Road Map for Accelerating the Reduction of Maternal and Newborn Morbidity and Mortality in Liberia

Ministry of Health and Social Welfare

November 2007
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ACRONYMS

AIDS    Acquired immunodeficiency syndrome
ANC    Antenatal Clinic
ARV    Antiretroviral
ASRH    Adolescent Sexual and Reproductive Health
BCC    Behavior Change Communication
CBO    Community Based Organization
CDC    Community Development Council
CHO    County Health Officer
CHT    County Health Team
CHW    Community Health Worker
CM    Certified Midwife
DHS    Demographic and Health Survey
EMOC    Emergency Obstetric Care
EPI    Expanded Program on Immunization
FGD    Focus Group Discussion
FHD    Family Health Division
FP    Family Planning
FPAL    Family Planning Association of Liberia
HBLSS    Home Based Life Saving Skills
HIV    Human immunodeficiency virus
IEC    Information, Education and Communication
IPT    Intermittent Preventive Treatment
ITN    Insecticide Treated Nets
IUD    Intrauterine Device
LDHS    Liberia Demographic and Health Survey
LISGIS    Liberia Institute for Statistics and Geo-Information Services
LPMM    Liberia Prevention of Maternal Mortality
LSS    Life Saving Skills
M and E    Monitoring and Evaluation
MVA    Manual Vacuum Aspirator
MDG    Millennium Development Goals
MMR    Morbidity and Mortality Report
MNH    Maternal and Newborn Health
MOE    Ministry of Education
MOH&SW    Ministry of Health and Social Welfare
MPEA    Ministry of Planning and Economic Affairs
NACP    National AIDS Control Program
PA    Physician Assistant
PHC    Primary Health Care
PMTCT    Prevention of Mother to Child Transmission
PPAG    Planned Parenthood Association of Ghana
PRS    Poverty reduction Strategy Paper
RH    Reproductive Health
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<th>Full Form</th>
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<td>RHMIS</td>
<td>Reproductive Health Management Information System</td>
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<td>RHTC</td>
<td>Reproductive Health Technical Committee</td>
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<td>RN</td>
<td>Registered Nurse</td>
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<td>SEA</td>
<td>Sexual Exploitation and Abuse</td>
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<td>SGBV</td>
<td>Sexual and Gender Based Violence</td>
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<td>SMI</td>
<td>Safe Motherhood Initiative</td>
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<td>SRH</td>
<td>Sexual and Reproductive Health</td>
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<td>STI</td>
<td>Sexually transmitted infection</td>
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<td>SWOT</td>
<td>Strength Weakness Opportunity and Threats</td>
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<td>TM</td>
<td>Traditional Midwife</td>
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<td>TTM</td>
<td>Trained Traditional Midwife</td>
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<td>UNFPA</td>
<td>United Nations Fund for Population Activities</td>
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<td>UNICEF</td>
<td>United Nations Children Fund</td>
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<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
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<td>WHO</td>
<td>World Health Organization</td>
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FOREWORD

Improving the health status of women remains an unmet need for many maternal health and child survival programs in developing countries. Liberia, which is in a state of post conflict transition and moving toward stabilization of its health, social infrastructure and health system, is no exception. The strategies described in this Road Map Document are intended to respond to this unmet need.

As has been amply emphasized in this Road Map Document, the health situation for mothers and their newborns in Liberia is appalling. The key contributing factors include both health and non health factors. In terms of the health factors, Liberia continues to experience an acute shortage of skilled health manpower such that many deliveries are not attended by skilled birth attendants; many births take place in the communities performed by both trained and untrained traditional midwives who are usually not back stopped by skilled birth attendants. The second major health factor is the inadequacy of reproductive health supplies, including drugs and medical supplies at all levels of the health care delivery system. The non health factors include wide spread cultural practices such as female genital mutilation, and the lack of public transport to facilitate the transfer of obstetric emergencies to the health facility.

After more than a decade of research and program interventions to improve maternal and newborn health, the evidence points to affordable measures that can be deployed to significantly reduce the health risks women face during pregnancy and childbirth. Key strategies and interventions have been clearly identified in this Road Map as part of the Government of Liberia’s response to tackling the challenges. The strategies and interventions also clearly outline the roles and responsibilities of the Government, from the national to the county and community levels, and its partners for the implementation of this Road Map.

The Government of Liberia, through the Ministry of Health and Social Welfare, will continue to invest in the health of women and children and calls on all stakeholders and other partners to actively contribute to the implementation of this Road Map.

