least one grandchild, were good communicators, knew the local traditions, and were respected in their community.

During the period of the sub-grant, Ekwendeni staff trained or re-trained 4,100 *agogo* (1,635 males and 2,375 females). Of those trained, 3,090 *agogo* from the Ekwendeni catchment area received a two-day refresher training; and 1,010 newly recruited *agogo* from four governments health centers received initial three-day training. These trained *agogo* came from 487 villages representing 100% coverage of the Ekwendeni catchment area and approximately 90% coverage of the four government health centre areas (Mtwalo Health Centre, Enukweni Maternity, Khuyuku Health Centre, Emsizini Health Centre) that Ekwendeni serves under a service agreement with the Mzimba District Health Management Team (DHMT). The training package was developed during a workshop with relevant stakeholders in maternal and newborn health, and Save the Children staff co-facilitated the initial trainings.

1.1 Purpose of the KPC endline survey

In agreement with USAID CSHGP, Save the Children conducted the baseline survey in Mzimba District in order to satisfy the Rapid CATCH requirement. The Malawi Newborn Health Program is a national level Expanded Impact Program, and at the time of detailed implementation planning the MOH had not yet selected the three focus districts for the Community-Based Maternal and Newborn Care package.

The objectives of this endline survey are:

- To assess the knowledge, practice and, coverage of high-impact maternal, newborn, and child health services and practices in Mzimba District;
- To measure changes in the indicator values from baseline; and
- To provide data for the CSHGP Rapid CATCH indicators reporting requirement.

2.0 Process and Partnership Building

The Senior Health Program Manager, Research Monitoring and Survey Manager, Finance Manager and Survey Coordinator from Save the Children in Malawi provided input in the technical and administrative aspects of the survey exercise. The above team from Save the Children provided a detailed scope of the assignment and clarified the key outputs from the survey to the survey team. The following are key processes that the team from Save the Children conducted together with the survey team:

- Participated in the selection of the enumerators;
- Selection of enumeration areas;
- Participated in the translation of the questionnaire;
- Participated in the training and pre-testing of the questionnaire;
- Provided monitoring and supervision during field work; and
- Development of tabulation tables.

Ekwendeni CCAP Mission Hospital provided one point person who participated in the training of the survey team and provided details regarding the project. The entire survey team (which includes consultants, supervisors and enumerators together with the Health Program Research Manager and Survey Coordinator from Save the Children) participated in the training, translation of the tool, and the pre-testing exercise.

3.0 Methods

3.1 Questionnaire

During the KPC endline survey, the survey team used the tool that was used previously during the baseline survey in order to effectively measure the changes that the project intervention has brought to the community. However, a new section was added to track the achievements of the *Agogo* Approach which was been implemented in the same impact area. The questionnaire was translated into Tumbuka language, a language which is used by the majority of the people in Mzimba District. The topics that were covered by the questionnaire tool include; child spacing, exposure to the *Agogo* Approach, maternal and newborn care, breastfeeding/ infant and young child feeding, vitamin A supplementation, child immunizations, malaria, control of diarrhea, Acute Respiratory Infection (ARI)/pneumonia, water and sanitation and anthropometrics.

Study indicators:
The survey team followed the recommended priority child health indicators for Rapid Catch 2000.

3.2 Sampling Design

Cluster sampling, which was also used during the baseline survey, was used in the endline survey. At baseline, 30 clusters were sampled. At endline, there was over sampling of 15 clusters in the Ekwendeni catchment area where the *Agogo* Approach was being implemented. The survey used two stage random sampling technique. The first level of sampling was random selection of 45 clusters (enumeration areas). For this first stage, 30 clusters (enumeration areas) from Mzimba as a whole were first selected using probability proportional-to-size (PPS) (exact same as baseline). An additional 15 clusters were selected proportional-to-size from just the Ekwendeni service areas. Thus, of the 45 clusters selected at endline, 22 represent Ekwendeni *Agogo* Approach areas (15 from the oversample plus seven clusters from the original 30), providing a total sample of 220 women in Ekwendeni areas and 230 from non-Ekwendeni areas.

Area	Total Population	%	Study Population	%
Mzimba District	727,931	100%	450	100%
Non-Ekwendeni areas	629,480	86.5%	230	51.5%
Ekwendeni *Agogo* Approach areas	98,451	13.5%	220	48.9%

The second level of sampling was the selection of ten households (sampling units) from each cluster. In the field, boundaries of selected clusters were identified. The boundaries were identified using physical structures such as mountains, rivers, hills, churches, schools etc. these were clearly indicated on the Map for Mzimba District received from the National Statistical Office. These boundaries had a clear symbol of orange colour and each cluster was numbered. Upon entry into a cluster, the survey team verified the boundaries of that particular cluster with the local inhabitants. In cases where the clusters were very large, they were demarcated and the team randomly selected one segment of the cluster where interviews were conducted. The first household for the interviews was selected by first going to the centre of the village. A bottle was then spun to determine a direction. Households in the selected direction were listed and one household randomly selected as the first household for the survey. Subsequent households were selected by going to the third nearest household on the right hand side of the main entrance of the previous household until the required sample size in that cluster was reached. In instances where no eligible child was found in the selected household, the next closest household with an eligible child was selected.

Each team of enumerators had a supervisor who was responsible for sampling households. In each selected household with an eligible child, the mother of the youngest child in that household meeting the entry criteria was, after consent was obtained, interviewed and the child was weighed. All interviewed mothers had children aged 0 to 23 months.

3.3 Training

The enumerators and supervisors were selected through a formal interview process. The enumerators were recruited based on their previous experience conducting similar exercises. The minimum qualification for the enumerators was a diploma. Eight enumerators and two supervisors were recruited and four were female and six were male.

The team underwent a three-day training which focused on program content, the questionnaire and how to administer the questionnaire. During the training, the survey team pre-tested the questionnaire in the field. The supervisors and enumerators participated in the translation of the questionnaire from English to Tumbuka, a language that was used to administer the questionnaire.

3.4 Data Collection

The survey team was split in two groups with four enumerators and one supervisor. Each team was assigned the number of EAs/clusters to be covered soon after the training. Each team covered two clusters per day and each enumerator administered five questionnaires. Each questionnaire took between 25-45 minutes to administer. The supervisor was responsible for ensuring that sampling of households was done according to guidelines and also reviewed questionnaires. One consultant was also available in the field to provide overall supervision to both teams during the data collection period. The consultant was expected to be moving across the data collection teams each day. However, due to fuel shortage during the data collection exercise, the consultants spent more time with one team than the other team. The survey coordinator from Save the Children also provided supervision to the survey team at the initial stages of fieldwork.

3.5 Data Analysis

Data were entered in a database that was designed in Microsoft Access. All the questionnaires were entered twice. Data entry took ten days. The consultants randomly picked ten entries on a daily basis to check for accuracy of data entry. Before data analysis was done, the consultants reviewed the data entered to check for consistency and any errors. Data analysis was done using SPSS. Since

the Ekwendeni catchment area was oversampled, key indicators in the survey were calculated separately for Edwendeni and non-Ekwendeni areas. For comparisons with baseline, overall indicator values were weighted as follows:

AREA	POPULATION SIZE	WEIGHT (w_i)
Ekwendeni project areas	98,451	98,451/727,931 = **.14**
Non-Ekwendeni areas	629,480	629,480/727,931 = **.86**
TOTAL (Entire district)	727,931	1.00

On all the indicators that were compared to the baseline, confidence intervals were calculated at 95% confidence and the results have been indicated in the summary table.

3.5.1 Anthropometry

During the interviews, mothers were asked the date of birth for the youngest child and after the interviews, the children were weighed using weighing scale. During analysis, date of birth, age and weight of the child was entered in Epi Info nutrition package version 3.5.3 where Weight for Age Z-score (WAZ) was calculated. The results were analyzed based on the WHO classification of +2 to -2 as normal, >+2 as obese and less than -2 as underweight. The proportion of malnourished children were then calculated based on location.

4.0 Findings

This section presents the findings of the endline knowledge, attitude and coverage survey that was conducted in the Mzimba District. Findings are presented under the following categories; characteristics of respondents, *Agogo* Approach, maternal and newborn health, child spacing, breast feeding, vitamin A supplementation, child immunization, malaria, control of diarrhea, Acute Respiratory Infections, water and sanitation and Anthropometrics. This section also compares baseline with endline findings.

4.1 Characteristics of the respondents

A total of 450 mothers with children aged 0-23 were interviewed in Mzimba District**.** Fifty-three percent (53.7%; 242/450) of the mothers with children aged 0-23 months were above 25 years of age, and 43.3% (195/450) were below 25 years old, while 2.8% (13/450) did not know their exact age. About 70.2% (316/450) of the mothers with children aged 0-23 months interviewed had gone as far as primary school while 21.3% (93/450) had reached secondary school. Only one interviewed mother had a university level education. Only 8.2% (37/450) of the respondents had never been to school. About 90% (405/450) of mothers with children aged 0-23 months spoke Tumbuka, the main language in Mzimba District. Seventy nine (79% (354/450) of the respondents reported that their husbands were the heads of their households with 16.9% (76/450) reporting that they lived in female-headed households (Please refer to Table 1).

Table 1: Background characteristics of respondents

Characteristic	Variables	N=450	% Endline	% Baseline
Age of the mother	<20 years	87	19.3	10.7
	20-29 years	212	47.1	63.2
	>=30 years	138	30.6	26.1
	Don't know	13	2.8	
Level of education	None	37	8.2	5.7
	Primary	316	70.2	69.3
	Secondary	96	21.3	25.0
	University	1	0.2	
Years in school	0	37	8.2	4.3
	<=8 years	320	71.1	71.0
	>8 years	93	20.6	24.7
Languages	Chichewa	38	8.4	34.3
	Tumbuka	405	90	95.0
	Ngoni	3	0.7	3.7
	Other	4	0.9	
Head of household	Mother	76	16.9	14.3
	Husband/partner	354	78.7	77.7
	Female relative	5	1.1	3.3
	Male relative	13	2.9	3.3
	Other relatives	2	0.4	1.3
Biological father stays at HH		351	78	77.7

The survey also wanted to establish the age and sex distribution of the youngest children from the mothers who had children age 0-23 months. The results shows that 50.8% (229/450) of the youngest children were males and 49.2 % (221/450) were females. Additionally, 36.8 % (166/450) were below six months old while 49.2% (221/450) were between 6-12 months and 14% (63/450) were between 12 and 23 months old.

Table 2: Age and sex distribution of the children

Characteristics	Variables	N	%
Sex of the child	Male	229	50.8
	Female	221	49.2
Age of the child (months)	<6	166	36.8
	6-12	221	49.2
	12- 23	63	14

Sources of livelihood

The survey sought to establish the sources of income for the mothers with children age 0-23 months. The results shows that 36.5% (167/450) are unemployed while 33.4% (153/450) rely on

farming as a source of income. On the other hand, 26.7% (122/450) of the mothers with children age 0-23 months interviewed engage in informal business such as handcrafts, selling vegetables, etc. to earn income. Only 3.5% (16/450) of the respondents reported that they are in salaried jobs

4.2 Exposure to the *Agogo* Approach

Save the Children, in partnership with Ekwendeni Mission Hospital, has been working on the *Agogo* Approach of using grandmothers/grandfathers as a source of passing on information to pregnant mothers, encouraging them to seek services from health facilities and change harmful cultural practices. The survey therefore sought to determine from the women with children 0-23 months old, if they had interacted with the *agogo*. From the mothers with children age 0-23 months interviewed, a weighted 13% (85/450) indicated they there are some *agogo* who were trained in the care of mothers and newborns by Ekwendeni Hospital in their catchment areas. From the Ekwendeni catchment area 27% of the mothers with children age 0-23 months indicated that they there are some *agogo* while 11% of the mothers with children aged 0-23 months from non-Ekwendeni catchment areas indicated there are trained a*gogo*. Of the mothers with children age 0-23 months who indicated that there are some trained *agogo*, a weighted 52% (42/85) participated in their activities; 48% from the Ekwendeni catchment areas and 52% from non-Ekwendeni catchment areas (Please refer to Table 3).

Table 3: Awareness of the *Agogo* Approach

Indicator	Baseline % (N300)	Weighted Overall % (N450)	Ekwendeni catchment			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months who reported that there are some *agogo* trained in maternal and newborn issues in the catchment area.	Not conducted	13% (CI 15-22)	220	60	27	230	25	11
Percentage of mothers with children age 0-23 months who participated or received services from *agogo* during pregnancy	Not conducted	52% (N42/85) CI-39-59	60	29	48	25	13	52

The survey sought to establish the messages that were communicated by the *agogo* to the women who had children age 0-23 months old, who were interviewed in the survey. Table 4 indicates the messages that were communicated by the *agogo*.

Table 4: Messages communicated by *agogo*

Messages communicated	% (N42)
Importance of skin-to-skin contact	12.5
Accompanying of pregnant women to health facility for delivery	12.5
Importance of ANC in the first trimester	14.1
Postnatal care	16.4
Nutrition	10.2
HIV testing and counseling	6.3
Prevention of mother-to-child transmission	5.5
Presumptive treatment of malaria in pregnancy	2.3
Use of bednet in pregnancy	0.8
Anemia in pregnancy	2.3
Importance of BP check in pregnancy	0.8
Culture	0.8
Maternal and neonatal issues	7.8
Importance of health facility delivery	7.8

In addition to establishing the type of messages that were communicated by the *agogo*, the survey also sought to understand the activities that were being accomplished by the *agogo*. Table 5 shows activities received or observed by interviewed mothers.

Table 5: Activities received or observed by interviewed mothers

Activities accomplished by *agogo*	% (N42)
Drama performance	2.4
Group discussion	8
Counseling sessions	32.2
Group counseling	6.9
Health Education	18.4
Prescribing norms	4.6
Role play	5.7
Popular mobilization	4.6
Campaign	11.5
Community sensitization	3.4
Open day	1.1
Support	2.3

From the mothers with children aged 0-23 months who received or witnessed the *agogo* activities, 55% (16/29) from Ekwendeni catchments area indicated that they witnessed or received assistance before and after the birth of their child, while 23% (3/13) from non- Ekwendeni areas received assistance before and after birth of the child.

Table 6: Time the mothers received or witnessed assistance from *agogo*

Location	Before birth of child only	After birth of child only	Before and after birth	N(42)
Ekwendeni	45%	0%	55%	29

Non-Ekwendeni	62%	15%	23%	13

4.3 Child Spacing Indicator

The survey sought to assess child spacing practices among mothers with children aged 0-23 months. In order to capture the information of child spacing, mothers were asked how many children had ever been born to them and the amount of time between the youngest child and the previous surviving child. Only the responses from mothers who indicated having more than one child were analyzed. At endline a weighted 94% of the mothers with children aged 0-23 months had their children spaced by more than 24 months. This value was slightly higher than the baseline of 91%.

Table 7: Child spacing indicator

Indicator	Baseline %	Weighted endline overall %	Ekwendeni Catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 0-23 months who were born at least 24 months after the previous child	91%	94 (CI-89-95)	150	138	92	160	150	94

4.4 Maternal and newborn health

4.4.1 Antenatal care

One of the main components in the survey was to understand maternal and newborn health issues in the following areas; antenatal care, vaccination, place of delivery, delivery attendant and postnatal care. Regarding the antenatal care, a weighted 97% (N450) of the mothers with children aged 0-23 months indicated that they received antenatal services from skilled health providers. Within Ekwendeni catchment area 97% (214/220) of the mothers with children age 0-23 months indicated that they received antenatal services from skilled health workers while 98% (225/230) of mothers with children age 0-23 months from non- Ekwendeni catchment areas indicated receiving antenatal care services from skilled health workers. At baseline, 96% of mothers with children aged 0-23 months have accessed antenatal services from a skilled provider. The survey also found that a weighted 55% (123/220) of the mothers with children aged 0-23 months had four or more ANC visits, 56% from Ekwendeni catchment area and 55% (127/230) from non-Ekwendeni catchment area.

The survey also sought to establish the type of counseling the mothers with children aged 0-23 months received during the antenatal care visits. Table 8 below shows the responses to the type of counseling women received. It also shows the baseline values for the same indicators.

Table 8: Antenatal and counseling indicators

Indicator	Baseline %	Weighted endline Overall %	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mother with children age 2-23 months counseled on Breastfeeding	94	87 CI-87-93	220	208	95	230	199	87
Percentage of mother with children age 2-23 months counseled on delivery preparation	97	97 CI-95-99	220	216	98	230	222	96
Percentage of mother with children age 2-23 months counseled on Child spacing	94	86% CI-86-92	220	199	95	230	196	85
Percentage of mother with children age 2-23 months counseled on Immunization	96	86 CI-87-93	220	209	95	230	197	86
Percentage of mother with children age 2-23 months counseled on Danger signs during pregnancy	89	87 CI-86-92	220	199	90	230	199	87

4.4.2 Tetanus Toxoid

A weighted 76% of the mothers with children aged 0-23 months interviewed in the survey indicated that they received two tetanus vaccinations while pregnant with their youngest child. Another weighted 72% of the mothers with children aged 0-23 months, as shown in Table 9 below, indicated that they received two tetanus vaccinations before the pregnancy of the youngest child.

Table 9: Tetanus toxoid indicators

Indicator	Baseline % (N300)	Weighted endline overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children aged 0-23 months who received at least 2 tetanus toxoid while pregnant with their youngest child	75	76 CI-71-78	220	158	72	230	175	76
Percentage of mothers with children aged 0-23 months who received at least two tetanus toxoid before the pregnancy of their youngest child	87	72 CI-68-77	220	167	76	230	162	70

4.4.3 Maternal health card possession

Maternal health cards are recommended to all pregnant mothers as they are used to verify all services provided to the mother during pregnancy, including vaccinations. A weighted 76% of the

mothers with children aged 0-23 months had maternal cards as indicated in Table 10 below. Meanwhile, 21% of the mothers indicated that they had maternal cards, however these cards were not seen during data collection. Only 3% of the mothers indicated that they did not have maternal health cards. The endline finding was higher than the baseline findings.

Table 10: Maternal health card possession

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni Catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months with maternal cards	63	76CI-71-79	220	163	74	230	177	77

4.4.4 Accessibility to health facility

The survey sought to establish the distance to the nearest health facility and the mode of transport for mothers with children age 0-23 months. The average distance to the health facility was reported at 7.4km. Of the mothers interviewed, 96% (432/450) walked to the health facility, 12.4% (56/450) used a car to get to the health facility, .9% and .4% used oxcart and boat respectively to get to the health facility. Only 14% (63/450) used bicycles to get to the health facility. On the other hand, the survey wanted to establish the amount of time it takes for the mothers with children aged 0-23 take to get to the health facility; 28.9% 130/450) of the women indicated that it takes less than one hour to reach a health facility while 56.4% (254/450) indicated that it takes 1-3 hours and 13.8% (62/450) indicated that it takes more than three hours. Only 1% (4/450) indicated that they didn't know.

4.4.5 Maternal knowledge of danger sign during pregnancy and health seeking behavior

As part of the survey, mothers' understanding of danger signs during pregnancy that indicate a need to seek health care was also assessed for mothers with children age 0-23 months. Of those mothers interviewed, a weighted 45%, as presented in Table 11 below, demonstrated knowledge of at least two danger signs during pregnancy. The remaining weighted 55% indicated no knowledge of danger signs or knowledge of only one danger sign. The survey finding noted an increase in the proportion of mothers with children aged 0-23 months who indicated knowledge of danger signs during pregnancy compared to baseline findings.

Table 11: Maternal knowledge of dangers signs during pregnancy

Indicator	Baseline % (N300)	Endline overall %	Ekwendeni Catchment			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months who know at least two danger signs during pregnancy	36%	45 CI-43-52	220	82	37	230	106	46

The survey also sought to understand from mothers with children age 0-23 months where they would first go when they experience danger signs during pregnancy. The survey results shows that a weighted 99% of the mothers first sought care from a health facility when they have danger signs

during pregnancy. This was higher compared to baseline finding which found 97% of the mothers with children aged 0-23 months sought health facility when they had danger signs during pregnancy.

Table 12: Proportion of mothers who sought health care from health facility with danger signs during pregnancy

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni Catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months who first seek care from a health facility when they have danger signs during pregnancy	97	99CI-97-99	220	219	99	230	228	99

4.4.6 Iron Supplementation

When mothers with children aged 0-23 months were asked if they received or bought iron supplementations while pregnant with their youngest child, a weighted 92% of the mothers indicated that they got or bought iron supplementation. The remaining 8% (weighted) did not get or buy iron supplementation. The baseline finding was higher (96%) compared to endline finding of 92%.

