



*Federal Ministry of Health
Ethiopia*



***Community Based
Newborn Care
Implementation Guideline***

December 2012



Federal Ministry of Health Ethiopia

**Community Based Newborn Care
Implementation Plan**

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Acronyms

ACT	Aretimesin Combined Treatment
AHPDP	Agrarian Health Promotion and Disease Prevention Directorate
ANC	Antenatal Care
ARI	Acute Respiratory Infection
BCC	Behavior change communication
BMGF	Bill and Melinda Gates Foundation
BEmONC	Basic Emergency Obstetric and Newborn Care
BPCR	Birth Plan and Complication Readiness Plan
CBDDM	Community Based Data for Decision Making
CBNC	Community Based Newborn Care
CCM	Community Case Management
CFR	Case Fatality Rate
CI	Catalytic Initiative
CIDA	Canadian International Development Agency
C-KMC	Community Based Kangaroo Mother Care
COMBINE	Community Based Interventions for newborns in Ethiopia
CSTWG	Child Survival Technical Working Group
EDHS	Ethiopia Demographic and Health Survey
EPS	Ethiopian Pediatric Society
ENC	Essential Newborn Care
ESOG	Ethiopian Society of Obstetrics and Gynecology
FANC	Focused Antenatal Care
FMHACA	Food Medicine Health Care Administration and Control Authority of Ethiopia
GMP	Growth Monitoring Program
HC	Health Centre
HCT	HIV Counseling and Testing
HDA	Health Development Army
HEP	Health Extension Program
HEW	Health Extension Worker
HMIS	Health Management Information Systems
HP	Health Post
HRH	Human Resource for Health
HSDP	Health Sector Development Plan
iCCM	Integrated Community Case Management
IFHP	Integrated Family Health Program
IMNCI	Integrated Management of newborn and childhood illness
IMR	Infant Mortality Rate
IPLS	Integrated Pharmaceutical Logistic System
IR	Intermediate Result
IRS	Indoor Residual Spray
JHU	John Hopkins University
JMV	Joint Monitoring Visits
JRM	Joint review mission
JSI	John Snow Inc.
L10K	Last ten Kilometers Project
LB	Live Birth
LBW	Low Birth Weight

LLIN	Long Lasting Impregnated Nets
LMIS	Logistics Management Information Systems
MaNHEP	Maternal and Newborn Health Ethiopia Partnership
MCHIP	Maternal and Child Health Integrated Program
MDG	Millennium Development Goals
MNH	Maternal and Newborn Health
NMR	Neonatal Mortality Rate
ORS	Oral Rehydration Solution
ORT	Oral rehydration Treatment
PFSA	Pharmaceutical Fund and Supply Agency
PHCU	Primary Health Care Unit
PSBI	Possible Serious Bacterial Infections
PNC	Postnatal Care
PPH	Postpartum Hemorrhage
PRCMM	Program Review and Clinical Mentoring Meeting
RRF	Request and Resupply Form
RDT	Rapid Diagnostic Test
SAM	Severe Acute Malnutrition
SD	Severe Disease
RHB	Regional Health Bureau
RUTF	Ready to use Therapeutic Food
SBA	Skilled Birth Attendant
SNL	Saving Newborn Lives
SNNPR	Southern National Nationalities Peoples Region
ToT	Training of Trainers
TWG	Technical Working Group
U5MR	Under Five Mortality Rate
ZHD	Zonal Health Department

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Forward

After the successful national scaling up of community based integrated case management of common childhood illnesses (iCCM), the initiation of community based newborn infection management in phased manner through the health extension program represents another mile stone of the health development in Ethiopia. It provides an opportunity to further strengthen community based maternal and newborn care, and avert more preventable deaths.

Community based maternal and newborn care has been one of the 16 HEP packages. The introduction of community based newborn infection management is not merely adding a high impact curative intervention to the package, but also presenting an opportunity to enhance the preventive interventions during antenatal, child birth and postpartum period, for mothers and babies. To reach every pregnant woman and every newborn, no matter where they live, no matter when the delivery takes place, will be a challenging task. Linkage with the woreda health systems and health centres is critical for technical support, HMIS, supervision, and logistics and supply management.

Good performing Health Extension and iCCM programs are pre-requisite of a successful community based maternal and newborn program.

Government at regional, zonal, woreda and kebele levels will lead and own the program to provide adequate support in the planning, implementation and monitoring and evaluation of the program. The regional and zonal health offices shall coordinate the development partners effectively to ensure capacity building and skills transfer.

A key lesson learnt from the HEP and iCCM program is that community mobilization and education are critical for uptake of available services. The Health Development Teams and other effective existing community mechanisms should be fully mobilized.

Well-coordinated and efficiently managed community based newborn care delivered across the continuum of care is vital to ensure the achievement of MDG 4 in Ethiopia by 2015.

Kesetebirhan Admasu

Minister

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Executive Summary

Approximately 3 million babies are born in Ethiopia each year; nearly 90% of these babies are born at home. The most recent EDHS 2011 reports Newborn Mortality Rate (NMR) to be 37/1000 Live Births (LBs), a rate that has been stagnant over the past 5-10 years and Neonatal mortality accounts for 42% of the under-5 mortality. The EDHS 2011 result showed that the maternal mortality ratio (MMR) is at 676/100,000 live births showing little improvement. The direct causes of maternal death are obstructed labor, uterine rupture, hemorrhage- PPH, APH, Ectopic, preeclampsia/eclampsia, unsafe abortion and sepsis – puerperal sepsis, septic abortion. The indirect causes include anemia, infectious causes- malaria, pneumonia, HIV, viral hepatitis, thromboembolism, anesthesia accidents and medical illnesses- cardiac, diabetes, etc. Coverage of key maternal health services along the continuum although improving. Antenatal Care Coverage of one visit 82%; deliveries by skilled attendant 17 %; contraceptive prevalence rate 62%. 39 percent of the health centres have BEmONC while 69% of hospitals have CEmONC. Less than one percent (0.6%) of total deliveries were by caesarean section of total deliveries ¹

Both The Lancet series on Newborn and on Maternal Health suggest that 15 to 32% of neonatal deaths can be prevented through achieving high coverage of a few key practices: hygienic cord care, thermal care, early and exclusive breastfeeding, community-based care for low birth weight and care seeking for illness in low income countries. The recommended interventions emphasize strengthening the continuum of maternal, newborn and child care including antenatal care (ANC), intra-partum care and postnatal care (PNC) for the mother and the newborn.

The Ethiopia health sector development plan (HSDP IV, 2010-2015) has made maternal and newborn health one of the top priorities. Given that 90% of births still take place at home, there is limited newborn care in health facilities and newborn care seeking practice is inadequate, scaling up essential newborn care in communities and primary health facilities is critical

Building on lessons learned in implementation of community based case management of common childhood illness (iCCM); the implementation of community based newborn care (CBNC) will employ key guiding principles to ensure rapid startup, consistent and quality implementation. These are government leadership and ownership; continuum of care; balance between preventive and curative care at the community level; quality service; community participation; strong health system support, phased approach and partnership

The goal of the community based newborn care is to reduce newborn and child mortality to accelerate the achievement of MDG 4 and post MDG agenda. This goal will be achieved through further strengthened the Primary Health Care Unit approach and the Health Extension Program by improving linkages between health centres and health posts and performance of the health extension worker, to scale up community based MNH services including introduction of newborn sepsis management; the capacity of health centres in providing quality maternal, newborn and child health services; logistics and information systems within the PHCU context;

¹ Health and Health Related Indicators, 2003 E.C (2010/11G.C.). Federal Ministry of Health Policy Planning Directorate

improved maternal and newborn care practices and care seeking through HDAs and other existing effective community mobilization mechanisms and prudent implementations that draws experience and lessons from the initial phase to inform the scale up phase. The CBNC will use five key strategies to identify pregnant women, provide focused antenatal care (ANC), labor and delivery, postnatal care (PNC, identify and manage sick newborns at Community level and IEC/BCC and community mobilization

The major activities include preparation of training materials for health workers, HEWs and HDAs, cascaded training, national, regional and zonal level orientations, orientation of HDA on CBNC, follow-up after training and regular supportive supervision, baseline and routine monitoring, performance review and clinical mentoring meetings (PRCMM) and procurement and distribution of essential supplies and drugs as well as operations Research

During the three years implementation; the CBNC will benefit total of 14, 546,955 beneficiaries i.e. 7,273, 476 newborns and same number of mothers with strengthened MNH services and management of newborn infection, intra partum injury (asphyxia) and LBW/preterm complications. The implementation will cost total ETB 353,547,078 or USD 19,641,504 USD which comes to cost per capita for the four regions of \$1.35USD.

Situation Analysis

Projections from the 2007 population and housing census estimate the total population of Ethiopia for the year 2013 to be 86 million. To systematically address the health care needs of the population, the health sector has introduced a three-tier health care delivery system. *The first level* is the Woreda/District health system, comprises of a primary hospital (with population coverage of 60,000-100,000 people), health centres (1/15,000-25,000 population) and their satellite Health Posts (1/3,000-5,000 population) that are connected to each other by a referral system. One health centre and five health posts in the catchment area form a Primary health care unit (PHCU). There are over 34,000 government salaried Health Extension Workers (HEWs) working in pair in over 15,000 health posts throughout the country, providing promotive, preventive and basic curative care at the community level. The HEWs are supported by the Health Development Army (HDA). Each HDA is networked with five neighboring households. *The second level* in the tier is a General Hospital with population coverage of 1-1.5 million people and *the third level* is Specialized Hospital that covers population of 3.5-5 million.²

Approximately 3 million³ babies are born in Ethiopia each year; nearly 90% of these babies are born at home. EDHS 2011 reports Newborn Mortality Rate (NMR) to be 37/1000 Live Births (LBs), a rate that has been stagnant over the past 5-10 years. By contrast, between 2005 and 2011, U5MR has been reduced by 28% from 123/1000 LBs to 88/1000 LBs (Figure 1). Neonatal mortality accounts for 42% of the under-5 mortality. The major direct causes of newborn deaths are infection 36%, intrapartum related complication (birth asphyxia) 25%, and prematurity 17%. (Figure 2)

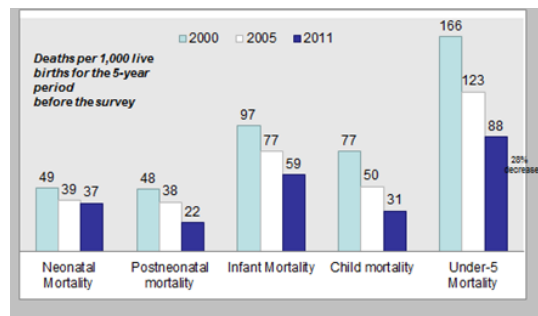


Figure 1. Trends in child mortalities in Ethiopia

The most vulnerable time for both the mother and newborn is during birth and in the hours and days immediately after childbirth. It is estimated that between 25 to 45 % of all neonatal deaths occur in the first 24 hours, with about three-quarters occurring in the first week after birth.

The significant reduction of U5MR, IMR and post-neonatal mortality rates are attributable to the overall social economic development and improved basic health service coverage in the rural areas largely due to the successful health extension programme and expansion of health centres . On the other hand, the lack of progress in NMR reduction may be explained by the high proportion of birth taking place at home and low availability of newborn

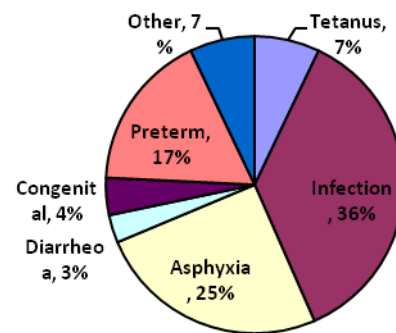


Figure 2. Major causes of newborn death Ethiopia

²Health sector development program IV, 2010/11 – 2014/15. Federal Ministry of Health Ethiopia, October 2010

³ Using national average CBR of 33.62

care and poor care seeking practices. For example, only 7% of all mothers received a postnatal visit within the first two days (EDHS, 2011). Child survival programs such as integrated Community Case Management (iCCM) of common childhood illnesses, IMNCI, new vaccines, and complementary feeding programs tend to expand and impact post-neonatal children more than neonates. To reach MDG 4 it is imperative and urgent to scale up effective newborn care interventions.

The Ethiopia health sector development plan (HSDP IV, 2010-2015) has made maternal and newborn health one of the top priorities. Given that 90% of births still take place at home, there is limited newborn care in health facilities and newborn care seeking practice is inadequate, scaling up essential newborn care in communities and primary health facilities is critical. As part of the package of interventions for community-based newborn care, prevention and treatment of neonatal sepsis is a priority. HSDP IV aims to increase neonatal sepsis treatment to 74% by 2015. Some of the key MNH related indicators are shown in table 1.

Table 1: Key MNH Related Indicators

Indicators	Figure	Source
Under-five mortality rate	88/1000 live births	EDHS 2011
Neonatal mortality rate	37/1000 live births	EDHS 2011
Maternal mortality ratio	676/100,000 live births	EDHS 2011
% of low birth weight	10%	EDHS 2011
Service Coverage		
% of women attended one ANC for last births	82% ANC	FMoH 2011
% of women attended four ANC for last births	19% ANC	EDHS 2011
% of births by skilled birth attendant	10%	EDHS 2011
Postnatal care within 48 hours	7%	EDHS 2011
Postnatal care within 6weeks	42%	FMoH 2011
% of birth protected against tetanus	66%	FMoH 2011
Essential Newborn Care Practices		
% of newborns initiate breastfeeding within one hour after birth	51.5%	EDHS 2011
Clean cord care (clean blade for cutting cord)	72.5%	L10K 2010
Exclusive breastfeeding for children <6 month of age	52%	EDHS2011
IMNCI and iCCM		
% health facilities providing IMNCI	68%	FMoH 2011
% of HEWs trained in iCCM	80%	FMoH 2012

Indicators	Figure	Source
% of children under 5 with ARI receive antibiotics	6.8%	EDHS 2011
% of children under 5 with diarrhea receive ORS	30.7%	EDHS 2011
Newborn Sepsis Management		
Knowledge of newborn danger signs (poor suckling)	33%	L10K 2011
% of cases of newborn sepsis receive treatment	22% (estimate)	HSDP IV

Components of the community based newborn care package

The Federal Democratic Republic of Ethiopia Ministry of Health recognizes that essential newborn care requires a continuum of care provided at the household- health post-health centre to hospital levels. Even though some of the components require the involvement of health professionals and health extension workers, some only require change of practices at the household level. To this effect, the actual delivery of the services under each component of the package considers complementary roles among family members, health development army, health extension workers and other health professionals.

Notwithstanding the fact that, different interventions currently being implemented in the country are contributing to reduce neonatal mortality, additional interventions which have been proven effective in similar contexts are included in this package. Hence, interventions included in the accelerating reduction

of maternal and newborn mortality road map and health extension program, such as, early identification of pregnant women, provision of focused antenatal care, promotion of institutional delivery and safe and clean delivery including provision of misoprostol for prevention of post-partum hemorrhage (PPH), postnatal counseling and care - recognition of newborn danger signs, promotion of optimal breast feeding and immunization are considered as part of the CBNC package. Moreover, it includes immediate newborn care components stipulated in the Integrated Community Case Management (ICCM) program and Community based Maternal, Newborn and Child Health (CMNCH) interventions, which among others include prevention and management of hypothermia, birth asphyxia management, and management of pre-term and low birth weight

Box 1: Components of Community Based Newborn Care Package

- Early Identification of Pregnancy
- Provision of Focused Antenatal Care (ANC)
- Promotion of institutional delivery and
- Safe and clean delivery including provision of misoprostol in case of home deliveries or deliveries at health post level
- Provision of immediate newborn care, including application of Chlorohexidine on cord
- Recognition of asphyxia, initial stimulation and resuscitation of newborn baby
- Prevention and management of hypothermia
- Management of pre-term and/or low birth weight neonates
- Management of neonatal sepsis/very severe disease at community level

neonates. Considering their importance and effectiveness in similar contexts, the upgrading of HEWs to the level of community nurse, the Ministry of Health has adopted application of Chlorohexidine on the cord and management of sepsis/ very severe disease at community level as part of the community based newborn package.

Newborn Care Seeking Barriers

Newborns in Ethiopia have a multitude of barriers for them to access health care. Some of these are related to culture and fatalism and others to physical access due to distance and limited communication.