Walter T. Gwenigale, MD
Minister
Ministry of Health and Social Welfare

Dr. Eugene A. Nyarko
WHO Representative, Liberia
ACKNOWLEDGMENTS

A multi pronged approach was used in the development of the Road Map for the Acceleration of Reduction of Maternal and Newborn Morbidity and Mortality in Liberia.

The process commenced in 2006 under the guidance and leadership of the Reproductive Health Technical Committee (RHTC). The RHTC is the national reproductive health (RH) coordinating body with membership drawn from the Government, civil society, UN Agencies, bilateral institutions, and health training institutions. It is chaired by the Family Health Division (FHD) of Ministry of Health and Social Welfare.

The process commenced with an orientation meeting for the RHTC on February 28, 2006 at the Ministry of Health and Social Welfare. The overall concept of the African Union Road Map Framework for RH was highlighted and the way forward for Liberia was charted. As part of these next steps, an initial National Stakeholders Meeting was held on 30th March 2006. Presentations on the Road Map and the Family Planning Repositioning Framework documents were made by the World Health Organization (WHO) Liberia to create awareness and obtain consensus on the way forward. A small working group was constituted to consult further on the immediate recommended actions leading to the development of the Road Map for Liberia. The group held several coordination meetings. A proposal for the drafting of the Maternal and Newborn Health Road Map was prepared and submitted to WHO and UNFPA. On June 19-30, 2006 a retreat was held to facilitate the development of the Road Map Document. Participants at the retreat were members of the RHTC and some County Health Teams, especially the RH supervisors and local experts in the area of RH. During the retreat, a preliminary draft of the Liberia specific Road Map Document was developed.

The Ministry of Health and Social Welfare, Family Health Division in consultation with the RHTC obtained further financial and technical assistance from the WHO in April 2007 to finalize the development of the Road Map.

We wish to recognize and thank partners, organizations and individuals without whose invaluable contributions the development of this document could not have been made possible.
EXECUTIVE SUMMARY

The population of Liberia is quoted internationally as a relatively young population. Recent health statistics indicate a total population of 3.28 million with approximately 51 percent being less than 21 years. Women and children constitute 45 percent; women of child bearing age (14 – 49 years) being 25% and children less than five being 17%. Approximately 5% of child bearing age women get pregnant annually. The 2006/2007 LDHS estimates the growth rate as 1.5%; however, prior statistics quote the growth rate as 2.6%. The Life expectancy at birth is stated as 41 years for men and 43 years for women. Access to health care services is estimated at 40% (MOHSW, 2006)

Liberia is a country emerging from a series of civil conflicts that left its health care delivery system devastated. Women and children bear the highest burden of ill health and this is particularly true for women of child bearing age, whose unfortunate and unacceptable situation is reflected in the very high level of maternal mortality of approximately 580/100,000 live births. This figure might be a gross underestimation as other studies have put the MMR at much higher rates. However, preliminary results of the 2006/2007 LDHS put the Infant and under-five mortality rates at 72/1000 and 111/1000 live births respectively. The rapid health sector assessment of 2006 indicate that newborn mortality is 66/1000 live births. The contraceptive prevalence rate is approximately less than 13% as per the 2000 LDHS.

Numerous health and non health factors contribute to the high rate of maternal and newborn mortality and morbidity. Health factors include: an acute shortage of skilled human resources, inadequate emergency obstetric care and the lack of referral systems.

Non health factors contributing to maternal and newborn morbidity and mortality include low status of women , particularly in the rural setting, inadequate public transport, lack of clearly defined community based health services mechanisms, poverty, economic difficulties and poor roads.

In response to the escalating incidence and prevalence of maternal and newborn morbidity and mortality, the Ministry of Health and Social Welfare, under the guidance of the RHTC, embarked upon the development of the Maternal Newborn Health Road Map (MNH) for Accelerating the Reduction of Maternal and Newborn Morbidity and Mortality in the country. The vision, guiding principles, general and specific objectives of the MNH Road Map are as follows:

VISION

The outcome of every pregnancy in Liberia will result in a healthy mother and newborn.