Table 13: Iron supplementation indicator

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni Catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months who received or bought iron supplements while pregnant with the youngest child	96	92 (CI 89-94)	220	202	92	230	211	92

4.4.7 Place of delivery

Place where mothers gave birth is very essential in the provision of good maternal and newborn health services. Pregnant mothers are encouraged to deliver at health facilities so that any complications could be better managed by skilled health providers. Mothers with children age 0 to 23 months were asked where they gave birth and a weighted 85% of the mothers interviewed indicated that they gave birth at the health facility while the remaining 15% gave birth outside health facility. (Please refer to Table 14). Baseline findings noted 79% of the mothers gave birth at the facility, while 21% gave birth outside a health facility.

Table 14: Place of delivery

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months who gave birth to their youngest child at a health facility	79	85- CI-81-88	220	187	85	230	194	85
Percentage of mothers with children age 0-23 months who gave birth to their youngest child outside a health care facility	21	15- CI-12-19	220	33	15	230	36	16

4.4.8 Delivery attendant

The survey sought to understand whether mothers with children aged 0-23 months were assisted by skilled personnel during delivery. The survey noted that a weighted 84% of the mothers with children aged 0-23 months were assisted by skilled health workers during delivery. Four percent (4%) were delivered by TBAs, 10% by a friend/relative and the remaining 2% by other. During baseline, it was noted that 79% of the mothers with children aged 0-23 months were attended by skilled birth attendant.

Table 15: Skilled attendant during birth

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 0-23 months whose births were attended by skilled personnel	79	84 CI-80-87	220	186	84	230	193	83

4.4.9 Clean Birth Kit

The survey sought to establish the cleanliness of the birth kit that was used during delivery of the youngest child from the sampled mothers with children age 0-23 months. This indicator was assessed for the mothers who delivered at the health facility only. The survey noted that a weighted 97% of the mothers with children aged 0-23 months used a clean birth kit during the delivery of their youngest child as indicated in Table 16. This finding is higher than the baseline which found that 93% of the mothers with children aged 0-23 months used a clean birth kit during delivery.

Table 16: Use of clean birth kit

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children age 0-23 months whose delivery involved use of a clean	93	97 CI-95-99	192	191	99	199	192	96

birth kit								

4.4.10 Active management of third stage of labor

Active management of third stage labor recommends the use of injection to prevent bleeding, management of placenta and massaging of uterus after placenta delivery to prevent loss of blood. This indicator was assessed on the mothers who delivered at the health facility only. This indicator was assessed on the children born at the health facilities only. The survey found that the births of a weighted 45% of the children aged 0-23 months involved AMSTL by a skilled birth attendant. The above finding was lower compared to baseline finding which noted that for 58% of the mothers with children aged 0-23 months, their birth involved AMSTL by skilled attendant.

Table 17: Active management of third stage of labor

Indicator	Baseline % (N238)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 0-23 months whose births involved AMSTL by skilled birth attendant	58	45 CI-42-52	187	97	52	194	85	44

4.4.11 Wrapping, placement and first bathing of newborn

It is recommended that all the newborns should be dried and wrapped with a cloth or blanket immediately after birth. The study sought to understand the proportion of newborns who where dried and wrapped with warm cloths or blanket immediately after birth. The study noted that a weighted 90% of the children aged 0-23 months were dried and wrapped with a warm cloth or blanket immediately after birth. The study also found that a weighted 55% of the children aged 0-23 months were placed with their mother immediately after birth and that the first bath of 48% of the children aged 0-23 months was delayed for at least 24 hours after birth. Overall, the endline findings for the above indicators are higher compared to baseline as reflected in Table 18 below.

Table 18: Wrapping, placement and first bathing of newborn

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of newborns who were dried and wrapped with warm cloth or blanket immediately after birth	57	90-CI-86-92	220	197	90	230	205	89
Percentage of children age 0-23 months who were placed with the mother immediately after birth	40	55 CI-47-56	220	102	46	230	130	56
Percentage of children age 0-23 months whose first bath was delayed at	48	48CI-49-58	220	140	63	230	105	45

least 24 hours after birth.								

4.4.12 Postnatal check

It is recommended that both the mother and newborn should have a postnatal check within three days after delivery and birth by a skilled health worker. Tables 19 and 20 show the number of postnatal check-up for both facility and home deliveries compared with baseline findings.

Table 18: Postnatal care-facility based

Indicator	Baseline % (N39)	Weighted overall % (N391)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers with children aged 0-23 months who received a post-partum check-up from an appropriate trained health worker within three days after birth of the youngest child- health facility delivery	41	58 CI-46-56	187	76	41	194	117	60
Percentage of children aged 0-23 months who received a postnatal visit from an appropriately trained health worker within three days after birth- facility birth	44	72 CI59-70	187	101	54	194	145	74

Table 19: Postnatal care outside a health facility

Indicator	Baseline % (N39)	Weighted overall % (N69)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage mothers with children aged 0-23 months who received a post-partum visit from an appropriate trained health worker within three days after birth of the youngest child- home delivery	13	13 CI-6-21	33	3	9%	36	5	14%
Percentage of children aged 0-23 months who received a postnatal visit from an appropriately trained health worker within three days after birth- home birth	8	29 CI-18-39	33	8	24%	36	11	31

4.4.13 Knowledge of neonatal danger signs

A weighted 49% of the mothers with children aged 0-23 months were able to report at least two known neonatal danger signs. The comparison between endline and baseline findings noted improvements in knowledge of neonatal danger signs by mothers with children aged 0-23 months.

Table 20: Knowledge of neonatal danger signs

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers of children aged 0-23 months who are able to report at least two known neonatal danger signs	29	49	220	77	35	230	117	51

4.5 Breastfeeding and infant/child nutrition

It is recommended that the newborns should be put to the breast within one hour after birth and should not be given any pre-lacteal feeds. The survey noted that a weighted 48% of the children aged 0-23 months were given breast milk within one hour of birth and did not receive pre-lacteal feeds. A total of 95% (weighted) of the children aged 0-5 months were exclusively breastfed during the last 24 hours. Endline findings noted improvements in the proportion of children aged 0-23 months who were exclusively breastfed during the previous 24 hours.

Table 21: Breastfeeding indicator

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of newborns who were put to the breast within one hour of delivery and did not receive pre lacteal feeds	48	48 CI-43-52	220	104	47	230	109	47

Table 22: Breastfeeding indicator

Indicator	Baseline % (N112)	Weighted overall % (N131)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours	37	95 CI-90-98	61	59	96	69	66	95

4.6 Vitamin A supplementation

The survey noted that among children aged 6-23 months a weighted 83% were reported to have received a dose of vitamin A in the last six months while baseline noted 76% of the children aged 6-23 months received a dose of vitamin A in the last six months.

Table 23: Vitamin A supplementation

Indicator	Baseline % (N188)	Weighted overall Percentage (N320)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 6-23 months who received a dose of Vitamin A in the last 6 months	76	83 CI-80-87	155	132	85	164	136	83

4.7 Children immunized

The survey sought to understand the proportion of children aged 0-23 months who received measles and DPT immunization. The indicator on immunization focused on the children aged 12-23 months only. A weighted 87% of the children aged 12-23 months received a measles vaccination while 89% of the children age 12-23 months received a DPT1 vaccination before they were 12 months old. Table 25 shows the comparison of baseline and endline findings on children's immunization indicators.

Table 24: Children immunization indicator

Indicator	Baseline % (N)	Weighted overall % (N198)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 12-23 months who received a measles vaccination	85	87 CI:77-87	93	71	76	105	93	**89**
Percentage of children age 12-23 months who received DPT1 vaccination before they reach 12 months	82	82 CI:76-86	93	75	80	105	87	83
Percentage of children age 12-23 months who received DPT3 vaccination before they reach 12 months	79	79 CI:76-84	93	68	73	105	84	80

4.8 Malaria

Malaria is the highest killer of children in sub-Saharan Africa. Pregnant women are encouraged to take effective anti-malarial medication during pregnancy and children are encouraged to sleep under insecticide treated bednets as a preventive measure. During the survey, it was noted that a weighted 89% of the mothers with children aged 0-23 months took an effective anti malarial drug during their pregnancy with their youngest child. Seventy four percent (weighted) of the children aged 0-23 months slept under an insecticide treated bednet the night before the interviews. The findings of the endline shows improvement on all malaria indicators compared to baseline.

Table 25: Malaria indicator

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of mothers of children who took an effective anti malarial drug during pregnancy of their young child	88	89 CI:86-92	220	200	91	230	202	88
Percentage of children age 0-23 months who slept under an insecticide treated bednet the previous night	64	74 CI:70-77	220	159	72	230	171	74

Table 26: Malaria indicator

Indicator	Baseline % (N132)	Weighted overall % (N248)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
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	2	38 CI:30-42	99	31	31	114	45	39

4.9 Diarrhea

Diarrhea is one of the leading causes of morbidity and mortality in Malawi. Early detection and home treatment can reduce the impact of the disease. Diarrhea is commonly managed by taking oral rehydration solution (ORS) or homemade fluids.

4.9.1 Use of ORS or home-made fluid

The survey established that only 33% (N148) of the children had had diarrhea two weeks prior to the interview. Among these children, a weighted 58% reported having diarrhea two weeks prior to interviews and receiving oral rehydration solution (ORS) and or some recommended homemade fluids (Please refer to Table 28). The remaining 42% were not given ORS or homemade fluids.

Table 27: Diarrhea indicators

Indicator	Baseline % (N110)	Weighted overall % (N148)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of children age 0-23 months with diarrhea in the last two weeks who received ORS or recommended home fluids		58 CI:49-64	70	39	56	78	45	57

4.9.2 Use of zinc supplementation and other medication

None of the interviewed mothers used Zinc supplementation, injection or intravenous fluid

(drip) to treat their child.

4.10 Acute Respiratory Infections/Pneumonia

Acute respiratory infections (ARI)/pneumonia remain one of the most lethal diseases for children under two years old**.** Mothers were asked if their children had a chest-related cough and/or difficulty in breathing two weeks before the interview. A weighted 75% of the mothers reported that their children had had a chest-related cough and fast and/or difficult breathing in the last two weeks before the interview and had taken them to an appropriate health provider. The endline finding shows improvement compared to baseline finding which noted 52% of children had received care.

Table 28: Acute Respiratory Infections indicator

Indicator	Baseline % (N164)	Weighted overall % N(109)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
percentage of the 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	52	75 CI:67-82	40	30	75	69	52	75

4.11 Water and Sanitation

Clean or treated water plays a critical role with regard to the well-being of children. Use of water from unprotected and/or untreated sources can pose a great risk to the health of children as it can be a source of waterborne diseases such as diarrhea and others. The survey was therefore interested in finding out the percentage of households with children aged 0-23 months that treat their drinking water effectively. The related issue of household sanitation was also evaluated by observing and inquiring about the usage of any detergents and washing of hands by household members (Please refer to Table 30). About 25% of the households with children aged 0-23 months reported that they treat their water. Washing hands with soap is one of the practices that can greatly reduce the risk of disease transmission and a weighted 30% of the households with children aged 0-23 washed their hands with soap at least two appropriate times during a 24-hour recall period. Table 30 shows the comparison between the baseline and endline surveys on water and sanitation indicators.

Table 29: Water and sanitation indicator

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of households of children age 0-23 months that treat water effectively	21	25 CI:20-27	220	47	21	230	58	25
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing and who washed their hands with soap at least 2 of the appropriate times during a 24	2	30 CI:38-47	220	36	16	230	74	32

hour recall period								

4.11.1 Major sources of drinking water

The survey noted that 72.4% of the mothers with children aged 0-23 months use boreholes as a source of drinking water while 13.1% use tap water as a source of drinking water (See Table 23).

Table 30: Sources of drinking water

Water source	Frequency, n=450	Percent
Tap	59	13.1
Borehole	329	72.4
Unprotected well	29	6.4
Rain water	4	.9
River	29	6.4

4.12 Anthropometry

All of the children for the interviewed mothers were weighted as part of the survey. The survey found that a weighted 16% of children aged 0-23 months were malnourished.

Table 31: Nutritional status of children 0-23 months

Indicator	Baseline % (N300)	Weighted overall % (N450)	Ekwendeni catchment area			Outside Ekwendeni catchment area		
			Denom.	Num.	%	Denom.	Num.	%
Percentage of the children age 0-23 months who are underweight (< -2SD) for the median weight for age, according to WHO reference population	28	16	220	23	11	230	38	17

5.0 Discussion and recommendations

In general, findings of the endline survey in Mzimba District have shown improvements in most of the indicators compared to the baseline. On the child spacing indicator, the endline findings has shown that a higher proportion (94%) of children 0-23 months were born at least 24 months after the previous surviving child. This reflects that most of the mothers are using family planning methods or following the child spacing information.

The survey noted that when comparing baseline and endline indicators regarding tetanus injections; baseline findings show that more mothers received the TT injection before the pregnancy of the youngest child as compared to endline findings. The study therefore recommends more improvements in this area.

With regard to the counseling information provided during the antenatal period, the baseline findings shows a higher proportion of mothers with children aged 0-23 months who received information compared to endline findings. It is therefore being recommended that health professional should intensify counseling to mothers during ANC services. Endline finding also noted a decline in the proportion of mothers who were seen by skilled health workers during four ANC visits (55% from 68% during baseline).

The endline survey has also noted improvements in the knowledge of danger signs during pregnancy compared to the baseline. The proportion of mothers with children aged 0-23 months who sought health facility care when they had danger signs during pregnancy has also improved from baseline (from 97% to 99%).

The proportion of mothers with children aged 0-23 months who received iron tablets declined from 96% during baseline to 92% during endline. It is therefore recommended that the provision of iron tablets to pregnant mothers be intensified.

The findings of the endline survey shows improvement in the proportion of mothers whose births were attended by skilled personal (84% from 79% during baseline). The survey noted an improvement in the proportion of mothers with children aged 0-23 months who gave birth at a health facility from the baseline (85% from 79% during baseline).

The rate of post-partum check-ups has improved between baseline and endline for all of the indicators for mothers (41% to 58% for mothers who had health facility delivery and 44% to 72% of the children who had a health facility birth). Similarly, the post-partum indicator has improved between and endline survey for children who were born outside a health facility from 8% at baseline to 29% at endline. The proportion of mothers and children who received post-partum care from skilled health worker has improved from baseline. However, the proportions are still low. It is recommended that all mothers and newborns should have postnatal checks at least three days after delivery and birth, respectively.

The survey has noted a higher proportion of (95%) children age 0-5 months who were exclusively breastfed during the last 24 hours from the baseline to endline survey.

Use of vitamin A supplementation among children aged 6-23 months has improved from baseline and endline survey. This improvement is good for the children as vitamin A is essential for their growth.

The endline survey noted an improvement in the proportion of children who received measles vaccination as compared to baseline, however the rates of DPT1 and DPT3 immunization has stagnated. It is therefore being recommended that child immunization campaigns are enhanced and expanded.

The use of bednets is recommended to prevent malaria among children and pregnant mothers. The survey noted improvement in the use of insecticide treated bednet among children 0-23 months between baseline survey and endline survey. Proportion of children who were treated with effective anti malarial drug within the 24 hours after the fever began also improved from baseline findings. Such improvement is good as it prevent death as a result of malaria.

Diarrhea has been one of the major causes of morbidity and mortality among children and the use of ORS is one treatment used to manage the disease. The endline survey noted a big improvement in the use of ORS among children aged 0-23 months to control diarrhea.

The endline survey identified an improvement in health seeking behavior among mothers with children aged 0-23 months as evidenced by increased use of appropriate health provider to manage cough and fast and/or difficult breathing of children aged 0-23 months from baseline findings.

Use of clean water and good sanitation prevents children from having waterborne diseases. The study noted improvements in households with children aged 0-23 months which treat water effectively and use soap for hand washing compared to baseline findings. The national nutrition policy for Malawi indicates that 21% of children under five years old are underweight. The baseline findings noted that 28% were underweight while the endline survey noted that 16% were underweight. This shows that the nutrition status for children has improved in the district.

References

1. NSO 2010 Malawi Demographic and Health Survey 2010
2. Save the children 2007, Mzimba KPC report,
3. Save the Children 2010, Ekwendeni *Agogo* Approach
4. Government of Malawi 2010, National Malaria Indicator Survey Report
5. MCHIP 2000, Rapid Catch Indicators

Appendix 1: Approval Letter from National Statistical Office

Telephone: 01 524 377/01 524 111
Fax: 01 525 130
E-mail: enquiries@statistics.gov.mw
Web Site: www.nso.malawi.net

Correspondence should be addressed to:
Commissioner of Statistics

In reply please quote Ref. No NSO/PF/S/01/43

NATIONAL STATISTICAL OFFICE,
P.O. BOX 333,
ZOMBA, MALAWI.

Interim Country Director
Save the Children
PO Box 30374
LILONGWE

17th May 2011

Dear Sir/madam

RE: PERMISSION TO CONDUCT AN END-LINE KPC SURVEY IN MZIMBA DISTRICT

Following your letter dated 10th May 2011 in which you requested permission to conduct an end-line KPC Survey in Mzimba district.

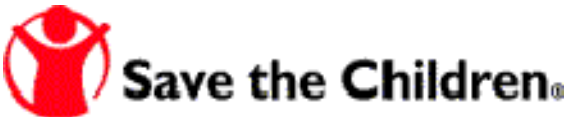
The National Statistical Office is granting you permission to conduct the survey. Please avail us of the results at the end of the survey.

Lastly, we wish you all the best as you conduct the exercise.

Yours sincerely,

M. Kanyuka (Mrs)
FOR COMMISSIONER OF STATISTICS

Appendix 2: Survey Questionnaire and Consent Form



Malawi Newborn Health Program

Baseline Knowledge, Practice, and Coverage (KPC) Survey Questionnaire (including Revised Rapid CATCH)

USAID/CSHGP Grant Number M/OAA/GH/HSR-06-001

Mzimba District, Malawi

June 2011

This report is made possible by the generous support of the American people through the United States Agency for International Development USAID). The contents are the responsibility of Save the Children and do not necessarily reflect the views of USAID or the United States Government.

INTERVIEWER: Please write down the responses in CAPITAL LETTERS

<u>Ask the mother if she has a child under 24 months who lives with her and she is not a visitor (stayed in household for less than 3 months from outside Mzimba District)</u>. If confirmed that she has a child and she is not a visitor, write the name of the child and proceed with interview, if no thank the mother and end the interview.

Name of the child (**Zina la mwana)**_____

IDENTIFICATION		
Cluster Number (serial no.)		
Village Name		
Name of Mother (Enter first name AND surname)		
Nick Name		
Name of Supervisor		
Supervisor ID		
Start time		
Data Entered by		Date: _____/_____/_____ day/month/year

	1	Final Visit				
Interview date	_____/____/____ dd/mm/yyyy	*For Supervisor*				
		Day				
Interviewer ID		Month				
		Year				
Result Code*		Result Code				

*Result Codes (circle):
1. Completed
2. Respondent not at home
3. Postponed
4. Refused
5. Other(Specify)_____

Hello. I am _____ conducting a survey on behalf of _____ I am therefore requesting some time for a discussion with you issues related to the health of mothers, babies and families, being implemented by Ekwndeni Mission Hospital, the Ministry of Health in partnership with Save the Children.

I would like your permission to ask you some questions about your household, yourself and your child who is less than 24 months old. Whatever you tell me will be kept strictly confidential and will not be disclosed to any other persons. Your participation is totally voluntary and you can choose to answer or not answer any or all of my questions. You can decide to stop me at any time if you do not wish to answer any more questions.

However, I hope you will agree to participate in the discussion because what you tell me will help us learn important facts and give us a better understanding of your experiences during pregnancy, childbirth and the period after birth. This information will also help us provide the relevant health information for communities and also help us provide the necessary information and training for those who provide health services for pregnant women, babies, children and families.

I will need about 30 minutes of your time to complete the questions. At this time, do you want to ask me anything about what will follow?

Do I have your permission to ask you some questions now?

