

Addressing Community Maternal and Neonatal Health in Ethiopia. Report from National Scoping Exercise and National Workshop to Increase Demand, Accesses and Use of Community Maternal and Neonatal Health Services.



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ESOG



- L10K

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The Last Ten Kilometers

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Abbreviations and Acronyms

AIDS	Acquired Immune Deficiency Syndrome
AMTSL	Active Management of Third Stage Labor
ANC	Antenatal Care
BCC	Behavioural Change Communication
BPCR	Birth Preparedness and Complication Readiness
CBO	Community Based Organization
CBRHAs	Community Based Reproductive Health Agents
CC	Community Conversation
CEmONC	Comprehensive Emergency Obstetric and Neonatal Care
CFR	Case Fatality Rate
CHAs	Community Health Agents
CHWs	Community Health Workers
CI	Confidence Interval
CPR	Contraceptives Prevalence Rate
DHS	Demographic Health Survey
EDHS	Ethiopian Demographic and Health Survey
EmOC	Emergency Obstetrics Care
EmONC	Emergency Obstetrics and Neonatal Care
ENA	Essential Nutrition Actions
ENHC	Essential Neonatal Health Care
ESOG	Ethiopian Society of Obstetrics and Gynecologist
FIGO	Federation of International Gynecologists and Obstetricians
FP	Family Planning
HBLSS	Home Based Live Saving Skills
HEP	Health Extension Programme
HEW	Health Extension Workers
HF	Health Facility
HH	House Hold
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HP	Health Post
HSDP	Health Sector Development Programme
HSEP	Health Service Extension Programme
HTP	Harmful Traditional Practice
HW	Health Worker
LB	Live Birth
LBW	Low Birth Weight
IEC	Information, Education and Communication
IMNCI	Integrated Management of Newborn and Childhood Illnesses
L10K	Last 10 Kilometres
IUD	Intra-Uterine Device
JSI	John Snow Incorporated
MDG	Millennium Development Goal
MMR	Maternal Mortality Ratio
MNH	Maternal and Neonatal Health

MPS	Making Pregnancy Safer
MVA	Manual Vacuum Aspiration
MWA	Maternity Waiting Area
NGO	Non Governmental Organization
NMR	Neonatal Mortality Rate
OF	Obstetric Fistula
PAC	Postabortion Care
PHC	Primary Health Care
PID	Pelvic Inflammatory Diseases
PNC	Postnatal Care
PNMR	Peri Natal Mortality Rate
PPH	Post Partum Haemorrhage
RH	Reproductive Health
SAC	Safe Abortion Care
SBA	Skilled Birth Attendance
SNL	Saving Newborn Lives
SNNPR	Southern Nations Nationalities and Peoples Region
SPE	Severe Pre-Eclampsia
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UN	United Nations
VCHW	Volunteer Community Health Worker
WRA	Women of Reproductive Age

Executive Summary

Although MMR estimates in Ethiopia vary considerably, most agree that the country's maternal mortality ratio is among the highest in the world. The Ethiopian Demographic and Health Surveys of 2000 and 2005 give figures for the period 0-6 years prior to the surveys: 871 and 673/100,000 live births respectively. For neonatal mortality the rates are 48.7/1000 and 39/1000 live births as reported in the EDHS 2000 and 2005 respectively.

The Ethiopian government was one of the first in Africa to make a strong commitment to the MDGs; reaching each of the MDG targets is central to its national development strategy. Meeting the MDG 5 target however would mean reducing its MMR by three-quarters to 218/100,000 live births by 2015 from the early 1990's estimate of 871. A 2008 mid-term review of the Health Sector Development programme (HSDP-III) found that this is unlikely to happen given the programme's present status.

Other major observations of the mid-term review related to maternal and neonatal health, at the community level, were that there has been limited progress in 1) implementing the prescribed Reproductive Health (RH) strategy of informational campaigns and mobilization efforts to discourage early marriage; 2) educating communities regarding danger signs during pregnancy and child birth; and 3) establishment of community referral mechanisms.

A national scoping exercise was conducted by the Last 10 Kilometers project of John Snow Inc (JSI/L10k) and the Ethiopian Society for Obstetricians and Gynecologists (ESOG) in close partnership with the Federal Ministry of Health (FMOH) with funding from the Bill and Melinda Gates Foundation to learn about community level gaps and efforts; and to identify priority intervention areas to improve maternal and neonatal health at community level in Ethiopia. A national workshop of public health professionals, clinicians, researchers, program managers and policy makers reviewed and discussed the status, barriers and determined strategic recommendations to advance community level maternal and neonatal health.

The national workshop was organized from May 12 to 14, 2009 under the title of "Addressing Community Maternal and Neonatal Health in Ethiopia, Evidence-based Recommendations for Increased Demand, Access to and Use of Services". The workshop objectives were:

1. Review maternal and newborn health status in Ethiopia
2. Describe the government program to extend services to home and community, specifically the HEW and her effort to improve maternal and newborn care
3. Review barriers/facilitators to use of maternal and newborn care services
4. Review on-going or previous maternal/newborn health efforts primarily at community level
5. Develop an applicable framework to improve maternal /newborn health status through community-oriented efforts, and
6. Develop evidence- based recommendations.

The strategic recommendations developed at the workshop to advance community level maternal and neonatal health are:

Strategic recommendation 1: Develop capacities for self care, improved care seeking behavior and birth and emergency preparedness

1. Extend the package for a model family to include essential indicators of maternal and newborn health
2. Promote use of a trained health worker including a plan for birth attended by a trained health worker, and early preparations for managing complications by seeking use of skilled care
3. Promote communication between couples and within the household to support birth preparedness and implementation
4. Educate mothers and other family members on recognition and proper care of a sick newborn
5. Include critical MNH issues in the existing community conversation and community dialogue activities
6. Increase knowledge and develop the skills of women to avoid unwanted pregnancy, seek safe abortion care services and recognize abortion complications
7. Increase awareness of signs of labor and emergency for mothers and newborns
8. Promote essential newborn care, awareness of danger signs and timely care-seeking
9. Encourage at least 4 antenatal (ANC) visits, labor/delivery and an immediate postnatal visit (within 24 hours) and a second postnatal visit at 3 days with a trained health worker; all obstetric and neonate emergencies should go to a trained health worker.
10. Design, produce and use a birth and emergency preparedness counseling card in ANC
11. Develop providers' knowledge and communication skills in birth and emergency preparedness

Strategic recommendation 2: Increase awareness of the needs and potential problems of women and newborns during pregnancy, labor and delivery and in the postpartum period

1. Improve couple communication in birth preparedness and joint decision making
2. Improve involvement of men in care of mothers and newborns during pregnancy, labor and delivery and postpartum
3. Increase individual and social understanding of the needs, risks and dangers of pregnancy, childbirth and in the postpartum period for the mother and newborn
4. Establish a system for pregnancy and labor/delivery detection
5. Introduce a system of community epidemiological surveillance and maternal and prenatal death audits
6. Develop capacity of the health system to effectively deliver health education
7. Improve the set up of facilities and providers' skill on counseling couples

Strategic recommendation 3: Strengthen linkages between the community and the health delivery system

1. Strengthen collaboration of HEWs with other health providers, community health workers and traditional birth attendants to ensure the continuity of care and social support
2. Encourage HEWs to attend deliveries with TBAs and to build support within the community to alert the HEW of a birth
3. Develop local means of transport for use during emergencies

4. Build capacity and facilitate use of community level social networks for accessing emergency fund
5. Strengthen the capacity of TBAs in recognizing problems early and when necessary in guiding women to and through the formal health system
6. Establish maternity waiting area in facilities where there is 24/7 CEmONC services

Strategic recommendation 4: Improve access and quality of MNH services

1. Initiate immediate postnatal home visit, within 24hours, a second visit on the third day, and if possible a third visit on day seven by the HEW
2. Expand outlets for family planning including social marketing of contraceptives
3. Prioritize care during labor and delivery (normal birthing) and neonatal resuscitation in the guidelines for HEP
4. Ensure proper competency based training of HEWs on safe and clean delivery and neonatal resuscitation
5. Scale up use of misoprostol by HEWs to manage 3rd stage labor
6. Increase awareness of men and communities of the value of social support during child birth (Encourage presence of companion during labor and delivery)
7. Build communication and counselling skills of HEWs
8. Organize a standard outreach program with proper schedule
9. Improve method mix of contraceptives including Long Acting and Permanent Methods
10. Improve the set up of facilities to be client-friendly
11. Advocate for policies that promote social support during labor
12. Encourage presence of at least two birth attendants (one specifically for newborn)
13. Build interpersonal and intercultural competencies of health providers

1. Introduction

The maternal mortality ratio in Ethiopia is considered one of the highest in the world, yet there are few current data. Neonatal mortality rates are also extremely high and only recently determined at community level. Efforts to improve this situation at the home/community level where over 90% of the births occur have recently escalated with the Government's Health Extension Programme. Given this the Bill and Melinda Gates Foundation supported a maternal and neonatal scoping exercise to explore the status, barriers and possibilities to improve the health of mothers and newborns through community and home level efforts.

This is a report summarizing the preparatory papers, presentations and working group recommendations for that exercise.

1.1 Background:

Ethiopia is the second most populous country in sub-Saharan Africa with an estimated population of 74 million in 2009 (CSA, 2008). According to the 2005 EDHS data, the total fertility rate for Ethiopia is 5.4 births per woman. Over 50% of its population is younger than 20 years and over 50% of adults are illiterate. Sexual debut occurs on the average at the age of 20 for males and 16 for females with the median age of marriage for girls in Ethiopia at 16.1 years. 40% of young women have their first child by 19 years and 54% of pregnancies to girls under the age of 15 are unwanted.

The government's health delivery system has adopted a strategy of integrated health services starting with primary health care and organized into a four-tiered system, consisting of primary health care units (health centre with 5 satellite health posts); district hospitals; zonal hospitals; and specialized referral hospital with catchments population of 25,000, 250,000, 1,000,000 and 5,000,000 respectively. Although health care is delivered mainly in the public sector, the role of the private and NGO sectors is growing.