GUIDING PRINCIPLES:

- Evidence-based actions
- Integrated and coordinated health system approach
- Complementarities at all levels
- Partnerships
- Clear definition of roles and responsibilities
- Appropriateness
- Transparency and accountability
- Equity and accessibility
- Phased planning and implementation

GENERAL OBJECTIVE

To reduce by the year 2015:
- maternal mortality ratio from 580/100,000 live births in 2000 to 290/100,000
- newborn mortality rate from 66/1000 live births in 2000 to 33/1000

SPECIFIC OBJECTIVES

By the year 2015:
- to create an enabling environment at all levels of health system to support MNH services
- to provide skilled attendants for all RH services at all levels of health care delivery system
- availability and accessibility to quality services by at least 70% of pregnant women and the newborns
- to network with community members through all Community Development Councils (CDC) to strengthen MNH programs

The Road Map is an integral component of the primary health care conceptual framework adopted by the Government of Liberia to drive the delivery of basic, essential and quality RH health care services to the people. The National Health Policy, Health Manpower Development Plan and the Basic Package of Health Services are guiding tools for the development and implementation of the Road Map.
1.0 INTRODUCTION

The Ministry of Health and Social Welfare is the agency responsible for meeting the health and social welfare needs of the Republic of Liberia. Its mandate is to provide and make available, affordable, accessible, reliable and comprehensive health care delivery system which would reach every part of the rural and urban Liberia. In the continuing effort of the Government of Liberia to expand health care services to the majority of the Liberian population, the MOHSW has gradually and successfully shifted from the costly, curative intensive programs of the 1970s to a more cost effective, preventive-oriented primary health care (PHC) program. The country has bought in and adopted the concept of community participation for improved PHC as set forth in the Bamako Initiative. This approach seeks to empower communities to take greater responsibilities for their health and well-being. This coordinated strategy to facilitate communities’ active involvement in PHC is therefore being adapted to the Liberian context.

Liberia’s health policy also places PHC at the heart of its strategy for effective health care delivery and has placed particular emphasis on reproductive health in order to respond to the following reproductive and child health challenges manifested in the following statistics:

- **High Maternal Mortality:** For every 100,000 live births, 580 women of reproductive age die (LDHS, 1999/2000)
- **Infant Mortality:** For every 1000 live births, 157 and 72 infants die according to the LDHS, 1999/2000 & LDHS 2007 respectively
- **Child Mortality:** For every 1000 live births, 235 and 111 children under the age of five die according to the LDHS 1999/2000 & LDHS 2007 respectively

Malaria is now the highest cause of morbidity in the general population and predisposes the pregnant woman, fetus and newborn infant to numerous complications. Complications affecting the woman are severe anemia and hemorrhage; for the fetus, abortion and stillbirth and for the newborn low birth weight and high mortality.

Under the auspices of the National Malaria Control Program of the MOHSW, there are both curative and preventive interventions for malaria available in the country. Current maternal and newborn interventions on malaria include Intermittent Preventive Treatment (IPT), insecticide treated nets (ITNs), and new protocols for malaria case management. However, there are some gaps that need to be addressed; for example, there is low coverage of ITNs because of low supplies.

Anemia in pregnancy is a common in Liberia. It may be due to malaria, low iron nutritional intake, nutritional taboos and common infections like tuberculosis or hook worm infestation.

In 2005, courses were offered in Life Saving Skills (LSS) for nurses, midwives, physician assistants and doctors. Starting in February 2006 a learning needs assessment was done for mid level service providers. Phebe Hospital was prepared as a clinical training center and Training of Trainers(TOT) have been conducted to continue the process of institutionalization of LSS among mid level service providers in Liberia. When this is achieved LSS will be integrated into all mid level health care training curricula in the country.
The rather low quality and quantity of health personnel in Liberia is a serious impediment to the development and improvement of the health care delivery system. The country is experiencing “brain drain” at two levels. Highly trained doctors and nurses leave the public sector to secure employment with private institutions, local and international NGOs, UN organizations and other donors for better salaries and incentives. Secondly, the country experienced an exodus of qualified health workers to other countries during the prolonged civil crisis.

As of 2002, only five of the seven pre-war training institutions are operational. These are: A.M. Dogliotti College of Medicine, The Tubman National Institute of Medical Arts (TNIMA), The Phebe School of Nursing and Midwifery, The Cuttington University College of Nursing and the Mother Patern College of Health Sciences. Currently only two of these institutions, TNIMA and Phebe School of Nursing and Midwifery offer midwifery training.

Formal in-service training has been suspended in Liberia since 1998. Consequently, health care personnel are obliged to meet the demands of their expanded roles without the benefit of refresher courses, in-service education or post graduate studies.