Signature of interviewer: **Date: / /2011**
Day / month / year

RESPONDENT AGREES 1 **GO TO NEXT SECTION (Household Information)**	**RESPONDENT DOES NOT AGREE 2** **END INTERVIEW AND THANK THE WOMAN**

ALL QUESTIONS ARE TO BE ADDRESSED TO MOTHERS WITH A CHILD LESS THAN 24 MONTHS OF AGE Note:

1. **Ask information for the youngest child in the household if there are more than one with less than 24 months of age.**
2. **Use local events to probe on age if not known**

A. RESPONDENT BACKGROUND CHARACTERISTICS		
NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
1a	What is your highest level of education? **Kasi masambiro ghinu mulikulekezga kalasi uli?**	None……1 Primary……..2 Secondary……..3 University……..4 Tertiary……..5
1b	**DO NOT ASK THIS QUESTION, JUST NOTE THE YEARS FROM 1A.** For how many years have you attended school? IF NEVER, RECORD '00'.	YEARS IN SCHOOL.....
1c	How old are you? **Munavyaka vilinga**	Years……
2	What languages do you speak? **Mukuyoghoya viyowoyelo uli?**	Chichewa……..……..A Tumbuka……..……B Ngoni……..……..C Other…(Specify)_____Z
3	In what language do you feel most comfortable communicating? **Nichiyowoyelo uli icho mukuyowoya chomene?**	Chichewa……..……..1 Tumbuka……..……2 Ngoni……..……..3 Other……..……..4 (Specify)_____
4	Does (NAME'S) biological father live in this household? **Kasi bawiske bakumubaba (ZINA) bakukhala penepano?**	YES..... ……..……1 NO.....……..2 DON'T KNOW.....……..9
5	Who is the head of this household? **Kasi mutu wanyumba yino ninjani?**	MOTHER (RESPONDENT) ..... ……..……..1 HUSBAND/ PARTNER.....……..……2 FEMALE RELATIVE_____3 (SPECIFY RELATION) MALE RELATIVE_____4 (SPECIFY RELATION) OTHER _____7 (SPECIFY RELATION)

A. RESPONDENT BACKGROUND CHARACTERISTICS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES
6	Do you work outside of the home to earn money? IF NO, CIRCLE "A" (NO OUTSIDE WORK) **Kasi mukugwira ntchito kunyakhe kuti musange makopala?** IF YES, What kind of work do you do? **Nintchito uli?**	NO OUTSIDE WORK..... ……..……A HANDICRAFTS…..……..…….……...B HARVESTING……...……C BUSINESS……...D SERVANT/HOUSEHOLD WORKER.....E SALARIED WORKER ..... ……F PIECE WORK…….……G OTHER_____X (SPECIFY)
7	Who takes care of (NAME) when you are away from home? **Ninjani wakupwererera (ZINA) paramwaukapo?**	MOTHER TAKES BABY (RESPONDENT)…….……..A HUSBAND/PARTNER..... ……B OLDER CHILDREN..... ……C CHILD'S GRANDMOTHER ……...D OTHER _____E (SPECIFY) NEIGHBORS/FRIENDS.....……...F MAID..... ……..……...G NURSERY SCHOOL.....……..……...H OTHER_____X (SPECIFY)

B. CHILD SPACING (KULERA)

No	Questions and Filters	Coding Categories	Skip
8	How many children did you give birth to? **Mulikuchembezgapo kalinga?**	Total number of births ☐☐	
9	How many children do you have? (How many children are living) **Bamoyo mbalinga?**	Total number of children ☐☐	
10	What is the sex, date of birth of your youngest child that you gave birth to? **(ZINA) nimwanalume panji mwanakazi? wakawa pa uli?**	Youngest Child (NAME) _____ Sex Male……...1 Female……..…...……...2 Date of Birth Day ☐☐ Month ☐☐ Year ☐☐☐☐	
11	**CHECK 2:** Number of children ever born: Two or more (code 2). ☐ ⇩	One (code 1) ☐ ⇨	➔ 13

12	What is the name, sex, date of birth of your second youngest child that you gave birth to? **Kasi mwana uyu walikudikana na(zina) nimwanalume panji nimwanakazi, zina lake ninjani ndipo wakawa pa uli?**	Second Youngest Child Name _____ Sex Male……..1 Female…….……...……...2 Date of Birth Day ☐☐ Month ☐☐ Year ☐☐☐☐	

All subsequent questions pertain to the youngest child under two years old.

C. EXPOSURE TO THE *AGOGO APPROACH*

13	Are there some *agogo* (grandfathers & grandmothers) in your village/community that trained in the care of mothers and newborns trained by Ekwendeni Hospital?	Yes……1 No…….2 Don't know……9	 ➔ 18 ➔ 18
14	If yes, did you participate in any activities or receive any services from the *agogo* during pregnancy or after the birth of (NAME)?	Yes……1 No…….2 Don't know……9	 ➔ 18 ➔ 18
15	What type of help or activity did you get/witness from the *agogo*? **PROBE** 'ANYTHING ELSE?' AND CIRCLE ALL RESPONSES MENTIONED.	Story telling by the *agogo*……..A Drama performance……B Group discussion……C Counseling sessions……..D Group education session……E Health education……F Prescribing norms……..G Record keeping……..H Role play……I Popular mobilization……..J Simulations……...K Campaign……L	

		Community sensitization……M Open day……N Support group……O Other (specify)_____.....X Don't know……99	
16	When did you witness or get this assistance from the *agogo*? (before or after the birth of [Name]?)	Before birth of child only……..1 After birth of child only……2 Before and after birth of child……..3 Don't know……..……9	
17	During the activities that you got assistance or witnessed, what messages were communicated to you by the *agogo*? **PROBE** 'ANYTHING ELSE?' AND CIRCLE ALL RESPONSES MENTIONED.	Advise on importance of skin-skin of newborns……..……A Accompanying pregnant women to health facility for delivery……B Advised on importance of antenatal care in the first trimester…….C Advised on postnatal care……D Advised on family planning……E Advised on nutrition……F Advised on HTC……G Advised on PMTCT……H Advised on presumptive treatment of malaria in pregnancy…….I Advised on use of bednet in pregnancy……..…..J Advised on anemia in pregnancy……K Advised on importance of BP check in pregnancy……..L Advised on beneficial culture……..…M Provided care ……..N Taught MNH issues……O Made decisions……P Prevention of mother to child transmission……Q Importance of facility delivery……..R Importance on postnatal care……..……..S Importance of starting ANC……T Other (specify)_____.....X	
D. MATERNAL AND NEWBORN CARE			
18	Did you see anyone for antenatal care while you were pregnant with (NAME)?	Yes……1	

	Pa urwari[nthumbo/pakati] wa (ZINA) mukarutanga ku sikelo?	No……2	➔ 19
19	IF YES: Whom did you see? Anyone else? **Mukavwirika na njani?** **PROBE** FOR THE TYPE OF PERSON AND RECORD ALL PERSONS MENTIONED BY THE MOTHER.	HEALTH PROFESSIONAL DOCTOR……A NURSE/MIDWIFE……B TRADITIONAL BIRTH ATTENDANT……C CLINICAL OFFICER/MEDICAL ASSISTANT……D HSA……E OTHER_____X (SPECIFY)	
20	How many times did you see someone for care during the pregnancy? **Kasi ku sikelo mukalutapo kalinga pa urwari (nthumbo/pakati) ya(ZINA)?**	NUMBER OF TIMES..... |___|___|	
21	During your antenatal check, were you counseled on the following: **Nyengo iyo mukalutanga kusikelo, bakamusambizganipo vinthu ivi:** Delivery preparations? **Kunozgekera kubaba?** Breastfeeding? **Kuwonkheska?** Child spacing? **Kulera?** Immunization? **Katemela?** Danger signs during pregnancy? **Vimanyikwilo vya kofya vya nthumbo?**	**YES NO** Delivery preparations……1 2 Breastfeeding……1 2 Child spacing……1 2 Immunization……1 2 Danger signs during pregnancy……1 2	

22	During your pregnancy with (NAME) did you receive tetanus vaccine? **Pa urwari wa(ZINA), mukapokerapo katemela wa kafumbata?**	Yes……1 No……2 Don't know……9	 ➔ 19 ➔ 19
23	While pregnant with (NAME), how many times did you receive such an injection? **Mukapokerapo kalinga?**	One……1 Two……2 Three or More……3 Don't know……9	
24	Did you receive any tetanus toxoid injection at any time before that pregnancy,? **Pambere mundabe nanthumbo ya (ZINA) mukapokelaposo katemela wa kafumbata?**	Yes……1 No……2 Don't know……9	 ➔ 21 ➔ 21
25	Before the pregnancy with (NAME), how many times did you receive a tetanus injection? **Mukapokerapo kalinga?**	One……1 Two……2 Three or More……3 Don't know……9	
26	Do you have a maternal health card for your pregnancy with (NAME)? **Kadi ya ku sikelo ya pa urwari wa (ZINA) mulinayo?**	YES, SEEN……1 YES BUT NOT SEEN……2 NEVER HAD A CARD……3	 ➔22 ➔22
	21A: **LOOK AT CARD** AND RECORD THE NUMBER OF ANTENATAL VISITS WHILE MOTHER WAS PREGNANT WITH (NAME).	NUMBER OF VISITS |___|___|	
	21B: **LOOK AT THE CARD** AND RECORD THE DATES FOR EACH TT INJECTION LISTED ON THE CARD	DAY MONTH YEAR FIRST | | | | | | | | | |	

		SECOND | | | | | | | | | | THIRD | | | | | | | | | | FOURTH | | | | | | | | | | FIFTH | | | | | | | | | |	
27	How far are you from the nearest health facility? Use 3 boxes to carter for decimal places **Kasi chipatala chapafupi chilipatali uli?**	DISTANCE |___|____|. |____| KM	
28	How would you get there? **Mukwenda pavichi?** **RECORD ALL RESPONSES.**	WALK……A CAR ……..……B MOTORCYCLE ……..C OX CART……D BOAT or CANOE……..……..……E BICYCLE……F OTHER_____ X (SPECIFY)	
29	How long would it take you to get there (WALKING)? **Mukwenda nyengo yitali uli wapasi?**	LESS THAN 1 HOUR……..…..……..1 1 TO 3 HOURS……..……..2 GREATER THAN 3 HOURS……..3 DON'T KNOW……..……..……..9	
30a	A) What are the symptoms during pregnancy indicating the need to seek health care? (prompt for multiple responses) **Kasi nivimanyikwilo uli vyakofya ivyo vingamupangiskani kuluta ku chipatala pala muna nthumbo?** **RECORD ALL MENTIONED.**	FEVER **Kotcha thupi/vimbwambwa/kupima**……..……..….A SHORTNESS OF BREATH **Befu/kuthutira mchanya**……B BLEEDING **kutaya ndopa**……..…..……C SWELLING OF THE BODY/HANDS/FACE **Kutupikana……..**…….……D CONVULSIONS **Kuzilika/kunyutuka**……..E OTHER_____X (SPECIFY) DON'T KNOW..……..……..Z	
30b	**B)** Where is the first place you would you go for care if you had these symptoms? **Mungachimbilira nkhuni para mwawona vimanyikwilo ivyo mwazunula?**	HEALTH FACILITY HOSPITAL……1 HEALTH CENTER……..2 HEALTH POST…… 3 PRIVATE CLINIC…….. 4 OTHER SOURCE TRADITIONAL PRACTITIONER……..5 SHOP……6 PHARMACY……7 COMMUNITY DISTRIBUTORS…… 8 FRIEND/RELATIVE……9 OTHER_____ 99 (SPECIFY)	
31	When you were pregnant with (NAME), did you receive or buy any iron tablets? **Apo mukawa nanthumbo ya (ZINA) mukapokelapo panji kugula mapilisi gha ndopa nga ni agha?** **SHOW TABLET.**	YES……..……1 NO……..……..……..……..2 DON'T KNOW……..……..9	
32	Where did you give birth? **Mukachilira nkhuni?**	HOME YOUR HOME……..……..……..……..1 OTHER HOME……..……..……..……2 TBA BIRTHING HUT……..……3	

	IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE _____ (NAME OF PLACE)	HEALTH FACILITY HOSPITAL **Chipatala chikulu**……..4 PRIVATE CLINIC **Chipatala cha kulipira**……5 HEALTH CENTER **Chipatala chichoko……**…….6 ON WAY TO HOSPITAL **Pa nthowa……** ……..7 OTHER……..99 _____ (SPECIFY)	
33a	Who assisted with the delivery of (NAME)? **Ninjani uyo wakamovwirani pakuchira?** Anyone else? **Probe for the type(s) of person(s) and record all mentioned.**	Doctor……..A Nurse/Midwife……B Traditional Birth Attendant……C Clinical Officer/Medical Assistant……D Other health center/hospital personnel……E Relative/Friend……F Self delivery..… ……G Other……..K	
33b	**Machiliro ghinu ghakawa wuli?**	Normal birth……1 Ceasarian (awake)……..2 Ceaserian (asleep)……3	➔ 37

34	Was a clean birth kit used? **Kasi viyabiro vya kubabiskila vikaba vya kupwerereka makora?** **IF Q27=HOME, DO NOT ASK THIS QUESTION.**	YES……1 NO……2 DON'T KNOW……9	
35	What instrument was used to cut the cord? **M'mbwera wa mwana bakadumulira vichi?**	**Lezala/Nevai mupya** New razor blade…. 1 New and boiled razor blade **Lezara mupya wakubwatuska**…. ……2 Used razor blade **Nevai wakugwiriskirako ntchito kale?.....** 3 Used and boiled razor blade **Nevai wakugwiriskikapo kale ntchito na kubwatuska**.....4 New scissors. **Sizala Mupya…**..... 5 New and boiled scissors. **Sizala mupya wakubwatuska…..** 6 Used scissors. **Sizala wakugwiriskirapo kale ntchito**…..... 7 Used and boiled scissors **Sizala wakugwiriskirapo ntchito na kubwatuska…**..... 8 Knife **Chimayi**…..... 9 Reed/Cane. **Thete/ chiswauliro cha mjuwa**…..... 10 Other _____96	

		(Specify) Don't know…..... 99	
36	Immediately after (NAME) was born, before the placenta was delivered, did you receive an injection to prevent you from bleeding too much? **Mukati mwachira (ZINA) pambere chaukulu (chakumanyuma) chindafume, kasi bakamugwazani nyereti ya kulekeska kupopoma?** **IF Q27=HOME, DO NOT ASK THIS QUESTION.**	Yes…..... 1 No…..... 2 → Don't know…..... 9 →	34
37	Immediately after you got an injection to prevent you from bleeding, did the birth attendant hold your abdomen and pulled on the cord to help the placenta come out? **Bakati bamugwazani nyereti, kasi mzamba wakamukorani pa nthumbo pakufumiska cha ukulu?** **IF Q27=HOME, DO NOT ASK THIS QUESTION.**	Yes…..... 1 No…..... 2 → Don't know…..... 9 →	34
38	Immediately after the placenta was delivered, did someone message your uterus to make it contract strongly and to prevent you from bleeding too much? **Chaukulu chikati cha fuma kasi bakamufyenyanifyenyani pa nthumbo kuti chibabilo chikolane nakuti ndopa zileke ku thika zinandi?**	Yes…..... 1 No…..... 2 → Don't know…..... 9 →	34
39	Was (NAME) dried (wiped) immediately after birth before the placenta was delivered? **(ZINA) wakati weko waka, bakampuputa pambere chaukulu chindafume?**	Yes…..... 1 No…..... 2 Don't know…..... 9	
40	How long after delivery was (NAME) wrapped in a cloth? **(ZINA) wakati wawako pakatora nyengo yitali wuli kuti bamuvungirizg mu salu?** **(PROBE TIME IN RELATION TO THE REMOVAL OF PLACENTA)**	Immediately (within 5 min.) **Nyengo yeneyiyo wakati wa babika**……..…1 Just before placenta was delivered **Pambere Chaukulu chindafume**…….2 Immediately after placenta was delivered **Chaukulu chikati cha fuma waka**……..……..3 Long after placenta was delivered **Pakajumphapo nyengo chaukulu chikati cha fuma…**……..4 Don't know/ don't remember **Nkhumanya yayi/Nkhukumbukira chara……**…. 9	
41	Where was (NAME) put immediately after birth? **Bakamubikankhu (ZINA) wakati weko waka?**	WITH MOTHER **Na nyina**……..……1 IN COT **Mukabedi**……..…..……..……..2 ON FLOOR **Pasi**……..……3 BATHED **Bakamugegeska**……..…..……4 OTHER_____6 (SPECIFY) DON'T KNOW……..9	
42	How long after birth was (NAME) bathed? **(ZINA) wakati wawako pakatola nyengo yitali uli kuti wamugegeske?**	Within 1 hour ……..…….…… 1 Within the first day……..…….. 2 After 24 hours ……..…. 3 Don't remember… ……..……..…….9	
43	Did a health care provider or a traditional birth attendant check on YOUR HEALTH after the delivery of your youngest child [NAME], either at a health facility, home or other location? **Kasi wachipatala panyake muzamba wakamupimani mwati mwa baba (ZINA), kuchipatala, kunyumba panyakhe uko mukachilira**	Yes……..……..……1 No……..……..……2	→ 44
44	How long after the delivery did the first post-natal check take place?		

	Mwati mwababa (ZINA) pakatola nyengo yitali uli kuti wamupimeni kakwamba? **If less than one day, circle 1 and record hours; if less than one week circle 2 and record days; if more than 6 days circle 3 and record weeks.**	Hours……..……1 ☐☐ Days……..…..2 ☐☐ Weeks……..…….……..3 ☐☐ Don't Know……..……9	
45	Who checked your health at that time? **Ninjani wakamupimani pa nyengo iyo?** **Circle all that apply. Probe for the most qualified person (uppermost in list).**	Doctor **Dokotala**…….A Nurse/Midwife **Banesi/Bazamba**…….....B Other health center/hospital personnel **Kuchipatala kunyakhe/ Bakugwira ntchito ku chipatala……**……C Clinical Officer/Medical Assistant..……D TBA **Azamba**……..E Traditional Healer **Sing'anga**……...……F Relative/Friend **Wabale/wanyinu**…….…..G No one…..… ……..…… ..H Other……..……..…K	
46	After (Name) was born, did any health care provider or traditional birth attendant check on his health? **Wakati (ZINA) wababika, kasi bachipatala/bazamba bakamupima?**	Yes……1 No……2	➔ 44
47	How long after the birth of (Name) did the first check take place for your baby? **Wati wawako (ZINA) pakatola nyengo yitali uli kuti wamupime (bamuwone) kakwamba** **If less than one day, circle 1 and record hour;, if less than one week circle 2 and record days; if more than 6 days circle 3 and record weeks.**	Hours ……..…….. 1 ☐☐ Days ……. 2 ☐☐ Weeks ……3 ☐☐ Don't Know……..……9	
48	Who checked on (Name's) health at that time? **Mbanjani wakamupima (ZINA) pa nyengo iyo?** **Circle all mentioned. Probe for the most qualified person uppermost on list).**	Doctor……..A Nurse/Midwife..……..…….....B Other health center/hospital personnel……C Clinical Officer/Medical Assistant..……..…….D TBA……E Traditional Healer……...……F Relative/Friend……..……..G No one…… ……..……..……..H Other……..……..K	
49	What are the signs to watch for that may indicate that a newborn baby is ill? **Nivimanyikwiro uli ivyo vingamuwoneskani kuti bonda nimurwali?** **RECORD ALL MENTIONED.**	POOR FEEDING **Kukana konkha/kulya**……..……A FAST BREATHING **Kuthuta lubirolubiro**…….……..……B NOT ACTIVE **kulombotoka**……...……..…C REDNESS AROUND THE CORD **Kutchesama mumphepete mwa mdoto**……..……D RED/DISCHARGING EYE **Kutchesama kwa maso/vimbokoli**…….....……E OTHER_____	

		(SPECIFY) DON'T KNOW……Z	
	E. BREASTFEEDING/ INFANT AND YOUNG CHILD FEEDING **SONO NKHUKHUMBA KUTI TIDUMBIRANEKO ZA KONKHESKA/KURYESKA MWANA MCHOKO**		
50	Did you ever breastfeed (NAME)? **Muli kumonkheskapo(ZINA)?**	Yes……1 No……2	➔ 50
51	How long after the birth did you first put (NAME) to the breast? **Wakati wababika (ZINA) pakatola nyengo yitali uli kuti mumonkheske?** **If less than 24 hours, circle 1 and record the hours; if 24 hours or more, circle 2 and record days.**	Hours……1 Days……2 Don't Know……9	
52	During the first three or four days after delivery, before your regular milk began flowing, did you give (NAME) the liquid (colostrums) that came from your breasts? **(ZINA) wakati wababika pa mazuwa ghatatu/ghanayi ghakwambilira mukamonkheska mkaka wa kwambilira (chikenyani) pambere mkaka utuwa undambe kufuma?**	YES …. 1 NO …. 2 DON'T KNOW …. 9	
53	In the first three days after delivery, was (NAME) given anything to drink other than breast milk? **Pamadazi ghatatu ghakwambilira (ZINA) wakati wababika, mukampako chakumwa chilichose kupatulako bere?**	Yes……1 No……2 Don't know……9	
54	Are you still breastfeeding (NAME)? **Muchali kumonkheska(ZINA)?**	Yes……1 No……2	