1.2 Policy Environment:

The policy environment of Ethiopia is rich with plans for improved maternal and child health dating back nearly two decades. Beginning with the Health Policy of Ethiopia (1993), the focus was and continues to be on community-based public health preventive and promotive interventions in the major areas of public health including maternal and child health. The national policies and strategic documents that relate specifically to maternal and neonatal health are shown in table I along with their component interventions and targets:

Table I: National policies and strategic documents related with MNH

Policy/Strategic documents	Components/targets
Making Pregnancy Safer (MPS) initiative (2000)	Initiated as the health sector strategy to reduce maternal and newborn mortality. Central to the MPS approach is the critical role of skilled birth attendance and the importance of ensuring a functional continuum of care from the community to the referral level for effectively reducing maternal and newborn deaths.
Child Survival Strategy (2005)	Identified key interventions for maternal, neonatal and children by mode of delivery [Interventions: family planning, iron/folate supplementation, tetanus toxoid, clean delivery, thermal care and Kangaroo Mother Care (KMC), exclusive breast feeding, and others] Identified key interventions by target conditions Identified main bottle necks for key maternal and neonatal care interventions [Bottle necks: access to health facilities, shortage of skilled personnel, lack of essential equipment and supplies, and others] Listed main activities by intervention and level of care
Reproductive Health Strategy (2006)	Identified six priorities: the social and cultural determinants of women's RH; Fertility and Family Planning; MNH; HIV/AIDS; RH of young people and reproductive organ cancers. The targets related to maternal and neonatal health are: Increase Contraceptive Prevalence Rate (CPR) to 60% by 2010 Reduce Maternal Mortality Ratio (MMR) to 350/100000 live births by 2015 Reduce proportion of abortion related deaths to 10% by 2015 Reduce Neonatal Mortality Rate (NMR) to 18/1000 live births by 2015 Recommended to develop a national maternal and neonatal mortality reduction strategy in order to prioritize objectives in safe motherhood and identify sustainable, high impact interventions required to achieve them.
Adolescent and Youth Reproductive Health Strategy (2006)	Further articulated strategies, focus areas and implementation plans with detailed goals for adolescents. Goals: To meet the immediate and long-term RH needs of young people through increased access and quality of sexual reproductive health services. To increase awareness and knowledge about adolescent reproductive health issues. To strengthen multi-sectoral partnerships and create an enabling positive environment at all levels. To design and implement innovative and evidenced based AYRH programs that are segmented and tailored to meet diverse needs of youth.
Nutrition Strategy (2008)	Put promotion of essential nutrition action (ENA) as one of the components with the following sub components: Improving the nutritional status of women: education for more intake; supplement pregnant women with iron/folate; give pregnant women antihelmitheics and postpartum vitamin A supplementation Improving the nutritional status of children: breast feeding and Infant and child feeding practices
Revised abortion law (2005)	Extended the range of indications for safe abortion to include pregnancies resulting from rape and incest, if it endangers the life of the mother or the child or the health of the mother, incurable and serious fetus deformity, in case of physical or mental deficiency and in case of grave and imminent danger.

The third five year program of the Health Sector Development Program, HSDP III (2005/06 to 2009/10), focuses on poverty-related health conditions, communicable diseases such as HIV, malaria and diarrhea, and health problems that affect mothers and children with particular attention to rural areas. The implementation approach of HSDP is framed in four core strategies: the Health Service Extension Programme (HSEP), the Accelerated Expansion of Primary Health Care Coverage, a Health Care Financing Strategy and the Health Sector Human Resource Development Plan. However, it is the Health Service Extension Programme (HSEP, later shortened to HEP), introduced in 2003, that is seen as the primary means by which to improve maternal, newborn and child health and address Millennium Development Goals 4 and 5.

The Health Extension Programme was developed in response to recognition that necessary basic health services were not reaching people at grass roots level as originally envisioned in the HSDP. As a sub-component of the HSDP II (2002-2005), the objective of HEP is to improve equitable access to promotive, preventive and selective curative health interventions through community or kebele based health services, thereby creating a healthy environment as well as healthful living. The household is seen as the primary producer of health and is therefore targeted, particularly women/mothers and children. This approach is grounded in the principle that the health status of families can be improved with local technologies and the skill and wisdom of communities.

Through the Health Extension Program, the Ethiopian government plans to extend primary health care to the rural poor through deployment of about 30,000 government-salaried health extension workers, two per kebele. Kebele Councils with Woreda Councils recruit young locally resident women who have completed grade 10 and speak the local language to become Health Extension Workers (HEWs). Those selected are given one year didactic and practical training and upon completion of training, are employed by the Woreda Health Office.

With two HEWs posted at a health post for a population of approximately 5000, they are to spend 75% of their time for outreach activities, teaching by example through three approaches-- model families (40-60 families who are early adopters of desirable health practices), community organizations (e.g., Idir, Ekub, Mahber), and health post and outreach service delivery (e.g., family planning, antenatal care, immunizations, nutrition counselling, first aid and referral). Beyond messages, they provide preventive and a few curative services as detailed in 16 health packages, including five in the Family Health Services component (e.g., maternal and child health, family planning, immunization, adolescent reproductive health, and nutrition). The main objective of this component program is to strengthen and gradually expand family planning and health services for mothers, children and youth, including nutrition services. Voluntary community health workers support HEW activities and report to each HEW.

The Ethiopian government was one of the first in Africa to make a strong commitment to the MDGs and reaching each of the MDG targets is central to its national development strategy. Meeting the MDG 5 target however would mean reducing its MMR by three-quarters to 218/100,000 live births by 2015 from the early 1990's estimate of 871. A 2008 mid-term review of the Health Sector Development programme (HSDP-III) found that this is unlikely to happen given the programme's present status.

The other major observations of the mid-term review related to maternal and neonatal health were, that there has been limited progress at the community level, in 1) implementing the prescribed RH strategy of informational campaigns and mobilization efforts to discourage early marriage; 2) educating communities regarding danger signs during pregnancy and child birth; and 3) establishing community referral mechanisms.

1.3 National scoping exercise on the community component of MNH

The community component of maternal and neonatal health programs focuses on the health of women in reproductive age prior to conception through pregnancy, child birth and the postpartum period and on newborns from birth through the first 28 days of life with emphasis on:

- Improving community supports required to improve normal birthing and essential newborn care plus prevention and treatment of maternal and neonatal complications/illnesses
- Improving home and community practices by providing better access to health education, counseling and community based health workers
- Health communication through information, education and communications (IEC).

A national scoping exercise was conducted by The Last Ten Kilometers project of John Snow Inc (JSI/L10k) and the Ethiopian Society for Obstetricians and Gynecologists (ESOG) in close partnership with the Federal Ministry of Health (FMoH) with funding from the Bill and Melinda Gates Foundation to learn about community level gaps and efforts; and to identify priority intervention areas to improve maternal and neonatal health at community level in Ethiopia. A national workshop of public health professionals, clinicians, researchers, program managers and policy makers' reviewed and discussed the status and barriers to advancing community level maternal and neonatal health and determined strategic recommendations to improve this effort.

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5. Develop an applicable framework to improve maternal /newborn health status through community-oriented efforts
6. Develop evidence- based recommendations.

The section below summarizes:

- a. Presentations made by partners
- b. Background papers prepared for the scoping exercise
- c. Discussion points from group work and
- d. Strategic recommendations developed.

2 Maternal and Neonatal Health Status

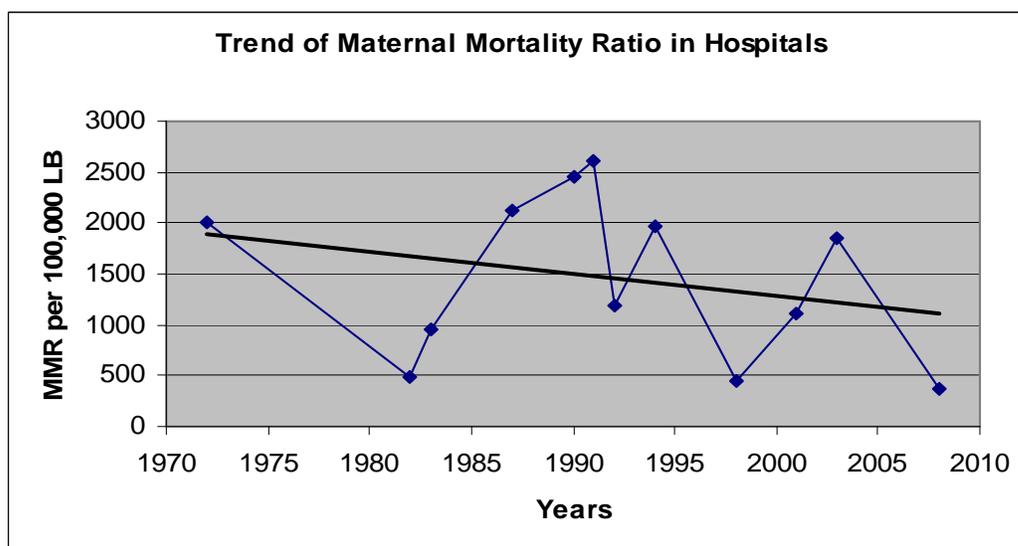
2.1 Maternal outcomes

Although MMR estimates in Ethiopia vary considerably, most agree that the country's maternal mortality ratio is among the highest in the world. In 1980 the estimate was 2,000 per 100,000 live births. Estimates have declined since then to 720 in 2005. The Ethiopian Demographic and Health Surveys of 2000 and 2005 give similar figures for the period 0-6 years prior to the surveys: 871 and 673/100,000 live births respectively.

Beyond the EDHS, population-based studies are few and none are current. The MMR from such studies in specific areas range from 566/100,000 live births in a population-based study in Addis Ababa in 1981-1983, 402 in Jimma town for the period 1986-1990, to 570-725 from Illubabor in 1991, and from 581 to 665 in Butajira during 1987-1996.

The data from various hospitals in the country (Jimma, Ambo, Adigrat, Tikur Anbessa and Gandhi hospitals) generally shows a decreasing trend in MMR over the period 1970 to 2009 (Figure 1). As might be expected the MMR for hospitals are higher than national or community based studies, given that most women who come to facilities are likely to have complicated deliveries. In the recent Ambo Hospital study for example, it was noted that 26% died in less than one hour of arrival and most women were self-referrals.

Figure 1: Trend of Maternal Mortality Ratio in Hospitals, 1970 to 2009

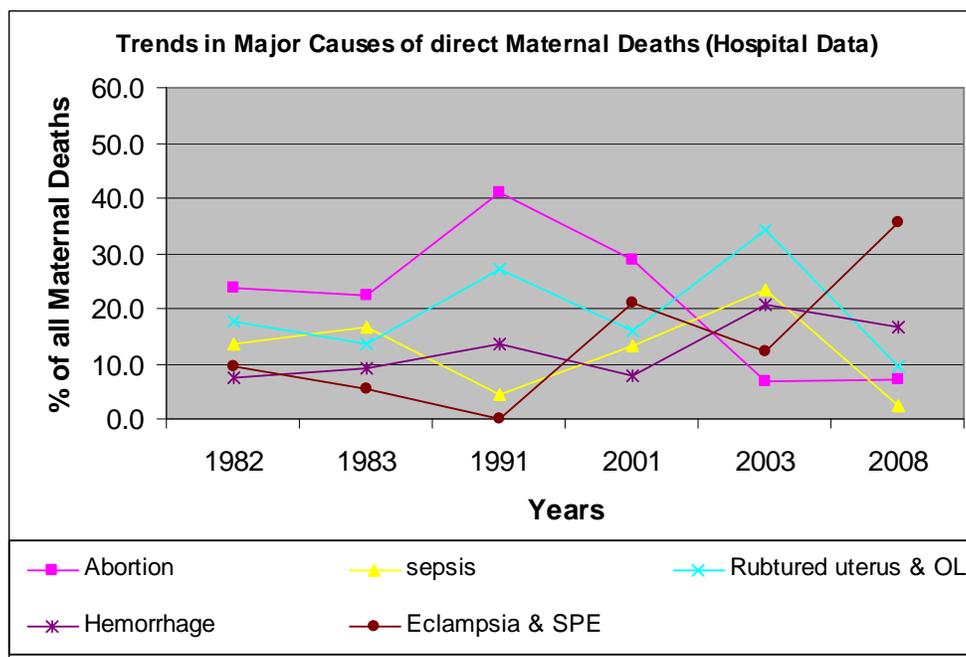


2.1.1 Causes of maternal deaths

As noted from the study of five facilities noted above, the major causes of maternal deaths in Ethiopia are similar to most developing countries: infection, haemorrhage, obstructed labor, abortion and hypertension in pregnancy (Figure 2). There are two major changes noted in the trends for cause of maternal deaths in the last two decades:

- Change in the proportion of deaths ascribed to the different major direct obstetric causes of maternal deaths
- The appearance of HIV and disappearance of infectious hepatitis as an indirect causes of maternal death in recent years;

Figure 2: Trend for Major Causes of Direct Maternal Deaths, 1982 to 2008



A review of hospital data of maternal death shows the trend of each direct obstetric cause (see Figure 2) over years (1982 to 2009):

- ✚ **Abortion:** Maternal death due to abortion shows a declining trend. In earlier hospital and community studies, abortion deaths accounted for 20-50% of direct obstetric deaths. In the analysis of maternal deaths of Tikur Anbessa and Gandhi Memorial Hospitals during the last two years (2007-8), there were 3 deaths after abortion among 42 reviewed maternal deaths or 7% of all the maternal deaths. In the same two hospitals, from 1981-82, there were 37 deaths due to abortion accounting for 26.6% of all the maternal deaths. In Jimma Hospital, abortion used to account for more than 40% of all the maternal deaths in 1980s; in the 1990s, the proportion of unsafe abortion deaths decreased to 26.8%.
- ✚ **Eclampsia:** Unlike deaths due to abortion, eclampsia/ preeclampsia related deaths appear to be increasing proportionately. In the last two years, there were 15 deaths due to eclampsia/ preeclampsia accounting for 35.7% of the maternal deaths in Tikur Anbessa

and Gandhi Memorial Hospitals. In the same two hospitals, in 1981-1983, there were 9 deaths due to eclampsia, 6.5% of the total maternal deaths. The prevalence of eclampsia (number of women with eclampsia/ total deliveries) in Addis Ababa hospitals does not show a marked increase-- varying from 1.2% to 7.1% with most studies indicating a prevalence rate of about 3.3%. On the other hand, the case fatality rate (CFR) within each hospital of eclampsia generally shows an increasing and worrying trend.

- ✚ *Ruptured uterus*: The trend in maternal deaths due to uterine rupture/ obstructed labor in general appears the same over years. But in some studies ruptured uterus and obstructed labor cases are classified under haemorrhage and sepsis; obviously there may be reporting issues. Overall the case fatality rate of ruptured uterus/ obstructed labor shows an increasing trend in each of the hospitals reporting.
- ✚ *Haemorrhage*: Maternal mortality due to haemorrhage lately shows some increment in two hospital studies in Ambo and in Tikur Anbessa and Gandhi Memorial Hospitals. The reason for the high proportion of maternal deaths following haemorrhage at Ambo hospital (34%) might be due to listing maternal deaths with uterine rupture as hemorrhagic deaths.
- ✚ *Infection*: Overall there appears to be a slight decline in hospital maternal deaths due to sepsis. But, when the underlying complications are reviewed in all maternal deaths, infection complications are noted in most of the maternal deaths. For example, among 24 maternal deaths in the last two years at Tikur Anbessa, 12 (50%) of them had infection complications from pneumonia, PID, HIV, or TB.
- ✚ *Hepatitis*: Earlier community and hospital studies of the 1980s in Addis Ababa indicate that infectious hepatitis was a common indirect cause of maternal death accounting for 13-15% of all the maternal deaths. No recent study implicates hepatitis as a cause of maternal deaths.
- ✚ *HIV*: HIV appears in some recent hospital and community studies to account for 3-4% of all maternal deaths. Underreporting is likely as most women's HIV status is unknown.
- ✚ *Malaria*: Jimma and Tigray studies indicate that malaria accounts for up to 23.3% of maternal deaths. Malaria might be an important cause of maternal deaths in endemic areas.

Detailed data available from Attat hospital, 1987-2008, shows a decreasing trend in maternal deaths (over 2000 in 1987 to less than 200 per 100,000 live births in 2008). The major causes of maternal deaths (193) in the years 1987 to 2008 were: ruptured uterus (31%), sepsis (18%), PPH (10%), eclampsia (8%), anemia (8%), malaria (7%) and abortion (4%).

From the recent national EmONC baseline assessment, 2008/9, from 806 facilities, preliminary results show that:

- ✚ Of all obstetric complications treated in the facilities, direct causes accounted for 85% while indirect causes accounted for 15% of the complication.
- ✚ Of direct obstetric complications; obstructed/prolonged labor accounted for 37% followed by retained placenta (22%), severe pre-eclampsia/eclampsia (8%) and severe abortion complication (8%).
- ✚ Of indirect obstetric complications; HIV/AIDS related illness accounted for 66%, followed by anemia (14%) and malaria (13%).

- ✚ Of the total (553) maternal deaths in the facilities, 74% are caused by direct while 26% are caused by indirect obstetric complication. (Note that these facility deaths are a small fraction of the estimated 19,000 maternal deaths nationwide each year)
- ✚ The major causes of facility-based maternal deaths were: obstructed/prolonged labor (17%), ruptured uterus (15%), severe pre-eclampsia/eclampsia (14%), malaria (12%), postpartum hemorrhage (9%) and severe abortion complications (7%).

2.1.2 Fistula—another major outcome of pregnancy

Of the approximately two million women who suffer from obstetric fistula (OF) worldwide, an estimated 27,000 or 14% live in Ethiopia. Based on a prevalence study in seven of the eleven administrative regions that found a rate of 2.2 OF/ 1000 women of reproductive age and 1.5 untreated OF per 1000, women with OF were young, had married early in life through family arrangements or abduction, and had delivered for the first time. Over 95% of fistulas are caused by obstetric complications according to studies in Ethiopia, specifically prolonged obstructed labor. Days in labor ranged from three to eight in one Fistula Hospital study, one to six days in another with a mean of 3.9 days, and from one to nine days with a mean of 4 days in yet another study. In another study distance, financial constraints and poor knowledge of prolonged labor were cited for delays in decision making and transport to facility during labor.

The consequences of fistula in Ethiopia are multiple and devastating: 93% had a stillbirth, 97% of the women had mental health dysfunction, 68% had no living children, nearly 54% were divorced, 13% were not allowed to eat with family members and 41% did not belong to any community association. Among those who became depressed, 54% had suicidal ideation. Many of these issues are not resolved by fistula treatment/repair alone: 3 of 7 treated women in a cross sectional study for example still experienced suicidal ideation; in another Fistula Hospital study over half of treated women still reported persistent urinary incontinence and 38% reported altered fecal continence at follow up. Uncounted other fistula sufferers cannot even access treatment/repair services as the travel to services may be extreme: patients studied in the Addis Ababa Fistula Hospital case series reported having travelled 700 km or more, or walking more than 12 hours on average, in order to reach the hospital for treatment.

2.1.3 Service coverage to ensure maternal health

The service coverage results from the national 2008/9 EmONC baseline assessment showed:

- ✚ The national coverage for basic and comprehensive EmONC facilities is only 11% of the standard set in the UN process indicators (5 facilities per 500,000 populations); it ranges from 2% to 109% among the 11 regions of Ethiopia. Of the surveyed hospitals 14% are basic and 50% are comprehensive while only 1% of the surveyed health centers provides basic EmONC.
- ✚ Institutional delivery is only 7%, ranging from 2% to 63% among regions. 57% of the institutional deliveries are at hospital level. This figure remains almost the same since the 2000 DHS.
- ✚ Met need (defined as the percent of deliveries with complications divided by the 15% of all live births expected to be complicated) is only 6%, with a range from 0.4% to 49% among regions
- ✚ The caesarean section rate at national level is 0.6% with a range from 0 to 9.9% among regions.

There was virtually no progress between 2000 and 2005 in use of antenatal care (ANC) provided by a health professional—the proportion of women who had at least one ANC consultation was 27% in 2000 and 28% in 2005. The proportion of pregnant mothers that received iron supplementation and antihelmithic, according to the 2005 DHS, was 10% and 4% respectively. The studies in 2008/2009 by JSI/L10K project and Save/SNL showed slight improvement in iron supplementation, 15-17%, and deworming during pregnancy (14%).

The role of antenatal care in reducing maternal mortality has been controversial. However the experience of Attat hospital showed that high risk women who use a maternity waiting area (MWA) have decreased maternal deaths and complications as well as lower rates of still births and low birth weight babies. A higher rate of caesarean section is observed for those mothers from MWA than non-MWA.

The use of postpartum care with a skilled care provider among women outside of professional birthing care remains very limited-- 5.5% using such care during 2001- 2005, 5% within the first 48 hours after birth (EDHS).

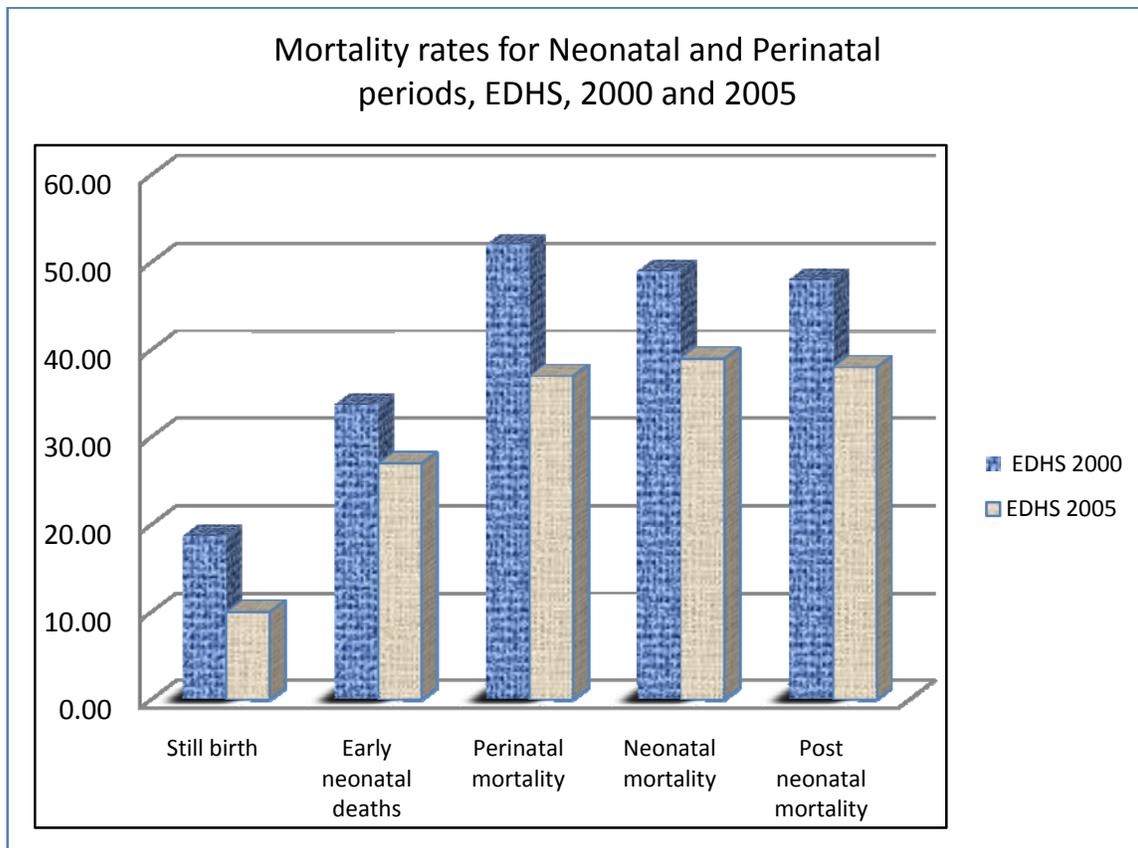
Increased coverage in the use of modern contraceptives by women of reproductive age in the past four years has been shown in a large scale survey in four of the most populated regions: Tigray, Amhara, Oromia and SNNP. The 2008/2009 survey results showed increased use of contraceptives from 15.4% of 2005 EDHS to 31.5% for the same geographic locations. The same survey showed an increase in the use of injectable contraceptives-- from 11.2% to 27.2% and a decrease in use of other methods; the use of pills decreased from 3.6% to 2.6 and Norplant/IUD from 3% to 1.5%.