In certain cultural settings, specific danger signs (such as difficult breathing, fever, hypothermia, and inability to feed) may be associated with specifically understood newborn conditions whose first line of response is generally traditional medicine. Several mutually reinforcing beliefs and practices in Ethiopia act as strong barriers to care seeking by families for newborn illness: 1) protection of newborns from exposure to perceived harmful factors, 2) the understanding of the origin of newborn illness as related to its cure, and 3) a perception that care is not available for newborns in health facilities.⁴

Caretakers may also believe that no medicine exists for newborns at the health post and even health centre level or they are too small to be given medicine, if it does. This belief has also been reinforced by the fact that under national Integrated Management of Neonatal and Child Illness (IMNCI) protocols, the treatment of young infant with very severe disease requires a hospital referral. However, distance to health facilities, cost of services and quality of care provided in health facilities also are key barriers that limit care seeking among caretakers of sick young infants. This is a barrier for notifying labor and delivery as well as for complication immediately.

Global and Local Evidence⁵

Both The Lancet series on Newborn⁶ and on Maternal⁷ Health suggest that 15 to 32% of neonatal deaths can be prevented through achieving high coverage of a few key practices: clean home delivery, hygienic cord care, thermal care, early and exclusive breastfeeding, community-based care for low birth weight and care seeking for illness in low income countries. The recommended interventions emphasize strengthening the continuum of maternal, newborn and child care including antenatal care (ANC), intra-partum care and postnatal care (PNC) for the mother and the newborn^{8,9,10,11}.

⁴ SNL/Save the Children Ethiopia COMBINE (unpublished data)

⁵ Refer to the 'Exploring the potential for community based case management of neonatal sepsis in Ethiopia, February 26, 2012.

⁶ Darmstadt GL, Bhutta ZA, Cousens S, Adam T, Walker N, deBernis L: Evidence-based, cost-effective interventions: how many newborn babies can we save? Lancet 2005, 365(9463):977-988.

⁷ Ronsmans C, Graham WJ: Maternal mortality: who, when, where, and why. Lancet 2006, 368(9542):1189-1200

⁸ Campbell OM, Graham WJ: Strategies for reducing maternal mortality: getting on with what works. Lancet 2006, 368(9543):1284-1299.

⁹ Kerber KJ, de Graft-Johnson JE, Bhutta ZA, Okong P, Starrs A, Lawn JE: Continuum of care for maternal, newborn, and child health: from slogan to service delivery. Lancet 2007, 370(9595):1358-1369.

¹⁰ Tinker A, Hoope-Bender P, Azfar S, Bustreo F, Bell R: A continuum of care to save newborn lives. Lancet 2005, 365 (9462):822-825.

Community management of neonatal sepsis has been demonstrated to have significant impact on neonatal mortality. Community-based packages with management of neonatal sepsis by community health workers achieved large reductions in NMR of 34% to 62%¹² in research studies in India and Bangladesh. This impact was confirmed by evidence that management of neonatal sepsis by community health workers substantially lowered sepsis case fatality rates (CFR)¹³. A feasibility study in Nepal¹⁴, demonstrated that community health volunteers could be trained to recognize danger signs of severe newborn infection and initiate treatment and referral to health posts and/or health centres for injectable antibiotics.

Several common elements of these packages are critical to achieve sufficient coverage and quality for mortality impact. The fundamental element was a platform for CHWs and/or volunteers to identify all pregnancies, provide antenatal counseling visits (i.e., promoting ANC, birth preparedness, and birth notification), identify all births within the first day, and make early postnatal home visits to assess newborns, counsel mother (including danger sign recognition), and refer and/or manage suspected newborn infections. Second, neonatal sepsis case capture is usually dependent upon the community health worker or volunteer identifying danger signs as illness recognition and care-seeking by families remains low without CHW or volunteer case identification. Community-based treatment is then provided, including injectable gentamicin, when families do not accept referral to hospital and the treatment is provided daily for seven to ten consecutive days to complete the required course. While delivery platforms may vary in different settings, four essentials are required for community management of neonatal infections to have impact, reducing neonatal mortality. Described here as the “Four Cs,” these essentials include (1) prenatal and postnatal contact with the mother and newborn; (2) capture, or case identification, of newborns with signs of possible severe bacterial infection; (3) care, or treatment that is appropriate and initiated as early as possible; and (4) completion of a full 7-day course of appropriate antibiotics..¹⁵ Evidence from Asia has shown effectiveness of community-based packages that included pregnancy and birth identification, and early postnatal home visits by community health workers to provide counseling, newborn assessment, and care¹⁶

Local Evidence

One of the fundamental differences between community based newborn care and other conventional community based child health and nutrition programs is the necessity to undertake active case identification to enable timely provision of care and treatment. In the Ethiopian context active case identification requires a paradigm shift from the current passive identification the HEWs HEWs/HDA waiting for cases. They must establish earlier contact with all pregnant

¹¹ Warren C, Daly P, ToureL, Mongi: Postnatal care. Opportunities for Africa’s Newborns: practical data policy and programmatic support for newborn care in Africa. 2nd edition, Cape Town: PMNCH, Save the Children, UNFPA, UNICEF, USAID, WHO. 2009, pp. 80-90.

¹² Bang et al, Lancet 1999 and Baqui et al. Lancet 2008

¹³ Bang et al, J Perinatology suppl, 2005; Baqui et al, BMJ 2009

¹⁴ Khanal, J Health Popul Nutr, 2011

¹⁵ Exploring the Potential for Community-based Case Management of Neonatal Sepsis in Ethiopia, FMOH, February 2012

¹⁶ Bang et al. Lancet 1999;354:9194; Bang, Ankur Project Final Report, 2006, unpublished; Baqui et al. Lancet 2008;371:9628; Bhutta et al. Bulletin of World Health Organization 2008;86(6): 417; Kumar et al. Lancet 2008;372:1151; Bhutta et al. Lancet 2010;377:9763

women in antenatal, child birth and postnatal periods, they need to be present at birth, they should be able to make assessments and diagnoses rapidly and reliably to initiate treatment on time, and finally, a system needs to be in place to allow completion of the seven day treatment course. A well-functioning PHCU is essential to support, supply and monitor HEW/HDA work in communities as well as to provide a consistent referral link for the most severe cases.

There is good evidence that clinical signs of newborn illness can be detected by community health workers with a range of skills, including illiterate or semi-literate community volunteers. Analysis of routine COMBINE data (aggregate data from 2009 to 2012) showed that 62% of newborns were visited by either CHP or HEWs within 48 hours of birth. This figure has improved from 55% in 2009 to 78 % in 2012. The trend shows that the coverage increased positively over the time. Moreover, for the first half of 2012, 276 cases of newborns with severe bacterial infection in COMBINE sites were managed at the health post level. Of these, 93% had completed their treatment, 94% have improved, 4% referred to higher level and two per cent died. Almost all of those who died presented with more than two danger signs. Analysis of the same data showed a lower rate of treatment completion at health centre level, averaging 55% across the implementation health centres. This is possibly related to, among others, longer distance to the health centre which often may have to be travelled by foot, service fee, the need to stay in the vicinity of the health facility for the multiple injections in a day and opportunity cost.

Although health posts are open for five days a week, the COMBINE data showed that HEWs were able to ensure the provision of the seven days gentamycin course for babies who needed it. While majority of the treatment was initiated at the health post level, HEWs were able to initiate treatment at home in 15% of cases and complete the full gentamycin course at the home in nine per cent of the cases. This indicates how the HEWs were able to integrate newborn sepsis management within their daily routine and as one part of the MNH and ICCM package.

The Current Policy Environment for Newborn Health

Maternity care, IMNCI, and essential newborn care are key components of services provided at the health centres. Prior to iCCM, the HEWs provided preventive and promotive care as well as treatment of severe acute malnutrition, malaria and diarrhea. In 2010, the FMoH added community based management of pneumonia to the HEP. After 3 years of implementation of the Integrated Community Case Management (iCCM) initiative, 25,000 HEWs have been trained and are providing treatment services for child pneumonia, diarrhea, malaria and severe acute malnutrition at the community level. Based on the successful experience of iCCM at scale, in 2012, the FMoH decided in principle to introduce community based newborn sepsis case management through the HEP. The initiative will be introduced in 4 zones (one each in Amhara, Oromia, SNNP and Tigray Regions) with strong HEP and will also be expanded to all the woredas in the two zones where newborn sepsis management operations research is being implemented. Hence, during the first phase, new born sepsis as an initiative will be implemented in six zones in the four regions. HDAs will play an important role in mobilizing communities to increase demand and utilization of MNH services. Independent review of experiences and lessons learnt in the initial phase will be conducted prior to national scale-up.

Lessons Learnt from iCCM

In 2012, a rapid assessment was carried out to assess the implementation strength of iCCM.¹⁷ Of the 149 health posts and 201 HEWs assessed, the key findings were:

A large majority of children (81%) were assessed for the presence of cough, diarrhea, fever, and malnutrition. Virtually all children (98%) had their vaccination status assessed while fewer children (62%) were assessed for four general danger signs. Out of 11 key assessment tasks, HEWs completed an average of 9.2.

Just over half of children (53%) were classified correctly for all major iCCM illnesses. Of children with pneumonia, HEWs correctly classified 74%. The proportion of children with diarrhea correctly classified with diarrhea was 75%. Children with malnutrition were classified correctly only about half the time (53%). Sample sizes of children with malaria (3 children) and measles (5 children) were too small to be able to draw any meaningful conclusions about management of these illnesses.

The majority of children (64%) were correctly managed (received correct treatment or referral, including correct dose, duration and schedule, and did not receive any unnecessary treatments) for all iCCM illnesses. Nearly three-quarters (72%) of children with pneumonia were correctly managed. Similarly, 79% of children with diarrhea received correct management. Only 59% of malnourished children were correctly managed. Just over half (54%) of children needing referral were referred by the HEW and only 14% of children received the first dose of all needed treatments in the health post in the presence of the HEW.

Over-treatment of children was extremely rare. Just 6% of children received an antibiotic when it was not indicated and no child received unnecessary antimalarials. A very high proportion (83%) of caretakers correctly described how to give all treatments during the exit interview. Follow-up of sick children was rarely recorded in iCCM registers.

Utilization of iCCM services is low. Intervention health posts had an average of 16 sick child consultations per health post in the previous month. Nearly all of these children were between 2-59 months of age, with virtually no children under two months seen in the previous month. There was wide variation in utilization among health posts, with a range of consultations from zero to 95. Although utilization of iCCM services is low, there has been an upward trend in children with diarrhea, malaria, pneumonia and SAM receiving timely treatment simply because the iCCM services have been made available at the community level.

Intervention health posts were generally well stocked with essential iCCM drugs, ready-to-use therapeutic foods (RUTF), rapid diagnostic tests for malaria (RDTs), supplies, and job aids. Most health posts (69%) had all five essential drugs (Cotrimoxazole, ORS, zinc, ACT, chloroquine), RUTF, and RDTs.

¹⁷ Assessment of the strength of the integrated community case management of childhood illnesses and quality of care provided by Health Extension Workers in Jimma and West Hararghe zones, Oromia, Ethiopia. Final Report. November 2012

Purpose of this Implementation Plan

The target audiences of this guideline are program managers at all levels and development partners who support the Primary Health Care Units, Health Extension Program and community based maternal and newborn care including newborn sepsis management. Although the guideline is the blue print for nation-wide application, regional and local adaptation should be considered in order to ensure quality of implementation and adequate use of available services. The goal of the guideline is to transform evidence into action, by bringing quality newborn care including antibiotic treatment closer to sick newborns who currently have few, if any health care options.

While the implementation of community based sepsis management will be started in six zones, this guideline is prepared for guiding the national scale up in addition to the first phase implementation.

Guiding Principles

Government Leadership and Ownership

At the national, regional, woreda and kebele levels, the government will lead the planning, resourcing, implementation and monitoring of the program as integral part of the HSPD IV. Through woreda based planning, regional and national annual plans, specific interventions related to maternal and newborn care should be included and evaluated.

Balance between Preventive and Curative Care at the Community Level

The introduction of community based sepsis management should not merely be an ‘add yet another curative care intervention’ in the HEP package. The contacts with families and pregnant women during antenatal care, at birth and during the postpartum period are pre-conditions for identification of sick neonates on time. These contacts are opportunities to provide preventive care at the households and health post levels.

The community based management of newborn sepsis provides an opportunity to improve other MNCH program, and strengthen HEP and health systems. For those donors who provide direct budget support or make significant contribution to the MDG pool fund, supporting scaling up of community based MNH and nutrition through the iCCM platform provides an opportunity to complement their investment in equipment, supplies and drugs by supporting scaling up effective MNCH and nutrition interventions throughout the country.

Programs	Linkages
Maternal health	<ul style="list-style-type: none">• Promotion of antenatal care, pregnancy registration and follow up by HEWs, skilled care at birth and early identification and referral of obstetric complications• Postpartum care for both mothers and babies• Promotion and provision of family planning services
Nutrition	<ul style="list-style-type: none">• Promotion of early initiation of exclusive breastfeeding• Promotion of iron and folate supplementation, nutritious diet during pregnancy• Extra care of preterm and low birth weight baby including Kangaroo mother care

	<ul style="list-style-type: none"> • Postpartum Vitamin A for mothers
Child health	<ul style="list-style-type: none"> • Routine immunization • Linkage with iCCM (Pneumonia, Malaria, Diarrhoea and Severe Acute Malnutrition)
Behavior change communication	<ul style="list-style-type: none"> • HDAs promote good care practices for mothers, newborns and children
Supply chain management	<ul style="list-style-type: none"> • Registration of dispersible Amoxicillin (125 mg and 250 mg tabs with FMHACA) • Registration of Gentamycin 20mg/ml with FMHACA • Initiation procurement by UNICEF and distribution through training kits • Long term procurement through MDG pool fund and distribution through PFSA
	<ul style="list-style-type: none"> • Support PFSA for regular distribution of health post replenishment kits, and a pulled supply system in the long run

Continuum of Care

Ensuring the continuum of care from pregnancy to postpartum, and from household to health facilities is essential for a successful scaling up of effective community based maternal and newborn care. The initiation of community based newborn sepsis management should be an integral part of the health extension programme. Facilitating timely referral within the health system and from community to the front-line service delivery facility will be essential to save the life of sick newborns. The launching of the Primary Health Care Unit (PHCU) will be used as an opportunity to strengthen the referral system between health posts and health centres. Efforts need to be exerted to strengthen the referral from health centres to hospitals too.

Health System Support

Community based MNH requires health system support. This includes regular replenishment of essential drugs and commodities through effective logistics and supply chain management, HMIS that integrated community based information for local decision making, regular integrated supportive supervision and financial support. Strengthening the technical and administrative support relationship between health posts and health centres under the PHCU need to receive due emphasis to; facilitate mentorship support from health centres to health posts, ensure availability of essential drugs, supplies and other logistics, ensure use of data for monitoring to improve performance, and extend support to strengthen community mobilization and behavior change.

Partnership

Under the effective coordination mechanism led by the government, development partners should prioritize their technical and financial support to achieve universal coverage of high impact MNH interventions. The iCCM platform provides a good opportunity to introduce community based newborn care including newborn sepsis management.

Quality

Consistent availability of quality of MNH services at the health posts and health centres is critical for increased utilization of services. Skills and positive attitude of health care providers need to be reinforced through mentoring and integrated supportive supervision.

Community Participation

The key factor for the success of CBNC will be active participation of the community in the process of implementation. Communities, especially parents and health development army will play key role in practicing key essential newborn care practices at household level and in recognizing danger signs. They will also be key in ensuring immediate care seeking for sick newborns. The other crucial role the community will have is with regard to ensuring completion of treatment especially Gentamicin injection. On top of this the community will also be engaged to provide overall support to the HEWs so that they will be able to provide quality and comprehensive newborn care services.

Phased approach

Given the need for strong HEP, iCCM and HDA platform; implementation of existing CBNC interventions will be further strengthened and community based sepsis management will be introduced in a phased manner. In this regard the first phase will include selected six zones from the agrarian regions namely-Amhara (East Gojam), Tigray (Eastern Zone), Oromia (North Shoa) and SNNPR (Gurage). RHBs selected these zones based on the following criteria. (1) Strong HEP implementation, (2) functioning HAD, (3) functioning linkage with PHCU and HMIS and (3) Strong iCCM implementation. In addition to these zones; two of the COMBINE zones namely Sidama and East Shoa are selected. In these six zones a total population of over 11 million, with 2.6 million women in reproductive age and almost four hundred thousand expected deliveries will benefit from the interventions. Then building on the learning from the first phase the interventions will be taken to scale.