55	Now I would like to ask you about liquids or foods (NAME) had yesterday during the day or at night. **Sono nkhukhumba kumufumbani za ivyo wakarya panji kumwa (ZINA) mayiro mhanya, namise na na usiku.** **Kasi (ZINA) wakamwa/wakaya:** Did (NAME) drink/eat: READ THE LIST OF LIQUIDS (A THROUGH E, STARTING WITH "BREAST MILK").		YES	NO	DK	
A	Breast milk? **Wakawonkha?**	A……1	2	9		
B	Plain water? **Wakamwa maji?**	B……1	2	9		
C	Commercially produced infant formula? **Mkaka wamusitolo**	C……1	2	9		
D	Any fortified, commercially available infant and young child food" [e.g. Cerelac]? **Vyakulya vya wana vyakugula musitolo** e.g[**Cerelac, Likuni phala]**	D……1	2	9		
E	Any (other) porridge or gruel? **Bala panji mthibi?**	E……1	2	9		

56	Now I would like to ask you about (other) liquids or foods that (NAME) may have had yesterday during the day or at night. I am interested in whether (NAME) had the item even if it was combined with other foods. **Nimufumbaninge za vyakulya na vyakumwa ivyo mukamupa(ZINA) mayiro mhanya na namise?** Did (NAME) drink/eat: **Kasi(ZINA)Wakalya panji wakamwa ivi:**		YES NO DK
A	Milk such as tinned, powdered, or fresh animal milk? **Mkaka wa mu chithini, wawufu, mkaka wan g'ombe**	A.....1	2 9
B	Tea or coffee? **Tiyi panji khofi**	B 1	2 9
C	Any other liquids? **Vyakumwa vinyakhe?**	C.....1	2 9
D	Bread, rice, or other foods made from grains? **Buledi, Mpunga panji sima**	D.....1	2 9
E	Pumpkin, carrots, or sweet potatoes that are yellow or orange inside? **Majungu, carrot, mboholi**	E.....1	2 9
F	White potatoes, white yams, cassava, or any other foods made from roots? **Katofeni(mbambaira), viyawo, vikhawo na vinyakhe vya misisi?**	F.....1	2 9
G	Any dark green leafy vegetables? **Mphangwe iliyonse yakubiliwira ?**	G.....1	2 9
	Ripe mangoes, papayas, guavas, oranges, ? **Yembe za kupya, vipapayi, magwafa(magwawasi) ?**	H.....1	2 9
H	Any other fruits or vegetables? **Vipaso panji mphangwe yiriyonse?**	I.....1	2 9
I	Liver, kidney, heart or other organ meats? **Chiwindi, ziso,mtima panji vyamkati vilivyose?**	J.....1	2 9
		K.....1	2 9
J	Any meat, such as beef, pork, lamb, goat, chicken, or duck? **Nyama yiliyonse?**	L.....1	2 9
K	Eggs? **Masumbi?**	M.....1	2 9
L	Fresh or dried fish ? **Somba ?**	N.....1	2 9
		O.....1	2 9
M	Any foods made from beans, peas, lentils, or nuts? **Ntchunga panji skawa?**	P.....1	2 9
N	Cheese, yogurt, or chambiko? **Masi**	Q.....1	2 9
O	Any oil, fats, or butter, or foods made with any of these? **Vyakulya vose vyakupangika kufumira ku mafuta,**	R.....1	2 9
P	Any sugary foods such as chocolates, sweets, candies, pastries, cakes, or biscuits? **Vyakurya vilivose vya kunong'omera?**	S.....1	2 9
Q	Any other solid or semi-solid food? **Chakulya chilichose chinyakhe?**	T.....1	2 9
R	OPTIONAL FOOD GROUP: ADD IF COMMONLY GIVEN TO INFANTS/CHILDREN	(SPECIFY)	

S T	Insects, other small protein food? **Mphalata, lipumi,manyenye panji mbewa?** Home made concoction/tea **Dawale/ mzuwura?**		

57	**Kasi (ZINA) wakarya kalinga mayilo?** How many times did (NAME) eat solid, semi-solid, or soft foods other than liquids yesterday during the day or at night? **IF CAREGIVER ANSWERS SEVEN OR MORE TIMES, RECORD "7"** Mashed or pureed food, along with porridges, paps, thick gruels, stews, etc. Solid foods – e.g., family foods, bananas, mangoes, potatoes, bread – should also be included. **We want to find out how many times the child ate enough to be full. Small snacks and small feeds such as one or two bites of mother's or sister's food should not be counted.** **Use probing questions to help the respondent remember all the times the child ate yesterday**	Number of Times……. Don't Know…… ……..……9	
	F. VITAMIN A SUPPLEMENTATION		
58	Has (NAME) ever received a vitamin A dose (like this/any of these)? **(ZINA) wali kupokerapo vitamin A wangati uyu?** **Show common types of capsules**	Yes……..……1 No……..…….2 Not Applicable……..…….3 Don't know……..……..…….. 9	➔ 55 ➔ 55 ➔ 55
59	Did (NAME) receive a vitamin A dose within the last 6 months? **Pamyezi six iyo ya jumpha,(ZINA)walikupokerapo vitamin A?**	Yes……..……..……1 No……..…….2 Don't know……..…….. 9	
G. **CHILD IMMUNIZATIONS** **KATEMERA WA MWANA**			
60	Do you have a card or child health booklet where (NAME'S) vaccinations are written down? **Muna kadi ya sikelo ya (ZINA) umo muli kulembeka bakatemera?** **If yes: May I see it please? Not seen{ }** **Ningayiwonako?**	Yes……1 No……..……..…….2 Don't know……..……..……..…… 9	➔ 58 ➔ 58

61	**Copy vaccination date for DPT1, DPT3 (/Pentavalent) and Measles from the card or booklet.** **If vaccines are not recorded in child health card or booklet, fill in 99/99/9999.** **If Measles is recorded on card skip to ➔ Q. 58**	Day Month Year DPT1.|___|___|/|___|___|/|___|___|___|___|___| /Pentavalent DPT3.|___|___|/|___|___|/|___|___|___|___|___| /Pentavalent Measles.|___|___|/|___|___|/|___|___|___|___|___|	
62	Did (NAME) ever receive an injection to prevent Measles? ***Do not ask, if measles date is indicated in Q56 and circle Yes*** **Kasi (ZINA) walikupokerapo katemera wachikhoso chakufuma?**	Yes……..……1 No……2 Don't know……..…….. 9	

H. MALARIA			
63	When you were pregnant with (NAME), did you take any drugs to	Yes……..……..1	

	prevent malaria? **Apo mukaba na nthumbo ya (ZINA) mukamwapo munkhwala wa kuvikilira ku malaria?**	No……..……...2 Don't know……..……8	➔ 60 ➔ 60
64	Which drug did you take? ***Probe if Panado or aspirin is mentioned.*** **Mukamwa munkhwala wuli?** **RECORD ALL MENTIONED**	SP/Fansidar……..……..…….A Other……..X Unknown drugs……..Z	
65	Has (NAME) been ill with fever at any time in the last 2 weeks? **Ka (ZINA) wali kuthukirapo thupi pa masabata yawiri yajumpha***?*	Yes……..……....…...……1 No……2 Don't know……....…..…… 9	 ➔ 65 ➔ 65
66	Did you seek treatment for the fever? **Kasi mukamupenjerapo wovwiri uliwose?**	Yes……...……..……1 No……...…….2	 ➔ 65
67	How many days after the fever began did you first seek treatment for (NAME)? **Pakajumpha mazuwa ghalinga kuti mupenje wovwiri?**	Same day……...……..…1 Next day……....…….……...2 Two or more days…….…….……3	
68	During the illness did (NAME) take any drugs for the fever? **Wakamwapo munkhwala uliwose?**	Yes…….....…….……1 No……2 Don't know……..…… 9	 ➔ 65 ➔ 65
69	What drugs did (Name) take? **Wakamwa munkhwala uli?** Any other drugs? **Wukabaposo unyake?** Record all mentioned. For each antimalarial medicine ask: How long after the fever started did (Name) start taking the medicine? **Pakajumpha madazi yalinga kuti wayambe kumwa munkhwala?** **Read each medicine to the respondent**. Circle the appropriate codes. If child did not receive that drug, leave blank. Same day = 1 Next day after the fever = 2 Two or more days after the fever =3 Don't Know=8	<u>Antimalarial</u> A. SP/Fansidar……..……1 2 3 8 B. Quinine……..……..……..1 2 3 8 C. ACT (Artemisinin)..……..…… 1 2 3 8 D. Other(Specify)_____1 2 3 8	
70	Does your household have any mosquito nets that can be used while sleeping? **Kasi muli na usikiti (net) mu nyumba yinu?**	Yes……1 No……2	 ➔ 69
71	Who slept under a bednet last night**?** **Ninjani uyo wakagonamo mu usikiti (net) usiku wajumpha?** **Listen to all responses and if the Child (Name) is mentioned, record child. If not record other.**	Child (NAME)……..……..……..1 Other ……..……..…….....2	 ➔ 69

72	Was the bednet that (NAME) slept under last night ever soaked or dipped in a liquid treated to repel mosquitoes or bugs? **Kasi net iyo mukagona (ZINA), yilikubizgika mu munkhwala wakuchimbizga nyimbo na sikizi/nkhunguni?**	Yes……1 No……2 Don't know…… 9	➔ 69 ➔ 69
73	How long ago was the net last soaked or dipped? **Pajumpha nyengo yitali wuli kufuma apo mukabizgira usikiti(net) mumankhwala ?** **If less than 1 month ago, record 00 months. If less than 2 years ago, record months ago. If 12 months ago or 1 year ago, probe for exact number of months**	Months…… ☐☐ More than 2 years ago……95 Don't Know……99	

I. *KUCHEPESKA MATENDA GHA PAMTIMA/ KUFUMIRA*
CONTROL OF DIARRHOEA

74	Has (NAME) had diarrhoea in the last two weeks? **(ZINA) wafumirapo pamasabata yabiri yajumpha agha?**	Yes……1 No……2 Don't know…… 9	 ➔ 73 ➔ 73
75	Was s/he given any of the following to drink at any time since s/he started having diarrhea: **Kasi apo wakafumiranga, mukamumweskako ivi** : a) **ORS (Maji ya gha mchere gha ku chipatala)** A fluid made from an ORS packet b) **Vya kumwa vinyakhe vakusangika mukaya** Homemade fluid?	Yes No DK Fluid from ORS Packet……1 2 9 Homemade fluid……1 2 9	
76	Was anything (else) given to treat the diarrhea? **Mukamupaso wovwiri unyake?**	Yes……1 No……2 Don't know…… 9	 ➔ 73 ➔ 73
77	What (else) was given to treat the diarrhea? **Mukamupa vichi?** Probe, anything else? Record all the treatments.	<u>Pill or Syrup</u> Antibiotic (flagyl, bactrim, amoxycilin, tetra)……A Antimotility……B Zinc……C Injection **Nyereti**……D Intravenous fluid(Drip)……E Home remedy/herbal medicine **Mankhwala ya chi boyi**…… F Other ……X	

J. CHILASO
ARI/PNEUMONIA

78	Has (NAME) had an illness with a cough that comes from the chest at any time in the last two weeks? **(ZINA) walikurwarapo chikhoso (Chilaso) pamasabata ghabiri ghajumpha?**	Yes……1 No……2 Don't know…… 9	 ➔ 77 ➔ 77
79	When (NAME) had an illness with a cough, did he/she have trouble breathing or breath faster than usual with short, fast breaths? **Kasi apo wakarwaranga wakasuzgikanga kuthuta, panji wakathutiranga mchanya?**	Yes……1 No……2 Don't know…… 9	 ➔ 77 ➔ 77

80	Did you seek advice or treatment for the cough/fast breathing? **Mukapenja wovwiri uliwose?**	Yes……1 No……2	 ➔ 77
81	Who gave you advice or treatment? Anyone else? **Ni njani wakamupani wovwiri?** **Wakabaposo munyakhe?** **Record all sources mentioned.**	Doctor……A Nurse……B Clinical Officer/medical assistant……C HSA……D Other……X	
K. *MAJI NA UKHONDO* **WATER AND SANITATION**			
82	**(a)** what is the major source of your drinking water? **Maji ya kumwa mukuteka nkhuni?**	Borehole……1 Tap water……2 Protected wells……3 Unprotected wells……4 Rainwater……5 River……6 Other (specify)……7	
	(b) Do you treat your water in any way to make it safe for drinking? **Maji yinu mukuchita nayo kalikose kuti ghabe ghawemi kumwa**	Yes……1 No……2	 ➔ 79
83	If yes, what do you usually do to the water to make it safer to drink? **Mukuchita nayo vichi?** **Record all sources mentioned.**	Let it stand and settle/sedimentation……A Strain it through cloth……B Boil……C Add bleach/Chlorine/water guard……D Water filter (Ceramic, sand, composite)……E Solar Disinfection……F Other……X Don't Know……Z	
84	*Can you show me where you usually wash your hands?* ***Nyengo zinandi, mukugezera nkhuni m'mawoko?*** ***ASK TO SEE AND OBSERVE***	Inside/near toilet facility……1 **Mu/ pa/ chimbuzi** Inside/near kitchen/cooking place……2 **Mu/pafupi/ nakhichini** Elsewhere in yard……3 **Palipose mubalaza** Outside yard……4 **Kuwalo kwa balaza** No specific place……5 **Palipose** No permission to see……8	 ➔ 81 ➔ 81

85	**OBSERVATION ONLY:** IS THERE SOAP OR DETERGENT OR LOCALLY USED CLEANSING AGENT? **this item should be either in place or brought by the interviewee within one minute. if the item is not present within one minute check none, even if brought out later.**	Soap……1 Detergent……2 Ash……3 Mud/sand……4 None……5 Other ……6	 ➔ 83 ➔ 83 ➔ 83 ➔ 83
86	*Did you use soap of any kind for any reason yesterday during the day or night?*	Yes……1 No……2	 ➔ 83

	Kasi mayiro mukagwiriskako ntchito sopo yiliyose?		

87	*When you used soap yesterday in the day or night, what did you use it for?* ***Mukagwiriska ntchito sopo pa mulimo wuli?*** **If for washing my or my children's hands is mentioned, probe what was the occasion, but do not read the answers.** ***(Do not read the answers, ask to be specific, encourage "What else" until nothing further is mentioned and check all that apply.)***	Before food preparation……...…….A Before feeding children……..……B After defecation.....…….…….…….C After attending to a child who has defecated…...…..D OTHER ..... ……...….... X	
L. ANTHROPOMETRICS			
88	May I weigh (NAME)? **Ningamupima pa sikelo (ZINA)?**	Yes……...……...…1 No……...……...…….2 |_____||_____| . |_____| Kilograms	➔ end

THANK MOTHER

End time_____

ANNEX 7: MALAWI NEWBORN HEALTH PROGRAM - FRONTLINE HEALTH WORKER TRAINING MATRIX

HSA=Health Surveillance Assistant; HF=Health Facility, HW=Health Worker; CBMNC=community package, IMNC=Facility Package

District	District Population[2]	Number of HSAs in District[3]	# HFs with CBMNC	# HSAs trained	# HFs with IMNC	# FB-HWs trained (complete IMNC) including TOTs	# FB-HWs trained (ENC/KMC only) in-service	Partners conducting trainings	Donors
Northern Region									
Chitipa	193,294	145	9	147	9	62	0	SC & UNICEF	BMGF/SNL & USAID
Karonga	281,131	196	3	25	14	32	0	SC/WHO	USAID & WHO
Nkhata Bay	210,872	176	4	19	18	18	0	WHO	WHO
Rumphi	171,761	166	8	95	1	2	43	ACCESS/MCH IP/SC	USAID
Mzimba	861,819	565			9	32	18	SC	USAID & Newman's Own Foundation
Likoma	12,960	11	1	11		0	0	ACCESS/MCH IP	
Central Region									
Kasungu	738,010	584			1	2	2	WHO	WHO
Nkhotakota	340,429	248	11	125	1	3	41	ACCESS/MCH IP	USAID
Ntchisi	265,117	203	1	10	1	4	0	SC, ACCESS/MCH IP	USAID
Dowa	576,230	487	21	345	21	62	0	SC & UNICEF	BMGF/SNL & USAID

[2] Source: 2011 projections from Malawi National Statistics Office

[3] Source: 2010, Malawi Emergency Human Resources Program (EHRP)

District	District Population[2]	Number of HSAs in District[3]	# HFs with CBMNC	# HSAs trained	# HFs with IMNC	# FB-HWs trained (complete IMNC) including TOTs	# FB-HWs trained (ENC/KMC only) in-service	Partners conducting trainings	Donors
Salima	393,067	345			1	2	0	SC	USAID
Lilongwe	2,292,995	1,100			9	17	25	SC	USAID & Newman's Own Foundation
Mchinji	508,252	360		40	13	17	0	SC	USAID
Dedza	745,124	540		40	6	16	2	SC/WHO	USAID & WHO
Ntcheu	569,111	469	13	68	13	30	0	SC/WHO	USAID, WHO & Norwegian Church Aid
Southern Region									
Mangochi	881,085	615		40	1	2	2	SC	BMGF/SNL & USAID
Machinga	464,765	372	9	108	1	2	51	ACCESS/MCH IP	USAID & Norwegian Church Aid
Zomba	825,870	678			8	16	3	SC/WHO	USAID, WHO, Norwegian Church Aid & Newman's Own Foundation
Chiradzulu	338,567	272	9	120	12	18	3	SC	USAID
Blantyre	1,344,290	587			1	2	2	SC	USAID/ Newman's

District	District Population[2]	Number of HSAs in District[3]	# HFs with CBMNC	# HSAs trained	# HFs with IMNC	# FB-HWs trained (complete IMNC) including TOTs	# FB-HWs trained (ENC/KMC only) in-service	Partners conducting trainings	Donors
									Own Foundation
Mwanza	203,634	82			3	17	0	SC	USAID
Thyolo	671,013	502	25	425	21	63	23	SC, UNICEF & CHAM	BMGF/SNL, USAID & Norwegian Church Aid
Mulanje	631,366	451			11	17	0	SC	USAID & Norwegian Church Aid
Phalombe	357,751	265	7	110	1	2	29	SC	USAID / Newman's Own Foundation, Norwegian Church Aid
Chikwawa	520,782	356			1	4	0	ACCESS/MCH IP	USAID
Nsanje	265,021	205			12	20	3	SC	Newman's Own Foundation / USAID
Balaka	369,408	268	4	53	5	27	2	SC	
Neno	Mwanza estimate contains Neno figure	74				0	0		
	15,033,724	10,322	125	1781	194	489	249		

ANNEX 8: EVALUATION TEAM MEMBERS AND TITLES

CORE Team

Dr. John Murray – External Consultant, Team Leader
Dr. Abigail Kazembe – External Consultant, Lecturer, Kamuzu College of Nursing
Karen Z. Waltensperger – Save the Children, Senior Advisor, Health—Africa Region (Technical Backstop)
Nathalie Gamache – Save the Children, Saving Newborn Lives, Associate Director, Country Program Support and Coordination Unit

EXTENDED Team

Kelvin Nindi, Child Health Unit, UNICEF (field trip to Mzimba and Chitipa)
Modesta Kasawala, Acting RHU Family Planning Desk Officer, (field trip to Thyolo and Zomba)
Joby George – SCiMw, Senior Health Manager
Evelyn Zimba –SCiMw, Senior MNH Program Manager
Edward Chigwedere – SCiMw, Health Program Research, Monitoring and Evaluation Manager
Ruben Ligowe – SCiMw, MNH Program Coordinator
Mwandida Mvuma – SciMw, MNH Project Officer
Eteaner Phiri – SCiMw, MNH Project Officer
Cristina Munk – SCiMw, MNH Program Intern
Debra Howe – Peace Corps Volunteer/Every One Campaign Coordinator
Anna Chinombo – MCHIP/SC, Community MNH Specialist
Victoria Shaba – SCiMw, HBB Coordinator
Emmanuelle Chimbalanga, SCiMw, Monitoring and Evaluation Officer

ANNEX 9: EVALUATION ASSESSMENT METHOD

Summary of evaluation process

The final evaluation was designed to review progress towards achieving project goals and objectives; and to determine to what extent project activities contributed to results. The core final evaluation team included representatives from the MOH/RHU, UNICEF, MCHIP and the Kamuzu College of Nursing as well as staff from the MNHP and SC Washington DC. Evaluation team members are listed in Annex 8.

The evaluation was conducted between September 12 and September 30, 2011. It had originally been scheduled for August 15-26, 2011, but was delayed due to anti-government protests and the threat of civil unrest. Teams visited Mzimba, Chitipa, Thyolo and Zomba districts between September 13 and 16; Dowa district was visited on September 20. Interviews with central level informants were conducted between September 21 and 28. The core evaluation team met at the beginning of the evaluation to review responsibilities of team members, collect documents and the schedule for key informant interviews; the core team met regularly during the evaluation process to review findings and monitor progress. All findings were discussed and synthesized by the core evaluation team. Main findings and recommendations were reviewed and discussed with MNHP program staff and the staff of UNICEF, USAID, MOH/RHU on September 29, 2011. Following these meetings evaluation findings and recommendations were further revised and finalized.