Currently there is no structured health care delivery system at the community level and no strong linkage between clinic and community services to offer holistic and comprehensive reproductive health care services. There is a dire need for a multipurpose community based service provider with a strong support system which includes community ownership and maintains a strong link with the clinic. The difficulties in accessing health facilities (distance, poor condition of roads and bridges, lack of transportation) make it imperative that a minimum package of services be available in the community to make referrals, handle emergencies promptly, provide family planning and other commodities and offer preventive care. This will require advocacy, sensitization, training, provision of equipment and supplies including means of transport (bicycles, motorcycles) and stipends or other incentives to keep volunteer workers motivated.

The Community Based Services (CBS) program has been successfully implemented in Ghana by the Planned Parenthood Association of Ghana for over 23 years. This strategy can be adapted to help address the sexual and reproductive health (SRH) needs and gaps of the Liberia.
2.0 SITUATION ANALYSIS OF MATERNAL AND NEWBORN HEALTH

Globally, each year, nearly 600,000 women die and 50 million suffer illness and disability because of complications associated with pregnancy and childbirth. Reducing maternal mortality requires coordinated long term efforts. Actions are needed within facilities and communities in society as a whole, in health systems and at the level of national legislation and policy. Further, interactions among the interventions in these areas are critical to reducing maternal mortality and to building and supporting momentum for change.

Many factors affect the ability of women and newborns to survive pregnancy and childbirth. Collective and creative strategies are needed to mobilize resources and generate popular support and political will that are critical to achieving sustainable improvements in maternal and newborn health.

It is increasingly recognized that high rates of maternal and newborn mortality are the result of problems in the health sector. However a variety of other issues related to gender, socio-cultural values, and the economic circumstances of households, communities and national political will also contribute to the high rates of maternal and newborn mortality. Other factors which also contribute to maternal and newborn mortality are: delays in recognizing problems, deciding to seek care, reaching care and receiving care. Therefore, to decrease mortality rates, various components of society must mobilize and form collaborative alliances to promote maternal and newborn health and to bring about changes at multiple levels.

The great majority of maternal deaths are preventable when low to moderate technology and education are available. The impact of maternal death and illness on a nation’s economic productivity, health of family and loss of personal fulfillment of the individual woman is considerable.

Liberia’s health care delivery system collapsed due to the 14 years of civil war. The consequences of the war, such as health infrastructure destruction and a high rate of quality staff attrition from the health sector diminished the Government’s capacity to respond to the challenges related to the reduction of maternal and newborn morbidity and mortality.

Liberia, like many African countries in Sub-Saharan Africa, has very high maternal and infant mortality, estimated at 580/100,000 live births and 157/1000 live births respectively (LDHS 1999/2000). These deaths are attributed to direct obstetric causes, namely: obstructed labor, infections, hemorrhage, hypertensive disorders of pregnancy (eclampsia) and the complications of unsafe abortion. Some women who survive these complications develop life-long disabilities such as vesico/recto vaginal fistulae and secondary infertility.

The incidence of teenage pregnancy in the country is a major cause of concern. Many of the teenage mothers are between 12-14 years and are at risk for numerous complications associated with pregnancy. The increasing number of illegal and unsafe abortions adds another horrific dimension to this complex situation. The health needs of adolescents are not being met. Adolescents are more likely to engage in unprotected sex, which can result in pregnancy or sexually transmitted infections (STIs), including
human immunodeficiency virus (HIV). Most adolescent pregnancies are unwanted and are more likely to end in induced unsafe abortions. The attitudes of parents and that of service providers in the public sector who are not willing to provide services to adolescents compound the plight of adolescents. Although there is a National Reproductive Health Policy, it does not adequately address issues related to adolescent reproductive health (RH). There is no National Strategic Framework for adolescent reproductive health. Adolescent SRH services are currently available only through the initiatives of a few NGOs.

Sexually transmitted infections (STI) are also on the increase. From 2000 to 2001, there was a 100 percent increase in the reported cases of STI; from 75,390 to 150,780; (NACP/MOHSW). Even though syndromic management is being carried out in some clinics and a reporting mechanism put in place, there is a need to strengthen such mechanisms.