Phase 1 (a): proof of concept in six zones by end of 2013 (learning) of full package of community based newborn care including newborn infection management

Phase 1 (b): strengthening community based MNH as part of the HEP package including pregnancy registration, promotion of antenatal care and maternal nutrition during pregnancy, birth preparedness, clean delivery at birth and referral of obstetric complications, home visiting of mothers and babies for postpartum care, timely recognition and referral of maternal and newborn complications. The CMNCH component of integrated refresher training (IRT) is the main strategy coupled of enhanced supervision and mentoring of HEWs.

Phase 2: national roll out through the MDG PF (sustained effort) of the full package of community based maternal and newborn care including newborn infection management

Scale-up Approach

The CBNC will be implemented in two major phases. The first phase will be implemented from March to December 2013. During this 9 months period there will be national level launching workshop to introduce the program to stakeholders followed by master training of trainers and regional level training of trainers to establish pool of trainers to accelerate the introduction of CBNC in the six first phase implementation zones. The rollout training of HEWs and health professionals is expected to be completed from May to July 2013. Post training follow-up will be carried out from June to August 2013. Performance review and clinical mentoring will be conducted in October 2013. Following the learning from the implementation of CBNC in the six zones there will be high level review meeting in December 2013. This meeting is expected to come-up with scale-up plan on how CBNC could be implemented at scale based on learning from the six zones.

With regard to the scale-up of CBNC the plan is to organize regional level training of trainers from January to March, 2014 and to complete the training of HEWs and health professionals including post training follow-up from April to December 2014. Performance review and clinical mentoring meetings will be carried out side by side with rollout trainings from May 2014 to February 2015.

The time frame was designed in a way to get CBNC implemented at scale for about a year before the deadline of the millennium development goals in 2015.

Goal of Community Based Newborn Care Implementation

Reduce newborn and child mortality to accelerate the achievement of MDG 4 and post MDG agenda

Objectives:

General:

To further strengthen the Primary Health Care Unit and the Health Extension Program in delivering quality MNCH services through efficient and effective linkages between health centres and health posts,

Specific

1. To scale up community based MNH services including introduction of newborn sepsis management;
2. To strengthen the capacity of health centres in providing quality maternal, newborn and child health services;
3. To further strengthen logistics and information systems within the PHCU context
4. To improve maternal and newborn care practices and care seeking through HDAs and other existing effective community mobilization mechanisms;
5. To draw experience and lessons from the initial phase to inform the scale up phase.

Strategies to Implement Community Based Newborn Care

The following five strategic areas are identified to implement CBNC and strengthen existing initiatives for maternal and newborn care;

- 1. *Identify pregnant women***
- 2. *Focused antenatal care (ANC)***
- 3. *Labor and Delivery***
- 4. *Postnatal Care (PNC)***
- 5. *Identify and manage sick newborns at Community level***
- 6. *IEC/BCC and Community mobilization***
- 7. *Health system support***

HDAs and HEWs are the main pillars of CBNC in the community. They come into contact with families most frequently during pregnancy as well as during or immediately after delivery. Through ANC sessions and home visits during pregnancy, they can promote effective newborn care practices, danger sign identification and early care seeking. After delivery, they can visit homes to support healthy behaviours such as hand washing, exclusive breastfeeding, and warmth. HEWs and HDAs can screen babies for danger signs in the vulnerable days and months after delivery and HEWs can treat or refer those with suspected serious infections. In this regard the community based newborn care strategies are set with the background of a comprehensive approach to integrate newborn care within the existing maternal and newborn care strategies.

1. *Identify Pregnant Women*

1.1 Why do we need to identify pregnant women?

To have an effective community based new born care (CBNC), recognizing specific danger signs soon after birth, preferably in the first day (s) after delivery is critical. Thus active pregnancy and birth surveillance is required. In addition to the surveillance conducted by HEWs and HDA, families should be counseled on recognizing danger signs in the newborn and also on the importance of seeking care should the baby develop any of these signs.

To access the newborn it is essential to access the mother as early as possible during pregnancy. Newborn care starts at pregnancy; maternal immunization, nutrition, counseling, testing etc are the starting point for comprehensive care for the mother and the newborn. Accessing pregnant mothers early is expected to increase contact with health care provider for pregnancy care and also for care during labor and delivery and early postnatal care. Increased contact, accessing mothers and the newborn during PNC might increase as they are accessed during pregnancy and newborns that need care will be reached on time.

1.2 How to identify pregnant women?

Currently most pregnant women are identified through self-reporting. The other proportion of mothers is contacted through ANC attendance influenced by efforts from Health Development

Army (HDA), Health Extension Worker (HEW) and other groups such as Pregnant mothers forum/group.

a) *Self-reporting of mothers for ANC to enhance identification of pregnant mothers*

To enhance self-reporting of pregnant mothers for ANC we need to;

- Counsel/educate mothers using focused and targeted IEC/BCC tools on MNC through interpersonal communication, audiovisuals, printed BCC tools (Family Health Card) and medias.
- Use community leaders, religious leaders, community based structures like *Edirs* and pregnant mother forums
- Provide quality and user friendly maternal and newborn health care at all levels

b) *Active surveillance and mapping of pregnant women to enhance identification of pregnant mothers*

One to five HDA network leaders will identify and map pregnant women. The network leaders will identify all pregnant mothers within her own catchment and report to the HEWs. The HEWs will have the list of all pregnant mothers in her Kebele and document them by name, months of pregnancy and household location. The HEWs have to work in collaboration with the HDAs, community groups and their leaders to map out the pregnant women in their kebele. The active surveillance and mapping has to be a continuous process, to be updated with every new pregnancy in the 1 to 5 network and with every reported delivery. The pregnant mothers' support group can be formed with in the HDA network and can be used for active surveillance of pregnant mothers. This process will also help to have better linkage from the household through the HDA to the HEW and then to the health centre.

2. *Focused ANC – add FANC*

Focused ANC has to be strengthened at the community/household, at the Health Post and at the Health Centres to deliver a community based newborn care in line with existing strategies. An increased coverage in focused ANC, particularly birth preparedness and complication readiness (BPCR) will increase the reach for every pregnant mother and every newborn in the community.

a) *What can be done to enhance focused ANC at community level?*

The existing HDA 1 to 5 networks and the 1 to 5 network leaders can be used to enhance contact for focused ANC at community level.

The HDAs can provide education, counseling, support, advice and even follow up for regular ANC attendance and tracing defaulters. They will also provide education on behaviour change,

Box 2: Focused Antenatal Care (FANC)

- Four antenatal visits (if no complications)
- Counseling on birth preparedness
- HIV counseling and testing
- Counseling for FP, and nutrition
- Treatment of diagnosed STI
- Tetanus toxoid (2 doses)
- Iron and folate supplement
- Detection and management of complications

on the importance of four ANC visits, on house hold practices for healthy pregnancy and teach on maternal and newborn danger signs. They will use the standard family health card.

In addition to the 1 to 5 network; once the pregnant mothers are identified in each kebele the pregnant mothers' forum can be established to support a group of pregnant mothers. This forum can be used to deliver the functions of HDAs. Members of the pregnant mothers' forum can motivate each other to seek and receive care, counsel each other, organize their own meetings, and follow up each other during ANC, delivery and even PNC.

b) What can be done to enhance focused ANC at health post level?

The HEWs are providing focused ANC at the health post level. To enhance the ANC service at the Health Post we need to strengthen the following services by the HEW:

- Register and regularly update pregnant women with LMP and EDD and map households with pregnant women
- Educating/counseling pregnant mothers (using FHC)
- Provide standard and comprehensive services based on checklist indicating the minimum packages
- Provide friendly care with good interpersonal communication skill
- Link pregnant women with health centre for further ANC services
- Establish strong relationship and share information with the HDA to ensure compliance, and stronger follow up.
- HEWs will train, mentor, coach and strengthen HDAs

c) What can be done to enhance focused ANC at health centre level?

This is a level where we can provide a skilled maternal and newborn health service. For a successful implementation of the community based newborn care a quality service delivery to mothers and newborns at this level is mandatory.

To enhance focused ANC service at the health centre level and support quality implementation of the community based newborn care we need to;

- Provide quality focused ANC based on checklist
- Identify danger signs during pregnancy
- Provide quality clinical and laboratory services
- Provide friendly/welcoming service to mothers
- Strengthen MNH education and counseling services
- Provide technical support to HEWs through the existing PHCU support model
- Strengthen referral linkage between health posts and health centre such as outreach service, a feedback system in the PHCU system for tracking pregnant women
- Monitoring performance at PHCU level

- Establish/strengthen link with referral hospitals

3. Labour and Delivery

Labour and delivery is a crucial point in establishing contact with the newborn and the mother to assess, identify and manage different problems of the newborn and mother.

3.1 Labour and Delivery at Community/Household level:

3.1.1 Activating birth plan: Every pregnant mother is expected to prepare birth and complication readiness plan (BPCR). Therefore, it is important the BPCR is activated and used when labour starts. Key family members such as the husband, mother, mother in law etc. must be involved for the development of the BPCR.

3.1.2. Notification of labour based on the birth plan: For inevitable home births, the family and/or health development army are expected to make immediate notification of labour based on the birth plan to the HEWs.

3.1.3. Mobilizing Support: This may include transportation arrangements, communication with health worker and notifying HDA and other relevant contacts.

3.2 Clean and Safe Birth at Home/Health Post Assisted by Health Extension Workers

It is possible that births take place at home or at health posts are assisted by health extension workers trained in clean and safe delivery. For inevitable home births the health extension worker is expected to carry out clean and safe delivery, identify danger signs in newborn and mothers and refer. In addition, provide immediate essential new born care, support initiation of breastfeeding, identify low birth/preterm baby and manage and refer as per the guideline; counsel the mother on different issues and initiate postnatal care.

3.3 Health Centre

Mothers are encouraged to deliver at health centres. Health centres are expected to respond to requests from family/community in providing delivery service including ambulance service free of cost. Health centres are also expected to provide quality maternity services including basic emergency obstetric and newborn care (BEmONC), ambulance referral of severe complications that can't be managed at health centres, provision of proper counseling, essential newborn care services and identify and manage LBW/preterm babies. Health centres are also expected to support HEWs with regard to labour/delivery and new born care practices.

The health centre should also link back mothers delivered at the health centre with the health post for further newborn and maternal care and follow-up

4. Postnatal Care

Provision of comprehensive postnatal care is crucial in community based newborn care. Identification of births for postnatal care is a prerequisite to starting postnatal care services. Identification of births can be done through different mechanisms such as notification by families, health development army or pregnant woman support forum. Health centres also can provide information to the health post on deliveries that occurred in health centre for further

PNC service by health extension workers. Health extension workers may be informed of some deliveries that the health development army may not be informed of. In this case the health extension workers are expected to inform the health development army for further support.

The health extension workers and the health development army should carry out postnatal home visits on day 1, 3, and 7, in addition to post-partum care at the 6th week. All the visits are required to be done by the health extension workers, while health development armies accompany them to provide health promotion and education service.

HEW and the HDA will visit newborns that need special attention (preterm and low birth weight babies) on the 15th day by.

4.1 Postnatal visit by Health Development Army

The 1 to 5 network leaders are expected to make postnatal home visit in the crucial days after delivery on days 1, 3, and 7 for mothers and newborns. The HEWs will provide 15th day newborn care for newborns with special needs (preterm and low birth weight babies). The 6th week postpartum visit will be conducted by the HEW at health post, home or through outreach services. In case the health extension workers are not available for any of the postnatal visits; the 1 to 5 leaders have to carry out the visits according to the schedule. During the visit the 1 to 5 leader is expected to recognize danger signs, using family health card counsel the caretakers on feeding, danger sign, essential newborn care and prompt care seeking, link the newborn/mother that need attention with health post and ensure families comply with complete treatment.

4.2 Postnatal Care by Health Extension Workers

As mentioned above, the health extension workers are expected to make postnatal home visits on day 1, 3, and 7 for all newborns and those with special needs should also be visited on the 15th day. The 6th week postpartum visit will be carried out either at health posts, home and at outreach by the health extension worker. During these visits the health extension workers provide comprehensive neonatal care services guided by a standard checklist. HEWs assess, identify sick newborns and manage based on the guideline, in addition to providing counseling and support based on family health card and other behavioural change communication materials. The health extension workers are also expected to strengthen referral link for postnatal care (community to/from health post to/from health centre).

4.3 Postnatal Care by Health Centre

Health centres are supposed to provide comprehensive postnatal care on day 1, day 3, day 7 and week 6 based on the guideline and guided by checklist. If the baby seen is found to be preterm and low birth weight, the baby/mother should be scheduled for return visit at the 15th day or linked with the health post for special care and follow-up. Health centres are expected to manage cases referred from health posts; provide feedbacks to health post; establish referral link with hospitals; assess and identify newborn problems and manage based on the guideline; provide counseling based on behavioural change communication materials and strengthen referral link with HPs/hospitals.

5. Identify and manage sick newborns at community level

5.1 Identification of sick newborns

Postnatal visits during the first week as described above are the main entry point for identification of newborns needing medical care. HEWs, during the home visits early in the postnatal period, will identify sick neonates based on a standard checklist of danger signs. In the absence of HEWs to do early postnatal visits, the HDA network leaders will identify sick neonates needing care based on a simple pictorial checklist that has been used in Ethiopia. HDA network leaders are expected to either link with the HEWs or when this is not possible for various reasons, to refer to the nearest health centre for further assessment and management when necessary.

For facility based deliveries, health workers are expected to link the newly delivered mothers to HEWs with referral slip in the respective kebeles to ensure proper postnatal follow up as per the guideline.

5.2 Treatment of sick newborns

Management of sick newborns identified during early postnatal visit will depend on the nature of the problem and will be based on the sick newborn management protocol for HEWs and health workers. In general, trained and equipped HEWs will (i) continue to provide immediate essential newborn care if they happen to attend deliveries, including appropriate thermal care and cord care (with Chlorhexidine); and resuscitation with appropriate technology if/when necessary; (ii) continue to provide appropriate counseling and referral for very low birth weight /preterm babies; (iii) identify danger signs and treat severe bacterial infections in neonates with antibiotics when referral is not possible. There will be a strong referral and support link between health posts and health centres for both forward and backward referral.

6. IEC/BCC and Community Mobilization

A strong community mobilization using existing structures and IEC/BCC tools is a cross cutting strategy. A number of bottlenecks do exist in our community to deliver key maternal and newborn health messages. Traditional beliefs, practices and cultures within different communities are major obstacles to reach pregnant mothers during pregnancy, labour and particularly in the postnatal care period. Unless these beliefs and practices particularly at the time of delivery and postnatal care are addressed, it will be hard to reach all mothers who have given birth and also their newborns.

Demand for services needs to come from families in the community. Community members usually place high value on curative services, so they need to be aware that in addition to children 2-59 months; a new service is being offered to care for newborns and young infants 0-2months. Promoting community awareness of the program and encouraging participation early in the planning stage is important. A behavior change communication strategy (BCC) is a useful tool for increasing demand and utilization. ABCC strategy looks at current norms and behaviors, such as newborn health practices, care during illness, and care seeking, and identifies behaviors that if harmful (such as immediate bathing and prelacteal feeds) need to be altered to improve health, and if healthy (such as early initiation and exclusive breastfeeding), need to be promoted. A BCC strategy identifies acceptable ways to implement these changes. The communication side of a BCC strategy, based on the actual practices explored through dialogue and/or research) identifies key messages, the specific target audiences (who the messages are aimed at), and the most effective, appropriate and cost effective communication channels (e.g., radio, billboards, frontline worker etc) to reach the intended audience(s). Better understanding of the traditional and cultural context through desk review, formative research and developing targeted key messages is imperative:

Existing Channels/Opportunities

- a) **Interpersonal Communication:** The health development army is important in implementing community based newborn care in general and as key means of reaching the community with maternal and newborn health messages. Maternal and newborn health need to be among priority agendas for discussion in 1 to 5 networks; family health card and other behavioural change communication materials will be used for these discussions.
- b) **Pregnant Mothers' Forum:** Pregnant mothers' forums are another important medium to discuss maternal and newborn health care as well as, adaption of healthy household and community practices.
- c) **Media:** Different electronic and print media can be used as a means of communicating maternal and newborn health messages, this include television, radio and family health cards. Mobile vans and mobile community theatres can also be used to communicate messages.
- d) **Existing Social Institutions:** Different social institutions exist in the community. Therefore, it is essential to identify appropriate social institutions such as '*edir*', women

saving groups, mosques, churches etc. to use them as a means to deliver maternal and newborn health messages.