Three sub-teams were formed for site visits to districts: one team visited Lilongwe/Dowa, one Mzimba and Chitipa, and one Thyolo and Zomba. The Save the Children country office worked with the RHU, zonal, and district-level partners to organize all schedules for national-level interviews and field visits to District Health Management Teams (DHMTs), KMC units, health centers, Health Surveillance Assistants (HSAs), community leaders, and other key partners. Topic guides were developed by the lead evaluator, adapted for local use and used by field teams to guide interviews with key informants.

Summary of evaluation methods

Four principal methods were used for the evaluation:

Review of survey data including:
National DHS and MICS surveys
A national assessment of EmONC
Baseline/endline KPC surveys (Mzimba District)
Baseline/endline surveys (3-MNHP focus districts)
Health facility assessments (3-MNHP focus districts)
KMC retrospective study

Document review – including:
DIP
Report of Midterm Evaluation

Annual Reports for Years 1, 2, ,and 4
Malawi SNL Telling the Story (TTS) of change for newborn health documentation
Ekwendeni *Agogo* Approach documentation
Other materials, reports and program documentation, including health education and training materials

3) Field visits to Chitipa, Dowa, Mzimba, Thyolo and Zomba districts – site visits were made to district and sub-district health facilities and communities, and in-depth interviews conducted with district staff, health facility staff, and community members.

4) In-depth interviews with partners and stakeholders at the national level.

Key informant interview guidelines

MNHP: Key Informant Interviews: implementation districts (including 3 focus districts (Chitipa, Dowa, Thyolo) and Mzimba District

What is the purpose of key informant interviews?

Key informant interviews ask the question: "How well have program activities been implemented, and what are the barriers to effective implementation?"

Key informant interviews provide qualitative data from caretakers of newborns, community leaders, HSAs, facility-based health workers and district staff. They provide information about difficulties caretakers face in accessing services or information in communities. They may help identify problems HSAs have in reaching communities they serve and of completing their tasks. They may also provide ideas for making improvements that will improve coverage.

Field interviews can help:

Explain what is working and not working
Identify barriers to improving program performance
Explore reasons for and solutions to problems

Who should be interviewed?

Key informants for the MNHP could include:

District staff – medical officer, supervisors, DHMT members, medical officers, CBMNC coordinators, District Environmental Health Officers, DNOs, HMIS officers,
Facility-based health workers who see newborns at hospitals and other health facilities
Midwives
HSAs
Caretakers of young children
Key members of communities such as leaders of village health committees

How many health workers, HSAs or caretakers should be visited?

In each district, consider conducting (as many as are feasible):

An interview with at least 2 key district staff – DHMT member, medical officer, supervisors responsible for maternal and newborn health – including EHOs
An interview with at least 2 staff involved in KMC
An interview with at least 4 facility staff– hospital, health center, health post or dispensary; try make one of the two of the staff a midwife
An interview with at least 2 HSAs
An interview with 2 caretakers of children 0-11 months of age
An interview 2 key community members

How should key informants be selected?

To select facility-based informants:

Select facilities to visit: List all HCs, HPs and dispensaries in the district. For each category, randomly select 1-2 facilities from the list.

Select key informants at each facility. At each facility, conduct an interview with the most senior health worker, responsible for seeing newborns. Also conduct an interview with the most senior midwife responsible for deliveries at the facility, if available.

To select HSAs:

At the health center you have visited to conduct an interview, list all the HSAs serving villages in that health facility catchment area. Randomly select two – realistically, they will probably be selected by convenience. The important thing is to document who you spoke to and what their position is.

To select community informants:

Caretakers of young children. List women who have delivered in the previous 12 months from the HSA register list. Randomly select 2 women from the list. Ask the HSA to help find the women and arrange for them to meet for a short interview. If a woman is not available, randomly select another woman from the list.

Other community informants. Ask the HSA to identify the head of the village health committee or other key local leaders. Ask the HSA to help find these people for a short interview. Alternative informants could include a TBA or traditional healer.

How should interviews be conducted?

It is important that the interviewer does not prompt answers and that they allow informants to express their opinions. Caretakers of young children may respond better to female interviewers. Interviews should all be conducted with the informant alone, without other health staff, or community members present – to ensure that they do not influence responses. Interview topic guides are a way of guiding the discussion but are not a questionnaire. The questions do not

have to be asked in any particular order, but the main issues should be covered – responses are noted on a separate notebook.

What preparations are needed?

Key preparations include:

Deciding how to select key informants in each district;
Deciding on the composition of interview teams;
Making logistical arrangements: vehicles, fuel, per diems;
Contacting district staff in advance if necessary;
Adapting interview guides for local use;
Reviewing interview guides with team members to ensure that they are clear on how to complete them.

Introducing Key Informant Interviews

Introduce yourself and explain that the interview is to find out about the maternal and newborn care program

Explain that all responses are anonymous and do not record the name of the respondent

Find a place away from others to ensure that respondents can answer without interference or the feeling that they are being observed or judged

Explain that you are asking questions about pregnancy, delivery and newborns – newborns are babies between birth and 28 days of age

Explain that there are no right or wrong answers. You would like the respondent to answer questions based on his or her own experience and as honestly as possible. You are interested in his or her experience and opinions, so that the program is made better. If something is not working well, or if there are problems, then these should be mentioned. If something is working well, and there are no problems, then these should be mentioned too.

If there is anything else that is of concern to the respondent, that is not raised in the interview, they are welcome to express these other concerns.

Record responses in a separate notebook.

Record:
District/community
Category of respondent (e.g. HSA, DHO, mother, MNH focal person, etc. If a mother, try to get age and number of children and children's ages. If in a group of mothers, do a quick birth history and ask about number of pregnancies and outcomes.)
Topic being discussed
Responses to the topic

Remember: topic guides can help introduce and guide the discussion. There may be other issues or questions that you would like to raise as part of this discussion.

Topic Guide – Planning and management of facility and community-based maternal and newborn care – district level

Suggested Respondents

Key DHMT members/managers
District medical officers

Topics for discussion

Do you think that the maternal and newborn care has been successfully incorporated into routine programming at the district? Is the CBMNC package well accepted? If not, what have been the barriers to making it a part of routine activities?

Is it possible to sustain the CBMNC package when partner support finishes? How do you think training and other activities will continue when partner support is no longer available

What have been the most difficult part of the CBMNC package to implement? Why? Are there any ways to make implementation easier or more feasible with the available resources?

Have you received data routinely on progress with maternal and newborn care from the routine HMIS or from HSA reports? Do you think the data collection and management process has been effective? If yes, why? If not, why not? Is there anything you would suggest to improve the collection and use of data in this area?

Do you think you have received adequate support and supervision in the area of maternal and newborn health – in particular for the implementation of the CBMNC package? If not, in what areas do you need more support?

How well have the partner organizations involved in implementing CBMNC coordinated and linked with the district? What could be done to improve how different partner/funding organizations help you implement activities on the ground?

Are there any other barriers to implementing CBMNC at the district level? If so what would you do to overcome these barriers?

Topic Guide – Training in maternal and newborn care for facility-based health workers

Suggested Respondents

District medical officers/supervisors
Health workers based at hospitals, HCs, HPs and dispensaries

Topics for discussion

Does the district have a completed training plan for the IMNC package, using new integrated training materials/guidelines available? [If so, ask to see it] What fraction of health workers have been trained? Why has training not taken place? What are the barriers to getting training done?

What has been the response to IMNC training? Is time allocation adequate? Is there enough skills practice included in the training? Is there anything about the training that you would do differently?

Do you think that the IMNC training has improved antenatal, delivery, postnatal care and management of sick newborns at health facilities? Are health workers able to practice according to standards and guidelines recommended in the training? If not, what are the reasons they cannot follow recommended standards and guidelines?

Are data used to track quality of MNC provided at health facilities? If yes, what data are used? If not, how can data be collected?

What are the main barriers to improving the quality of MNC at health facilities? How are these being addressed?

Topic Guide – Community-based maternal and newborn care package

Suggested Respondents

DHMT members, district medical officers/supervisors
Health workers based at HCs, HPs or dispensaries
HSAs

Topics for discussion

Is an HSA training plan available for the district? Have all HSAs in this district been trained in the CBMNC package? What fraction has not been trained? Why has training not taken place? What are the barriers to getting training done?

Is there enough skills practice included in the training? Is there anything about the training that you would do differently?

Do you think implementation of the CBMNC package in this district has made a difference to antenatal, delivery and post-natal care for women and newborns? Why do you think this? (Explain)

Is it difficult for HSAs to find all pregnant women in their areas? What are the reasons for these difficulties? Are there parts of this area where pregnant women may be difficult to reach? What would you do to improve the ability of HSAs to find all pregnant women?

Are HSAs able to conduct antenatal and postnatal visits? Can post-natal visits be made in the home within 48 hours of delivery? What are the barriers to making home visits? What would you do differently to improve home visits?

Are the HSA recording forms difficult to complete? Have forms been available? Is all the information on the forms useful? Are the data used by HSAs, health centers or district staff to make decisions? Is there anything you would do to make the forms easier to complete?

Do HSAs communicate frequently with health centers in their area? If yes, why? If not, why not? Is there anything you would do to improve links between health centers and HSAs?

Are data reporting requirements for the CBMNC package clear at all levels? Are these data being reported regularly? Is too much data collected? What can be done to improve data reporting on MNC?

As the CBMNC package continues in your area, do you think itis sustainable in the long term? Is there anything you would do to make it more likely to be sustainable?

For HSAs: What other community based packages are you delivering (CCM, ART/HIV/PMTCT, home based care, CTC- Community Therapeutic Care, immunizations, TB/DOTS, surveillance, water and sanitation, family planning)? What proportion of your time do you spend on the CBMNC package? Is it sufficient? How do you manage/organize your schedule? How much of your time do you spend at the facility? Right now, how many antenatal and postnatal mothers do you have to visit? Do you reside in your catchment area? If not, why not?

Topic Guide – Availability of supervision for Facility and Community-based Maternal and Newborn care

Suggested Respondents

District supervisors.
Health workers based at hospitals, HCs, HPs or dispensaries.
HSAs.

Topics for discussion

What proportion of supervisors have been trained in supervisory skills for maternal and newborn health - for supervisors of both facility-based health workers and HSAs. Has this improved in the last 2 years? Is more training needed?

Have all planned visits in the last 6 months been conducted? Has this changed in the last 2 years? What are the most important reasons that supervision visits do not take place?

Do supervisors use integrated maternal and newborn checklists? Have checklists for facility-based staff been revised based on the new integrated maternal and newborn training materials? Do checklists work well? What are the problems with using checklists?

Do supervisors usually conduct observations of practice? If not, why not?

Are any data available on how well health workers are practicing key household tasks during antenatal and post-natal visits? What is the impression of the quality of antenatal and postnatal care, based on supervisory visits?

Do supervisors usually give immediate feedback on their findings?

Are records of findings and actions to be taken, left at the facility or with health workers?

Do supervisors usually follow-through with actions they have promised?

Are supervisors generally supportive? What problems and successes have you seen?

What are the main problems with supervision, from your point of view?

What are possible solutions to supervision problems, from your point of view?

For HSAs: who is your supervisor? How many times have you been supervised in the last three months? What does the senior HSA supervise you on? If a mother or newborn is sick and there is a health problem that you can't solve, who do you go to for help?

Topic Guide – Availability of essential medicines and supplies for Facility and Community-based Maternal and Newborn Care

Suggested Respondents

District medical officers/supervisors
Health workers based at hospitals, HCs, HPs or dispensaries
HSAs

Topics for discussion

Are stock-outs/lack of availability of essential medicines and supplies for MNC a problem? If so, which medicines or supplies have been in short supply?

Consider:
Suction apparatus
Self inflating bag and mask
Digital thermometers
Weighing scales
Job aids (for ENC, PNC, management of birth asphyxia, sepsis, LBW, counseling cards for HSAs, picture cards for the core groups)
Forms and registers
Bicycles/protective clothing
Motorcycles
Bicycle ambulances

What are common reasons for stock outs in your area?

Consider:
Financial resources available;
Provision of drugs from the central level;
District or re-ordering and distribution practices;
Facility-level ordering or distribution practices;
Too much drug being used.

What are the main problems with supply of essential medicines and supplies, from your point of view? Have any of these problems been solved by implementation of the CBMNC package?

What are possible solutions to supplying essential drugs, vaccines and equipment, from your point of view?

Topic Guide –Community Mobilization for Maternal and Newborn Health

Suggested Respondents

District medical officers/supervisors
Health workers based at hospitals, HCs, HPs and dispensaries
HSAs

Topics for discussion

Have all HSAs in this district been trained in the CBMNC community mobilization package? How many have not been trained? Why has training not taken place? What are the barriers to getting training done?

Is there enough skills practice included in the community mobilization training? Is there anything about the training that you would do differently? Have you used the "Core group" approach, and does this work well?

Have "core groups" for maternal and newborn health been formed? If yes, have they worked well? How have they been guided by the community action cycle? Are the core groups active?

Do HSAs have materials such as counseling cards and other job aids available for community education? If no, why are these not available?

What are the barriers to sustaining community-mobilization training? What would you do to ensure that it continue in the longer term?

Topic Guide – Management of sick newborns

Suggested Respondents

District medical officers/supervisors
Health workers based at hospitals, HCs, HPs or dispensaries
HSAs
Community informants and caretakers

Topics for discussion

Do caretakers and families recognize danger signs in newborns? Are more sick newborns reaching health facilities in the last 2 years? If not, why not? Can anything be done to change how well they recognize danger signs?

Do mothers with sick newborns seek care from HSAs first? If not, where do they go first? Why do they go to this source first? What could be done to get them to seek care from HSAs first?

Do caretakers of newborns referred to the next level always accept referral? If not, what are the reasons they do not go for referral? What could be done to improve their likelihood of going for referral?

Has there been any improvement in availability of transportation for newborns who need urgent referral? What methods have been used in this district? Are other options available? What needs to be done to improve the availability of transportation?

If a sick newborn is able to be taken to the facility, are they treated well / correctly?

Is it difficult for HSAs to follow-up sick newborns in the home? If yes, why is it difficult?

Topic Guide – Community-based Activities for Maternal and Newborn Health

Suggested Respondents

District medical officers/supervisors
Health workers based at hospitals, HCs, HPs or dispensaries
HSAs
Key community informants and caretakers

Topics for discussion

What are the most useful approaches to giving information about maternal and newborn care in your experience? Are the materials available for health education/community mobilization adequate? Are other materials needed? What materials are needed?

Do you think that more women are aware of the need for antenatal and postnatal care since activities began? Have attitudes towards pregnancy, delivery and care of newborns changed? What changes in attitudes have you seen?

Are there any barriers to conducting maternal and newborn mobilization activities in the community? If yes, what are they?

Do local partners provide support for community-based activities? If not, why not? Would you like more involvement of partners? Which partners should be more involved and how?

Do you think there are adequate numbers of HSAs working in the community? If not, why not? How many HSAs are required?

Are there individuals or groups in the community who could be providing newborn information or services, but who are not being used? If yes, which individuals or groups do you mean? Why are they not being used? What could be done to use them better?

Can all people in the community reach health facilities? What are the barriers to getting to health facilities? What would you do to increase access to health facilities in this area?

Topic Guide –Facility-based Delivery Services

Suggested Respondents

District medical officers/supervisors.
Health workers based at district hospitals or HCs.
HSAs.
Community informants and caretakers.

Topics for discussion

Do most women in this area deliver at health facilities? Do you think the proportion has changed in the last 2 years? If yes, what are the reasons for the increase/decrease in the proportion delivering at health facilities?

What are the barriers to women delivering at health facilities?

Are there enough midwives? Are the midwives always available? Has the availability of midwives changed in the last 2 years? What is needed to improve the availability of midwives?
Are all essential equipment and supplies needed to provide delivery services at health facilities available? Has the availability of equipment and supplies changed in the last 2 years? What is most often not available from your experience?

Do you think the quality of delivery care provided at health facilities is adequate? Are clinical guidelines available and are they followed? If guidelines are not followed, why not?

Are mothers and newborns routinely given check-ups before being discharged from the health facility after delivery? Are they given instructions on breastfeeding and on how to care for the newborn at home? Has this changed in the last 2 years?

How long do mothers and newborns stay in the facility after delivery? Is this long enough?

Is it difficult for a pregnant woman who needs emergency care – such as a caesarian section – to get to a hospital providing this care? If yes, why is it difficult? Has this changed in the last 2 years? What is needed in order to get women needing emergency obstetric care to hospital?

Are there any other issues or problems with getting mothers to deliver at health facilities?

Topic Guide – Kangaroo Mother Care

Suggested Respondents

District managers
Key staff in hospitals and health centers implementing KMC

Topics for discussion

Have all staff eligible for KMC training been trained? If not, why not? Are resources and trainers available for training? Will training continue in the longer term?

Is KMC training effective? Is there enough practical training included? Do you think that the 2 day training included in the IMNC training is adequate? Is there anything about the training you would change?

Does your unit have calibrated cups and weighing scales available? Is any essential equipment missing from your facility? If so, what is missing? What are the reasons equipment is not available?

Do mothers and families accept KMC practices? Are there any barriers to getting them to practice KMC?

After discharge, are families followed up in communities by HSAs? Do HSAs have the skills to review KMC? Has anything been done to improve the skills of HSAs in this area?

Does the unit have dedicated staff for KMC?

Is a dedicated KMC register being kept in this unit? If not, why not? If yes, are data on LBW babies receiving KMC used? How are these data used?

What would you do to further expand KMC services at health facilities? What resources are required, and where will these come from?

Topic Guide – Agogo Approach - Ekwendeni

Suggested Respondents

Key staff at Ekwendeni Mission Hospital
Agogo from the hospital or HC catchment areas

Topics for discussion

Are supervision visits by HSAs and the BCC coordinator to *agogo* taking place? If not, why not? What is done at the supervision visits? Are supervision visits useful? What could be done to improve the quality of supervision?

What proportion of trained *agogo* are still active? Is the current status of trained *agogo* in communities recorded? If not, how can this be improved?

In the past, *agogo* have said that their training was too short – and that some topics could be covered in more detail. Have changes been made in the training? If not, are changes planned? If no changes are planned, why not?

Are monthly *agogo* reports received regularly by Ekwendeni? How are these data used? Is feedback given to *agogo* and other stakeholders? Are these data useful?

Are data on the quality of care provided by *agogo* in community available? If yes, what are the strengths and weaknesses identified? Have any actions been taken to improve performance?

Are data on the impact of the *agogo* approach on antenatal, delivery care and postnatal care available? How have these data been used?

How will the training and supervision for the *agogo* approach be continued and sustained in the longer term without Save the Children support?

Have materials giving clear guidance on how to implement the *agogo* approach been finalized? Are there plans to develop these materials? How will the *Agogo* Approach be implemented more widely in the future? Have other organizations expressed interest in using it? What can be done to expand its use?

Topic Guide – Mai Mwana – Mchinji district

Suggested Respondents

Study coordinator/manager
DHO
MNH coordinator

Topics for discussion

Is the final report of the RCT available? How do you feel the RCT was able to contribute to the national CBMNC package?

As the Mai Mwana approach has expanded to Lilongwe, Salima, Kasungu, and Ntcheu, what lessons learnt can Mai Mwana share to enrich the scale up of the CBMNC package?

How well have you linked with the CBMNC package? Do you think more could be done to link with this approach? If so, what? Is Mchinji implementing the CBMNC package in the district? What is the role of UNFPA? What resources is UNFPA bringing?

Have any of the communication activities or materials used in Mai Mwana been adopted at the national level?

When will results from the RCT be published?