Prevention of mother to child transmission (PMTCT) of HIV is an important component of the response to reduce maternal and newborn morbidity and mortality. In 2006 the National AIDS and STI Control Program (NACP) in collaboration with the World Health Organization (WHO) conducted a HIV sentinel survey among pregnant women attending antenatal clinics in nine counties of the country.¹ A total of 4216 blood samples were collected and tested for HIV. Out of the total sample, two hundred and thirty nine (239) samples tested positive for the HIV antibodies. The overall prevalence rate was reported as 5.7%. However it should be noted that at the Martha Tubman Hospital in the Eastern Region the prevalence rate was as high as 9.0%. When the HIV prevalence rate among the various age groups was analyzed, women between the ages of 30-34 had the highest prevalence rate at 6.8%. There are approximately 74 sites offering voluntary counseling and testing (VCT) and 15 sites providing prevention of mother to child transmission (PMTCT) services.²

Young girls and women are also subjected to sexual violence, including rape. It is estimated that one half to two thirds of women were sexually assaulted in most communities during the civil crisis. Reports available reveal that all ages from 2 years to 80 years were raped. Gender based violence assessments led by the Ministry of Health and Social Welfare and WHO in 2005 and 2006 revealed that the most common form of sexual gender based violence was rape, which constituted 74% of the various forms of gender based violence identified during the civil conflict.

Antenatal care (ANC) services are not easily accessible to many communities throughout the country. Only 10% of the population lives less than five kilometers from a health facility (National Health Policy, 2000). Many catchment communities are situated seven or eight hours walk from the nearest clinic. Although most women have one or more antenatal care visits, only 15% of deliveries occur in health facilities manned by qualified practitioners. Eighty five percent of all deliveries occur either in the community or in facilities that are not staffed by qualified health care personnel.

Labor and delivery are integral stages of the pregnancy and childbirth period. These stages are also very critical and essential to the successful outcome of a pregnancy. Like other components of maternal, newborn and child health care, there are many shortcomings in Liberia. Eighty five percent of deliveries occur in the communities

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performed by both trained and un-trained traditional midwives. The Safe Motherhood Needs Assessment of 2000 puts the institutional delivery rate at only 11% of all deliveries that occurred in the country at that time and the situation has unfortunately not changed much. The use of the partograph as the monitoring tool is extremely low in nearly all parts of the country. Another limitation is the lack of uniformity in the existing partographs. The MOHSW has printed and disseminated standardized partograph forms to partners, but some partners are using their individually designed partograph forms. There is also inconsistency in using the standardized partograph forms by health facilities which have adopted them.

In terms of obstetric history, most often the history is incomplete, a situation frequently related to the lack of logistics, especially the requisite chart forms or even the record book. Most health facilities have delivery record books or ledgers but the recording of information is often not consistent. Sometimes information recorded on the mother’s home based card, which is kept by the pregnant woman is not recorded in the delivery book, creating information gaps. Information on the newborn is also not completely recorded; sometimes the Apgar score is recorded but not all the variables are noted. The birth process is also not fully documented.

Training in life saving skills at health facilities as well as in homes is currently being implemented by the MOHSW and some local and international NGO. Basic types of equipment are being provided to health facilities to support the management of deliveries. The Life Saving Skills training is just being initiated will certainly have a significant and positive impact on maternal and newborn health.

The needs are numerous, but with proper coordination, they can be adequately addressed. The MOHSW has to ensure that the monitoring and other tools to improve the progress of labor and monitor pregnancy must be strictly adhered to and used at all times. Basic tools like the manual vacuum aspirator (MVA), drugs and supplies, both medical and non-medical items are required to improve the quality of labor and delivery care. Community based initiatives will complement and boost interventions at the level of the health facilities.

Complications leading to disability and death among pregnant women in Liberia are unacceptably high. This appalling health status is characterized by low life expectancy at birth and very high infant, childhood and maternal mortality rates. The lack of proper care for the newborn is one of the leading causes of neonatal death in Liberia. Neonatal mortality is also associated with complications such as fetal distress, prolonged labor, prolapsed cord and other conditions that could be prevented or treated by health care providers. But due to the lack of competent staff, inadequate equipment and supplies, and a poor communication network, this problem continues to be increase.

A Rapid Maternal Health Needs Assessment (LPMM, 2005) conducted in a few health facilities in Montserrado County revealed that the high maternal mortality in Liberia is due to a combination of several factors, prominent factors were the following:

- Lack of adequate transport system
- Inadequate EMOC and support facilities (i.e., screening rooms for pregnant women, lack of or inadequate space for conducting delivery and short stay);
- Inadequate supply of essential drugs and medical commodities;
- Lack of essential equipment for providing services;
• Lack of or limited ability of health workers to perform essential life-saving skills;
• Deep-rooted traditional beliefs and harmful practices affecting quality reproductive health care;
• Poor communication skills and inaccurate information amongst health workers and the population relative to reproductive health care services.