Key Activities

1. Preparation of Training Guides and Supporting Training Materials for HEWs and HDAs

Preparation of training guides, tools, job aids, and supplies for demonstration ahead of time will be a crucial step for training of trainers intended for HEWs, WorHO focal person, PHCU director and health centre staffs on Community Based New Born Care (CBNC).

1.1 Preparation of Training Materials and Job AIDs

The *training materials and job aids* existing iCCM training material will be used to inform the development of the CBNC training materials and job aids. CBNC task force will be responsible in the development of the training material and job aids and the finalization of these materials is expected before the training commences. Once the materials are developed, they will be field tested and the final product (which will be informed by the field test results) will be printed and distributed.

The Family Health Card (FHC) will be the primary tool that will be used for behaviour change communication. To this effect, the HEWs will train the HDAs on the FHC and will use the existing HEW handbook to activate HDAs in CBNC.

In addition to the training guides, **drugs, supplies and equipment** needed for demonstration and practice during the training will be distributed and made available at the training facilities before the trainings commence. Regions, zones and woredas will collect the needed materials from each respective level and will be responsible for making the materials available at the training sites prior to the training.

The *registration book* that is currently being used by the HEW will be used to introduce new additions with CBNC implementation. Hence, the new elements from CBNC such as treatment completion will be added to the existing register. HEWs will be trained on how to use the existing register and this will be included in the training materials for HEWs. The experience learned from Nepal and COMBINE on the part of the register (remark section) will be adopted to be included on the registers.

Follow up checklist will be adopted from the COMBINE research in order to facilitate post training follow-up. The PRCM Meeting guide that is currently in use for iCCM will be revised, structured and utilized for CBNC.

2. Preparation of Training Guides and Supporting Training materials for Training Health professionals

Training materials and job aids for supporting CBNC will be developed to train health workers at the health centre and hospitals. The training materials and job aids related to IMNCI, EmONC, newborn care and others will be developed and will be field tested prior to finalization.

3. National, Regional and Zonal Level Orientations meetings for CBNC

Orientation for key FMoH program managers, partners, implementing regions, zones and professional associations is crucial for the successful implementation of CBNC by HEWs in the implementing regions.

The objective of orientation is to create a common understanding among key stakeholders about the nature and extent of major child health problems, available solutions and how to reduce mortality and morbidity among Ethiopian newborns through the implementation of CBNC by HEWs. In addition, this meeting will help generate support from stakeholders and establish strong partnership and collaboration for successful implementation.

All orientation meetings at national, regional, and zonal level will be conducted for one day

3.1 National Level Orientation

During the national level orientation meeting representatives from FMOH, RHBs, development partners, professional associations and Universities will be expected to participate. FMOH with technical support from the CBNC taskforce will lead this national level meeting.

3.2 Regional/Zonal Orientation

Orientation meeting at the regional level will be held with the same preparations, objective and content of the national orientation. Those who participated at the national level will collaborate with the RHBs and CBNC taskforce to organize the regional orientations.

Zonal level orientation will be optional, it is expected that cluster of woredas will be pulled together for orientation meetings. The zonal (cluster of woredas) meeting will also be conducted with the same objective and content as the regional orientation. Those who participated at the regional level orientation meeting will collaborate with the RHB and with support from the members of the Regional CBNC taskforce will organize zonal/cluster level orientation and planning meeting for all woreda health office in the implementing regions.

4. Trainings

The CBNC builds on iCCM platform that have successfully cascaded trainings, supervisions, clinical mentoring and supply provision. The iCCM training have included ENC, identification and management of newborns with intra partum complication (asphyxia) preterm/LBW and very sever disease. Hence four day training on CNBC will be provided in cascade from national level master training of trainers to roll-out to the health extension workers. In addition to the health extension workers, health centre staffs will also be trained on CBNC so that quality of management of newborn care can be improved at health centre. HEWs will give orientation to HDA 1 to 5 network leaders, in identifying and linking pregnancy, labour/delivery and newborns and maternal and newborn complications. The orientation can be segmented according to the four Cs and supported by a set of simple pictorial job aids.

4.1 Cascade Training to Reach the Health Extension Workers

4.1.1 Master Training of Trainers: A total of 60 participants who are expected to facilitate regional training of trainers and involve in mentoring quality of trainings will attend the first national master ToT. The participants will be drawn from FMOH, RHBs and relevant partners involved in the implementation of CBNC

4.1.2 Regional Training of Trainers: Multiple regional ToTs will be organized in the four regions to create a pool of qualified facilitators for the subsequent HEW rollout training. The iCCM experience is used to estimate the number of regional ToT attendants in the respective regions. 186 trainees will attend the regional ToT in SNNPR, 200 in Amhara, 87 in Tigray and 373 in Oromia. Hence, the regional ToTs in all the regions will produce

846 potential facilitators for the HEW rollout training. The trainees will be qualified health professionals who are believed to have the skill for better facilitation of trainings.

4.1.3 Rollout Training to HEWs, HEW focal persons and PHCU staffs: All the health extension workers in the four regions will receive the four day skill based training with both class room sessions and intensive practical exercises, which means the training will address 28,581 health extension workers (7,353 from SNNP, 6,537 from Amhara, 13,365 from Oromia and 1,326 from Tigray region)

In addition to the health extension workers, the woreda HEP focal persons and health centre staff who will support HEWs will receive the whole package of the training so that they will be able to give focused support for effective implementation of CBNC. 584 woreda focal persons from woreda health offices and two health centre staffs from each health centres supporting HEWs (a total of 4,838) will get the training to have the necessary skill.

4.2 Cascade Training to Reach Health Workers from Health Centres

There is sufficient evidence indicating the effectiveness of training health worker at health centres to improve the quality standard of care of newborn care, to strengthen the referral link within the PHCU and to ensure timely support to the health posts.

Separate cascade training will be organized to reach the health workers with a separately developed/adopted training guides and materials. The health workers already trained on IMNCI will receive two day refresher training and those health workers who have not received IMNCI training will get a one day technical update on the 8th day.

4.2.1 Master Training of Trainers: Thirty participants from FMOH, RHBs, partners and health facilities will receive a two day training which will help them get the necessary knowledge and skill to facilitate the following regional TOTs

4.2.2 Regional Training of Trainers: Tigray region will provide one round of training with 30 participants while SNNP and Amhara regions provide two rounds of training each with 120 participants and Oromia region three rounds with 90 participants.

4.2.3 Health workers rollout training: Two health workers trained in IMNCI and two untrained health workers will be drawn from all the health centres to be involved in the training. This will make up the overall attendant of the training to be about 9,676 from the four regions.

4.2.4 Training in other subjects: the labor ward staffs need to be trained in essential newborn care and EmONC. At least two to three nurses and midwives should be trained for each health centre.

4.3 Orientation of HDA on Community Based Newborn Care

The HDAs are believed to have a critical role to play in the community based newborn and maternal care. Through their predefined role, they identify and link mothers and newborns with the health extension worker for care. They are also supposed to identify and report danger signs seen in the newborn and mother. Hence, it is very important for HEWs to give orientations to HDAs to help them have the necessary skills to deliver on expectations. The HEW will use HDA training handbook and the family health card as a tool to orient/train the HDAs. The emphasis

will be on identification of pregnant women/mothers for ANC, labour and delivery and PNC, counsel promotive and preventive health behaviours and actions. Two and half million HDAs (1 to 5 leaders) will be oriented by HEWs. The training process will be continuous with regular mentoring and coaching by the HEW. The development team leaders (DTL) will be key in ensuring regular reporting of HDA activities to the HEWs.

4.4 Training of Hospital Staffs

A supervisory link between primary hospitals and health centres is expected to be established and function well. Considering this fact, health professionals from hospitals will be trained on CBNC to provide technical support to health centres and carry out regular supportive supervision. Two health workers from all hospitals in the four regions will receive the training; i.e. a total of 244 (42 from SNNP, 38 from Amhara, 82 from Oromiya and 28 from Tigray) will be involved in the training and the subsequent supportive supervisions to health centres.

Start-up and Regular Follow-ups

4.5 Start-up Follow-up

4.5.1 Health posts: All health posts with trained HEWs will receive start-up follow-up within 4 to 6 weeks after training by a team of trained professionals. The team composition will include representatives from woreda health office, health centres and implementing partners. A single supervisory team is expected to visit 2 health posts in one day. A standard checklist will be used to support this activity.

4.5.2 Health Centres: Primary hospital technical staffs will be given training on CBNC and supervisory skill so that they will establish focused supervisory link with the health centres within the district. All the health centres will receive their supervisory visit from the hospital within 4 to 6 weeks after training. A team from the hospital is expected to visit at least one health centre in one day. This will also be an opportunity to establish a functional and technical supervisory link between the health centres and the primary hospitals.

4.6 Regular Follow-up

Health centre staffs at the health centres are expected to continue with the already existent weekly supervision to the health posts. But at least one of those visits is expected to have a focused CBNC technical support using a checklist. 20% of the health posts will be visited by partner staffs every quarter for more needy health posts.

Regular technical and supervisory visit to health centres from hospitals is highly recommended and expected to establish. The partner staffs are also required to provide regular follow up and technical support to the health centres.

The already established mentoring, coaching and follow-up of HDAs by the HEWs will further be strengthened. Regular meetings between HEWs and DTLs, and DTLs and HDAs should be carried out to review performance, share experience and overcome challenges.

4.7 Strategies to improve and maintain quality of care:

Quality of care for CBNC can be defined as providing care to infants based on evidence-based standards and protocols, and in a respectful manner that supports families to adopt behaviors that

promote their baby's health Ensuring quality care has many facets, and although improving individual health worker performance is an important element, it is not a stand-alone issue. In this regard the CBNC will have standards and guidelines; competency based training materials and job aids, continued training thru regular supportive supervision, review meeting and clinical mentoring, (on the job or in-service) to maintain skills; reliable supervision system which embodies the quality improvement process that uses data to improve performance and thru HDA support from the community which directly impacts worker motivation and morale.

5. Performance Review and Clinical Mentoring Meetings (PRCMM)

The first woreda level PRCMM will be held within 3-6 months' time after training for 2 days. Then the subsequent PRCMM will be done biannually for a day. The PRCMM will be used as an important opportunity to access all the HEWs after training, mentoring and coaching them and collect some important data to inform progress and quality of the program.

The participants of the PRCMM will be health extension workers, health centre and woreda representatives (28,581 HEWs, 584 Woreda health office representatives and 7,841 health workers from health centres will take part in the PRCMMs)

6. Baseline and Routine Monitoring

The implementation of CNBC calls for robust monitoring and evaluation system for the outset. This will allow systematic monitoring of progress towards the intended goals and objective and informing national scale up of CBNC. An independent evaluation and quality assessment process will be employed in addition to routine data collection.

7. Procurement and Distribution of Essential supplies and Drugs

After a complete inventory of all the necessary essential supplies and drugs, procurement will be done before commencement of the trainings. In the long term all the essential drugs and commodities will be procured and distributed through the government funding and systems. The distribution of the supplies and the items will pass through the health system with proper monitoring and follow up. The HEWs will get essential drugs during the training to help them be able to initiate the service immediately after the training. A replenishment kit will follow after some time. The starter kit will avail the amount to sustain service delivery up to 12 months.

8. High Level Performance Review Meeting

A review meeting involving FMoH, RHBs, implementing partners and other stakeholders will be carried out annually to review the progress of implementation, identify challenges, propose possible solutions for the challenges and set the way forward for scale up.

9. Operations Research

CBNC implementing partners will undertake operational researches on the already identified research questions under the MandE section. The research findings will be disseminated and used to further improve implementation process and quality of care.

Supply and Logistics

To build the capacities of health professionals at health centres and HEWs at the health posts, proper distribution of training materials is of paramount importance. In addition, provision of complete job aids, tools, basic medical supplies, equipment, and essential medicines is vital for a successful implementation of the CBNC. Most of these products are considered to be complementary to the existing programs at primary health care unit (PHCU), such as, ENC, IMNCI, ICCM and other programs already under implementation. Hence, different materials which can help carry out the implementation of the CBNC are listed here under.

1. Training Materials, Job Aids and Tools

Registration books for sick young infants age 0 to 2, facilitator guide, training modules for IMNCI and CBNC, wall chart, baby mannequin, laminated health post job aids, chart booklets, family health card/counseling card, flip book, bin cards, reporting forms, and hand books are the main job aids and tools that should be made available..

2. Medical Equipment and Supplies

Watches that clearly display seconds, Ambu bag and mask, thermometer, weighing scales, syringe with needles, gloves, suction bulb, and ORT corner supplies and utensils are among the key equipment for CBNC at health post level. At the health centre level, key supplies and equipment including equipment for newborn corner and KMC, heater, bed, NG tubes, infant scale, and IV cannula will be crucial.

3. Essential Medicines

To rollout CBNC by HEWs, gentamicin, amoxicillin, vitamin K, Vitamin A, tetracycline eye ointment, Chlorhexidine, need to be made available from the start of the trainings and throughout the implementation process and beyond. At the health centre level ampicillin and IV fluids need to be made available to provide necessary services for the admitted newborns with severe bacterial infection.

4. The Supply and Logistics Strategy

To enable smooth implementation of CBNC by HEWs, a short term (first phase) and medium-long term logistics strategy will be worked out in line with the national Integrated Pharmaceutical Logistics System (IPLS)

First phase (short-term)

The FMoH, PFSA, RHBs and implementing partners will continue supporting the logistics system for the successful implementation of the CBNC through the existing programs: malaria, iCCM and HP kit distribution, OTP's (nutrition), etc. Supplies which are not yet or not sufficiently available at HP and HC level will be procured centrally. To ensure availability of medicines and prompt start-up of CBNC, medicines will be procured. Development partners will assist the funding, procurement, and distribution of these products and strengthen the capacity of local pharmaceuticals manufacturers.

Training materials, job aids and tools, and reporting formats will be printed and/or procured centrally and/or regionally. FMoH, PFSA, RHB, development partners will support the printing

and distribution of these training material and tools/job aids. Moreover, to ensure the immediate availability of products, (some of which are new to the system) for successful implementation of neonatal sepsis management at the inception of the programme, each Health Post/HEW will be provided with enough quantity of CBNC replenishment kit for at least 12 months and registration books, reporting forms, other job aids and tools upon completion of the CBNC training. It is, therefore, necessary that the required supplies made available before any training commencement. Should the transition to the long term plans takes more time, the resupply will consider distributing replenished kits.

Furthermore, HEWs will be trained on the “IPLS for HEWs” and hence equipped with the necessary job aids and tools i.e. the HEWs Flip Book (Managing drug supply for HP practical guide), Bin Cards, Health Post Monthly Report and Resupply (HPMRR) form, Posters (Managing Drugs and Medical Supplies in HPs Monthly activities, Managing Drugs and Medical Supplies in HP Daily Activities; and HP Storage Guidelines). These job aids and tools will be translated in to local languages. Developing partners and HCs will provide basic supportive supervision on IPLS job aids and tools.

Medium - Long term

In order to have a sustainable in country supply, in country production of essential CBNC medicines, such as, Gentamicin 10 mg/ml or 20mg/2ml will be promoted. There is global effort to ensure reliable supply of dispersible amoxicillin and injectable antibiotics. Meanwhile, CBNC supplies will gradually be integrated in to the IPLS. PFSA will forecast, procure and deliver the required pharmaceuticals to the PHCU and will make sure the linkage between HC and HP is well functioning. Based on the submitted requests from HC, all CBNC commodities, including the supplies provided by partners will be channeled through PFSA to health centre in an integrated fashion.

As the health post are considered a one dispensing unit of the health centre, requests from the health post should be integrated in the health centre Request and Resupply Form(RRF). Following Health Extension Workers Training on IPLS for HEWs, there will be a follow up supportive supervision by pharmacy personnel from HC and Woreda to capacitate the HEWs use of job aids, tools and request forms. This will strengthen the technical support on pharmaceutical management at the PHCU level and improve the linkage between HC and HP. HCs will primarily be responsible for managing all the logistics and supplies required for HP, provide regular problem solving and technical support.