ANNEX 10: LIST OF PERSONS INTERVIEWED AND CONTACTED DURING THE FINAL EVALUATION

No.	Partner/Organization	Names of Individuals Contacted
1	United Nation Children's Fund (UNICEF), Lilongwe	Jane Muita, Deputy Country Representative Grace Mlava, Program Officer
2	World Health Organization, Lilongwe	Harriet Chanza, MNH Officer
3	MCHIP (JHPIEGO), Lilongwe	Tambudzai Rashid, Chief of Party
4	United States Agency for International Development (USAID), Lilongwe	Lily Banda, Health Team Leader
5	BASICS (MSH), Lilongwe	Timothy Kachule, Deputy COP
6	MOH Reproductive Health Unit (RHU), Lilongwe	Fanny Kachale, Deputy Director James Chilembwe M&E Coordinator
7	MOH Sector Wide Approach (SWAp), Lilongwe	Dr Anna Phoya, Head of SWAp
8	MOH Primary Health (PHC) Division, Lilongwe	Edwin Nkhono, Chief PHC Officer
9	MOH Health Management Information Unit, Lilongwe	Chris Moyo, Director of Information
10	MOH Integrated Management of Childhood Illness (IMCI) Unit, Lilongwe	Mr Humphreys Msona, IMCI Coordinator
11	United Nations Population Fund (UNFPA), Lilongwe	Dorothy Nyasula, Deputy Country Representative
12	MaiKhanda, Lilongwe	Martin Msukwa, Director
13	Zomba Central Hospital, Zomba	Dr Martias Joshua, Hospital Director (Former Chair of CBMNC Task Force)
14	Association of Malawian Midwives (AMAMI), Lilongwe	Dr. Address Malata, President
15	Nurses and Midwives Council of Malawi, Lilongwe	Martha Mondiwa, Registrar
16	Mai Mwana, Mchinji	Tambosi Phiri, Program Manager
17	Chitipa District Health Office, Chitipa	Burton Jere, District Health Officer (DHO) Felix Simbeye, MNC Coordinator Antonio Kamanga, Hospital Administrator Frank Chilewani – Assistant HR Officer Willy Kanyika, Deputy District Environmental Health Officer Mdziwenji Makombe, Acting District Nursing Officer Clement Simchimba, Deputy District Health Officer
18	Chitipa Community	Senior Chief Mwaulambia
19	Kaseye Rural Hospital (CHAM), Chitipa District	Rosemary Msukwa, Acting Hospital In- Charge Tionge Mhango, Hospital Administrator

No.	Partner/Organization	Names of Individuals Contacted
		Florence Soko, Nurse/ Midwife Austin Mtambo, Senior Health Surveillance Assistant (HSA) Jack Mkhala, HSA
20	Chimaliro Health Center, Chitipa District	Gift Kampika, Medical Officer Mrs Kenala, Maternity Unit In-charge
21	Ifumbo Health Center, Chitipa District	Magret Kafunda, Nurse/Midwife Wanangwa Banda, Medical Assistant Jackson Myila, HSA
22	Northern Zone, Muzuzu	Rose Chisiza, Assistant Zonal Supervisor
23	Thyolo District Health Office (DHO), Thyolo	Dr Lukaka , Environmental Health Officer (EHO) L Undi, Deputy Environmental Health Officer (DEVO) Mr Mulema, HMIS Officer Ms F Chibwana, Nurse Midwife In-Charge Ms Kambanje, Nurse/Midwife
24	Bvungwe Health Center, Thyolo District	Mr George Phiri, Medical Assistant Mr Harry Chilumbu, Assistant EHO Mrs Bwanali, Nurse/Midwife
25	Ekwendeni CCAP Mission Hospital, Mzimba District	Kistone Mhango, PHC Director Rose Gondwe, Newborn Health Coordinator Maggie Munthali, Assistant Newborn Health Coordinator Alfred Chimaliro, BCC Officer 3 trained *agogo*
26	Dowa District Health Office, Dowa	Raphael Piringu, DHO Rosemary Bilesi, District Nursing Officer Towera Ng'oma, District Safe Motherhood Coordinator Henry Kamwesta, CBMNC Coordinator Modesta Nyando, IMNC Provider Owen Gangata, Postnatal Unit/KMC Supervisor Hacque Twaibu, HMIS Officer
27	Dzaleka Health Center, Dowa District	Clemencia Kudowa, Nurse/Midwife Innocent Chunga, HSA
28	Mtengowanthenga Rural Hospital (CHAM), Dowa District	David Kanyerere, EHO
29	Chafinyala Village, Mkukula Traditional Authority, Dowa District	Ida Banda, HSA Core group of 15 women + 5 men Village Group Headman and traditional leaders Home visit to pregnant woman
NOTE: To ensure privacy, names were not recorded for more than 60 community members contacted individually and in groups during the final evaluation. This included a core group of 20, focus groups of mothers and guardians met at maternities and waiting homes, pregnant women visited in their households, and mothers of newborns in KMC unit.		

ANNEX 11: FINAL OPERATIONS RESEARCH REPORT
Not applicable

ANNEX 12: SPECIAL REPORTS

Annex 12A: Malawi Newborn Survival Policy and Program Timeline
Annex 12B: Summary of Scale-Up Readiness Benchmarks for Newborn Health in Malawi
Annex 12C: Malawi Facilities with KMC Units or Services (September 2011)
Annex 12D: Malawi Newborn Health Program Partner Matrix
Annex 12E: Pathway to Implementation of MNH Program in Malawi

Annex 12A: Malawi Newborn Survival Policy and Program Timeline

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
National context - political, humanitarian, etc.						
	• Budget support from donors	• Famine/food insecurity	• Bingu wa Mutharika elected president • Massive flooding ravaged parts of country • Famine/food insecurity	• SWAp 1 Health Sector • Intro of subsidized farm inputs (e.g. fertilizer, seeds, insecticides)		• Bingu wa Mutharika re-elected
Newborn survival increasingly incorporated at national level in macro policies, strategies, and plans (health sector MNCH - not NEWBORN specific)						

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
National policies, strategies, plans, and milestones	• Safe Motherhood Initiative (1994) • Safe Motherhood Task Force (est. 1992) • National Strategic Plan to reduce maternal mortality (1995) • Reproductive Health Unit established (1997) • HSAs - government salaried cadre of community health workers linked to health facilities	• National Reproductive Health Policy (2002) • Gov't of Malawi commits to MDGs •Change in policy for Nurse and Midwife Technicians to provide BEmOC • Restructuring of HMIS started (2001) •Transportation improvements • Service Level Agreement (SLA) MOH subsidies CHAM to provide free services for mothers and newborns (2002)	•Essential Health Package launched (2002) funded through SWAp •Drafting of Essential Newborn Care Package (May 2003) • PMTCT introduced (2003) • Motivation training cadre - doubling of intake in training institution • Free ARVs (2004) • Introduction of Emergency Human Resource Programme (2004)	• Developed "Road Map for Accelerated Reduction of Maternal and Neonatal Mortality and Morbidity" which then linked to EHP • Revised National Reproductive Health Strategy 2006-2010 (newborn incorporated) • New Roles for TBAs assessment completed (August 2006)	• Official launch of Road Map with increased funding (March 2007) • Official role of TBAs shifted to promotion of skilled attendants at delivery (March 2008) fully implemented across Malawi by January 2009 • ANC routine HIV testing (2008) • Community IMCI (2007) •Adopted 5-year plan for ACSD and cIMCI including newborn (2007)	• CBMNC package endorsed by MOH/RHU for scale up to all districts (2010) • Reproductive Health Policy and Strategy revised • Policy for introduction of ARVs to pregnant women regardless of CD4 count • Emergency Human Resource Programme e.g. Recruitment of 4000 new HSAs • Co-trim prophylaxis as part of PMTCT for exposed infants • Community midwife nurse program initiated by First Lady and Calista Muthalika Foundation (2010). First training of community midwifes (Feb 2011)

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
Newborn specific interventions increasingly incorporated in programs and implemented						
NEWBORN specific strategies, plans, and milestones		•Situation Analysis on Newborn Health in Malawi published (2002)	• Neonatal Care Protocols (March 2004) •Malawi achieves Maternal Neonatal Tetanus elimination (2004)	• Malawi Newborn Health Program commenced (Oct 2006) • Malawi MICS survey increased sample size to provide better estimates of NMR (2006)	•National Task Force on CBMNC established by MOH/RHU (Feb 2007) and monthly meetings co - funded by Save the Children and UNICEF	• Adaption of clean delivery kit and integration into existing package (still in progress) • Dissemination of CBMNC package done; MNCH indicators revised (2010 – 2011) • Joint statement UNICEF - WHO on post natal home visits (2010)

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
Facility quality improvement			Whole Blood Rapid Test for syphilis in policy (May 2004) • Maternal Death Audits, confidential enquiry committee	•ENC/KMC incorporated into RNM curriculum (Feb 2005) • Revised Reproductive Health Service Delivery Guidelines 2007 • Quality Improvement programme aimed at reducing maternal and neonatal deaths in 9 hospitals across Kasungu, Lilongwe and Salima (May 2006) • Improved infrastructure of rural hospitals • Program quality improvement (PQI) started in all districts by JHPIEGO • Infection prevention for maternal health program by JHPIEGO	• Integrated Maternal and Newborn Care (IMNC) in-service training manual finalized and endorsed by MOH (2010) • Health Facility Assessment of MNH services in 3 districts (2008) • Training of facility-based health workers using IMNC training manual - 35 trainers and 242 health workers • (re-)launch PQI programme aimed at reducing maternal and neonatal deaths in 29 Health Centres across Kasungu, Lilongwe and Salima (July 2008)	• Major investment in maternity facilities with 2 new maternity units in Lilongwe, including 2 large new KMC units (funding Clinton-Hunter foundation, Italy, Ireland) • Official opening of Bwaila and Ethel Mutharika maternity hospitals in Lilongwe

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
Community packages, workers and materials			• Ekwendeni CCAP Mission Hospital trains 3000 *Agogo* (grandparents) in Mzimba District (2004)	• Ekwendeni *Agogo* Approach expanded with documentation and M&E (Sept 2006) Trained additional 1000 *Agogo* (2006 - 2008) • MOH officials travel to SEARCH project in Gadchiroli, India (Aug 2006) • Development of guidelines for Reproductive Health Community Initiative 2006 with technical attention for newborns	• CBMNC package with HSA training materials including community mobilization training manual, picture cards and counseling cards (2008) • Evaluation plan for CBMNC package and ethical clearance • CBMNC/CM implemented in7 with districts with evaluation and costing in 3 learning districts with involvement of District Assembly, District Health Offices, local leaders and community	• National Task Force on CB Newborn Care integrated with National Safe Motherhood Task Force (Feb 2009) • Representatives from Medical Council and Nurses council travel to SEARCH project in Gadchiroli, India (Feb 2010) • Costing of CBMNC package including HSA time spent - plans underway to disseminate it • Ongoing implementation of CBMNC with 60 trainers and over 1000 HSAs trained in CBMNC including community mobilisation • Ekwendeni Agogo Approach disseminated at national level Dec 2010 • ANC and PNC units integrated into HSA basic training curricula

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
Preterm	•Zomba KMC unit opens (1999)	•Zomba KMC training unit opens (2002)	•Malawi National Guidelines on KMC (adopt Feb 2005) •KMC training manual and visual materials published (Feb 2005) • IPTp and bednet policy change and increased coverage	•Large new KMC unit opens in Blantyre, funded by UNICEF and evaluates use of patient attendants for KMC	• KMC scale-up in 8 district hospitals funded by SC/SNL, and national scale up linked to Roadmap funded by African Dev bank • KMC materials reprinted with gov logo • KMC retrospective evaluation with South Africa MRC to inform national scale up (2007)	• KMC in 26 districts and 10 CHAM facilities. 60 IMNC trainers and 244 health workers trained in IMNC that includes KMC • National KMC guidelines revised to include ambulatory and community care (March 2009)
Intrapartum-related			•Pre-service training KMC/Essential Newborn Care incorporated into CHAM ENM/NMT training (2004)	• Resuscitation training in some hospitals by 7th Day Adventists (advanced resus protocol)		• Resuscitation drills in hospitals in Kasungu, Lilongwe and Salima supported by MaiKhanda
Sepsis				IMCI algorithm and training materials adapted to include care of newborn illness at facility level (2006 – 2007)		Pilot for HSAs to give pre-referral dose of antibiotics for sick newborns 2010

	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010
Research			•Mai Mwana cRCT study (SNL funding 2003-2008) testing volunteer infant feeding counselors and community women's groups	•Mai Mwana cRCT study (SC/SNL funding 2003-2008)	•Mai Mwana cRCT study (SC/SNL funding 2003-2008) • MaiKhanda cRCT study (2007-2010) testing QI at Health Facilities and community women's groups	•Mai Mwana cRCT study (SC/SNL funding 2003-2008 and Wellcome Trust funding up to 2013) • MaiKhanda cRCT study (2007-2010)
	Pre-2000	2000-2002	2003-2004	2005-2006	2007-2008	2009-2010

Acronyms:

ACSD	Accelerated Child Survival and Development
ARV	Antiretroviral therapy
ANC	Antenatal care
CBMNC	Community-Based Maternal and Newborn Care
CHAM	Christian Health Association of Malawi
BEmOC	Basic Emergency Obstetric Care
cRCT	cluster Randomized Control Trial
DHS	Demographic Health Survey
EHP	Essential Health Package
EmOC	Emergency Obstetric Care
ENC	Essential Newborn Care
GNI	Gross National Income
HSA	Health Surveillance Assistant
WHO	World Health Organization
IHME	Institute for Health Metrics and Evaluation
IMCI	Integrated Management of Childhood Illnesses
IMNC	Integrated Maternal and Newborn Care
KMC	Kangaroo Mother Care
LIST	Lives Saved Tool
MDG	Millennium Development Goal
MNCH	Maternal, Newborn, and Child Health
MoH	Ministry of Health
MOH-RHU	Ministry of Health – Reproductive Health Unit
NMR	Neonatal Mortality Rate
ODA	Official Development Assistance
PMTCT	Prevention of mother to child transmission
PQI	Program quality improvement
RNM	Registered Nurse Midwife
SWAp	Sector Wide Approach
TBA	Traditional Birth Attendant
UN	United Nations

Annex 12B: Summary of Scale-Up Readiness Benchmarks for Newborn Health in Malawi[4]

No.	Benchmark	Definition	2000 Ranking	2005 Ranking	2010 Ranking	Year
1	National level NB health needs assessment/ Situational Analysis conducted	Formal assessment of NB health, child health, and safe motherhood programs and strategies conducted in collaboration with MOH and other partners	No	Yes	Yes	2002
2	NB health services/packages tested and documented in local settings	Research studies conducted in collaboration with the MOH and/or partners/research institutions to test NB health services/packages in local settings	No	No	Partial	
3	Evidence of NB health interventions/packages disseminated at provincial/district and national levels	At least one national level meeting with key partners and stakeholders (dissemination of research findings or strategy) to discuss evidence of at least one priority NB health intervention (thermal care, BF, clean delivery, early home PNC visits)	No	No	No	2010
4	Technical working/advocacy group established and advocating for NB health through consensus building OR existing working/ advocacy groups integrated newborn health into terms of reference	National level technical working/advocacy groups with representation from key stakeholders, partners, donors, and community members established and advocating for NB health through consensus building OR existing working/advocacy groups integrated newborn health in terms of reference	No	No	Yes	2007
5	Focal person for NB health established in MOH on NB	Focal person to provide technical input on newborn health programs established within the MOH	No	No	Yes	2010

[4] Submitted for publication: Moran, A. et al. 2012. Benchmarks for measuring change in readiness to scale up newborn survival interventions. *Health Policy and Planning* (submitted). Part of supplement on "A decade of change for newborn survival, policy and programmes (2000 - 2010): A multi country evaluation of progress towards scale" expected publication date May 2012.

						Year
	health					
6	National NB policy/strategy strengthened and adopted by MOH	National policy and/or strategy on newborn health strengthened and adopted by MOH	No	Yes	Yes	2005
7	National NB policy/strategy integrated into existing programs	National NB policy/strategy integrated into at least one existing national health program (child, maternal, reproductive, IMCI, etc)	No	Partial	Yes	2005
8	National essential drugs and supply list for newborn care developed and endorsed by MOH	National essential drugs and supply list for newborn care developed and endorsed by MOH	Partial	Partial	Partial	2001
9	National behavior change communication strategy for NB health established and endorsed by MOH	National behavior change communication strategy for NB health established OR national behavior change communication strategy integrates newborn and endorsed by MOH. Key elements include: BCC messages, BCC materials, Modes of communication, community mobilization; At least 3 messages include: thermal care, early and exclusive breastfeeding, clean delivery, early PNC visits.	No	Partial	Partial	
10	National policy established to authorize midwives* to conduct newborn resuscitation and endorsed by MOH	National policy established to authorize midwives to conduct newborn resuscitation and endorsed by MOH (Countdown)	Yes	Yes	Yes	1970
11	Community-based cadre(s) authorized to provide injections for newborns	Appropriate community-based authorized to provide injections for newborn infection management	No	No	Partial	
12	Primary health center cadre(s) authorized to provide injectible antibiotics for newborns	Appropriate primary health center cadre(s) authorized to provide injectible antibiotics for newborn infection management - lowest level facility	No	No	Yes	2007?

						Year
13	Community-based cadre(s) authorized to provide newborn resuscitation	Appropriate community-based cadre(s) authorized to provide newborn resuscitation for newborns with difficulty breathing at birth	No	No	No	
14	Primary health center cadre(s) authorized to provide newborn resuscitation	Appropriate primary health center cadre(s) authorized to provide newborn resuscitation for newborns with difficulty breathing at birth - lowest level facility	No	Yes	Yes	2001
15	Cadre(s) to deliver home-based NB care services identified and core competencies established	Specific cadres to deliver home-based PNC/ENC identified and core competencies established (job description includes core competencies around thermal care (drying/wrapping, skin-to-skin), breastfeeding (within 1 hr of birth, exclusive BF), clean delivery (new or sterile instrument to cut cord, nothing applied to cord), early home PNC visits	No	No	Yes	2010
16	In-service NB training curricula and materials developed for community-based cadres and integrated into existing curricula	National level in-service training curricula and materials for NB health developed and integrated into existing in-service training curricula for community-based cadres; NB care includes (thermal care (drying/wrapping, skin-to-skin), breastfeeding (within 1 hr of birth, exclusive BF), clean delivery (new or sterile instrument to cut cord, nothing applied to cord), early home PNC visits)	No	Partial	Yes	2008
17	In-service NB training curricula and materials developed for facility-based cadres and integrated into existing curricula	National level in-service training curricula and materials for NB health developed and integrated into existing in-service training curricula for facility-based cadres; NB care includes (thermal care (drying/wrapping, skin-to-skin), breastfeeding (within 1 hr of birth, exclusive BF), clean delivery (new or sterile instrument to cut cord, nothing applied to cord), early home PNC visits)	No	Partial	Yes	2010
18	Pre-service NB education curricula and materials developed for community-based cadres and integrated into existing curricula	National level pre-service education curricula and materials for NB health developed and integrated into existing pre-service education curricula for community-based cadres; NB care includes (thermal care (drying/wrapping, skin-to-skin), breastfeeding (within 1 hr	No	No	Partial	2009

						Year
		of birth, exclusive BF), clean delivery (new or sterile instrument to cut cord, nothing applied to cord), early home PNC visits).				
19	Pre-service NB education curricula and materials developed for facility-based cadres and integrated into existing curricula	National level pre-service education curricula and materials for NB health developed and integrated into existing pre-service education curricula for facility-based cadres; NB care includes (thermal care (drying/wrapping, skin-to-skin), breastfeeding (within 1 hr of birth, exclusive BF), clean delivery (new or sterile instrument to cut cord, nothing applied to cord), early home PNC visits).	No	Yes	Yes	2008
20	Supervision system for maternal/NB/child health established at primary health center level	Frequency and content of supervision for maternal/NB/child health included in job descriptions and/or training curriculum at primary health center level.	No	No	Partial	
21	IMCI guidelines adapted to include first week of life which specifies guidelines for referral	IMCI guidelines adapted to include first week of life which specifies guidelines for referral including care during transport, referral slip, facility registers that include referred cases, and feedback mechanism	No	No	Yes	2006
22	Protocol/standard for district level package for care of sick newborn in place	Protocol/standard to treat sick newborns at district level in place, available and accessible including list of essential equipment, supplies, medicines, and available health staff (see list below)	No	No	Yes	2006
23	Key maternal and NB indicators included in national HMIS	Indicators include PNC visit within 2 days, neonatal mortality rate (NMR), stillbirth rate (SBR), breastfeeding (BF) within 1 hour, skilled birth attendance (SBA)	Partial	Partial	Partial	
24	Key maternal and NB indicators included in national surveys	Indicators include PNC visit within 2 days, NMR, SBR, BF within 1 hour, SBA	Partial	Partial	Partial	
25	National targets to track newborn health established	National targets for key indicators established to track newborn health; Indicators include at least two of the following: PNC visit within 2 days, NMR, SBR, BF within 1 hour, SBA	Partial	Yes	Yes	2005

						Year
26	Financial commitment - TBD	TBD	Missing	Missing	Missing	
27	Financial commitment - TBD	TBD	Missing	Missing	Missing	

Acronyms:

BF	Breastfeeding	NMR	Neonatal mortality rate
EHP	Essential Health Package	PNC	Postnatal care
IMCI	Integrated Management of Childhood Illnesses	SBA	Skilled birth attendant
MOH	Ministry of Health	SBR	Stillbirth Rate
NB	Newborn	TBD	To be determined