The postnatal care period is of particular significance in enabling Liberia to move towards the attainment of the Millennium Development Goals (MDG). For the most part, care given during the postnatal period is mainly focused on the newborn and not on the mother; although more than 75% of mothers who deliver in health facilities return at least a month following the delivery. The situation is even more hazardous in communities where there are no skilled birth attendants to address complications that may arise. Additionally, there are no facilities available to handle mental conditions, such as depression, related to the postpartum period.

The Safe Motherhood Management Protocols define the minimum level of services to be offered during the postpartum period. But, these protocols remain to be implemented. Current interventions are seriously limited, particularly during the first 24 hrs. Immediately after the delivery the emphasis is placed on hygiene of the mother and ensuring the disposal of the placenta. Micronutrient supplementation has been initiated; though this is still on a very low scale. Post abortion care (PAC) is also very limited and not many health care providers have the required skills to provide PAC. The availability of PAC services are an integral component of the general health care delivery system.

Family Planning, identified as an essential component of primary and reproductive health care plays a major role in reducing maternal and newborn morbidity and mortality in Liberia. Currently Family Planning Services is not well accepted in a pill dominant, Depo-Provera and condom exclusive service, with a national contraceptive prevalence rate of 12.9% (LDHS 2000). With the high infant and maternal mortality rates, low acceptance rates for family planning, high incidence of malnutrition among children and other social problems of poverty, illiteracy and cultural constraints, the need to have service providers trained to offer family planning services through informed choice is paramount.

Currently, service providers are not trained to administer a range of family planning services. Consequently they offer the services that clients request and services that they can administer rather than services based on their assessment. Clients request the methods they know about and like. Given the opportunity to choose what is best suited and available, their choices may be different and diversified. Service Providers skills need to be updated to enable them to provide a full range of services. Additionally, longer lasting methods of contraception should be made available.

The strength, weakness, opportunities and threats (SWOT) analysis is depicted as follows:

**Strengths:**

• Basic health care packages developed and finalized
• RH program in place
• IMCI strategy developed
- National Health Policy developed
- Decentralization of services
- Increased partnership and donor support
- Integration of health programs at service delivery point
- Increased health budget from 8% (2006) to 10% (2007) and rising
- National HIV/AIDS Policy in place, including PMTCT
- 170% increase in existing Health Facilities offering ANC
- National functional RH coordinating body (RHTC)
- Increased political will and commitment
- Female president
- HRH plan developed

**Weaknesses:**

- Inconsistent use of partograph
- Inadequate incentives for health workers
- Health needs of adolescents not identified and not met
- Safe Motherhood Protocol not implemented
- Lack of skilled health service providers
- Inadequate newborn care
- Micronutrient supplementation at low scale
- Inaccessible health facilities
- Poor access to RH information and services
- Poor quality MNH care
- Weak health system (HIMIS)
- Poor referral system and road network
- Unavailability of essential equipment/drugs/supplies
- Lack of family planning national policy
- Inadequate supplies of material resources/logistics
- Inadequate provision of 24 hour services at Health Facilities
- Weak monitoring and evaluation (M &E); including operational research
- Poor linkage between formal health system and community
- Lack of data for adequate planning on adolescent health
- Inadequate training institutions for health professionals
- Inadequate MNH program at community level

**Opportunities**

- Communication facilities
- Increased national security
- Elected government with political will for health
- Donor support
- Revised population policy

**Threats**

- Increased turnover of RH staff
- Gaps in service delivery due to emergency NGOs pull out of Liberia
- Lack of family and community commitment
- Deeply rooted traditional beliefs and harmful practices
- Culture that isolates men’s participation in MNH counseling, emotional support
Gender inequity and inequality

3.0 THE ROAD MAP

The rationale for a Road Map to set the direction for reducing maternal and newborn morbidity and mortality can be quoted below:

- The Road Map is a result of consensus among all partners on the way forward for the next 10 years – long term planning and commitment
- It focuses on two major levels to make a difference: Health care facilities and communities
- It is based on the inseparable relationship between the mother and newborn
- It pays special attention to Emergency Obstetric and Newborn Care or EMONC

3.1. GUIDING PRINCIPLES

The effectiveness and sustainability of the Road Map for acceleration of the reduction of maternal and newborn morbidity and mortality in Liberia will be guided by the following principles.