Health extension works will collect the products monthly from their catchment HCs. HEWs will use the stock management tools: stock monitoring, expiry date control and request new stock. Bin cards, HPMRR and expiry dates should be checked during supervisory visits by HCs, WoHO and development partners. In long term, HEWs will thus use these tools to request and get supplies from HCs based on their needs.

Coordination and Management

Identifying the roles and responsibilities of major players in implementing CBNC by HEWs is an important component of this implementation plan. A well-established outline of tasks and functions at each level of the implementation plan will advance the efficient and effective human and financial resources utilization which will ensure achieving the desired goal of reducing neonatal mortality. The role and responsibilities of different stakeholders at all levels in the

implementation of this plan is outlined and described below.

Roles and Responsibilities of FMoH

- Give guidance and implementation directions to regions and partners;
- Coordinate national orientation workshops and trainings of FMoH staff on CBNC;
- Mobilize resources for CBNC;
- Ensure that CBNC by HEWs activities and indicators are properly addressed in the Woreda based health sector plan, core plan and comprehensive plan;
- Ensure supply of drugs, job aids and equipment for CBNC by HEWs to regions for both the trainings and the implementation of CBNC by HEWs;
- Coordinate supportive supervisions, review meetings and other relevant M &E methods to continuously improve the implementation of CBNC by HEWs;
- When necessary, review policy on community based new born interventions
- Organize annual review meetings.

Roles and Responsibilities of PFSA

- Delivery of pharmaceuticals for the management of CBNC to health centres that are responsible to supply HPs involved in CBNC
- When direct delivery to the assigned HCs is not feasible, deliver the pharmaceuticals to WHO
- Build the capacity of all HCs that will be involved in CBNC through IPLS training and supportive supervision on pharmaceuticals availability and rational use
- Train the selected health posts with HP resupply system
- Assess the performance of HCs in the area of pharmaceutical supply and services and take appropriate intervention
- Participate in the National CBNC Technical Working Group which is led by the FMoH

Roles and Responsibilities of FMHACA

- Facilitate fast track registration mechanism; if some of the required drugs are not registered by the authority (e.g. pediatric Gentamycin and dispersible amoxicillin will be facilitated by FMHACA.
- Facilitate importation and clearance for the required pharmaceuticals
- Participate in the National CBNC Technical Working Group which is led by the FMoH

Roles and Responsibilities of RHB/ZHD

- Gives guidance and implementation directions to Zonal health department and Woreda health offices;
- Coordinate orientation workshops and trainings on CBNC;
- Mobilize resources for CBNC by HEWs;

- Ensure that CBNC by HEWs activities and indicators are properly addressed in the Woreda based health sector plan;
- Ensure supply of drugs, job aids and equipment for CBNC to ZHD/Woreda Health offices; and

Coordinate supportive supervisions, review meetings and other relevant M &E methods to continuously improve the implementation of CBNC by HEWs.

Roles and Responsibilities of Woreda Health Office

- Ensure that CBNC by HEWs activities and indicators are well captured in the woreda based health sector plan;
- Coordinate trainings and follow up after training to HEWs, PHCU and relevant Woreda health office staffs on CBNC;
- Ensure continuous supply of drugs, job aids and equipment for CBNC at health posts;
- Strengthen the referral linkage and communication systems between the health post and health centres by capacitating both referral points in implementing CBNC i.e. health centres and health posts;
- Ensure that the HCs staffs conduct regular supportive supervision to enhance capacity of the HEWs in assessing, classifying and managing neonatal sepsis cases;
- Conduct supportive supervision and regular review meetings to enhance the program management CBNC by HEWs;
- Ensure complete and timely reporting of activities on CBNC by HEWs and PHCU Director; and
- Timely reporting of activities on CBNC to the zonal health bureaus.

Roles and Responsibilities of the National Technical Working Group

As clearly stated in the National Strategy for Neonatal health in Ethiopia, the following are the main roles and responsibilities of the National TWG:

- Links with global working groups on neglected commodities for maternal, newborn and child health
- Advises the -concerned Directorate on community based neonatal health issues;
- Support the planning, implementation, monitoring and evaluation of CBNC by HEWs;
- Support the establishment/reactivation of CSTWGs in the regions;
- Assist in the development or revision of guidelines, job aids and other relevant documents on CBNC;
- Assist the FMOH and RHBs in resource mobilization, optimal utilization and efforts on sustainability of the services;
- Coordinate advocacy on key community based neonatal health interventions;
- Establish ad hoc working groups for specific tasks when necessary.

Roles and Responsibilities of the Regional Technical Working Group

The regional TWG will have the following roles and responsibilities:

- Advises and update the RHB on community based neonatal health issues;
- Assist in the preparation and coordination of the orientation and trainings on CBNC at regional and woreda cluster level;
- Coordinate the planning, implementation, monitoring and evaluation of CBNC by HEWs in the region;
- Assist the RHB in resource mobilization, optimal utilization and efforts on sustainability of the CBNC by HEW services;
- Adopt/translate/customize CBNC guidelines, job aids and other relevant documents to make them locally appropriate i.e. in the local language/s;
- Advance advocacy on key community based neonatal health interventions.

Roles and Responsibilities of PHCU/ Referral HC

One of the main objectives of CBNC is to identify seriously sick neonates and urgently refer them to the next referral level. Hence, the following major activities will be conducted:

- HCs need to build their capacity of IMNCI, delivery, postnatal care and provide 24/7 services for mothers and newborns;
- Give appropriate and constructive feedback to referring HP/HEW after giving appropriate care to referred cases;
- Support HEWs in building their skills to assess and manage common newborn illnesses;
- Ensuring continuous supply for IMNCI, CNBC and other MNH services.
- Ensure CBNC implementation is well coordinated, implemented and followed at the kebeles of their respective catchment areas; ;
- Ensure that essential supplies are in place at HP by strengthening HEWs capacity in keeping track of supplies;
- Conduct timely and regularly joint review by involving all HEWs supervised at HC level

Roles and Responsibilities of HEWs

- Ensure quality implementation of all the Health Extension Programme core packages balancing preventive, promotive and basic curative interventions;
- Ensure 24/7 functions of the health post
- Ensure the availability and proper utilization of necessary supplies (drugs, job aids and equipment) in the health post and request for timely supply to HCs;
- Provide CBNC services including complete registration and regular update of pregnant women and follow up, clean and safe delivery, essential newborn care, manage newborn with intra partum asphyxia, scheduled postnatal home visit, and neonatal sepsis management at community level
- Properly register sick neonates managed in the kebele and report to the HC timely;

- Build the capacity of 1 to 5 HDA networks leaders and model families to recognize newborn danger signs and improve the health care seeking behaviour in the community with the support of PHCU;
- Ensure that referred patients are actually reach to the health centres; by giving proper counseling on the reasons for referral to mothers/care givers, visit the houses following the referral, address reasons for potential hindrance for not going to HCs, inform the 1 to 5 network leaders to make close follow up and, in collaboration with community leaders kebele management and community social organizations;
- Ensure that mothers and sick neonates referred back to the community adhere to the advice given by HCs and comply with the medication;
- Ensure that the MNH issues are discussed in community conversations in 1 to 5 network

Roles and Responsibilities of HDA (1 to 5 network leaders)

- Have the appropriate skills and tools to increase the knowledge, attitude and health seeking behaviour of mothers, caretakers and the community at large;
- Continuously undertake health promotion, counseling and social mobilization activities in the community to improve the knowledge, attitudes and health seeking behaviour of caretakers;
- Timely notification and registration of pregnancy and births as well as recognize newborn danger sign and refer to HP;
- Regularly meet and report back to HEWs on progress and new information in the community;
- Support the caretaker to ensure treatment compliance and home management of sick neonates;
- Ensure that referred cases are actually go to HP/HCs by proper counseling and creating enabling conditions for referral.

Roles and Responsibilities of Kebele Administration

The community is one of the major stakeholders in implementation of CBNC through the kebele administration; communities can be engaged in undertaking this task. Hence, the kebele administration will have the following roles and responsibilities to ensure community participation in MNH.

- Support and monitor functions of health posts and performance of HEWs;
- Conduct community mobilization on CBNC through HDA;
- Support HEWs in identifying and training of 1 to 5 network leaders;
- Facilitate the referral of seriously sick newborn;
- Mobilize local resources for implementation of CBNC.

Roles and Responsibilities of Partners

Involvement of partners is important for the large scale implementation of CBNC including

neonatal sepsis management by HEWs, They work with the FMoH to develop and print training materials, job aids; orient and train service providers and supervisors; follow-up procurement and distribution of training material, essential drugs and supplies; and provide supportive supervision and Monitoring and Evaluation of the overall program.

Monitoring and Evaluation

The monitoring and evaluation framework adapted from iCCM implementation guideline; indicates five components (inputs, processes, output, outcome and impact) and areas under each component that will be monitored and/or evaluated throughout the CBNC implementation. The **inputs** to the CBNC include favorable policy environment for community based management of Neonatal Sepsis, necessary funding for implementation of activities, recruitment of HR, procurements of drugs, equipment and supplies and community participation ; the **processes**- endorsing of guideline by MOH, development of job aids and training materials, , distribution of supplies, resource mobilization, training, SS and PRCMM IEC/BCC activity, integration of resources and operational researches and monitoring; **outputs**- HEW providing community level management of sepsis, LBW, asphyxia, quality care treatment ensured at PHCU, increased community awareness on availability of the services and importance of neonate care seeking , effective coordination and partnership created among partners, better information flow established , reliable availability of supplies evidences generated and utilized. The quality of care and client satisfaction is closely linked to the output. The **outcome** is enabling environment created for Community Based Newborn Care including Neonatal sepsis management. The **impact** is Neonatal morbidity and mortality reduced.

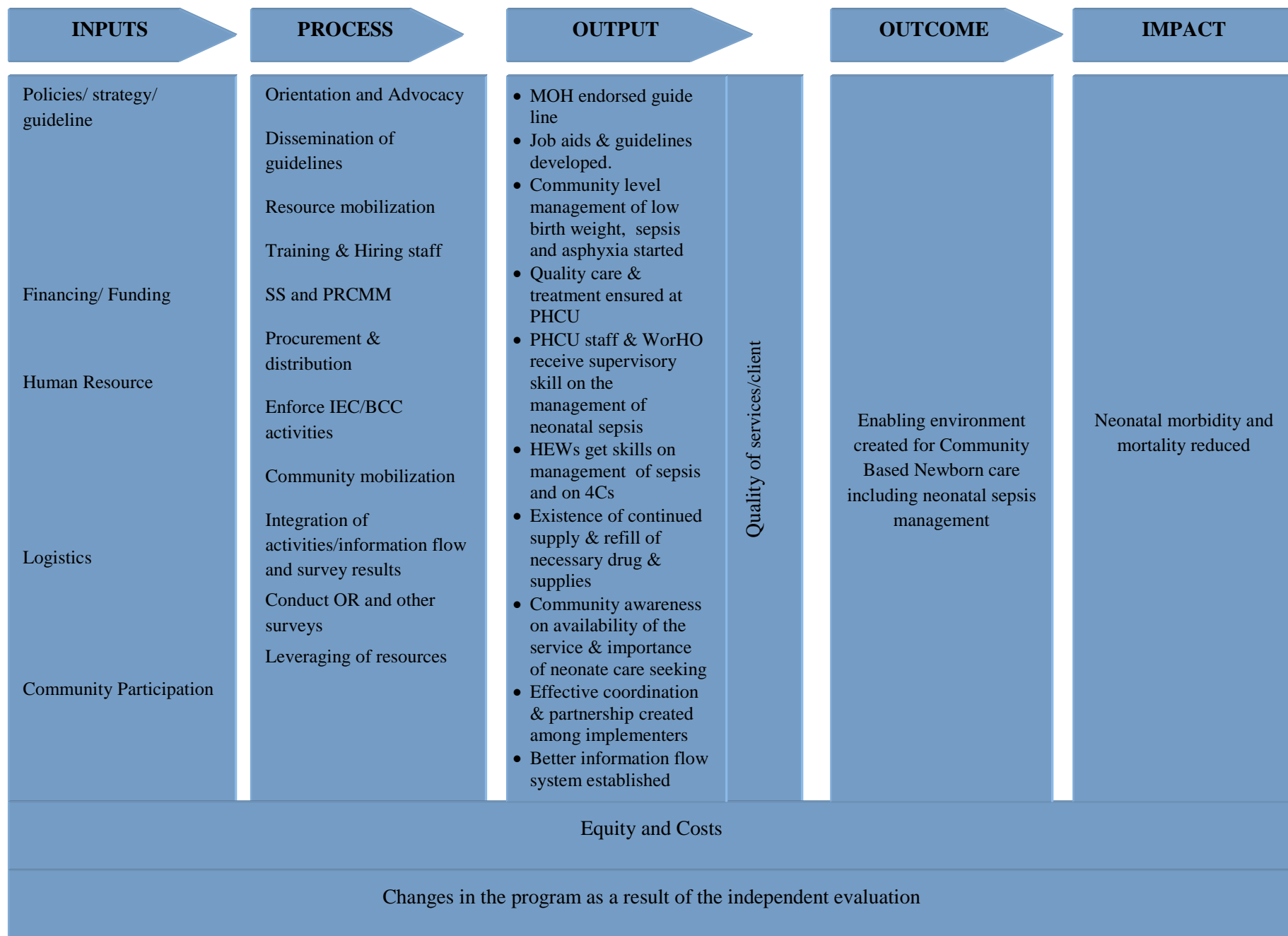
Measuring mortality is a clear indication of program effectiveness in the long run, but it is expensive and requires population-based surveys carried out at infrequent intervals. However since the interventions used in CBNC are proven to save lives, it can be assumed that their increased use contributes to improved health. Changes in use can be used to estimate lives saved through the Lives Saved Tool (LiST)

Comprehensive M &E system is crucial so that lessons learnt from the implementation are captured and feedback given timely to improve the availability, coverage and quality of services and to increase the demand of the community. Cognizant of the need for robust monitoring and an independent evaluation system that includes a baseline and end line on key maternal and newborn indicators as well as strengthened routine monitoring system. Impact and outcome indicators that will be tracked by baseline and end line survey, DHS, MICS and other sub national and regional levels are included.

The Family Folder

The family folders are files and folders assigned to each household so that it provides detailed information in the area of RMNCH and other HEP program services and status of the households. One of the major benefits family folders is the need for a way to track pregnant women, who need to be followed through-out pregnancy, postnatal care, vaccination and family planning services. The tickler filing system arranges the FF files so that they can be easily tracked to quickly identify mothers who need HH/mothers RMNCH services in a given period of time. Once all the services are provided to the mother or the infant the file/records will return to the main filing system of the health post.

In the implementation of CBNC will use the family Folder for early identification of pregnant women to deliver the key services. Hence, in an effort to utilize the existing family folder system the program will support the implementation of Family Folder at health post level



Monitoring Tools

Regular and Continuous Supportive Supervision

Program focused supportive supervision will be conducted aiming at improving program management of CBNC at all levels. This supportive supervision will be carried out on regular basis by all levels to the next lower level using standard supervision checklist focusing on program management issues.

A national JMV will be conducted by-annually by the team composed of FMOH, RHB/ZHD and partners to selected HPs, WorHOs and ZHDs. The team will be composed of 4 people; representatives from FMOH, RHB, ZHD and TWGs at one go. The number of teams to cover regions varies based on the geographic coverage.

Health centre staffs will provide skill reinforcing supportive supervision to the HEWs on a weekly basis. Support will be provided to the HEWs to properly assess, classify and manage common neonatal conditions. The supervision will also assess how the HEWs are counseling the caretakers to ensure treatment compliance, how the HEWs are enhancing the skills of HDAs on Maternal and CBNC and related behaviour.

The frequency will be as follows. The supervision will be carried out using the adopted checklist for follow up after training.

- Startup follow up (within 4-6 weeks with the aim of initiating services);
- Regular follow up (ISS): the HC staff will continue doing weekly supervisions as per the national PHCU guideline; with ENC checklist they will do supervision and collect data on monthly basis.

Feedback will be provided on the spot and written feedback will be kept at both the visited sites and in the supervisors' offices.

Program Review Meetings

Regularly conducting review meetings is one of the key monitoring activities that help to review the progress of CBNC implementation in larger group by identifying opportunities, challenges and looking for solutions. Experience sharing and dissemination of success stories, good practices and lessons learnt are addressed in such meetings.