2.2 Neonatal outcomes

The 2000 Ethiopian DHS reported a neonatal mortality rate of 48.7/1000 live births whereas the rates of the two five year periods preceding that survey were 68.3 and 63.4 /1000 live births respectively. The rate declined by 29% over the last fifteen years preceding the 2000 survey and 23% over the previous 10 years period (1990-1999). Five years later, the EDHS 2005 showed a neonatal mortality rate of 39/1000 live births (18% decline over the 2000 EDHS rate). The rates in the two consecutive five years periods prior to the survey were 42 and 46 per 1000 live births Like EDHS 2000, the rates in 2005 show a 11% decline in neonatal mortality in the last 15 years preceding the survey.

The stillbirth and early neonatal death rates from the EDHS 2005 were 10.4 and 26.9 per 1000 total births respectively, giving an overall perinatal mortality of 37 per 1000 total births. In the EDHS 2000, stillbirth and early neonatal death rates were 18.7 and 33.7 per 1000 total births respectively, making an overall perinatal mortality of 52.4 /1000 total births. Comparing the rates from the two surveys (2005 with the 2000 EDHS), the PNMR has seen a 29% decline from 52/1000 to 37/1000. In both the EDHS of 2000 and 2005 neonatal mortality data show that the proportion of infant deaths occurring in neonatal period is the same-- 50% of infant deaths in the country occur in the neonatal period of life.

Figure 3: Mortality rates for Neonatal and Perinatal periods



Community based data from Southern central Ethiopia, in the district of Meskan-Mareko, Gurage zone, from a continuous demographic surveillance system maintained by the Butajira rural health program for the last two decades, followed a total of 15,667 births for a total of 426,739 person-days during the 10 year period (1987-1996). Early (0-6 days) and late (7-27) neonatal deaths were found to be 305 (19.5 per 1000 live births) and 121 (7.7 per 1000 live births) respectively making an overall neonatal mortality rate (NMR) of 27 per 1000 live births (95%CI: 24.5, 29.5).

Another community based study with 1878 deliveries in rural Amhara region, Ebinat district, South Gondar zone, revealed an overall perinatal mortality rate of 39 per 1000 total births with a still birth rate and early neonatal mortality rates of 22 and 17 per 1000 total births respectively for the years 2006/2007. The neonatal mortality rate was 19 per 1000 live births, similar to the early neonatal mortality, showing that almost all neonatal death occurred during the first seven days of life.

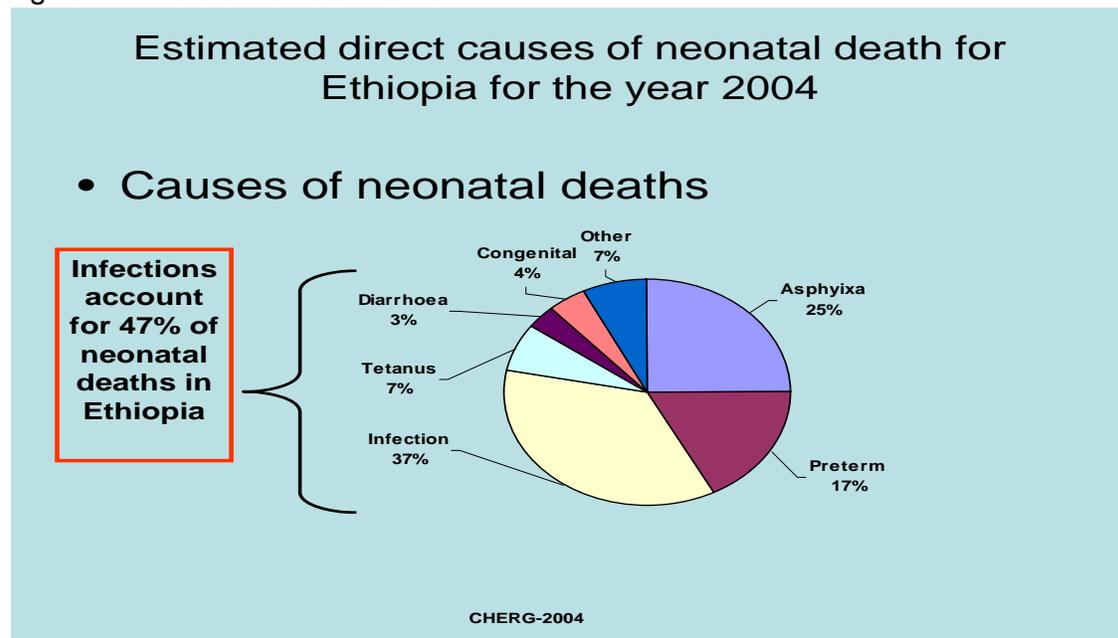
The few institution-based perinatal mortality studies are from teaching hospitals. Note that “perinatal” in these institutional studies refers only to those babies while mothers/babies are in the hospital; hence the perinatal rates are likely an underreporting of the true rate that includes all stillbirths and deaths to babies through the first seven days of life although women who deliver in facilities are likely to have worse outcomes as they are typically complicated deliveries. A four-year retrospective analysis (1985-1989) of 4251 deliveries in Jimma hospital, South-western Ethiopia, reported a perinatal mortality rate of 95.9 per 1000 births. Another retrospective perinatal mortality audit (n= 13,425 births) in the consecutive

ten years (1990-1999), in the same hospital, revealed an overall perinatal mortality rate of 138.9 per thousand total births with annual distribution of PNMR from 75.7/1000 total births in 1991 to 213.3 per thousand total births in 1995. The author generally attributed the inflation of perinatal death to self-referral of high-risk mothers with high probability of bad outcomes to the hospital. The absence of consistent obstetric record system in the hospital at different times could also explain the wide difference across the years.

A retrospective data analysis of perinatal deaths occurring in the Black Lion teaching hospital in 1980 showed a perinatal mortality rate of 52.6/1000 total births. Another five years (1981-1985) retrospective data from 18,675 deliveries in the same teaching hospital revealed a perinatal mortality rate that ranges from 65.5 per 1000 in 1985 to 102.5/1000 total births.

The national EmONC facility baseline assessment in 2008/2009 indicated a perinatal mortality rate of 45/1000 total deliveries.

Figure 4: Causes of neonatal deaths



The most common causes of neonatal deaths in Ethiopia are related to infection as shown in Figure 4.

2.2.1 Service coverage to ensure neonatal health

The EDHS of 2005 reported that last births were protected against neonatal tetanus for 28% of pregnant women, with younger women and those with lower order births (3 and below) slightly more likely to have protection compared with their older or higher order counterparts; those who were the richest and most educated also showed an advantage in level of protection. The 2008/2009 community based surveys by Save/SNL and JSI/L10K projects showed increased coverage to 37% and 56% respectively.

3. Home Practices and Care Seeking in MNH

In the EDHS 2005, 81% of women stated that they did not seek medical care for birth because of their concern that there would be no provider. About 7 of every 10 women stated that money required for treatment, no female health provider, lack of transport, and no one to complete household chores were major issues for them. For 6 of every 10 women distance to a health facility and not wanting to go alone were perceived as problems. A third perceived permission to go for treatment as problematic.

The evaluation of the Making Pregnancy Safer project found that total hospital deliveries at four MPS sites increased over the period of 2001 to 2005, but that poor provider attitude, including harassment, lack of attention to women's complaints, and lack of follow up in labor, were deterrents to use of delivery services. Other critical barriers included: cost, distance, lack of community support mechanisms, loneliness (no companion during labor), traditional belief, lack of awareness of benefits of facility delivery, fear of operation or stitching, fear of referral, and families' preference for home delivery.

Barriers may vary by region, study methodology or interpretation of data. In one rural study in Butajira, south central Ethiopia, which used both qualitative and quantitative means, the decision to seek care for any woman's health problem was found to be highly dependent on the husband's decision (89.3%), and facility care would only be sought after traditional means of help in the woman's immediate area had been exhausted. Younger women in particular were less independent in making decisions regarding visiting a health care centre than older women.

The national Safe Motherhood Community-based Survey (2006), a qualitative study, also found that gender-dynamics governed decision-making and resources with regard to care seeking, with community the first and primary site of care. Ownership of the community over childbirth was considered very important; the authors stated that "the decision over where to give birth is a balance between securing a safe delivery and retaining control and ownership over the process." This desire for community control also influences the timing of referrals and plays into the attribution to evil spirits for poor outcomes in the community rather than to local traditional providers. Type of complication may also influence the type of care sought: bleeding, especially in primiparous women, is seen as normal; prolonged labor may be caused by activity during pregnancy and treated with herbal or spiritual-based interventions.

In contrast to delivery which is seen as the highest risk period, pregnancy is perceived as low risk for the mother and more focused on the fetus, and hence use of antenatal care remains low (28% according the EDHS 2005). Tetanus toxoid injections during pregnancy are an exception (although still only received by a third of women), and are sought for their perceived benefit to the baby and to insure against prolonged or complicated delivery.

With the exception of the immediate post-delivery period when bleeding and retained placenta are linked with the high-risk delivery, the remainder of the postpartum period is viewed also as low risk for mothers but high risk for newborns, especially from malevolent spirits. To guard both, the 40 day rule for home confinement is commonly observed, virtually ensuring low use of any outside care.

Studies have noted that women perceive health providers as insensitive and unduly harsh specifically if they come late for care, or their clothing is dirty; the providers are also felt to be unresponsive to community beliefs and practices. Delivery procedures in particular are perceived as alien and unnatural, and act as a significant deterrent to facility births. Referral may be seen as a measure of incompetence and only exacerbates existing suspicion of incompetence and inefficiency of both health facilities and providers.