Annex 12C: Malawi Facilities with KMC Units or Services (September 2011)

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
1	Chitipa district hospital	Chitipa	North	Hospital	gvt	Scale	Yes	6	2009
2	Ifumbo H/C	Chitipa	North	Health Centre	gvt	Scale	Yes	1	2010
3	Kaseghe / Kaseye Mission H/C	Chitipa	North	Health Centre	Mission	Scale	Yes	3	2010
4	Misuku H/C	Chitipa	North	Health Centre	gvt	Scale	Yes	1	2010
5	Nthalire H/C	Chitipa	North	Health Centre	gvt	Scale	Yes	2	2010
6	Wenya H/C	Chitipa	North	Health Centre	gvt	baby caps	Yes	1	2010
7	Kapenda H/C	Chitipa	North	Health Centre	gvt	baby caps	Yes	1	2010
8	Kameme	Chitipa	North	Community Hospital			No, Ambulatory		
9	Karonga District Hospital	Karonga	North	Hospital	gvt	Scale	Yes	3	2009
10	Chilumba H/C	Karonga	North	Health Centre	gvt	Scale	Yes	1	2009
11	Kaporo H/C	Karonga	North	Health Centre	gvt	Scale	Yes	1	2010
12	Nyungwe	Karonga	North	Health Centre	gvt	Baby caps	Yes	1	2011
13	Rumphi District Hospital	Rumphi	North	Hospital	gvt	Scale	Yes	8	2008
14	Bolero H/C	Rumphi	North	Health Centre	gvt	Scale	Yes	1	2008
15	Mwazisi H/C	Rumphi	North	Health	gvt	Baby caps	Yes	1	2010

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
				Centre					
16	Katowo H/C	Rumphi	North	Health Centre	gvt	baby caps	Yes	1	2010
17	Mhuju H/C	Rumphi	North	Health Centre	gvt	Scale	Yes	2	2010
18	Lura H/C	Rumphi	North	Health Centre	gvt	Baby caps	Yes	1	2010
19	Ng'onga H/C	Rumphi	North	Health Centre	gvt	Baby caps	No, Ambulatory		2010
20	David Gordon Memorial Hospital on Livingstonia Plateau	Rumphi	North	Hospital	Mission	Scale	Yes	4	2008
21	Mzokoto H/C	Rumphi	North	Health Centre	gvt	Baby caps	Yes	1	2010
22	Mphompha H/C	Rumphi	North	Health Centre	gvt	Baby caps	Yes	3	2010
23	Mzuzu Central Hospital	Mzimba North	North	Central Hospital	gvt	Scale	Yes	4	2006
24	Ekwendeni Mission Hospital	Mzimba North	North	Hospital	Mission	Scale	Yes	10	2003
25	St John's Mission Hospital	Mzimba North	North	Hospital	Mssion	Scale	Yes	4	2010
26	Mzuzu Health Center	Mzimba North	North	Health Centre	gvt	Scale	Yes	2	2009
27	Mzimba District Hospital	Mzimba South	North	Hospital	gvt	Scale	Yes	4	2009
28	Embangweni Mission Hospital	Mzimba South	North	Rural Hospital	Mission	Baby caps	Yes	1	2011
29	Katete Mission	Mzimba	North	Rural	Mission	Baby caps	Yes	1	2011

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
	Hospital	South		Hospital					
30	Mzambasi Mission hospital	Mzimba South	North	Rural Hospital	Mission	Baby caps	Yes	1	2011
31	Nkhata- Bay District Hospital	Nkhata-Bay	North	Hospital	gvt	Scale	Yes	3	2011
32	Chintheche Rural Hospital	Nkhata-Bay	North	Rural Hospital	gvt	Baby caps	Yes	1	2011
33	Mpamba Health Centre	Nkhata-Bay	North	Health Centre	gvt	Baby caps	No, Ambulatory		2011
34	Kasungu District Hospital	Kasungu	Central	Hospital	gvt	Scale	Yes	4	2009
35	Chulu H/C	Kasungu	Central	Health Centre	gvt	Baby caps	Yes	1	2011
36	Kaluluma H/C	Kasungu	Central	Health Centre	gvt	Baby caps	Yes	1	2011
37	Ntchisi District Hospital	Ntchisi	Central	Hospital	gvt	Scale	Yes	4	2011
38	Dowa District hospital	Dowa	Central	Hospital	gvt	Scale	Yes	5	2009
39	Mponela Rural Hospital	Dowa	Central	Rural Hospital	gvt	Scale	Yes	1	2009
40	Madise Mission Hospital	Dowa	Central	Hospital	Mission	None	Yes	2	2011
41	Chankhungu H/C	Dowa	Central	Health Centre	gvt	Baby caps	Yes	1	2010
42	Salima District Hospital	Salima	Central	Hospital	gvt	Scale	Yes	4	2009
43	Nkhotakota District Hospital	Nkhotakota	Central	Hospital	gvt	Scale	Yes	2	2008
44	St Anne's Mission	Nkhotakota	Central	Hospital	gvt	Baby caps	Yes	2	2008

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
	Hospital								
45	Alinafe Community Hospital	Nkhotakota	Central	Rural Hospital	Mission	baby caps	Yes	2	2008
46	Mtosa H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
47	Benga H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
48	Mwansambo H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
49	Malowa H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
50	Kapiri H/C	Nkhotakota	Central	Health Centre	gvt	Scale	Yes	1	2010
51	Nkhunga H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	2	2008
52	Ngala H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
53	Dwambazi H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
54	Msenjere H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
55	Bua H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
56	Katimbira H/C	Nkhotakota	Central	Health Centre	gvt	Baby caps	Yes	1	2010
57	Mchinji District Hospital	Mchinji	Central	Hospital	gvt	Scale	Yes	3	2011
58	Bwaila Maternity Hospital	Lilongwe	Central	Hospital (But functions like central	gvt	Scale	Yes	7	2004

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
				hospital)					
59	Kamuzu Central Hospital	Lilongwe	Central	Central Hospital	gvt	Scale	Yes	8	2010
60	Kawale H/C	Lilongwe	Central	Health centre	gvt	Baby caps	Yes	2	2009
61	Nkhoma Mision Hospital	Lilongwe	Central	Hospital	Mission	Scale	Yes	3	2009
62	Likuni Mission Hospital	Lilongwe	Central	Hospital	Mission	Scale	Yes	N/A	2011
63	Kabudula	Lilongwe	Central	Rural Hospital	gvt	Scale	No, Ambulatory		2011
64	Mlare	Lilongwe	Central	Rural Hospital	Mission	none	No, Ambulatory	N/A	2011
65	Nambuma Hospital	Lilongwe	Central	Health Centre	Mission	None	No, Ambulatory		2011
66	Area 25	Lilongwe	Central	Health center	gvt	None	No, Ambulatory	N/A	2009
67	Dedza District Hospital	Dedza	Central	Hospital	gvt	Scale	Yes	4	2010
68	Mua Mission Hospital	Dedza	Central	Hospital	Mission	Scale	Yes	2	2011
69	Ntcheu District Hospital	Ntcheu	Central	Hospital	gvt	Scale	Yes	4	2011
70	Birira Health Center	Ntcheu	Central	Health Centre	gvt	Baby caps	Yes	1	2011
71	Nsipe Health center	Ntcheu	Central	Health Centre	gvt	Baby caps	Yes	1	2011
72	Balaka District Hospital	Balaka	South	Hospital	gvt	Scale	Yes	1	2011
73	Comfort Maternity Hospital	Balaka	South	Mission	Mission	Scale	Yes	3	2010

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
74	Mangochi District Hospital	Mangochi	South	Hospital	gvt	Scale	Yes	6	2002
75	Namwera Health center	Mangochi	South	Health Centre	gvt	none	No, Ambulatory		2011
76	Machinga District Hospital	Machinga	South	Hospital	gvt	Scale	Yes	4	2008
77	Nsanama H/C	Machinga	South	Health center	Mission	Scale	Yes	3	2008
78	Ntaja H/C	Machinga	South	Health center	gvt	Scale	Yes	3	2008
79	Nyambi H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2010
80	Chikweo H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2008
81	Ngokwe H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2010
82	Mpili H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2011
83	Mangamba H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2011
84	Nayuchi H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2011
85	Namanja H/C	Machinga	South	Health center	gvt	Baby caps	Yes	1	2011
86	Zomba Central Hospital	Zomba	South	Central Hospital	gvt	Scale	Yes	12	1999
87	St Lukes Mission Hospital	Zomba	South	Hospital	Mission	Baby caps	Yes	1	2002
88	Pirimiti Mission Rural Hospital	Zomba	South	Rural Hospital	Mission	none	Yes	2	2011

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
89	Matawale H/C	Zomba	South	Health center	gvt	none	Yes	1	2011
90	Holy Family Mission Hospital	Phalombe	South	Hospital	Mission	Scale	Yes	8	2010
91	Phalombe H/C	Phalombe	South	Health center	gvt	Scale	Yes	1	2010
92	Mpasa H/C	Phalombe	South	Health center	gvt	Baby caps	Yes	1	2010
93	Migowi H/C	Phalombe	South	Health center	gvt	Baby caps	Yes	1	2011
94	Mwanga H/C	Phalombe	South	Health center	gvt	Baby caps	Yes	1	2011
95	Chitekesa H/C	Phalombe	South	Health center	gvt	Baby caps	Yes	1	2011
96	Nkhwayi H/C	Phalombe	South	Health center	gvt	Baby caps	Yes	1	2011
97	Mulanje District Hospital	Mulanje	South	Hospital	gvt	Baby caps	Yes	1	2011
98	Mulanje Mission Hospital	Mulanje	South	Hospital	Mission	Scale	Yes	9	2005
99	Chiradzulu District Hospital	Chiradzulu	South	Hospital	gvt	Scale	Yes	3	2009
100	Namadzi H/Centre	Chiradzulu	South	Health centre	gvt	Scale	Yes	1	2011
101	St Joseph Mission Hospital	Chiradzulu	South	Hospital	Mission	Scale	Yes	2	2010
102	Queen Elizabeth Central Hospital	Blantyre	South	Central Hospital	gvt	none	Yes	15	2010
103	Ndirande H/C	Blantyre	South	Health centre	gvt	Scale	Yes	1	2010

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
104	South Lunzu H/C	Blantyre	South	Health centre	gvt	Scale	Yes	1	2010
105	Mpemba H/C	Blantyre	South	Health centre	gvt	None	Yes	1	2010
106	Mulambe Mission Hospital	Blantyre	South	Hospital	Mission	Scale	No, Ambulatory	N/A	2010
107	Chileka H/C	Blantyre	South	Health centre	gvt	None	Yes	1	2010
108	Mwanza District Hospital	Mwanza	South	Hospital	gvt	Scale	Yes	3	2010
109	Kunenekude	Mwanza	South	Health Centre	gvt	None	Yes	1	2010
110	Neno District Hospital	Neno	South	Hospital	gvt	Scale	Yes	2	2010
111	Chikhwawa	Chikhwawa	South	Hospital	gvt	Scale	Yes	3	2011
112	Nsanje District Hospital	Nsanje	South	Hospital	gvt	Scale	Yes	2	2010
113	Trinity Mission Hospital	Nsanje	South	Hospital	Mission	Scale	Yes	4	2010
114	Tengani H/C	Nsanje	South	Health Centre	gvt	None	Yes	1	2010
115	Sorgin H/C	Nsanje	South	Health Centre	gvt	None	Yes	1	2010
116	Ndamera H/C	Nsanje	South	Health Centre	gvt	None	Yes	1	2010
117	Mbenje H/C	Nsanje	South	Health Centre	gvt	Scale	Yes	1	2010
118	Thyolo district hospital	Thyolo	South	Hospital	gvt	Scale	Yes	5	2010
119	Chimaliro H/C	Thyolo	South	Health Centre	gvt	Baby caps	Yes	1	2010

No.	Facility Name	District	Region	Level of Facility	Gov't or CHAM	Equipment Provided	Inpatient KMC Provided?	# KMC Beds	Year KMC Services Started
120	Mikolongwe H/C	Thyolo	South	Health Centre	gvt	Baby caps	Yes	1	2010
121	Thekelani H/C	Thyolo	South	Health Centre	gvt	Scale	Yes	1	2010
122	Malamulo Hospital	Thyolo	South	Hospital	Mission	Scale	Yes	4	2009
123	Bvumbwe Health Centre	Thyolo	South	Health Centre			Yes		

Annex 12D: Malawi Newborn Health Program Partner Matrix

Partner	Role with MNH in Country	Short Description of How SC/SNL Partnered with this Organization
Ministry of Health, Reproductive Health Unit	Coordinates the integration, implementation, monitoring, and evaluation of sexual and reproductive health services at all levels, through the framework of the Malawi National Reproductive Health Programme. Developed the Reproductive Health Policy in 2002 to guide implementation of SRH services, as well as the 2006 and 2011 Road Maps for the Accelerated Reduction of Maternal and Neonatal Mortality and Morbidity in Malawi.	Save the Children and multiple partners supported RHU in advancing the newborn health agenda in Malawi - including (1) design, implementation, and monitoring/evaluation of 3-district CBMNC pilot; (2) KMC scale up; (3) and design and roll out of IMNC. Save the Children partnered with the RHU to hire a monitoring and evaluation specialist specific to MNH activities. RHU is a key collaborator on Telling the Story (documenting change in NBH). ***(Task force lead organization)***
Other Ministry of Health units: IMCI Unit	Responsible for overall coordination and implementation of IMCI-related activities in Malawi. Malawi adopted the IMCI strategy with technical support from the WHO and UNICEF in 1998.	SC provided technical assistance to the IMCI Unit incorporate the newborn into IMCI and c-IMCI. Save the Children is working with the IMCI Unit on implementation of the national Community Case Management (CCM) package in hard-to-reach areas of six districts, which includes plans to incorporate community-based management of neonatal sepsis. ***(Task force member)***
UNICEF	Major partner and donor of MOH and RHU. Supports national efforts to increase the availability and utilization of the Essential Health Package (EHP), including IMCI; supports PMTCT services.	UNICEF organized opportunities for policy-makers to visit SEARCH project in India and was a key partner in design and implementation of the CBMNC package 3-district pilot; trained trainers and HSAs; supplied equipment for facility strengthening; participated in joint supervision visits, as well as midterm and final evaluations. Hosted a half-day national-level consultation for sepsis evaluation in April 2010. A key collaborator in Telling the Story (documenting change in NBH). ***(Task force member)***

Partner	Role with MNH in Country	Short Description of How SC/SNL Partnered with this Organization
ACCESS/MCHIP (with JHPIEGO as its lead in Malawi)	USAID global flagship programs for maternal, newborn, child health. Save the Children is one of 3 core partners, with JPIEGO and JSI. In Malawi, MCHIP works in four focus districts to improve maternal and newborn health outcomes, increase the use of family planning, integrate preventing mother to child transmission (PMTCT) with ongoing facility and community-based MNCH activities, and prevent and treat malaria.	ACCESS/MCHIP funded roll out of the CBMNC package to four additional districts. Contributed to the revision of the MNH M&E system; supported design of the community mobilization module for the CBMNC package. ***(Task force member)***
WHO	Provides technical leadership and assistance to Ministry of Health in meeting international standards. Examples of work include: trained health workers to provide skilled birth attendance; funded training materials for pre-service training for midwives; developed tools for monitoring maternal health (MDR and verbal autopsy tools) through its "Making Pregnancy Safer" campaign; provided technical, financial and equipment support for BEmOnC implementation and donated BEmONC equipment and training materials to the MOH in 2008. Supported integration of the IMCI strategy into nurses curriculum, and inclusion of newborn care and HIV/AIDS in IMCI case management protocols. Provided technical and financial support in EPI. WHO's "Child Lung Health Project" to reduce pneumonia deaths in infants.	Funded training of HSAs in 10 scale-up districts with support from the Partnership for Maternal, Newborn and Child Health (PMNCH), a global initiative to enhance collaboration of organizations working towards improving MNCH in partnership with UNICEF, Save the Children, and others. ***(Task force member)***
UNFPA	Supports population and reproductive health services including efforts to reduce maternal mortality through Road Map-supported programs	Funded training in CBMNC package of HSAs in 5 scale-up districts. ***(Task force member)***

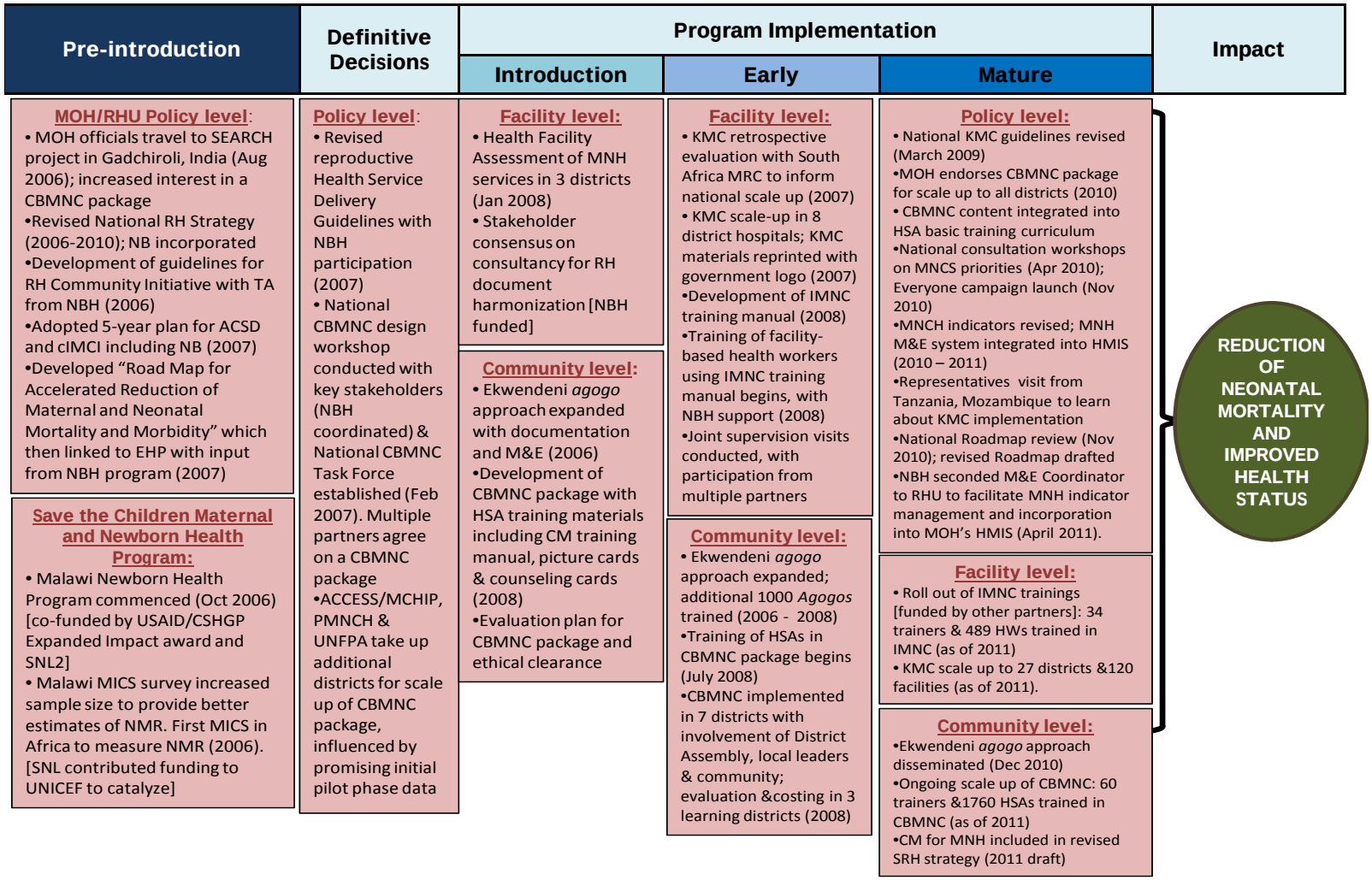
Partner	Role with MNH in Country	Short Description of How SC/SNL Partnered with this Organization
Mai Mwana	Non-governmental organization registered in Malawi that began as a randomized control trial funded by Save the Children Saving Newborn Lives and conducted by the Institute for Child Health in London. RCT was conducted in Mchinji district from January 2003 to March 2009 to evaluate the effectiveness of two participatory community-based interventions to reduce neonatal and maternal mortality: (1) participatory women's groups to improve perinatal care and outcomes in poor rural areas, and (2) the impact of home-based infant feeding counseling to improve breastfeeding and family planning methods.	RCT funded by Save the Children under SNL1 and SNL2. Mai Mwana participated to design of the national CBMNC package and contributed BBC materials that were taken up by RHU at the national level.
(formerly Health Foundation)	Affiliated with the Institute for Child Health in London, MaiKhanda tested a simplified version of the Mai Mwana women's group intervention in 2007 in Lilongwe, Salima and Kasungu districts.	MaiKhanda participated in development of the national CBMNC package, contributing its lessons learnt at the community level.
District Health Offices of Chitipa, Thyolo, Dowa	DHOs responsible for delivery of health care at district-level, including administration of health facilities and community-based providers.	Save the Children engaged in district-level planning cycles and joint planning with DHOs for training, monitoring, supervision of CBMNC package, KMC scale up, and IMNC roll out.**(Task force members at meetings were represented by Dowa DHO)**
Ekwendeni CCAP Mission Hospital (Synod of Livingstonia)	CHAM member facility with catchment area in Mzimba District near Mzuzu. Also serves four government health center areas (Mtwalo Health Centre, Enukweni Maternity, Khuyuku Health Centre, Emsizini Health Centre) under a service agreement with the Mzimba District Health Management Team (DHMT).	During SNL-I in 2004, Ekwendeni trained 4,000 grandparents (agogo) to mobilize communities for positive change and promote best household practices for maternal and newborn care. Under a sub-grant (Sep 2007-Mar 2009) with USAID/CSHGP funds, Save the Children supported training/re-training of 4,100 agogo, as well as documentation and dissemination of the Ekwendeni Agogo Approach for those interested in replication (e.g., CBOs, local NGOs, faith-based groups, CHAM facilities).