- Evidence-based actions
- Health system approach
- Complementarities at all levels
- Partnerships
- Clear definition of roles and responsibilities
- Appropriateness
- Transparency and accountability
- Equity and accessibility
- Phased planning and implementation

3.2 VISION

The outcome of every pregnancy in Liberia shall result in a healthy mother and newborn.

3.3 GENERAL OBJECTIVES

To reduce by the year 2015:
- maternal mortality ratio from 580/100,000 live births in 2000 to 290/100,000
- new born mortality rate from 66/1000 live births in 2000 to 33/1000

3.4 SPECIFIC OBJECTIVES

By the year 2015:
- to create an enabling environment at all levels of the health care delivery system to support MNH services
- to provide skilled attendants for all RH services at all levels of health care delivery system
- to ensure the availability, accessibility to quality services by at least 70% of pregnant women and the newborns
- to network with community members through all Community Development Councils (CDC) to strengthen MNH program

### 3.5 Priority Setting – Key problems

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<th>PROBLEM</th>
<th>POLICY ENVIR. LEVEL</th>
<th>HEALTH SERVICE DELIVERY LEVEL</th>
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<tr>
<td>Low use of partograph</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Poor referral system and road network</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of ambulance services</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Broken bridges</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Insufficient motor roads</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safe Motherhood Protocol not implemented</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate incentives for health workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• High attrition rate especially from the public sector</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>• Limited trained health workers in public service</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>• Lack of honesty and commitment</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Poor utilization of health services</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Poor quality of maternal newborn health services delivery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low scale micronutrient supplementation (folic acid, Vitamin A, ferrous sulphate)</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Weak M&amp;E System including operational research</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of M&amp;E tools</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Lack of trained personnel (data collection, analysis, interpretation and dissemination for decision making)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor staff performance</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Lack of financial support to M&amp;E</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Lack of feedback loop</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Lack of Family Planning National Policy</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of skilled maternal and newborn health service providers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate health training institutions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Insufficient number of trained instructional staff</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inadequate instructional materials</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inadequate training facilities</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inadequate financial resources</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate provision of 24 hr health services at health centers</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Poor access to RH information and services</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Unavailability of essential drugs supplies, equipment and logistics</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Health needs of adolescents not identified, hence, not met</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of data for adequate planning for adolescent health</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of adolescent friendly health services and program</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>• Lack of policy on adolescent health</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## STI, HIV and AIDS PREVENTION AND CONTROL SERVICES DURING PREGNANCY AND PERINATAL PERIOD

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POLICY ENVIR. LEVEL</th>
<th>HEALTH SERVICE DELIVERY LEVEL</th>
<th>COMM. LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate HIV/AIDS intervention services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Inadequate education on HIV/AIDS in pregnancy</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Lack of PMTCT services (ART, VCT, infant feeding)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor STI management in pregnancy</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of syphilis testing during pregnancy</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Poor utilization of testing centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor cooperation from private institutions and other programs</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

## KEY ISSUES FOR EMOC

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POLICY ENVIR. LEVEL</th>
<th>HEALTH SERVICE DELIVERY LEVEL</th>
<th>COMM. LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate EMOC facilities Nationwide</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate skilled health manpower for EMOC services</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inadequate equipment/maternal supplies for EMOC</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of blood transfusion services nationwide</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of EMOC information dissemination</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Weak referral system</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

## FAMILY PLANNING

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POLICY ENVIR. LEVEL</th>
<th>HEALTH SERVICE DELIVERY LEVEL</th>
<th>COMM. LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor utilization of family planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Lack of adequate information on family planning</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Myths</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Insufficient commodity/equipment and supplies for family planning</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>• Inadequately trained personnel</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
**MALARIA**

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POLICY ENVIR. LEVEL</th>
<th>HEALTH SERVICE DELIVER Y LEVEL</th>
<th>COMM. LEVEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate malaria prevention services during pregnancy and postpartum period</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>• Poor access to preventive measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor usage and low coverage of IPT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Poor cooperation from private institutions and other programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Improper treatment of malaria</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>• Low compliance among users of antimalarial drugs and ITNs</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>• Inadequate information on malaria prevention and control in pregnancy</td>
<td>x</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**3.6 STRATEGIES AND ACTIVITIES**