The Safe Motherhood Initiative of ESOG, a project with collaboration of FIGO and the Oromia Regional Health Bureau, explored factors that account for under utilization of EmOC services by women living in three woredas of West Shoa zone in 2002. The key factors found most closely linked with health seeking of women in this community were lack of education, low income, traditions, not knowing availability of delivery services, distance from health institutions, poor infrastructure (like road and transportation) and institutional related factors. Other factors contributing to underutilization of services were negative traditional attitude and practices, fear and misconceptions about institutional delivery and negative health provider's attitude towards clients. The community level self help organizations, *Golebe* and *Idir*, where they exist, were found to have strong influence on promoting institutional delivery by making loans available and organizing people to carry the women.

A study conducted in 2006 by Ipas Ethiopia to explore reasons for low utilization of postabortion care (PAC) services in six districts of Amhara, Oromia and SNNPR indicated:

- ✚ Limited knowledge of timing of when pregnancy could occur during the menstrual cycle and after occurrence of abortion
- ✚ Limited knowledge of the consequences of unsafe abortion and warning signs and symptoms of abortion complications and the need for visiting health facilities, along with availability of services
- ✚ Only 28% of the respondents know the legal indications for safe termination of pregnancy
- ✚ Negative attitude of community members for sexual intercourse and pregnancy before marriage
- ✚ Stigma and discrimination of women faced with abortion

The main reason for not visiting any facility for comprehensive abortion care (postabortion and safe abortion care services) services is lack of family-community support.

Unmet need for contraceptives can translate into use of unsafe abortion and maternal death. The 2008/9 study by JSI/L10k project in Oromia, Tigray, Amhara and SNNP regions indicated that the reasons for not intending to use FP in the future are: fertility related reasons (36%); opposition to use (27%); method related reasons (15%) and lack of knowledge (7%).

Immediate newborn care practices of mothers with children 0-6 months determined by the baseline household census of Save the Children /Saving Newborn Lives in East Shoa, West Arsi and Sidama zones of Oromia and SNNP regions in 2008/9, included the following:

- ✚ Newborns are dried and wrapped before the placenta is delivered in 51% of deliveries
- ✚ 54% of newborns placed alone, separate from the mother immediately post-delivery
- ✚ The proportion of newborns bathed after 24 hours is 20%
- ✚ 94% use new razor to cut the cord

- ✚ No substance is applied to the cord in 82% of newborns
- ✚ 29% initiated breast feeding within 1 hour after delivery
- ✚ 36% of mothers did not discard colostrums
- ✚ 7% of newborns had reported illness during first month. 41% sought care for illness-- 25% from hospitals, 5% from health centers and 12% from health posts.

4. Efforts/Experience to Improve MNH at Community/Home Levels

4.1 Health extension worker level

A 2006 study of 60 HEWs from the first batch of HEWs posted at least 6 months in six regions [Amhara, Benshangual and Gumuz, Harari, Oromia, SNNPR and Tigray] of the country, found that staffing was variable with many areas opting to place one HEW per Health Post until they received their full complement. Work accomplished focused primarily on health education and some on environmental health. Family health services, including deliveries, were virtually not implemented; 40% had made referrals but did not have feedback on the patients. In some places (eg., Oromia, Harari, Benshangual and Gumuz) a nurse or other health worker accompanied the HEW and covered the family health functions. Relations with the kebele administration and with community workers (e.g., CHWs, CHAs, and CBRHAs) were not clear. Few HEWs had carried out the community surveys originally planned as the basis for a community level plan of work. From the community perspective, the most pervasive need was for curative care which was not the primary function of the HEW.

In another 2006 community-based study of perceptions of HEP a year after implementation, 58% of 60 female heads-of-household randomly selected in a very remote area of Tigray, said their HEW was very helpful and 93% said they preferred an HEW over a Traditional Birth Attendant to assist them during labor because a HEW seemed more knowledgeable and accessible. Other findings suggested limited HEW households visits (85% received monthly or less frequent visits), and topics covered (only 13% reported use of contraception was discussed).

Two years later, reviewers at mid-term of HSDP III (mid- 2008) were encouraged by the HEP, noting that maximum output was achieved at the half way mark in the program and that the major HSDP objective of universal PHC coverage with HEP by 2007/8 was very likely to be achieved with some exceptions. The review noted that HEP had created a firm and comprehensive health service base to accessing health services at the community level for the first time, increasing the potential health service coverage above 90% in most parts of Ethiopia.

However, with specific focus on maternal health the reviewers stated: “In maternal health, there is need to limit the scope of functions that is expected of the HEWs.” They stated that HEWs are not expected to be involved in delivery care at the moment, and suggested that the HEW should concentrate in supporting TBAs with utilities and training to improve their delivery skills and care. Contrary to the earlier studies, they found that the community does not view the young HEWs as seriously as the older TBAs regarding delivery care. Other constraints noted essentially confirmed earlier study findings concerning inadequacies of HEW training, health post infrastructure and supplies.

The physical targets set for HEP have been reached or are close to being reached according to recent government reports. The Federal Ministry of Health reported in May 2009 that 30,193 HEWs are deployed (exceeding the 30,000 target) and nearly 11,000 of the required 15,000 health posts are constructed (73%).

An independent sample survey (2008/9) of the JSI/L10K project in four regions (Tigray, Amhara, Oromiya, and SNNP), by the end of 2008, found that:

- ✚ 92% of kebeles have at least one HEW
- ✚ About one-fifth of the HEWs had received a 4 week in-service training (post their one year basic training) that included information on safe and clean delivery and a quarter had received training in essential neonatal health care (ENHC)
- ✚ Even so, little work time was used on these services according to the HEWs—a median 2 hours per week for delivery services, 1 hour for ENHC, 4 hours for ANC and 3 hours for PNC. The majority of their time was spent on environmental education and immunization.
- ✚ Over 50% of the health posts had the delivery couch and delivery kits on hand but supplies for maternal health services, such as iron tablets, ergometrine and misoprostol were less available (33%, 7% and 5% respectively).
- ✚ Over 50% of mothers with 0 -11 month old children visited the health post. The visits were mainly for immunization activities. The visit for ANC, deliveries and PNC were reported at 37%, 1.3%, and 5% respectively.
- ✚ The home visit by HEWs for pregnancy check up was reported in 12% of mothers with children 0-11 months.
- ✚ Only 4% of deliveries were attended by HEWs
- ✚ Of women of reproductive age interviewed, 19% had heard of model families and 10% are living in a HH graduated as a model family. 18% of interviewed women in reproductive age want to be a model family
- ✚ HEWs visit improved ANC, delivery, and PNC coverage.
- ✚ Being a model family influenced use of ANC, tetanus immunization, delivery and PNC.
- ✚ Five HEWs, one each from Afar, Tigray, Amhara, Oromia and SNNP who were selected by the respective Regional Health Bureau as an outstanding HEW, participated and presented their activities at the workshop. Of the women with expected pregnancies in the catchment areas of the five health posts of these HEWs, over 50% attended ANC and 37% received TT2. Similarly, of the expected deliveries, only 6% were attended by HEWs and 24% received PNC. A summary of the presentations of these HEWs is shown in the following table (2).

Table 2: Catchment population and nine month performance report of HEWs (5) by region

	Afar	Tigray	Amhara	Oromia	SNNPR
Catchment population	10662	8900	5869	5006	4930
Number of households	2800	1438	850	881	1049
Number of expected pregnancies	533	445	293	250	247
Nine Months (July 2008 – March 2009) report					
Number of health post attendees	585	2052	169	1088	1979
Number of ANC attendees _ 1st visit	53	180	88	88	107
_ 2+ visit	144	324	224	98	141
Tetanus toxoid _ TT1	184	15	14	0	23
_ TT2	160	173	78	145	91
Delivery by _ TBAs	119	30	45	No report	118
_ HEWs	0	45	36	11	12
Number of PNC attendance	80	75	83	59	130

4.2 Community level

Home Based Life Saving Skills (HBLSS) is a multi-pronged approach including both family focused training and community mobilization programs to improve problem recognition and first aid response to maternal and newborn complications and increase timely access to EmONC. A pilot project in Liben woreda, Guji zone of Oromia region showed the following:

- ✚ Improved knowledge and case management of home births
- ✚ Acceptable to families and communities
- ✚ Demonstrated learning transfer and skills uptake by birth attendants
- ✚ Demonstrated improved referral
- ✚ Compatible with HEP strategy – through HEW, VCHW, other community level care givers.

The experience of ESOG community level interventions in the use of birth preparedness and complication readiness (BPCR) plan counseling cards showed increased demand by health providers and pregnant women that could indicate acceptability and need for better care. The team concluded that the wide scale introduction of BPCR practice as a strategy to increase demand for institutional birth maximize coverage of key intervention like AMTSL.

An introductory trial of misoprostol using HEWs for community level prevention of PPH showed misoprostol can be safely and effectively administered by HEWs if preceded by proper training and supervision. Another study of prevention of PPH at home births with TBAs in Tigray region also showed that TBAs can safely and easily administered misoprostol. Women who took misoprostol were 58% less likely to be referred for additional intervention to the health facility because of excessive bleeding.

4.3 Facility level

The 1999 FIGO Save the Mothers Project (a joint effort of the Ethiopian Society of Obstetricians and Gynecologists and the Swedish Society of Obstetrics and Gynecology) initiated its work in West Showa Zone with a needs assessment with the objective of reducing maternal deaths by promoting availability, access and use of EmOC services for women with complications of pregnancy and childbirth. The intervention package included

training physicians and other service providers and provision of equipment, materials and supplies. Despite improvements in coverage resulting from the project (for example total number of patients treated in Ambo hospital for obstetric complications rose from 128 in 1998 to 432 in 2001 and the number of caesarean deliveries rose from 27 to 171 in that same time period), the authors noted, “WSZ [West Showa Zone] does not meet minimum criteria for obstetric coverage set by the UN; the zone therefore needs an additional four hospitals and 18 health centers to be built to provide services for treating obstetric complications.”

In 2000 the FEMME project of CARE aimed to create functional health facilities with trained and competent staff in an enabling environment supporting EmOC service delivery over a 4-year period starting with improvements at facility and district level in Oromiya region. Of the three African countries CARE worked in (Ethiopia, Tanzania, Rwanda), Ethiopia was considered the most challenging because of the significant renovation needed in target hospitals, the inconsistency of available blood for transfusion, and staffing shortages and turnovers among midwives and health assistants in the labor ward. After four years, progress was made in all indicators — proportion of births in EmOC facilities went up from 1.6% to 2%, met need for EmOC services increased from 2 to 4.5%, caesarean section rate increased from 0.2% to 0.4% and case fatality rate reduced from 10.4% to 5.2%—but all remained at significantly lower levels (higher in the case of CFR) than in Rwanda and Tanzania. The authors felt these findings reflected the greater challenges (distance and transport, scarce resources, poor management and accountability in health care and broad inadequacies in the health system) and constraints in accessing health services in the country as a whole.