Review meetings will be held at national and regional level at least once a year and at woreda level at least twice in a year involving relevant stakeholders. FMOH, RHBs and woreda health offices are responsible to organize review meetings at their respective level. In order to make the review meetings effective and feasible, CBNC review meetings will be conducted by integrating with other health review meetings. Panel discussions and special sessions will be held on key issues identified during implementation of the CBNC. Proceedings of the reviews are expected to be disseminated to all levels timely.

Baseline and Routine Monitoring

The implementation of CNBC calls for robust monitoring and evaluation system for the outset. This will allow systematic monitoring of progress towards the intended goals and objective and informing national scale up of CBNC. In this line baseline data on key maternal and newborn health behaviours, practices and use of services as well as formative research will be conducted. There will final evaluation of the implementation by an independent group.

Integrated Review Meeting

Conducting CBNC regular integrated review meetings will be very important to ensure its sustainability and ownership by all bodies of the health sector. In the Ethiopian health system, health sector program implementation status is regularly reviewed by all levels based on specific schedule for each level. The review meeting is held at national level annually; regional level biannually; zonal and woreda level quarterly and PHCU level monthly. In this meeting plan performance is reviewed; opportunities, challenges and solutions are identified; success, good practices and lessons learnt are shared.

To emphasis more on CBNC which is a new introduction to the HEP, panel discussions and special sessions will be held on key issues identified during implementation. All stakeholders will participate at the respective levels. Proceedings of the reviews are expected to be disseminated to all levels timely. The data generated will be important to improve quality and coverage of CBNC service.

The FMOH, RHBs, ZHD, WorHO and the PHCU are responsible to organize review meetings at their respective level.

Recording and Reporting

The CBNC activities will be recorded, reported, and analyzed; the information will be used for action at all levels. The following materials should be available for recording and reporting purposes:

- HMIS;
- Administrative Reports;
- Revised Case management registration books; 0 to 2 months;
- Monthly/ quarterly reporting formats;
- Family folder;
- Supervision checklist.
- Health post monthly report and re-supply form
- Bin card

These materials should help in monitoring and evaluation of the implementation of CBNC by providing the necessary information to track progress status of the selected indicators on coverage, availability and quality of service.

The progress of the CBNC implementation will be monitored using routine reports, supportive supervision and review meetings reports at all levels. Findings which require timely intervention will be dealt in subsequent supportive supervisions and other ways of mitigation mechanism. Key issues will also be presented and discussed during review meetings and other child survival forums.

Researches

Baseline-end line

In the implementation of CBNC, having a baseline with information on communication and contact, case capturing, care and treatment, and completion of treatment is critical to effectively monitor the progress, to evaluate outcomes and for further scale up at national level.

An independent baseline survey will collect data on outcome and impact level indicators which will be accompanied by end line survey to measure the changes attained as the result of the project implementation.

In addition, existing relevant surveys need to be utilized to inform program design. Among these surveys that can provide relevant information to the implementation of CBNC including management of neonatal sepsis are the COMBINE (Community Based Interventions for newborns in Ethiopia) baseline and end line surveys, MaNHEP, JSI/L10K, IFHP, MCHIP Community Based Kangaroo Mother Care (C-KMC) surveys and others.

Operational Researches

The implementation of CBNC project requires continuous and timely evidence based information for successful implementation. Hence, researches with information on Communication and Contact, case capturing, care and treatment, and completion of treatment is critical to effectively monitor the progress, to evaluate outcomes and for further scale up at national level. In order to have rigorous understanding and avoid duplication each implementing partner will select one of the four CBNC strategies.

List of Possible Areas for Research

- What is the effect of the implementation of CBNC on the other related services like ANC, SBA, PNC, etc. / HEP
- What are community knowledge, attitudes, / perceptions and other beliefs associated with Newborn Care
- What IEC/BCC tools to improve the health seeking behavior
- What is the cost effectiveness of Community Based essential Newborn Care
- Is HDA an effective in increasing seeking behavior for NB conditions?

Monitoring Forms

Capturing relevant CBNC activity data will be important to monitor implementation as well as to record trained work force, and document lessons learned during implementation. The data will help to improve service quality and coverage during the scale-up phase. Eight forms that have been proven useful in monitoring the national iCCM implementation in the last two years will be adapted and used

These forms are not currently included in the national HMIS. Therefore, their use will be limited to the initial few years of learning period. In the process, the MOH will solely use the tools from the national HMIS to capture data.

Table 1. Cost Summary

S.N	Description	Cost ETB(USD)
1	National and Regional Level Community Based Newborn Care (CBNC) Initiative Launching Workshop and Higher Level Performance Review Meeting	3,037,580.00 (168,754)
3	Master Training of Trainers and Regional Training of Trainers on CBNC	4,695,212.80 (260,846)
4	Training of HEWs on CBNC	69,500,909.60 (3,861,162)
5	Training of Supervisors on CBNC	21,026,425.60 (1,168,135)
6	Master Training of Trainers, Regional Training of Trainers on CBNC-IMNCI	800,920.00 (44,496)
7	Rollout training on IMNCI/CBNC Training for Health Professionals Trained on IMNCI	10,740,360.00 (596,687)
8	Rollout Training of IMNCI-CBNC for Health Professional who were not trained on IMNCI	25,287,488.00 (1,404,860)
9	Post Training Follow-up to Health Posts and Health Centres Implementing CBNC	18,721,000.00 (1,040,056)
10	Regular Routine Follow-up of Health Centres and Health Posts Implementing CBNC	28,397,000.00 (1,577,611)
11	First, 2 nd , 3 rd , and 4 th round Performance Review and Clinical Mentoring meetings for HEWs	129,627,740.00 (7,201,541)
12	Printings of training materials	3,093,861 (171,861)
13	Procurement of medical equipment	362175 (20,121)
14	Procurement of medicine	2,256,406 (125,356)
15	Baseline and routine monitoring	36,000,000 (2,000,000)
Grand Total		353,547,078 (19,641,504)

Tentative Work Plan

1. National and Regional Level Community Based Newborn Care (CBNC) Initiative Launching Workshop and Higher Level Performance Review Meeting

S.N	Activity	Participants	Responsible	Period of Implementation	Number of Sessions	Cost in ETB(USD)
1.1	National launching of CBNC	[49] FMOH (6), RHBs (8), ZHD (12) partners (UNICEF, WHO, L10K, IFHP, SC , USAID, CIDA, JSI, BMGF [14]), prof. assoc, (EPHA, ESOG, MA and EPS [4]); University (AAU, MU, GU, JU, HU [5])	FMOH, HPDP and CBNC taskforce	1 st week of March 2013	1 round of orientation	124,036.00 (6,891)
1.2	National learning dissemination workshop	[87] FMOH (6), RHBs (8), ZHD (50) partners (UNICEF, WHO, L10K, IFHP, SC , USAID, CIDA, JSI, BMGF [14]), prof. assoc, (EPHA, ESOG, MA and EPS [4], University (AAU, MU, GU, JU, HU [5])	FMOH, HPDP and CBNC taskforce	4 th week of January 2014		379,412.00 (21,078)
1.3	Amhara regional level launching workshop	Region level: [164] [RHB (5), ZHD (11), partners (IFHP, L1OK, UNICEF, WHO, SC) [10], level: 138 (1/woreda)	Amhara RHB with the support of regional CBNC taskforce	3 rd and 4 th Weeks of February, 2014.	2 rounds of Orientation	662,948.00 (36,830)
1.4	SNNP regional level launching workshop	Regional level: [161] RHB (5), ZHD and Special Woreda (15), (IFHP, L1OK, UNICEF, WHO, SC [10]), Cluster level: 131 (1/Woreda)	SNNPR RHB with the support of regional CBNC taskforce	3 rd and 4 th Weeks of February, 2014.	2 rounds of Orientation	633, 446.00 (35,191)
1.5	Tigray regional level launching workshop	Regional level: [47] RHB (5), woredas (34), partners (IFHP, L1OK, UNICEF, WHO) (8)	Tigray RHB with the support of regional CBNC taskforce	3 rd and 4 th Weeks of February, 2014.	1 round of orientation	192,742.00 (10,708)
1.6	Oromia regional level launching workshop	Regional level: [319] RHB (5), ZHD and Special woreda (18), (IFHP, L1OK, UNICEF, WHO, SC USA [15]), 268 woredas	Oromia RHB with the support of regional CBNC taskforce	3 rd and 4 th Weeks of February, 2014.	3 rounds of orientations	1,250,942.00 (69,497)

1.6	National level performance review	[60] FMOH (10), RHBs (20) partners (UNICEF, WHO, L10K, IFHP, SC , USAID, CIDA, JSI, BMGF [20]	FMOH, HPDP and CBNC taskforce	At the end of the 2 nd and 3 rd year	2 rounds	427,500.00 (427,500)
Subtotal						3,037,580.00 168,754

2. Training Materials Revision and Printing

S.N	Activity	Responsible	Period of Implementation	Remark
2.1	Revision of CBNC training manuals for HEW training (Facilitators guide, participant manual, chart booklet, FHC, HEW handbook, Register) including pretesting.	FMOH with the support of CBNC taskforce	End of March, 2013	
2.2	Printing of CBNC training manuals for HEW (Facilitators guide, participant manual, chart booklet, FHC, HEW handbook, Wall chart, job aid, Register)	FMOH with the support of CBNC taskforce	End of April, 2013	
2.3	Prepare facilitator guide and participant manual for refresher training of health professionals on IMNCI and CBNC including pretesting	FMOH with the support of CBNC taskforce	End of April, 2013	
2.4	Printing of facilitator guide and participant manual for refresher training of health professionals on IMNCI and CBNC	FMOH with the support of CBNC taskforce	End of May, 2013	
2.5	Distribution of training materials for the training of HEWs on CBNC	FMOH with the support of CBNC taskforce	May 2013	
2.6	Procurement and distribution of supplies for HP	FMOH, PFSA, FMHACA with the support of UNICEF	March to April 2013	

3. Master Training of Trainers and Regional Training of Trainers on CBNCB

S.N	Activity	Number of Trainees	Responsible	Period of Implementation	Number of Sessions	Cost in ETB (USD)
3.1	Master Training of Trainers	[60] FMOH and Partners(15), RHBs, ZHD, HC, and Hospitals (45)	FMOH, HPDP and CBNC taskforce including partners	1 st and 4 th weeks of May 2013	2 round training	423,928.00 (23,552)
3.2	Amhara regional TOT	Region level: [200] [RHB, ZHD, partners (IFHP, L1OK, UNICEF, WHO, SC), HC, Hospitals, Woreda health offices	Amhara RHB with the support of regional CBNC taskforce including partners	June to July 2013	7	1,009,760.00 (56,098)
3.3	SNNP regional TOT	Regional level: [186] RHB, ZHD, partners (IFHP, L1OK, UNICEF, WHO, SC), HC, Hospitals, Woreda health offices	SNNPR RHB with the support of regional CBNC taskforce including partners	June to July 2013	6	939,076.80 (52,171)
3.4	Tigray regional TOT	Regional level: [87] RHB, ZHD, partners (IFHP, L1OK, UNICEF, WHO, SC), HC, Hospitals, Woreda health offices	Tigray RHB with the support of regional CBNC taskforce including partners	June to July 2013	3	439,245.60 (24,403)
3.5	Oromia regional TOT	Regional level: [373] RHB, ZHD, partners (IFHP, L1OK, UNICEF, WHO, SC), HC, Hospitals, Woreda health offices	Oromia RHB with the support of regional CBNC taskforce including partners	June to July 2013	12	1,883,202.40 (104,622)
Subtotal						4,695,212.80 (260,846)

4. Training of HEWs on CBNCB

S.N	Activity	Number of Trainees	Responsible	Period of Implementation	Number of Sessions	Cost in ETB(USD)
4.1	Amhara regional TOT	6,537	Amhara RHB, Trained Trainers and partners	July 2013 – June 2014	261	8,183,319.20 (454,629)
4.2	SNNP regional TOT	7,353	SNNP RHB, Trained Trainers and partners	July 2013 – June 2014	294	20,453,104.80 (1,136,283)
4.3	Tigray regional TOT	1,326	Tigray RHB, Trained Trainers and partners	June 2013 - July 2014	53	3,688,401.60 (204,911)
4.4	Oromia regional TOT	13,365	Oromia RHB, Trained Trainers and partners	July 2013 - December 2014	535	37,176,084.00 (2,065,338)
Subtotal						69,500,909.60 (3,861,162)

5. Training of Supervisors on CBNCB

S.N	Activity	Number of Trainees	Responsible	Period of Implementation	Number of Sessions	Cost in ETB(USD)
5.1	Amhara regional TOT	2,310	Amhara RHB, Trained Trainers and partners	Sept 2013 – June 2014	92	6,194,496.00 (344,139)
5.2	SNNP regional TOT	1,670	SNNP RHB, Trained Trainers and partners	Sept 2013 – June 2014	67	4,478,272.00 (248,793)
5.3	Tigray regional TOT	589	Tigray RHB, Trained Trainers and partners	Sept 2013 – Feb 2014	24	1,579,462.40 (87,748)
5.4	Oromia regional TOT	3,272	Oromia RHB, Trained Trainers and partners	Sept 2013 – December 2014	131	8,774,195.20 (487,455)
						21,026,425.60
						Subtotal (1,168,135)

6. Master Training of Trainers, Regional Training of Trainers on CBNC-IMNCI

S.N	Activity	Number of Trainees	Responsible	Period of Implementation	Number of Sessions	Cost in ETB(USD)	
6.1	Master Training of Trainers	30	FMOH, HPDP and CBNC taskforce including partners	1 st weeks of July 2013	1	120,120.00 (6,673)	
6.2	Amhara regional TOT	60	Amhara RHB with the support of regional CBNC taskforce including partners	August 2013	2	170,200.00 (9,456)	
6.3	SNNP regional TOT	60	SNNPR RHB with the support of regional CBNC taskforce including partners	August 2013	2	170,200.00 (9,456)	
6.4	Tigray regional TOT	30	Tigray RHB with the support of regional CBNC taskforce including partners	August 2013	1	85,100.00 (4,728)	
6.5	Oromia regional TOT	90	Oromia RHB with the support of regional CBNC taskforce including partners	August 2013	3	255,300.00 (14,183)	
						800,920.00	
						Subtotal	(44,496)

7. Rollout training on IMNCI/CBNC Training for Health Professionals Trained on IMNCI

S.N	Activity	Number of trainees	Responsible	Period of implementation	Number of sessions	Cost in ETB(USD)
7.1	SNNP	1,026	SNNP RHB, Trained Trainers and partners	Sept 2013 – Feb 2014	34	2,277,720.00 (126,540)
7.2	Amhara	1,448	Amhara RHB, Trained Trainers and partners	Sept 2013 – Feb 2014	48	3,214,560.00 (178,587)
7.3	Oromia	1,994	Oromia RHB, Trained Trainers and partners	Sept 2013 – May 2014	66	4,426,680.00 (245,927)
7.4	Tigray	370	Tigray RHB, Trained Trainers and partners	Sept 2013 – Dec 2013	12	821,400.00 (45,633)
Subtotal						10,740,360.00 (596,687)

8. Rollout Training of IMNCI-CBNCB for Health Professional who were not trained on IMNCI

S.N	Activity	Number of Trainees	Responsible	Period of implementation	Number of sessions	Cost in ETB(USD)
8.1	SNNP	1,068	SNNP RHB, Trained Trainers and partners	Sept 2013 – Feb 2014	36	5,371,328.00 (298,407)
8.2	Amhara	1,486	Amhara RHB, Trained Trainers and partners	Sept 2013 – Feb 2014	50	7,473,589.33 (415,199)
8.3	Oromia	2,076	Oromia RHB, Trained Trainers and partners	Sept 2013 – May 2014	69	10,440,896.00 (580,050)
8.4	Tigray	398	Tigray RHB, Trained Trainers and partners	Sept 2013 – Dec 2013	13	2,001,674.67 (111,204)
Subtotal						25,287,488.00 (1,404,860)