Partner	Role with MNH in Country	Short Description of How SC/SNL Partnered with this Organization
Christian Health Association of Malawi	CHAM delivers an estimated 39% of all health services in Malawi. A not-for-profit membership umbrella organization of 171 member health facilities across the country. Runs nursing training colleges.	ENC/KMC content was institutionalized into CHAM nurse training curriculum. Save the Children trained providers at CHAM's clinical sites in KMC and facilitated establishment of KMC sites at all student training facilities.
Zomba Central Hospital	One of two central (regional referral) hospitals for district hospitals in Malawi's Southern Region.	Considered a role model for KMC; participated in development of national KMC protocols and training materials. Superintendent Dr. Joshua headed the CBMNC Task Force.
Queen Elizabeth Central Hospital (Blantyre)	One of two central (regional referral) hospitals for district hospitals in Malawi's Southern Region.	Another KMC role model facility; gained experience from Zomba Central Hospital. Participated in stakeholder meetings to develop materials for national KMC scale up. national KMC materials.
Teaching Hospitals: CHAM and other government and university institutions, including Kamuzu College of Nursing	Provide practical training for medical doctors, clinical officers, nurses, and other health personnel.	Save the Children trained tutors/lecturers from teaching hospitals in KMC to ensure high-quality pre-service training..
Professional Associations: Medical Council of Malawi, Nurses and Midwives Council of Malawi, Malawi Pharmacy Council, Medicines and	Set and maintain standards of health care in relation to premises, equipment and supplies as well as the qualifications and credentials of personnel employed at health establishments	Engaged in debate and discussion regarding roles and responsibilities of various cadres of health workers, including HSAs.

Partner	Role with MNH in Country	Short Description of How SC/SNL Partnered with this Organization
Poisons Board		
District Health Offices of Karonga, Mzimba, Lilongwe, Mchinji, Mulanje, Chiradzulo, Mwanza and Nsanje	DHOs responsible for delivery of health care at district-level, including administration of health facilities and community-based providers.	As a follow-up to the recommendations of the 2007 KMC retrospective assessment Save the Children in collaboration with RHU facilitated trainings of 15 health workers per district in IMNC that includes a module on KMC and supported the establishment of a KMC unit at the district hospitals
Zonal Offices: North, Central East and West and South East and West Zones	Coordinates implementation, monitoring, and evaluation of health services in the districts within the zone and at all levels, through the framework of the Malawi National Reproductive Health Programme. Developed the Reproductive Health Policy in 2002	Save the Children was working through the zonal offices to share lessons learned during the implementation of the CBMNC/CM and IMNC to facilitate national roll out of the packages. ***(Task force member)***

Annex 12E: Pathway to Implementation of MNH Program in Malawi

PATHWAY TO IMPLEMENTATION OF MNH PROGRAM in Malawi



ANNEX 13: UPDATED PROJECT DATA FORM

Child Survival and Health Grants Program Project Summary
Dec-08-2011
Save the Children
(Malawi)

General Project Information

Cooperative Agreement Number:	GHS-A-00-06-00016-00
SC Headquarters Technical Backstop:	Karen Waltensperger
SC Headquarters Technical Backstop Backup:	Karen Waltensperger
Field Program Manager:	Evelyn Zimba
Midterm Evaluator:	Judith Robb-McCord
Final Evaluator:	John Murray
Headquarter Financial Contact:	Carmen Weder
Project Dates:	10/1/2006 - 9/30/2011 (FY2006)
Project Type:	Expanded Impact
USAID Mission Contact:	Catherine Chiphazi
Project Web Site:	

Field Program Manager

Name:	Evelyn Zimba (Senior MNH Program Manager)
Address:	P.O Box 30374 Lilongwe Malawi
Phone:	+265999987091
Fax:	+265 1 756 257
E-mail:	ezimba@savechildren.org
Skype Name:	

Alternate Field Contact

Name:	Joby George (Senior Health Programs Manager)
Address:	P.O. Box 30374 Lilongwe Malawi
Phone:	+265993220539
Fax:	+265 756 257
E-mail:	jgeorge@savechildren.org
Skype Name:	

Grant Funding Information

USAID Funding: $2,500,000 **PVO Match:** $833,334

General Project Description

Save the Children, a 2006 Expanded Impact category grantee, is implementing the Malawi *Newborn Health Program* (NBHP), funded by USAID/CSHGP with match from Saving Newborn Lives, throughout the country. The project goal is to reduce neonatal mortality and morbidity at scale to meet Malawi's Millennium Development Goals (MDGs) by increasing sustainable use of key maternal and neonatal heath services and practices.

NBHP is integrated into a multi-year (2005-15) national initiative led by the Ministry of Health (MOH) and guided by *The Road Map for Accelerating Reduction of Maternal and Newborn Mortality and Morbidity in Malawi* (Road Map), the national framework officially launched by the Government of Malawi (GOM) in March 2007. Save the Children is cooperating closely with all program partners to expand and mainstream quality neonatal care at all levels of health service delivery.

NBHP incorporates community-based elements with activities planned in selected district-level settings to generate, test, refine, expand, scale up, sustain, evaluate, document, and disseminate affordable evidence-based approaches and interventions to promote demand for care, discourage
harmful practices, build community capacity, and strengthen referral and community linkages with the formal health system.

Project Location

Latitude: -15.31	**Longitude:** 35.10
Project Location Types:	Urban Peri-urban Rural
Levels of Intervention:	District Hospital Health Center Health Post Level Home Community
Province(s):	--
District(s):	Malawi (national level)
Sub-District(s):	--

Operations Research Information

OR Project Title:	Community Based Maternal and Newborn Health Care (CBMNC) package operations research in 3 districts
Cost of OR Activities:	$959,665
Research Partner(s):	Ministry of Health, UNICEF, WHO, UNFPA, MCHIP and other partners
OR Project Description:	The MNHP community component includes evidence-generating elements (i.e. research, evaluation, operations research) being carried out with matching funds (Gates/Saving Newborn Lives[SNL] II).

Saving Newborn Lives (SNL) matching funds are primarily focused on design, development, and evaluation of a community-based maternal and newborn care (CBMNC) package and operations research/evaluation to generate feasibility evidence for delivery of the package by Health Surveillance Assistance (HSAs) in the three learning districts of Chitipa, Dowa, and Thyolo. Roll-out of the community-based package is led by the Ministry of Health (MOH) Reproductive Health Unit (RHU) and partially funded by UNICEF with significant technical, material, and funding inputs from Save the Children. In addition, SNL supported the Mai Mwana Project – carried out by the Institute for Child Health (ICH), University of London – in Mchinji District, a randomized control trial (RCT) of a set of community-based interventions for newborn care, now coming to an end. Through Save the Children, Mai Mwana has contributed its experience and lessons learned to development of the CBMNC package.

Partners

Ministry of Health (Reproductive Health Unit) (Collaborating Partner) $0
Ekwendeni CCAP Mission Hospital (Synod of Livingstonia) (Subgrantee) $124,972
UNICEF (Collaborating Partner) $0
WHO (Collaborating Partner) $0
UNFPA (Collaborating Partner) $0
Christian Health Association of Malawi (Collaborating Partner) $0
White Ribbon Alliance for Safe Motherhood-Malawi (Collaborating Partner) $0
ACCESS/MCHIP (Collaborating Partner) $0

Strategies

Social and Behavioral Change Strategies:	Community Mobilization
	Group interventions
	Interpersonal Communication
	Mass media and small media
Health Services Access Strategies:	Emergency Transport Planning/Financing
	Addressing social barriers (i.e. gender, socio-cultural, etc)
Health Systems Strengthening:	Quality Assurance
	Supportive Supervision
	Task Shifting
	Developing/Helping to develop clinical protocols, procedures, case management guidelines
	Developing/Helping to develop job aids
	Monitoring health facility worker adherence with evidence-based guidelines
	Providing feedback on health worker performance
	Referral-counter referral system development for CHWs
	Community role in supervision of CHWs

		Development of clinical record forms Review of clinical records (for quality assessment/feedback) Coordinating existing HMIS with community level data Community input on quality improvement
Strategies for Enabling Environment:		Create/Update national guidelines/protocols Advocacy for revisions to national guidelines/protocols Stakeholder engagement and policy dialogue (local/state or national) Advocacy for policy change or resource mobilization Building capacity of communities/CBOs to advocate to leaders for health
Tools/Methodologies:		BEHAVE Framework Rapid Health Facility Assessment LQAS Mobile Devices for Data Collection Lives Saved Calculator
Capacity Building		
Local Partners:		Health Facility Staff Government sanctioned CHWs
Interventions & Components		
Immunizations	IMCI Integration	CHW Training HF Training
Nutrition	IMCI Integration	CHW Training HF Training
Vitamin A	IMCI Integration	CHW Training HF Training
Micronutrients		CHW Training HF Training
Pneumonia Case Management	IMCI Integration	CHW Training HF Training
Control of Diarrheal Diseases	IMCI Integration	CHW Training HF Training
Malaria	IMCI Integration	CHW Training HF Training
Maternal & Newborn Care (100%) - Recognition of Danger signs - Newborn Care - Postpartum Care - Kangaroo Mother Care (skin to skin care)	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		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	1010	
Female	2010		357
Male	2010		534
Male	2010	0	
Female	2011	208	
Female	2011		61
Male	2011		61
Male	2011	520	
Female	2012	0	
Male	2012	0	
Female	2013	0	
Male	2013	0	
Number of People Trained in Child Health & Nutrition			
Gender	**Year**	**Target**	**Actual**
Female	2010	0	
Female	2010		0
Male	2010		0
Male	2010	0	
Female	2011	0	
Female	2011		0
Male	2011		0
Male	2011	0	
Female	2012	0	
Male	2012	0	
Female	2013	0	
Male	2013	0	
Number of People Trained in Malaria Treatment or Prevention			
Gender	**Year**	**Target**	**Actual**
Female	2010		0
Female	2010	0	
Male	2010		0
Male	2010	0	
Female	2011		0

Female	2011	0	
Male	2011		0
Male	2011	0	
Female	2012	0	
Male	2012	0	
Female	2013	0	
Male	2013	0	

Locations & Sub-Areas

Total Population: 724,873

Target Beneficiaries

	Malawi - SC - FY2006
Children 0-59 months	123,228
Women 15-49 years	166,720
Beneficiaries Total	289,948

Rapid Catch Indicators: DIP Submission

			Sample Type: 30 Cluster	
Indicator	**Numerator**	**Denominator**	**Percentage**	**Confidence Interval**
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child.	148	163	90.8%	6.3
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child.	300	300	100.0%	0.0
Percentage of children age 0-23 months whose births were attended by skilled personnel	238	300	79.3%	6.5
Percentage of children age 0-23 months who received post-natal visit from an appropriately trained health worker within three days after birth.	123	300	41.0%	7.9
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours.	41	112	36.6%	12.6
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.	143	188	76.1%	8.6
Percentage of children age 12-23 months who received a measles vaccination.	95	112	84.8%	9.4
Percentage of children age 12-23 months who received DTP1 according to the vaccination	92	112	82.1%	10.0

card or mother's recall by the time of the survey.				
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.	88	112	78.6%	10.7
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.	7	300	2.3%	2.4
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.	13	110	11.8%	8.5
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.	42	81	51.9%	15.4
Percentage of households of children age 0-23 months that treat water effectively.	7	33	21.2%	19.7
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing.	5	300	1.7%	2.0
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.	184	300	61.3%	7.8
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population).	72	262	27.5%	7.6
Percentage of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices.	0	0	0.0%	0.0

Rapid Catch Indicators: Mid-term

			Sample Type: 30 Cluster	
Indicator	**Numerator**	**Denominator**	**Percentage**	**Confidence Interval**
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child.	0	0	0.0%	0.0
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child.	0	0	0.0%	0.0
Percentage of children age 0-23 months whose births were attended by skilled personnel	0	0	0.0%	0.0
Percentage of children age 0-23 months who received post-natal visit from an appropriately trained health worker within three days after birth.	0	0	0.0%	0.0
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
Percentage of children age 12-23 months who received a measles vaccination.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
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.	0	0	0.0%	0.0
Percentage of households of children age 0-23 months that treat water effectively.	0	0	0.0%	0.0
Percentage of mothers of children age 0-23	0	0	0.0%	0.0

months who live in households with soap at the place for hand washing.				
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.	0	0	0.0%	0.0
Percentage of children 0-23 months who are underweight (-2 SD for the median weight for age, according to the WHO/NCHS reference population).	0	0	0.0%	0.0
Percentage of infants and young children age 6-23 months fed according to a minimum of appropriate feeding practices.	0	0	0.0%	0.0

Rapid Catch Indicators: Final Evaluation

				Sample Type: 30 Cluster
Indicator	**Numerator**	**Denominator**	**Percentage**	**Confidence Interval**
Percentage of children age 0-23 months who were born at least 24 months after the previous surviving child.	138	150	92.0%	6.1
Percentage of mothers with children age 0-23 months who received at least two Tetanus toxoid vaccinations before the birth of their youngest child.	158	220	71.8%	8.4
Percentage of children age 0-23 months whose births were attended by skilled personnel	186	220	84.5%	6.8
Percentage of children age 0-23 months who received post-natal visit from an appropriately trained health worker within three days after birth.	101	187	54.0%	10.1
Percentage of children age 0-5 months who were exclusively breastfed during the last 24 hours.	62	65	95.4	7.2
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.	132	155	85.2%	7.9
Percentage of children age 12-23 months who received a measles vaccination.	71	93	76.3%	12.2
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.	75	93	80.6%	11.4
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.	68	93	73.15	12.7
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	31	99	31.3%	12.9

24 hours after the fever began.				
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.	39	70	55.7%	16.5
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.	30	40	75.0%	19.0
Percentage of households of children age 0-23 months that treat water effectively.	47	220	21.4%	7.7
Percentage of mothers of children age 0-23 months who live in households with soap at the place for hand washing.	36	220	16.4%	6.9
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.	159	220	72.3%	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).	23	220	10.%	5.7

Rapid CATCH Indicator Comments

IYCF not collected. The on-line form doesn't seem to have been updated for the Revised Rapid CATCH, e.g., no AMTSL indicators, etc. The KPC Survey was conducted in one district, Mzimba, in order to collect Rapid CATCH indicators. NO MIDTERM SURVEY CONDUCTED.

ANNEX 14: GRANTEE PLANS TO ADDRESS FINAL EVALUTION FINDINGS

Save the Children will address final evaluation findings and continue to advance the newborn health agenda in Malawi to achieve impact at scale in Malawi through the following five mechanisms:

1) **USAID/CSHGP (CS-27 cycle) -** Entitled *Mwayi wa Moyo* ("A Chance to Live"), this project runs from October 2011 to 31 March 2016 with the goal of reducing under-five mortality through increased use of high-impact maternal, newborn and child health (MNCH) interventions. To be implemented in Blantyre District, *Mwayi wa Moyo* will benefit a population of 538,413 in underserved rural and targeted peri-urban communities, including 91,530 children under five years and 113,067 women of reproductive age. Save the Children is supporting national and district-level partners to integrate Malawi's current community packages, delivered by Health Surveillance Assistants (HSA), into a single coherent package that fills gaps in the continuum of care. The aim is to design and test a streamlined package that delivers more interventions at better quality and less cost--and that can be adopted and scaled up at the national level. The high-impact interventions to be integrated include maternal and newborn care and community case management of pneumonia, diarrhea and malaria. A supplemental family planning award allows for incorporation of family planning into the integrated test package. Save the Children will collaborate with the Ministry of Health, the Blantyre District Health Management Team, the Malawi College of Medicine, and the National Statistics Office. The total amount of support from USAID CSHGP over the 54 month period is $2 million ($1.75m + $250,000).

2) **Supporting Service Delivery-Excellence (USAID bi-lateral project) -** A partnership led by JHPIEGO, including Save the Children, CARE, Plan, and Broadbranch Associates has been awarded a major USAID bilateral award titled Supporting Service Delivery-Excellence (SSD-E) in Malawi. Over the duration of a five-year period (October 2011-September 2016), SSD-E will focus on expansion and improved quality of priority Essential Health Package (EHP) services at the community and referral (health centers and district hospitals) levels with the aim of improving the health and well-being of the population of Malawi. All programmatic efforts will work in targeted districts within all five health zones in country as well as at the national level. SSD-E will be implemented with the Ministry of Health at the national, zonal and district levels as primary partners. Additionally, the program will partner with several national non-governmental organizations. At the facility/service provider level, SSD-E will oversee improvements in access to and quality of priority EHP services through approaches that ensure "no missed opportunities" and will integrate clinical mentoring, quality improvement, supportive supervision and improvements in referral systems. At the community/household level, SSD-E will combine broad community mobilization and planning with better engagement of community level structures, young people and women—particularly those populations with the poorest health outcomes.

   Save the Children will provide national level technical leadership in newborn, child health and nutrition. In addition, Save the Children will be managing the implementation in two of the five health zones. Save the Children is recruiting four key personnel on the leadership team for this program, including the Deputy Chief of Party and three Senior Technical Advisors. The total value of this award is US$ 65 million over five years. Save the Children

will be managing a major share of the total budget for this program, totaling approximately US$ 19 million over five years.

SSD-E presents an unprecedented opportunity to scale up the maternal and newborn health interventions at the facility and community levels in an integrated manner. With Save the Children as the technical lead for newborn and child health at the national level, SSD-E will be able to address several of the final evaluation findings when developing the technical package with the Ministry of Health and other partners.

3) **CONCERT (USAID bi-lateral project)** - Save the Children is leading a critical component of a new USAID/Mission-funded bi-lateral project for maternal, newborn and child health awarded to Johns Hopkins School of Public Health Center for Communication Programs (JHU/CCP). The project, which runs through September 2016, is called CONCERT (COmmunicating, Networking, and Capacity-building to Enable Malawians to Effectively Respond Together to Health and Development Challenges). The total value of the cooperative agreement is $24 million, and Save the Children is responsible for programming approximately a third of these resources, $8 million over five years, covering all five health zones in Malawi. Save the Children's role is to provide technical leadership and support to mobilize communities to achieve sustainable health and social change through collective analysis and action. Save the Children will develop tools and train national and district-level government, USAID-funded, and civil society partners to integrate Malawi's current community mobilization approaches into a single coherent approach that effectively engages community members who work hand-in-hand with the health care system to increase use of key services and behaviors, ensuring improved health and survival of Malawian families. Save the Children also leads efforts to strengthen the capacity of community level systems and structures to realize their goals for a healthy society.

4) **Saving Newborn Lives "Bridge" Cost-Extension** - Savings Newborn Lives has awarded SCiMw a 15-month extension (through December 2012) to consolidate work on scaling up and improving quality of service delivery for the CBMNC package and KMC. Specifically, the cost-extension in the amount of $1 million, will allow Save the Children to:
   - train additional HSAs to provide coverage for the entire three pilot districts;
   - document the intervention, process of implementation, and costing to inform scale-up and guide policy; and
   - gain additional data that will inform type and magnitude of MNC services that will need further strengthening at health center and district referral levels.

5) **Save the Children-Italy Support –** Working with the SNL "bridge" cost-extension, Save the Children-Italy is continuing to fund SCiMw in the amount of Euro 1.638 (US$ 1,956,904) through March 2013 to achieve district-wide coverage for the CBMNC package in the three focus CBMNC districts.