The Making Pregnancy Safer Initiative, a project of the Federal Ministry of Health with UN organizations, the European Commission and Swedish SIDA, aimed also to increase availability of EmOC in four pilot regions, initiating work in 2001 in four hospitals and 16 health centers. Like the others, the MPS project provided training on basic and comprehensive EmOC, and found that five years later, the trained staff had improved over untrained staff in practical test scores (both knowledge and skills) for infection prevention, newborn resuscitation, vacuum extraction, manual removal of the placenta, partograph, manual vacuum aspirator and AMTSL, but not significantly. Process indicators of numbers of deliveries and caesarean sections had increased, but unreliable supplies of blood, oxygen, supplies for infection prevention, and even water, along with the prevailing scarcity of health care providers and program managers continued to hamper performance.

Addressing human resource gaps to increase EmOC services through provision of needed obstetric and surgical skills to non-specialists builds on previous pilots. One such pilot took place in Tigray between 2004-7 resulting in the successful nine month training of 24 CEmONC teams and upgraded district hospitals and health centers. The evaluation noted enumerable challenges to this effort, starting with the lack of adequate trainers and the caseload needed for practical training. Blood is primarily from family donations and there were frequent stock outs of transfusion supplies—and the challenges go on. The curriculum was heavily biased towards obstetric surgery; more time for basic obstetric care was needed as well as management of normal labor and delivery. The evaluation in 2007 found only 36% of the teams trained in EmOC providing such care post-training. This gap between training and service provision was due to issues of facility preparation at the sites where the teams were posted after training—insufficient equipment and infrastructure (e.g., water, electricity, delivery kits), as well as inadequate management and monitoring.

The assessment reports of Ipas Ethiopia, covering over 300 public facilities, in Tigray, Amhara, Oromia and SNNPR regions indicated an improvement in the capacity of health facilities to manage abortion complications: improved availability of MVAs, trained provider and uterine evacuation services; and improved quality of Postabortion Care (PAC) services (use of MVA, pain medication and Postabortion family planning). The proportion of facilities providing safe abortion care (SAC) services and cases visiting facilities for SAC services increased in the last 2-3 years.

The national EmONC baseline assessment, 2007-2008, also showed that use of specific evidence-based interventions is low: use of parental antibiotics for newborn is 24%; provision of extra care to premature or low birth weight (LBW) is 24% and only 2% of facilities provided magnesium sulphate.

5. Group Work: Conclusions and Recommendations

Workshop participants formed six groups around the periods of maternity and newborn care: pre-pregnancy, pregnancy, labor and delivery (one for mother and one for newborn) and the postpartum period (one for mother and one for newborn). Each group was provided with lists of internationally recommended interventions and requested to select priority intervention for Ethiopia. The groups discussed the status and barriers of implementing those selected interventions at Health Extension and Community/Outreach levels and issues related to referral linkage. A simple frame work was provided to complete group work.

The result of the group work/discussion is presented in full in the following two tables (3&4): the first table (3) lists the priority interventions, status, barriers and conclusions discussed from each group; and the second table (4) is the strategic recommendations with priority interventions by level of care pooled from the whole group work and discussion.

Generally the strategic recommendations fall into four categories to advance community level maternal and neonatal health. They include the following:

Strategic recommendation 1: Develop capacities for self care, improved care seeking behaviour and birth and emergency preparedness

1. Extend the package for a model family to include essential indicators of maternal and newborn health
2. Promote use of a trained health worker including a plan for birth attended by a trained health worker, and early preparations for managing complications by seeking use of skilled care
3. Promote communication between couples and within the household to support birth preparedness and implementation
4. Educate mothers and other family members on recognition and proper care of a sick newborn
5. Include critical MNH issues in the existing community conversation and community dialogue activities
6. Increase knowledge and develop the skills of women to avoid unwanted pregnancy, seek safe abortion care services and recognize abortion complications
7. Increase awareness of signs of labor and emergency for mothers and newborns
8. Promote essential newborn care, awareness of danger signs and timely care-seeking
9. Encourage at least 4 antenatal (ANC) visits, labor/delivery and an immediate postnatal visit (within 24 hours) and a second postnatal visit at 3 days with a trained health worker; all obstetric and neonate emergencies should go to a trained health worker.

10. Design, produce and use a birth and emergency preparedness counseling card in ANC
11. Develop providers' knowledge and communication skills in birth and emergency preparedness

Strategic recommendation 2: Increase awareness of the needs and potential problems of women and newborns during pregnancy, labor and delivery and in the postpartum period

1. Improve couple communication in birth preparedness and joint decision making
2. Improve involvement of men in care of mothers and newborns during pregnancy, labor and delivery and postpartum
3. Increase individual and social understanding of the needs, risks and dangers of pregnancy, childbirth and in the postpartum period for the mother and newborn
4. Establish a system for pregnancy and labor/delivery detection
5. Introduce a system of community epidemiological surveillance and maternal and perinatal death audits
6. Develop capacity of the health system to effectively deliver health education
7. Improve the set up of facilities and providers' skill on counseling couples

Strategic recommendation 3: Strengthen linkages between the community and the health delivery system

1. Strengthen collaboration of HEWs with other health providers, community health workers and traditional birth attendants to ensure the continuity of care and social support
2. Encourage HEWs to attend deliveries with TBAs and to build support within the community to alert the HEW of a birth
3. Develop local means of transport for use during emergencies
4. Build capacity and facilitate use of community level social networks for accessing emergency fund
5. Strengthen the capacity of TBAs in recognizing problems early and when necessary in guiding women to and through the formal health system
6. Establish maternity waiting area in facilities where there is 24/7 CEmONC services

Strategic recommendation 4: Improve access and quality of MNH services

1. Initiate immediate postnatal home visit, within 24hours, a second visit on the third day, and if possible a third visit on day seven by the HEW
2. Expand outlets for family planning including social marketing of contraceptives
3. Prioritize care during labor and delivery (normal birthing) and neonatal resuscitation in the guidelines for HEP
4. Ensure proper competency based training of HEWs on safe and clean delivery and neonatal resuscitation
5. Scale up use of misoprostol by HEWs to manage 3rd stage labor
6. Increase awareness of men and communities of the value of social support during child birth (Encourage presence of companion during labor and delivery)
7. Build communication and counselling skills of HEWs
8. Organize a standard outreach program with proper schedule
9. Improve method mix of contraceptives including Long Acting and Permanent Methods
10. Improve the set up of facilities to be client-friendly
11. Advocate for policies that promote social support during labor
12. Encourage presence of at least two birth attendants (one specifically for newborn)
13. Build interpersonal and intercultural competencies of health providers

Table 3: Priority interventions: status and barriers of implementation			
Priority Interventions	Status of Implementation	Barriers of Implementation	Conclusion
Pre-pregnancy			
<ul style="list-style-type: none"> √ Family planning √ Counselling, testing, prevention and treatment services for STI and HIV √ Nutrition counselling for prevention of malnutrition and anaemia √ Delay marriage/ childbirth to age 18 	<ul style="list-style-type: none"> Ω High unmet need for family planning Ω Limited STI/HIV services at community level Ω Law of age at marriage is not known by most community members, not enacted Ω Improved enrolment of girls in school Ω Long-term/permanent contraceptive services are not available at health post level Ω Most of RH services are provided free of charge in the public facilities Ω Few NGOs worked on revolving scheme to avail contraceptive methods Ω Limited effort in prevention of malnutrition and anaemia 	<ul style="list-style-type: none"> ∞ Need for larger family ∞ Limited male involvement ∞ Gender inequality/power relationship, male dominance. Decisions are made mainly by males ∞ Limited communication at household level about sexual related issues ∞ Misconception, gossips and rumours about FP ∞ Conflicts with community norms/traditional law ∞ Limited access to media ∞ Strategies for communication are not based on BCC ∞ Lack of coordination among different sectors ∞ Lack of method mix of contraceptives ∞ Clients have to travel to a health centre or hospital to get long-term/permanent contraceptive methods and have to wait for long hours ∞ Influence on choice of methods by providers, providers bias ∞ No adolescent friendly service ∞ Inappropriate set up of facilities. Facilities are not client friendly ∞ Poor management of health facilities; lack of accountability and staff motivation 	<ul style="list-style-type: none"> → Problem based education strategy; use traditional media to disseminate information; reach women in culturally sensitive way → Inform and involve opinion leaders and elders → Improve enrolment and minimize drop out of girls from school → School based intervention with information, counselling and services → Reaching out of school adolescents through house to house visit → Counselling and information sharing about where/how to obtain contraceptives → Improve method mix of family planning → Improve counselling skill of HEWs → Outreach program, using market days for education and provision of contraceptives → Pre- arranged schedule for referral to facilities; type of procedures and number of clients → Social marketing of contraceptive methods → Improve service quality; train staff on informed choice, ensure privacy and confidentiality → Improve set up of facilities to be client friendly → Improve/strengthen health facility management
Pregnancy			
<ul style="list-style-type: none"> √ Birth and emergency planning: advice on danger signs and emergency preparedness 	<ul style="list-style-type: none"> Ω Service existed as part of focused ANC provision, most issues addressed Ω Limited knowledge of HEWs 	<ul style="list-style-type: none"> ∞ No BCC tool; lack of message clarity; message did not involve partner, family and community ∞ Pregnant women are not prioritized as a group for timely counselling and visits by the HEWs ∞ No outlaid process for community conversation or community mobilization, how it works 	<ul style="list-style-type: none"> → Capacity building of HEW through on job, in-service, training → Develop BCC tool; standardized and harmonize messages → Implement community conversation and mobilization model for maternal and neonatal health → Improve the emphasis on community mobilization and

	<p>Ω No program of community conversation or community mobilization focusing on maternal health</p> <p>Ω No scheduled outreach program for ANC at kebele level</p> <p>Ω Transport and its cost is unaffordable</p>	<p>∞ Limited awareness of policy makers</p> <p>∞ Lack of involvement of male, mothers in laws and other family members in birth preparedness</p> <p>∞ Low financial capacity of women/ community</p> <p>∞ Problem of finance and means of transportation</p> <p>∞ Low knowledge of health care providers on BPCR</p> <p>∞ Low knowledge and practice of focused ANC</p>	<p>IEC/BCC for birth preparedness and use of referral</p> <p>→ Couple communication and shared decision making for birth planning</p> <p>→ Improve role of male and other influential's, through male group</p> <p>→ Involve men on birth preparedness and emergency readiness, preventing early marriage, early pregnancy, and helping women at the time of labor and delivery</p> <p>→ Extend role of model family to include birth and emergency planning</p> <p>→ Advocacy at CBO and Kebele council level, to increase awareness</p> <p>→ Establish system for pregnancy identification (HEW-VCHW-health committees)</p> <p>→ Highlight benefits of ANC through home visits by HEW/VCHW</p> <p>→ Standardize program for outreach, targeting pregnant women</p> <p>→ Maternity waiting homes where there are facilities providing 24/7 CEmONC services for women with previous c/sections, very poor obstetric history and teen age pregnancy</p> <p>→ Increase knowledge and develop skills of women to avoid unwanted pregnancy, seek safe abortion services and recognize abortion complication</p> <p>→ Use BPCR plan counselling card as a strategy to increase demand for institutional birth</p> <p>→ Address community level attitude of shame on responding to emergency</p> <p>→ Work with communities to develop local means of transport and securing fund for use during emergencies</p> <p>→ Increase capacity of volunteers and CBOs in raising emergency funds and improving communication</p>
Labor and delivery, up to 24 hours			
<p>√ Safe and clean delivery by HEWs</p>	<p>Ω Low attendance of delivery by HEWs</p> <p>Ω Few HEWs trained on safe</p>	<p>∞ Inadequate training of HEWs, pre-and in-service, on safe and clean delivery</p> <p>∞ Lack of kits and other essential supplies for</p>	<p>→ Proper training of HEWs on safe and clean delivery and neonatal resuscitation; emphasis on proper site selection for training with adequate case load, trainers and training</p>