9. Post Training Follow-up to Health Posts and Health Centres Implementing CBNCB

S.N	Region	# of HP	# of HEW	# of HC	Responsible	Period of visit	Budget for HP visit	Budget for HC visit	Total for post training follow-up of HC and HP visits in ETB(USD)
9.1	Amhara	3,267	6,537	724	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	Within 2 to 3 months after the training of service providers	3,267,000.00	1,448,000.00	4,715,000.00 (261,944)
9.2	Tigray	589	1,326	185	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	Within 2 to 3 months after the training of service providers	589,000.00	370,000.00	959,000.00 (53,278)
9.3	SNNPR	3,707	7,353	513	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	Within 2 to 3 months after the training of service providers	3,707,000.00	1,026,000.00	4,733,000.00 (262,944)
9.4	Oromia	6,320	13,365	997	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	Within 2 to 3 months after the training of service providers	6,320,000.00	1,994,000.00	8,314,000.00 (461,889)
Subtotal									18,721,000.00 (1,040,055)

10. Regular Routine Follow-up of Health Centres and Health Posts Implementing CBNCB

S.N	Region	No of HP	No HEW	No HC	Responsible	Period of visit	Resp.	Period	Budget for HP visit (per year)	Budget for HC visit (per year)	Total for regular follow-up (three rounds within the life of the project) in ETB(USD)
10.1	Amhara	3,267	6537	724	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	25% of HP and HC every quarter	Health centre staffs	Every month	3,267,000.00	1,448,000.00	7,611,000.00 (422,833)
10.2	Tigray	589	1,326	185	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	25% of HP and HC every quarter	Health centre staffs	Every month	589,000.00	370,000.00	1,699,000.00 (94,389)
10.3	SNNPR	3,707	7,353	513	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	25% of HP and HC every quarter	Health centre staffs	Every month	3,707,000.00	1,026,000.00	6,785,000.00 (376,944)
10.4	Oromia	6,320	13,365	997	Master trainers, trainers, woreda health office child health expert, trained health centre staffs	25% of HP and HC every quarter	Health centre staffs	Every month	6,320,000.00	1,994,000.00	12,302,000.00 (683,444)
Subtotal											28,397,000.00

(1,577,611)

11. First, 2nd, 3rd, and 4th round Performance Review and Clinical Mentoring meetings for HEWs

S.N	Region	No of HEWs	No of sessions per region	No of rounds	Responsible	Period of implementation	Total cost ETB(USD)
11.1	Amhara	6,537	262	4	Trained trainers, implementing partners, trained experts from health centres	1 st round within 4 to 6 months after the training and 2 nd , 3 rd and 4 th round within 6 months interval	29,661,544.00 (1,647,864)
11.2	SNNP	7,353	295	4	Trained trainers, implementing partners, trained experts from health centres	1 st round within 4 to 6 months after the training and 2 nd , 3 rd and 4 th round within 6 months interval	33,397,540.00 (1,855,419)
11.3	Oromai	13,365	535	4	Trained trainers, implementing partners, trained experts from health centres	1 st round within 4 to 6 months after the training and 2 nd , 3 rd and 4 th round within 6 months interval	60,568,420.00 (3364912)
11.4	Tigray	1,326	53	4	Trained trainers, implementing partners, trained experts from health centres	1 st round within 4 to 6 months after the training and 2 nd , 3 rd and 4 th round within 6 months interval	6,000,236.00 (333346)
Subtotal							129,627,740.00 (7,201,541)

Annexes

Table 2: CBNC training matrix for health workers from health centres

Region	Master TOT	Regional TOT	Rollout for IMNCI trained HWs	Rollout for IMNCI untrained HWs
SNNP	1 round for 30 participants	2 rounds/60 participant	1,026	1,026
Amhara		2 rounds/60 participant	1,448	1,448
Oromiya		3 rounds/90 participant	1,994	1,994
Tigray		1 rounds/30 participant	370	370
Total	30 participants	8 rounds	4,838	4,838

Table 3: Cost estimates (USD) for training materials, job aids (the four big regions)

Activity/ Program	Item	Unit	Unit price (\$)	Quantity				Price				Total Qty	Total Price
				Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR		
IMNCI Training	IMNCI chart booklet	Pcs	1.5	553	2,253	2,834	1,700	829.50	3,379.50	4,251.00	2,550.00	7,340.00	11,010.00
	IMNCI facilitator guide	Pcs	2.5	553	2,253	2,834	1,700	1,382.50	5,632.50	7,085.00	4,250.00	7,340.00	18,350.00
	IMNCI module 1	Pcs	0.3	553	2,253	2,834	1,700	149.31	608.31	765.18	459.00	7,340.00	1,981.80
	IMNCI module 2	Pcs	0.7	553	2,253	2,834	1,700	359.45	1,464.45	1,842.10	1,105.00	7,340.00	4,771.00
	IMNCI module 3	Pcs	1.1	553	2,253	2,834	1,700	624.89	2,545.89	3,202.42	1,921.00	7,340.00	8,294.20
	IMNCI module 4	Pcs	1.0	553	2,253	2,834	1,700	547.47	2,230.47	2,805.66	1,683.00	7,340.00	7,266.60
	IMNCI module 5	Pcs	11.9	553	2,253	2,834	1,700	6,586.23	26,833.23	33,752.94	20,247.00	7,340.00	87,419.40
	IMNCI module 6	Pcs	0.5	553	2,253	2,834	1,700	248.85	1,013.85	1,275.30	765.00	7,340.00	3,303.00
	IMNCI registration book (0-2 month)	Pcs	6.8	552	3,093	6,053	3,603	3,753.60	21,032.40	41,160.40	24,500.40	13,301.00	90,446.80
ICCM Training	Chart booklet	Pcs	1.6	1,326	6,537	13,375	7,353	2,081.82	10,263.09	20,998.75	11,544.21	28,591.00	44,887.87
	Exercise booklet	Pcs	0.9	1,326	6,537	13,375	7,353	1,246.44	6,144.78	12,572.50	6,911.82	28,591.00	26,875.54
	Facilitator guide	Pcs	1.0	1,326	6,537	13,375	7,353	1,326.00	6,537.00	13,375.00	7,353.00	28,591.00	28,591.00
	Photo booklet	Pcs	1.1	1,326	6,537	13,375	7,353	1,458.60	7,190.70	14,712.50	8,088.30	28,591.00	31,450.10

Activity/ Program	Item	Unit	Unit price (\$)	Quantity				Price				Total Qty	Total Price
				Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR		
ICCM Training	DVD	Pcs	3.0	53	261	535	294	159.12	784.44	1,605.00	882.36	1,143.64	3,430.92
	Wall chart	Pcs	40.0	552	6,537	13,375	7,353	22,080.00	261,480.00	535,000.00	294,120.00	27,817.00	1,112,680.00
Training Tools	Baby mannequin	Pcs	70.0	53	261	535	294	3,712.80	18,303.60	37,450.00	20,588.40	1,143.64	80,054.80
	Laminated health post job aid for infection (A4)	Pcs	1.0	1,326	6,537	13,375	7,353	1,326.00	6,537.00	13,375.00	7,353.00	28,591.00	28,591.00
	Laminated health post job aid for infection (A3)	Pcs	2.0	1,326	6,537	13,375	7,353	2,652.00	13,074.00	26,750.00	14,706.00	28,591.00	57,182.00
	Laminated health post job aid LBW(A4)	Pcs	1.0	1,326	6,537	13,375	7,353	1,326.00	6,537.00	13,375.00	7,353.00	28,591.00	28,591.00
	Laminated health post job aid LBW(A3)	Pcs	2.0	1,326	6,537	13,375	7,353	2,652.00	13,074.00	26,750.00	14,706.00	28,591.00	57,182.00
	Laminated health post job aid for Asphyxia(A4)	Pcs	1.0	1,326	6,537	13,375	7,353	1,326.00	6,537.00	13,375.00	7,353.00	28,591.00	28,591.00
	Laminated health post job aid for Asphyxia (A3)	Pcs	2.0	1,326	6,537	13,375	7,353	2,652.00	13,074.00	26,750.00	14,706.00	28,591.00	57,182.00
	Back bag	Pcs	9.2	1,326	6,537	13,375	7,353	12,132.90	59,813.55	122,381.25	67,279.95	28,591.00	261,607.65
Immediate newborn care	Reg. book young infant	Pcs	6.8	552	3,093	6,053	3,603	3,753.60	21,032.40	41,160.40	24,500.40	13,301.00	90,446.80

Activity/ Program	Item	Unit	Unit price (\$)	Quantity				Price				Total Qty	Total Price
				Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR		
	Penguin Suction bulb	Pcs	3.0	1,326	6,537	13,375	7,353	3,978.00	19,611.00	40,125.00	22,059.00	28,591.00	85,773.00
	Watch	Pcs	10.0	1,326	6,537	13,375	7,353	13,260.00	65,370.00	133,750.00	73,530.00	28,591.00	285,910.00
PNC visits	Counseling card /Family Health Card	Pcs	0.5	158,745	613,827	1,014,952	552,162	79,372.53	306,913.35	507,476.07	281,080.78	2,349,685.47	1,174,842.73
IPLS tools	Bin Card of 250 pcs	Box	6.9	1,326	3,093	6,053	3,603	9,208.33	21,479.17	42,034.72	25,020.83	14,075.00	97,743.06
	HPMRR of 12 month report	Pad	1.0	1,326	3,093	6,053	3,603	1,326.00	3,093.00	6,053.00	3,603.00	14,075.00	14,075.00
	Flip book	Pcs	1.0	1,326	3,093	6,053	3,603	1,326.00	3,093.00	6,053.00	3,603.00	14,075.00	14,075.00
	Poster (Proper storage guideline)	Pcs	0.5	1,326	3,093	6,053	3,603	663.00	1,546.50	3,026.50	1,801.50	14,075.00	7,037.50
	Posters (Daily and weekly activity)	Pcs	0.5	1,326	3,093	6,053	3,603	663.00	1,546.50	3,026.50	1,801.50	14,075.00	7,037.50
	Posters(Monthly Activity)	Pcs	0.5	1,326	3,093	6,053	3,603	663.00	1,546.50	3,026.50	1,801.50	14,075.00	7,037.50
Total Costs for Training Materials, job aids and tools								184,827	939,322	1,760,342	979,227		2,946,181
Contingency (price inflation 5%)								194,068	986,288	1,848,359	1,848,359		3,093,490

Table 4: Estimated cost for Medical Equipment (the four big regions)

Activity/ Program	Item	Unit	Unit price (\$)	Packing information	Quantity				Price			
					Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR
Immediate newborn care	Ambu bag	Pcs	15		552	3,093	6,053	3,603	8,280	46,395	90,795	54,045
PNC visits	Scale, infant, spring type, 5 kg X25 gm weighing sling	Pcs	6.24		552	3,093	6,053	3,603	3,444	19,300	37,771	22,483
	Clinical Thermometer, digital/32 – 43	Pcs	1.31		552	3,093	6,053	3,603	723	4,052	7,929	4,720
Treatment for referred case	Infant scale ***	Unit			87	200	373	186	0	0	0	0
	Newborn corner unit (Ambu bag, suction bulb, warmer,	Unit			87	200	373	186	0	0	0	0
	KMC equipment (heater and Bed)	Pcs			87	200	373	186	0	0	0	0
Total Costs for Medical Equipment									12,448	69,747	136,495	81,248
Estimated Freight, Insurance and Transport (15%)									14,315	80,209	156,969	93,435
Contingency (price inflation 5%)									15,030	84,220	164,818	98,107

* mentioned in other categories

** details will be checked

*** the facility may own it

Table 5: Estimated amount and cost for Essential Medicine and Supplies (National)

Activity	Product	Unit	Unit price (\$)	Packaging information (pack size)	Price per pack size	National Est Qty in smallest unit	National Est Qty in pack size	National Est Price
Immediate newborn care	Vitamin k 1 mg	Ampule						-
	Vitamin A 200,000 IU	Ampule						-
	Vitamin A 100,000 IU	Ampule						-
	TTC eye ointment	Tube	0.06		0.06	2,217,670		133,060
	Chlorohexidine 3g (4% w/w)(use same cost estimate as TTC eye ointment)	Tube				2,217,670		125,000
	Clean glove (6.5-8) box of 100	Box	0.0427	box of 100	4.27	2,217,670	22,177	94,694
PNC visits	Clinical Thermometer, digital (32 - 43'c)	PCs	1.31		1.31	28,591		35,717
Treatment for sick newborn	Gentamycin 10 mg/ml, box of 50 amp	Ampule	0.1916	Box of 50 amp		2,217,670	44,353	424,905
	Amoxicillin suspension (125 mg/5 ml)	Bottle	0.31	12 bottles pack	3.72	110,883	9,240	34,374
	Amoxicillin tab 250 mg pack of 100 (dispersible)	pack	0.0235	box of 100	2.35	1,552,369	15,524	36,481
	Syringe with needle (1or 2cc; Insulin) box of 100	Pcs	0.0271	box of 100 pc	2.71	2,217,670	22,177	60,099
	Clean glove (6.5-8), box of 50	Box		box of 50		1,552,369	31,047	-
Treatment for referred case	Gentamycin 40 mg/2ml box of 50	Ampule	0.1916	box of 50	9.58	1,254,920	25,098	240,443

Activity	Product	Unit	Unit price (\$)	Packaging information (pack size)	Price per pack size	National Est Qty in smallest unit	National Est Qty in pack size	National Est Price
Treatment for referred case	Ampicillin powder for injection, 500 mg box of 25	Vial	0.1364	box of 25	3.41	776,184	31,047	105,872
	Water for injection, 50 vials	Pcs		box of 50 vials		776,184	15,524	-
	NG tube, CH 08, L40 Cm, Sterile disposable pack of 50	Pcs	0.09	pack of 50	4.5	170,479	3,410	15,343
	IV cannula (short 24 gage, STER disposable a box of 50)	Pcs	0.15	a box of 50	7.5	170,479	3,410	25,572
	IV fluid 5% DW	Bag	1.3		1.3	170,479	170,479	221,622
	IV fluid 5% NS	Bag	1.5		1.5	170,479	170,479	255,718
	Surgical glove (6.5-8), box of 50	Box	0.22	box of 50	11	388,092	388,092	85,380
Total Estimated Cost for Pharmaceuticals (Medicines and Supplies)								1,894,280
Estimated Freight, Insurance and Transport (15%)								2,178,422
Contingency (price inflation) (5%)								2,136,406

Table 6: Estimated cost for Essential Medicine and Supplies for the four big regions

Activity	Product	Quantity Per Region				Price Per Region			
		Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR
Immediate newborn care	Vitamin k 1 mg								
	Vitamin A 200,000 IU								
	Vitamin A 100,000 IU								
	TTC eye ointment	153,995	585,826	934,004	543,844	9,240	35,150	56,040	32,631
	Chlorohexidine 3g (4% w/w)	153,995	585,826	934,004	543,844	10,000	35,000	50,000	30,000
	Clean glove (6.5-8) box of 100	153,995	585,826	934,004	543,844	6,576	25,015	39,882	23,222
PNC visits	Clinical Thermometer, digital (32 - 43'c)	1326	6537	13375	7353		8,563	17,521	9,632
Treatment for sick newborn	Gentamycin 10 mg/ml, box of 50 amp	153,995	585,826	934,004	543,844	29,506	112,244	178,955	104,201
	Amoxicillin suspension (125 mg/5 ml)	7,700	29,291	46,700	27,192	2,387	9,080	14,477	8,430
	Amoxicillin tab 250 mg pack of 100 (dispersible)	107,797	410,078	653,803	380,691	2,533	9,637	15,364	8,946
	Syringe with needle (1or 2cc; Insulin) box of 100	153,995	585,826	934,004	543,844	4,173	15,876	25,311	14,738
	Clean glove (6.5-8), box of 50	107,797	410,078	653,803	380,691	-	-	-	-
Treatment for referred case	Gentamycin 40 mg/2ml box of 50	38,499	146,457	934,004	135,961	7,376	28,061	178,955	26,050
	Ampicillin powder for injection, 500 mg box of 25	53,898	205,039	326,901	190,345	7,352	27,967	44,589	25,963