<p>√ Prevention and treatment of PPH using misoprostol</p> <p>√ Immediate newborn care; resuscitation if required, thermal care, hygienic cord care, early initiation of breast feeding</p> <p>√ Emergency newborn care for complication; recognition and taking action for neonatal complications</p>	<p>and clean delivery</p> <p>Ω HEWs are not trained on IMNCI, on assessment of complication/illness</p> <p>Ω Low level of deliveries attended by skilled attendant</p> <p>Ω Low level of institutional deliveries</p> <p>Ω Delay to initiate breast feeding</p> <p>Ω Unhygienic practice of cord care</p> <p>Ω Lack of proper practice on immediate thermal care</p> <p>Ω Limited experience of saving or accessing fund for emergency, through women's association</p> <p>Ω Limited infrastructures, roads and vehicles. The main modality of transport is local stretcher with relay teams</p> <p>Ω Delivery services are mostly free in the public facilities</p>	<p>delivery at health post level</p> <p>∞ Lack of trust/confidence on HEWs skill, young women are not accepted to attend deliveries in the community</p> <p>∞ HEWs are not using TBAs when attending labor and delivery</p> <p>∞ No skilled assistant for those cases that require resuscitation, lack of knowledge on simple steps that can be taken</p> <p>∞ Delay in communicating onset of labor</p> <p>∞ Belief on possible treatment of bleeding through traditional means</p> <p>∞ Low knowledge of availability and benefit of obstetric services at a facility</p> <p>∞ Negative attitude of males and other community members for institutional delivery care</p> <p>∞ Community does not think it is necessary to have a facility delivery</p> <p>∞ Baby not attended to until placenta is expelled</p> <p>∞ Bathing baby seen as good hygiene and cold water good to fatten baby</p> <p>∞ Expression of first milk – colostrums seen as dirty, not fit for babies</p> <p>∞ Lack of awareness of danger signs/ complications</p> <p>∞ Most women seek care from traditional sources</p> <p>∞ Poor transportation and roads impede women from going to health institution</p> <p>∞ Financial problem to access transport services</p> <p>∞ Interpretation of health care financing is disrupting the implementation of fee exempted services</p> <p>∞ Limited communication facilities from household, HEWs and facility level</p> <p>∞ Low level of comfort and companionship at a facility</p> <p>∞ Preference for female providers</p> <p>∞ Improper reception and attitude of providers and other staffs, including support staff , health</p>	<p>materials. Ensure that HEWs observe ten and attend five deliveries during the training</p> <p>→ Prioritize labor and delivery and newborn care in guidelines for HEP</p> <p>→ Support HEW to prioritize high risk populations within the community and schedule work accordingly through in-service training and supportive supervision</p> <p>→ Encourage HEWs to attend deliveries with TBAs, build confidence in the community</p> <p>→ Promote essential newborn care, awareness of danger signs, timely care seeking through HEW, VCHW and kebele advocacy groups</p> <p>→ Empower HEW to organize communities/advocacy groups/fund committees – explore avenues for collective action</p> <p>→ Community conversation on MNH</p> <p>→ Extend the role of model families to discuss maternal issues in a group</p> <p>→ Establish system for labor/delivery notification (HEW-VCHW-health committees), use of communication media like mobile phones or radio, community volunteers or others.</p> <p>→ Improved and use of telecommunication network for emergency purpose at community level</p> <p>→ Use telecommunication rural expansion program to avail telephone for all health posts to enhance communication and referral.</p> <p>→ Radio communication at health post/kebele level</p> <p>→ Use volunteers and other community groups to inform HEWs and facilitate proper care for mother in labor and delivery</p> <p>→ Use community level social network for accessing emergency fund</p> <p>→ Promote and strengthen community-based support groups (idir, ekub) to address issues related to maternal/newborn deaths, for emergency transport, and financial support</p> <p>→ Establish a system of providing vouchers and social insurance schemes for institutional level delivery care</p>
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		<p>facility ∞ Distance from the facility and settlement of the population</p>	<ul style="list-style-type: none"> → Support community level innovative transport services; improved cart, motor cycles, bicycles ambulance and others → Advocacy group to identify and mobilize transport and resources (private partnership) → Ambulance at health centre level → Encourage presence of companion during labor and delivery at the home and facility → Presence of at least two birth attendants (one specifically for the newborn) → Focus on prolonged labor identification, recognition and means to address it at community level → Design and implement a system of motivating staff providing maternity care → Use of Misoprostol by HEWs to manage 3rd stage labor, less pulling on the cord → Increase HEW credibility through improved enhanced service package (e.g. clean and safe delivery, management of infections at community level) and assure quality through regular standardized supportive supervision. → Introduce community data generation for decision making to address maternal/neonatal care and link with regular feedback meetings between community, HEW and health center to identify priority actions. → Establish community epidemiological surveillance and maternal-perinatal audits → Ensure priority indicators related to maternal and neonatal health included in the annual action plan (e.g., HEW assistance at delivery, PNC visit <24 hrs and within first week) → Improve availability of essential drugs and commodities at health post and health centers. → Improve HEW effectiveness by strengthening collaboration with trained TBAs and linkages with selected health facilities → Coordinate with education sector (schools) on MNH promotion
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Postpartum and neonatal care, day 1 to 28 days			
<p>√ Prevention and detection of complication (haemorrhage and sepsis)</p>	<p>Ω Low use of postpartum care</p>	<p>∞ Inadequate number of HEWs</p>	<p>→ Home visits of at least two for Post partum visit of women after delivery on day 1 and day 3, if possible day 7</p>
<p>√ Postnatal care visit within 24 hours after child birth</p>	<p>Ω No or late visit to mothers after deliver by HEWs</p>	<p>∞ High work load of HEWs</p>	<p>→ Provide postpartum vitamin A</p>
<p>√ Counselling on family planning and where/how to obtain contraception</p>	<p>Ω Limited knowledge of HEWs in recognizing and providing first aid to new born illness</p>	<p>∞ HEW are not there at the critical time-24-48hrs after delivery</p>	<p>→ Include as priority in annual action plans and community HMIS (displaying on wall charts and reports)</p>
<p>√ Exclusive breast feeding</p>	<p>Ω Use of misoprostol by HEWs and TTBA's; distribute safely and effectively</p>	<p>∞ Low priority to exclusive breast feeding by HEW, VCHWs and woreda at planning level</p>	<p>→ Make interventions related to postpartum among priorities to be criteria of graduation for model family and topic for CC</p>
<p>√ Thermal care</p>		<p>∞ Low commitment/motivation of HEW</p>	<p>→ Shift some of HEWs task to VCHWs to focus on the doable most critical interventions</p>
<p>√ Hygienic cord care</p>		<p>∞ Lack of skill to recognize illness/infection in a newborn</p>	<p>→ Develop/adapt simple harmonized and standardized messages and BCC tools</p>
<p>√ Extra care for small and LBW</p>		<p>∞ Lack of awareness about the magnitude of newborn illness and the consequences</p>	<p>→ Train HEWs and VCHWs on communication skills and use of BCC tools –focused, skill based and standardized trainings</p>
<p>√ Promote care seeking for illness</p>		<p>∞ Lack of trust and confidence in the skills of HEWs</p>	<p>→ Establish/strengthen partnership for harmonization and coordination among key partners and stakeholders</p>
<p>√ Management of newborn illness</p>		<p>∞ Lack of awareness and knowledge among families and community</p>	<p>→ Communicate using different appropriate approaches and channels to deliver the messages</p>
		<p>∞ Lack of appropriate, simple, harmonized, doable messages and BCC/IEC tools</p>	<p>→ Train mothers and families to recognize and give appropriate care for sick newborn</p>
		<p>∞ Lack of harmonized and coordinated activities amongst partners</p>	<p>→ Improve collaborative working relationships between HEW/HP and HF-critical review meetings between HEW, HW and community</p>
		<p>∞ Misperceptions/myths</p>	<p>→ Increase HEW credibility through improved enhanced service package and competence</p>
		<p>∞ Strong social/cultural beliefs that promote harmful traditional practices- community leaders and influential opinion leaders (TBAs, elder women and men, grand mothers and religious leaders) reinforcing the HTP</p>	<p>→ Promote self help groups such as social fund for support of poor households</p>
		<p>∞ Young mothers in urban areas have peer pressure about breast feeding in relation to mothers weight, breast shape etc</p>	<p>→ Promote and strengthen community based social support groups (ldir, Ekub, insurance) for emergency transport, financial support for medical related expenses</p>
		<p>∞ Health problems of breast</p>	<p>→ Introduce and strengthen community data generation and use for decision making (HMIS)</p>
		<p>∞ Lack of support and encouragement from other family members-husband, grandmother, mother in law</p>	
		<p>∞ Community HMIS and action plan doesn't include the high impact newborn interventions</p>	
		<p>∞ Lack of awareness of available services in health facilities among community</p>	

		<ul style="list-style-type: none">∞ Fistula patients are not well accepted∞ Unsupportive relationships between HEWs and Health Workers∞ Very weak referral linkage between health post and health centers∞ Inaccessible service – physical barriers, transport means and cost, hidden cost of treatment at health facility∞ Lack of appropriate community feedback mechanism on status of health service delivery	
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Table 4: Strategic recommendations with priority intervention area by level of care			
Strategic Recommendations	Priority Intervention Area by Level of Care		
	Household	Community	Health Services
Develop capacities for self care, improved care seeking behaviour and birth and emergency preparedness	<ul style="list-style-type: none"> ≡ Extend the package for a model family to include essential indicators of maternal and newborn health ≡ Promote use of skilled care; planning for skilled birth attendant and prepare for early complication ≡ Promote communication between couples and within the household to support planning and implementation ≡ Educate mothers and other family members on recognition and proper care of sick newborn 	<ul style="list-style-type: none"> ≡ Extend a model of community conversation and community mobilization for MNH; community dialoguing on critical MNH issues at a community level ≡ Increase knowledge and develop skills of women to avoid unwanted pregnancy, seek safe abortion care services and recognize abortion complications ≡ Increase awareness of signs of labor and emergency for mother and newborn ≡ Promote essential newborn care, awareness of danger signs and timely care seeking 	<ul style="list-style-type: none"> ≡ Encourage skilled care for at least 4 ANC visits; delivery and immediate postnatal; postnatal visit; obstetric and neonate emergencies. ≡ Design, produce and use in ANC of a birth and emergency preparedness counseling card ≡ Develop providers'- knowledge and communication skills in birth and emergency preparedness
Increase awareness of the needs and potential problems of women and newborns during pregnancy, labor and delivery and in the postpartum period	<ul style="list-style-type: none"> ≡ Improve couple communication in planning and joint decision making ≡ Improve involvement of men in care for mothers and newborn during pregnancy, labor and delivery and postpartum 	<ul style="list-style-type: none"> ≡ Increase individual and social understanding of the needs, risks and danger of pregnancy, childbirth and postpartum periods ≡ Establish a system for pregnancy and labor/delivery notification. Work with the community so that HEWs identify pregnant mothers early ≡ Introduce community data generation for decision making to address maternal and neonatal health ≡ Introduce a system of community epidemiological surveillance and maternal and perinatal death audits. 	<ul style="list-style-type: none"> ≡ Developing capacity of health system to effectively deliver health education ≡ Improve set up of facilities and providers skill on counseling couples

<p>Strengthen linkages between the community and the health delivery system</p>	<ul style="list-style-type: none"> ≡ Ensure knowledge of danger of prolonged labor and when/where to go for care 	<ul style="list-style-type: none"> ≡ Strengthen collaboration of HEWs with health providers, community health workers and traditional birth attendants to ensure the continuity of care and social support ≡ Encourage HEWs to attend deliveries with TBAs; builds support within the community ≡ Develop local means of transport for use during emergencies and means on how to cover cost ≡ Build capacity and facilitate use of community level social network for accessing emergency fund 	<ul style="list-style-type: none"> ≡ Strengthen the capacity of TBAs in recognizing problems and when necessary to guide women to and through the formal health system ≡ Establish maternity waiting area in facilities where there is 24/7 CEmONC services
<p>Improve access and quality of MNH services</p>	<ul style="list-style-type: none"> ≡ Immediate postnatal home visit, within 24hours, a second visit on the third day, and if possible a third visit on day seven by HEW 	<ul style="list-style-type: none"> ≡ Expand outlets for family planning including social marketing of contraceptives ≡ Prioritize labor and delivery and neonatal resuscitation in the guidelines for HEP ≡ Proper competency based training of HEWs on safe and clean delivery and neonatal resuscitation ≡ Scale up use of misoprostol by HEWs to manage 3rd stage labor ≡ Increase men and community awareness of the value of social support during child birth ≡ Build communication and counseling skill of HEWs ≡ Organize standard outreach program with proper schedule 	<ul style="list-style-type: none"> ≡ Improve method mix of contraceptives including LAPM ≡ Improve set up of facilities to be client friendly ≡ Advocate for establishing policies that promote social support during labor ≡ Encourage presence of companion during labor and delivery ≡ Encourage presence of at least two birth attendants (one specifically for newborn ≡ Build interpersonal and intercultural competencies of health providers

Annex 1: List of working group members

1. Wuleta Betemariam	JSI/L10K
2. Dr Ashebir Gaym	ESOG
3. Dr Solomon Tesfaye	Consultant
4. Meselech Assegid	FMOH
5. Dr Ahmed Abdella	AAU
6. Dr Alemayehu Mekonnen	SPH-AAU
7. Dr Hailemaraim Legesse	IFHP
8. Dr Assaye Kassie	Unicef
9. Dr Nebreed Fessha	Jhpiego
10. Dr Tedbabe Degafu	SCF/USA
11. Brain Mulligan	JSI/SNL
12. Dr Samuel Teshome	SCF/USA
13. Dr Solomon Kumbi	ESOG
14. Dr Mulu Muleta	UNFPA
15. Dr Muna Abdella	UNFPA

Annex 2: Workshop agenda

ADDRESSING COMMUNITY MATERNAL AND NEONATAL HEALTH IN ETHIOPIA: EVIDENCE-BASED RECOMMENDATIONS FOR INCREASED DEMAND, ACCESS TO AND USE OF SERVICES; MAY 12 – 14, 2009

Tuesday May 12, 2009			
Time	Topic	Session Objective	Presenters
Opening and Introduction: Facilitator: Wuleta Betemariam, JSI/LI0K			
09:00 -09:45 AM	Welcome and Opening Address		Dr. Ashebir Gaym President, ESOG
			Dr. Mary Taylor Senior Program Officer, Bill and Melinda Gates Foundation
			Dr. Keseteberhan Admassu Director General, Health Promotion and Disease Prevention Directorate, FMOH
	Workshop objectives and agenda		Dr. Solomon Tesfaye, Consultant, LI0K
Setting the Stage – Causes of maternal and newborn death in Ethiopia Chair : Dr. Leuwi Pearson, UNICEF			
09:45-10:05 AM	Maternal death in Ethiopia	Review maternal deaths -- trend, causes and socio-demographic variables at hospital and community levels	Dr. Ahmed Abdella, Instructor, AAU
10:05-10:25 AM	Newborn death in Ethiopia	Level of mortality and associated factors	Dr. Alemayehu Mekonnen, Instructor, SPH-AAU
10:25-10:45 AM	Discussion		
10:45-11:00 AM	Tea Break		
Plenary I: The HEP – Strategy for addressing maternal and newborn health Chair: Ato Mequanet Tesfu, UNFPA			
11:00-11:30 AM	The HEP: Strategy for addressing M&NH.	Providing broader context of HEP; HEWs actions on M&NH, differences they make in the community.	Messelech Asseged Officer, Agrarian HEP FMOH
11:30-12:00 PM	HEW- role in maternal and newborn health	Role of HEW for ANC, delivery, postnatal care: model families, community volunteers/TBA, HC , referral and others	Dr. Ali Karim M&E Technical Advisor JSI-LI0K
12:00-12:20 PM	Reflection and discussion	Regional Health Bureau Experience	RHBs

12:20-12:30 PM	Framework and work group assignment	Dr. Marge Koblinsky, Senior Technical Advisor, JSI	
12:30-2:00 PM	Lunch		
	Poster session	Exploring more ideas and lessons learned - JHPIEGO - HEWs (Afar, Amhara, Oromia, SNNP, Tigray) - AMREF -IntraHealth	
Group work: Making it work – HEW and her surroundings Lead person: Dr. Tesfaye Bulto, IFHP			
02:00-3:30 PM	Possible HEW efforts with and without referral support		
03:30-4:00 PM	Report out conclusions from working groups		
04:00-4:30 PM	Tea Break		
04:30-5:00 PM	Discussion	Surprises and/or lessons learned	
Wednesday May 13, 2009			
Time	Topic	Session objective	Presenters
Plenary 2: Community care seeking for maternal health Chair: Dr. Solomon Kumbi, AAU			
9:00-9:30	Maternal health	Findings from community based study; National and regional	Dr. Charlotte Warren, Population Council
9:30-9:50	Family planning	Findings from L10K baseline study in Amhara, Oromia, SNNP and Tigray Regions	Wuleta Betemariam, JSI-L10K
9:50-10:10	Post abortion care	Demand and barriers in use of service	Dr. Solomon Tesfaye, Consultant
10:10-10:30	Discussion		
10:30-11:00	Tea Break		
Plenary 3: Community efforts to save mother lives Chair: Dr. Marge Koblinsky, JSI			
11:00- 11:20	Prevention of prolonged labor	Causes of maternal mortality; Outcomes, consequences of prolonged labor/obstetric fistula and care seeking; eclampsia, maternal infection	Dr. Mulu Muleta, UNFPA
11:20-11:40	Danger signs: What families and home providers can do	Danger sign recognition; HBLSS—bleeding, prolonged labor, birth asphyxia; role of TBA	Dr. Lynn Sibley, Emory University
11:40-12:00	Community Perception and action on PPH	PPH: Community level perceptions and actions	Dr. Ashebir Getachew, Ghandi Hospital
12:00-12:20	Prevention of bleeding Use of Miso by HEW	Lessons of pilot interventions at community level	Dr. Tesfanesh Belay, Venture Strategies
12:20-12:30	Discussion		

12:30-02:00	Lunch		
	Poster session	Exploring more ideas and lessons learned - ESOG community intervention - ESOG community study - Use of Miso by TBA's - Health and Mobility (Transport)	
Plenary 4: Community care seeking and efforts to save newborn lives Chair: Professor Bogale Worku, AAU, EPA			
2:00-2:20	Neonatal health services	Household practices in newborn care	Brian Mulligan, SNL
2:20-2:40	Neonatal survival	Community level Interventions for Neonatal Health	Dr. Assaye Kassie, UNICEF
2:40-3:00	Discussion		
3:00-3:30	Tea break		
Group work: Community Intervention Lead person: Dr. Nebreed Fiseha, JHPIEGO			
3:30-4:50	Community mobilization and communication/transport (e.g., Community conversation/dialogue, danger sign recognition, triggers for action, model families and family health card)		
	Maternal care--Delivery, prolonged labor ; PPH and emergent danger signs;- Family planning, post abortion care		
	Newborn care--Birth asphyxia and breast feeding, Infection prevention (thermal care, hygiene)		
4:50-5:30	Report out conclusions from working groups		
6:00-8:00	Reception, Hilton hotel		
Thursday May 14, 2009			
Time	Topic	Session Objective	Presenters
Plenary 5: Supporting community MNH: what support can facilities provide to community efforts/referral support Chair: Dr Tekleab Mekbib, Population Council			
09:00-9:30	Facility support	Results from national EmONC baseline assessment	Dr. Barbara E.Kwast, AMDD
09:30-9:50	Lessons from facility level intervention	Preparing health facilities as pre-requisite for trained health staff assignment	Dr. Muna Abdella, UNFPA
09:50-10:10	Supporting accelerated training of Health Officers on BEmOC training	Process for PI; site assessment findings, training and other intervention	Dr. Nebred Fesseha, JHPIEGO

10:10-10:30	Discussion	
10:30-11:00	Tea Break	
11:00- 1:00	Working groups – Referrals to hospital and health centre levels by pre-pregnancy, pregnancy, labor/delivery, postpartum Discuss conclusions (e.g., barriers, prioritize barriers, conclusions etc)	
	Stratify conclusions by Maternity periods, referral possibilities	
	Poster session	Explore more ideas and lessons learned - <i>Ginnir hospital</i> - <i>Fistula hospital; MW training</i> - <i>Atat hospital</i> - <i>Maternity World Wide</i>
1:00-3:00	Lunch	
	Final recommendations and preparation by small working groups; Pre-pregnancy, pregnancy, labor/delivery, postpartum	
Plenary 6: Recommendations and Closing Chair: Dr. Ashebir Gaym, ESOG		
3:00-5:00	Final report out/recommendations (stakeholders join)	Dr. Nebreed Fisseha, JHPIEGO Dr. Tedbab Digafe, Save – US
	Closing remarks	Dr. France Donnay Senior Program Officer The Bill and Melinda Gates Foundation Dr. Negist Tesfaye Director, Urban Health Extension Program, FMOH

Annex 3: List of workshop participants

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