Activity	Product	Quantity Per Region				Price Per Region			
		Tigray	Amhara	Oromia	SNNPR	Tigray	Amhara	Oromia	SNNPR
	Water for injection, 50 vials	53,898	205,039	326,901	190,345	-	-	-	-
Treatment for referred case	NG tube, CH 08, L40 Cm, Sterile disposable pack of 50	3,850	58,583	14,646	93,400	346	5,272	1,318	8,406
	IV cannula (short 24 gage, STER disposable a box of 50)	3,850	58,583	14,646	93,400	577	8,787	2,197	14,010
	IV fluid 5% DW	3,850	58,583	14,646	93,400	5,005	76,157	19,039	121,420
	IV fluid 5% NS	3,850	58,583	14,646	93,400	5,775	87,874	21,968	140,101
	Surgical glove (6.5-8), box of 50	26,949	102,520	163,451	95,173	5,929	22,554	35,959	20,938
Total Estimated Cost for Pharmaceuticals (Medicines and Supplies)						96,775	507,239	701,578	588,688
Estimated Freight, Insurance and Transport (15%)						99,791	543,075	749,314	642,491
Contingency (price inflation) (5%)						114,781	600,229	836,780	704,616

Table7: Learning phase targets

Region	Zone	# of Population	WRA	Expected Newborns	# of Urban Woredas	# of Rural Woredas	# Rural of Kebeles	# Health post	# HEWs	# health centres	# Hospitals
Tigray	Eastern	868,326	204,057	29,870	2	7	143	124	284	41	2
SNNPR	Gurage	1,572,303	366,347	54,402	2	13	409	409	844	65	2
	Sidama	3,471,310	808,815	120,107	2	20	545	545	1,133	118	3
Oromia	North shewa	1,388,617	306,884	48,185	2	13	267	267	498	51	2
	East Shewa	1,583,855	350,032	54,960	3	10	301	299	660	55	3
Amhara	East Gojam	2,397,876	565,899	80,808	2	16	392	402	665	100	2
	Total	11,282,287	2,602,033	388,333	13	79	2,057	2,046	4,084	430	14

Table 8: Targets and estimated cost for the six learning phase zones

Region	Targets					Trainings						Supplies	PRCMM and Supervision		Grand Total
	Zone	Rural Woredas	Rural Kebeles	HPs	HEWs	Master TOT Cost (ETB)	Regional TOT Cost (ETB)	IMNCI Cost (ETB)	Supervision	HEW Trainings Cost (ETB)	HW Trainings Cost (ETB)	Cost of Supplies (ETB)	Review Cost 1st and 2nd PRCMM (ETB)	Post Training Follow-up (ETB)	
National						211,964									
Tigray	Eastern	7	143	124	284		151,464	596,796	235,609	789,974	20,112	49,883	834,678	206,000	
SNNPR	Gurage	13	409	409	844					180,804			5,271,534	1,321,137	
	Sidama	20	545	545	1,133		151,464	664,518	1,069,719	328,229	50,280	235,164			
Oromia	North Shewa	13	267	267	498					1,385,237			3,095,172	779,344	
	East Shewa	10	301	299	660		151,464	1,542,936	630,035	1,835,856	50,280	163,902			
Amhara	East Gojam	16	392	402	665		151,464	1,455,600	579,096	1,849,764	20,112	114,019	1,737,990	603,506	
	Total	79	2,057	2,046	4,084	211,964	605,856	4,259,850	2,514,459	6,369,864	140,784	562,968	10,939,374	2,909,987	28,515,106

Table 9: Monitoring and Evaluation Indicators

Activity	Indicator	Metric	Data Source/Tool	Frequency
CBNC policy	CBNC is incorporated into national MNCH policy/guideline(s) to allow HEWs to give: <ul style="list-style-type: none"> • Gentamycin injection • Amoxicilline for neonatal sepsis 	<p>Yes: National policy guidelines adopted to allow CBNC in line with evidence generated by COMBINE and international experiences.</p> <p>No: No national policy guidelines that support CBNC.</p>	MOH policy, strategy or guideline document	Once
HEP including CBNC MOH focal point	CBNC focal point/unit within MOH in place	<p>Yes: Focal point/unit for CBNC established</p> <p>No: No CBNC focal point/unit established</p>	ToRs / FMOH administrative document	Annual
CBNC Coordination	MOH-led CBNC stakeholder group, working group or task force established and meeting regularly	<p>Yes: FMOH/RHB-led CBNC stakeholder group established and meeting as outlined in terms of reference (or more frequently) or ad hoc (twice a year minimum)</p> <p>Partial: FMOH/RHB-led CBNC stakeholder group established but meets less than twice a year</p> <p>No: FMOH/RHB-led CBNC stakeholder group not established</p>	Established TOR and meeting minutes	Annual
	Proportion of woredas and zones participated in the regional orientation	<p>Numerator: Total number of woredas and zones participated in regional orientation</p> <p>Denominator: Total number of CBNC woredas and zones planned for orientation</p>	Activity Reports	Once
CBNC partner map	List of CBNC partners, activities and locations available and updates annually	<p>Yes: List/map of CBNC partners, activities and locations available and updated within the last year</p> <p>Partial: List/map of CBNC partners, activities and locations available but not updated within the last year</p> <p>No: List/map of CBNC partners, activities and locations not available</p>	MOH/UNICEF Administrative document	Annual

Activity	Indicator	Metric	Data Source/Tool	Frequency
Annual CBNC costed plan	Costed plan for CBNC exists and is updated annually	<p>Yes: Costed plan for CBNC (as specified by country policy or implementation status) exists and updated annually</p> <p>Partial: Costed plan exists but not updated</p> <p>No: No costed plans for CBNC available for neonatal sepsis</p>	<p>Administrative and budget documents</p> <p>National CBNC implementation plan</p>	Annual
Target area coverage	Proportion of targeted health posts for CBNC which have all HEWs trained in CBNC.	<p>Numerator: # of targeted HPs[¥] with all HEWs trained for CBNC as per national protocol</p> <p>Denominator: # of targeted HP</p>	<p>Form A1</p> <p>CBNC DB</p>	Quarterly/ Annually
HR strategy	Proportion of TOT conducted.	<p>Numerator: Total number of trainees received the regional /master TOT.</p> <p>Denominator: # total regional/masters TOT planned.</p>	Form A3 Reports	Quarterly/ Annually
	Proportion of HEW trained in CBNC	<p>Numerator: # of HEW trained on CBNC</p> <p>Denominator: Total HEW planned for CBNC training</p>	<p>Form A1</p> <p>CBNC DB</p>	Quarterly (until training is complete)
	Proportion of HC staff trained in CBNC (including CBNC supervision)	<p>Numerator: # of HC staff trained on CBNC and supervision</p> <p>Denominator: Total HC staff planned for CBNC training</p>	<p>Form A2</p> <p>CBNC DB</p>	Quarterly(un til training is complete)
	Proportion of HCs with HW trained on CBNC (including CBNC supervision)	<p>Numerator: # of HCs with HW trained on CBNC</p> <p>Denominator: Total HC planned for CN-NSM training</p>	<p>Form A2</p> <p>CBNC DB</p>	
	Proportions of woredas with at least 2 staff who is trained on CBNC (including CBNC supervision)	<p>Numerator: # of woredas with at least 2 staff who is trained CBNC and supervision</p> <p>Denominator: Total number of CBNC implementing woredas.</p>	<p>Form A2</p> <p>CBNC DB</p>	Quarterly(un til training is complete)

Activity	Indicator	Metric	Data Source/Tool	Frequency
	Proportions of CBNC trainings supervised for quality assurance by master trainers.	Numerator: # of CBNC trainings supervised by master trainers Denominator: Total number of CBNC trainings conducted	Form A4	Quarterly
Medicine registration	CBNSM medicine (Gentamicin 20mg /2ml IM injection vial) are registered with FMHACA	Yes: CB-NSM medicine (Gentamicin 20mg /2ml IM injection vial) are registered with FMHACA No: CB-NSM medicine (Gentamicin 20mg /2ml IM injection vial)medicines is not registered with FMHACA	Essential drug registration lists	Once
Medicine availability	Proportion of HPs with CBNSM medicines (Gentamicin injection and Amoxicillin) in stock during the last visit.	Numerator: # of HPs with CBNSM unexpired medicines in stock during the last visit. Denominator: Total # of supervised CBNSM HPs.	Form B1	quarterly
Medicine availability	Proportion of HPs with no stock out of unexpired CBNSM medicines (Gentamicin injection and Amoxicillin) for 7 days and more in the last three months.	Numerator: Total # of HPs with no stock out of unexpired CBNSM medicines (Gentamicin injection and Amoxicillin syrup) for 7 days and more in the last three months. Denominator: Total # of supervised HP	Form B1	quarterly
Medicine availability	Proportion of HPs with all essential job aids for CBNC on day of supervision	Numerator: # of health posts(HP) with all essential job aids*** Denominator: Total number of CBNC HPs supervised.	Form B1	Quarterly
Case identification	Proportion of pregnant women who received at least one ANC by HEWs	Numerator: Number of pregnant women that received antenatal care at least once Denominator: Total number of expected Pregnancies	HMIS Form B	Quarterly

Activity	Indicator	Metric	Data Source/Tool	Frequency
	Proportion of pregnant women who received at least one ANC by HWs	Numerator: Number of pregnant women that received antenatal care at least once Denominator: Number of pregnant women that received antenatal care at least once	HMIS Form B	Quarterly
	Births attended by HEWs	Numerator: No. of deliveries attended by HEW's Denominator: Total no. of expected deliveries	HMIS Form B	Quarterly
	Births attended by HWs	Numerator: No. of deliveries attended by HEW's Denominator: Total no. of expected deliveries	HMIS Form B	Quarterly
	Proportion of live births identified	Numerator: Total # of live births identified in a given catchment area in a given period of time. Denominator: Total # of expected live births in a given catchment area in a given period of time.	Survey Secondary analysis(HP registers) Form C	Quarterly
Case identification	Proportion newborns who received PNC visits by HEWs within 48 hours	Numerator: Total # of newborns who received a PNC home visit by HEW within 2 days of birth in a given catchment area in a given period of time. Denominator: Total # of expected live births in a given catchment area in a given period of time.	HMIS Surveys Form B1	Quarterly
	Proportion of LBW cases identified in a given catchment area in a given period	Numerator: Total # LBW cases identified in a given catchment area in a given period of time. Denominator: Total # of expected live births in a given catchment area in a given period of time.	HP Register Form B1,C	Quarterly
	Proportion of neonatal sepsis cases who are treated***	Numerator: Total # of treated neonatal sepsis cases in a given catchment area in a given period of time. Denominator: Total # of expected neonatal sepsis cases under one month in a given catchment area in a given period of time.	Survey Secondary analysis Form C	Quarterly

Activity	Indicator	Metric	Data Source/Tool	Frequency
Treatment ratio	Proportion of neonatal sepsis cases who received <u>treatment</u>	Numerator: Total # of newborns classified by HEW as having neonatal sepsis who received adequate antibiotic treatment Denominator: # of newborns classified by HEW as having neonatal sepsis	Form B Form C	Quarterly
	Proportion of VSD treated with initial dose with appropriate antibiotics	Numerator: Total # of newborns classified by HEW as having VSD who received initial appropriate antibiotics Denominator: # of newborns classified by HEW as having VSD	Form B Form C	
Treatment ratio	Proportion of VSD receiving 7 consecutive days of gentamycin	Numerator: Total # of newborns classified by HEW as having VSD who received 7 days of gentamycin treatment Denominator: # of newborns classified by HEW as having VSD		
	Proportion of treated neonatal sepsis cases whose treatment outcome has improved	Numerator: Total # of newborns sepsis cases whose treatment outcome has improved in a given catchment area in a given period of time. Denominator: # of newborns sepsis cases who are treated at health post in a given catchment area in a given period of time.	Form B	Quarterly
Referral	Proportion of NS cases referred by HEW	Numerator: Total # of newborn Sepsis cases visited Health post and referred to Higher Health Facility Denominator: Total # of newborn Sepsis cases visited Health post	Survey register	
	Proportion of NS cases self-referred to HC	Numerator: Total # of newborn Sepsis cases who made their initial visit higher Health Facility in a given period and catchment area Denominator: Total # of newborn Sepsis cases visited Health post and by other higher Health Facility in a given period and catchment area	Survey register	

Activity	Indicator	Metric	Data Source/Tool	Frequency
Routine supervision coverage	Proportion of HEWs who received at least one supervisory contact on CBNC in the prior three months during which registers and/or reports were reviewed	Numerator: # of HEWs who received at least one supervisory contact in the prior three months during which registers and/or reports were reviewed Denominator: # of HEW trained in and deployed for ENC or # of HEWs interviewed	Form B	Quarterly
Case management knowledge	Proportion neonatal sepsis cases correctly classified	Numerator: # of neonatal sepsis cases with consistency between assessment and classification Denominator: Total number of newborn sepsis cases reviewed	Form B	
	Proportion neonatal sepsis cases correctly treated	Numerator: # of neonatal sepsis cases with consistency between classification and treatment Denominator: Total number of newborn sepsis cases reviewed	Form B	
District monitoring	Proportion of woreda review meetings conducted(quarterly review meetings that has agenda on ENC)	Numerator: # of woreda level review meetings conducted Denominator: Total number ENC review meetings planned	Form C	Biannual
CBNC in HMIS	One or more CBNC indicators incorporated into HMIS <ul style="list-style-type: none"> • NN sepsis treated • LBW treated 	Yes: One or more CBNC indicator collected and monitored through national HMIS Partial: One or more CBNC indicator included in national HMIS No: No recommended CBNC indicators included in national HMIS	FMOH HMIS	Once

Table 10: List of CBNC Monitoring Forms

Type of Form	Description	Remark
Form A1	List HEWs who received CBNC training	TBD
Form A2	List PHCU/Woreda staff who received CBNC training	TBD
Form A3	List of trainee who received master/regional	TBD
Form A4	Training Quality Assessment Checklist	TBD
Form B1	Supervision Checklist	TBD
Form B2	Supervisory Quality Assurance checklist	TBD
Form C	Performance Review and Clinical Mentoring meeting guide	TBD

Table 11: List of Forms

Type of Form	Description	Remark
Form A1	List HEWs who received CBNC training	TBD
Form A2	List PHCU/Woreda staff who received CBNC training	TBD
Form A3	List of trainee who received master/regional	TBD
Form A4	Training Quality Assessment Checklist	TBD
Form B1	Supervision Checklist	TBD
Form B2	Supervisory Quality Assurance checklist	TBD
Form C	Performance Review and Clinical Mentoring meeting guide	TBD
Form D	PRCMM abstraction form	

Table 12: List of Essential drugs and supplies at HP and HC level for CBNC

No.	HP CBNC supplies	HC CBNC supplies
1.	Vitamin k 1 mg	Vitamin k 1 mg
2.	Vitamin A 100,000 IU	Vitamin A 100,000 IU
3.	TTC eye ointment	Cord tie
4.	Chlorohexidine 3g (4% w/w)	Two clean towles
5.	Clean glove (6.5-8) box of 100	
6.	Clinical Thermometer, digital (32 - 43°c)	TTC eye ointment
7.	Gentamycin 10 mg/ml, box of 50 amp	Chlorohexidine 3g (4% w/w)
8.	Amoxicillin tab 250 mg pack of 100 (dispersible) Amoxicillin tab 125 mg pack of 100 (dispersible)	Gentamycin 10 mg/ml, box of 50 amp
9.	Syringe with needle (1or 2cc; Insulin) box of 100	Ampicillin powder for injection, 500 mg box of Water for injection, 50 vials
10.	Reg. book young infant	Clinical Thermometer, digital (32 - 43°c)
11.	Penguin Suction bulb	Amoxicillin tab 250 mg pack of 100 (dispersible) Amoxicillin tab 125 mg pack of 100 (dispersible)
12.	Ambu Bag	NG tube, CH 08, L40 Cm, Sterile disposable pack of 50 25
13.	Chart booklet	IV fluid 5% DW
14.	Counselling card /Family Health Card	IV fluid 5% NS
15.	Bin Card of 250 pcs	IV cannula (short 24 gage, STER disposable a box of 50)
16.	Timer	Timer
17.	HPMRR of 12 month report	Clean glove (6.5-8), box of 50
18.	Flip book	Surgical glove (6.5-8), box of 50
19.	Poster (Proper storage guideline)	Reg. book young infant
20.	Posters (Daily and weekly activity)	Penguin Suction bulb
21.	Posters(Monthly Activity)	Counselling card /Family Health Card
22.	Spring infant scale with sling	Bin Card of 250 pcs
23.		HPMRR of 12 month report
24.		Flip book
25.		Poster (Proper storage guideline)
26.		Posters (Daily and weekly activity)
27.		Posters(Monthly Activity)
28.		Ambu Bag
29.		Infant lysing scale
30.		Chart Booklet

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