**Specific Objective 1:** To create an enabling environment at all levels of the health care delivery system to support MNH services by 2015

**Strategies**

1.1 Improve incentive measures for all health workers at all levels commensurate with their training and experience

1.2 Advocate for increased commitment and budgetary allotment to MNH at all levels

1.3 Ensure equitable distribution and management of trained RH staff to service delivery points including rural communities, advocating for increased commitment and resources for MNH and FP

1.4 Fostering partnership and collaboration among: line ministries, civil society, NGOs, private sectors, Community Based Organizations (CBOs), CDC and other developmental organizations for MNH care in Liberia

1.5 Ensure that MN program activities are planned with County Health Teams, health districts and communities

1.6 Develop, review and update policies that enable health professional to apply skills in RH program
1.7 Ensure that all health facilities are up to standard in keeping with National Health Policy to support RH services

1.8 Integration of primary health care activities (malaria, EPI, HIV/AIDS, STI, Nutrition, etc.)

1.9 Strengthen health management information system

**Specific Objective 2:** To provide skilled attendants for all RH services at all levels of the health care system

**Strategies**

2.1 Strengthen and expand Health Training Institutions (Pre and In-Service)

2.2 Incorporate LSS in curricula of training institutions

**Specific Objective 3:** To ensure the availability, accessibility to quality services by 70% of pregnant women and newborns

**Strategies**

3.1 Increase the number of MNH care facilities

3.2 Provide essential drugs, supplies, equipment and other logistics for MNH service delivery

3.3 Strengthen the use of MNH relevant tools: partograph, MDR, SM Protocol, M&E tools, etc.

3.4 Strengthen the referral system

3.5 Strengthen blood transfusion services

3.6 Improving the availability of and access to quality MNH care including Family Planning

3.7 Strengthen M&E mechanism for quality MNH care services

**Specific Objective 4:** To network with community members through all Community Development Councils to strengthen MNH program

**Strategies**

4.1 Strengthening community awareness for the utilization of MNH services

4.2 Strengthening the capacity of community for the prevention and control of malaria, STI/HIV/AIDS in pregnant women and newborn
4.3 Strengthen the capacity of the community for the utilization of Family Planning services

4.4 Strengthen involvement and build the capacity of community influential groups for the promotion of MNH services

3.6.1 Strategies and Activities at Policy and Environment Level:

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Strategy</th>
<th>Priority Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To create an enabling environment at all levels of the health care delivery system to support MNH services by 2015</td>
<td>1.1 Improve incentives for all health workers at all levels commensurate with their training and experience</td>
<td>1.1.1 Advocate to the higher level for salaries increment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.2 Issuance of certificate of honor or letter of recognition to deserving health workers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.1.3 Award scholarship to deserving health workers</td>
</tr>
<tr>
<td></td>
<td>1.2 Advocate for increased commitment and budgetary allotment to MNH at all levels</td>
<td>1.2.1 Organize advocacy workshop for lawmakers/business community, line ministries, NGOs, civil society and developmental partners to support MNH program in Liberia</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2.2 Develop and implement an advocacy communication plan for MNH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.2.3 Establish National MNH week</td>
</tr>
<tr>
<td></td>
<td>1.3 Ensure equitable distribution and management of trained RH staff to service delivery points including rural communities</td>
<td>1.3.1 Reinstate mandatory rural service program for training institutions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3.2 Deploy trained RH staff to underserved community</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3.3 Establish additional health training institutions in underserved regions: Southeast, Western Regions</td>
</tr>
<tr>
<td></td>
<td>1.4 Fostering partnership and collaboration among: line ministries, civil society, NGOs, private sectors, CBOs, CDC and other developmental organizations for MNH care for Liberia</td>
<td>1.4.1 Develop Memorandum of Understanding with partners, stakeholders for MNH program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.4.2 Establish MNH task force</td>
</tr>
<tr>
<td></td>
<td>1.5 Ensure that MN program activities are planned with county health team, health districts and communities</td>
<td>1.5.1 Organize MNH micro planning workshops with Counties, health districts and communities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.5.2 Monitor and supervise micro plan activities</td>
</tr>
<tr>
<td></td>
<td>1.6 Develop, review and update policies that enable health professional to apply skills in RH program</td>
<td>1.6.1 Hold consultative meeting/workshop to review the existing RH policy and update to reflect current situation</td>
</tr>
<tr>
<td></td>
<td>1.7 Ensure that all health facilities are up to standard in keeping with National Health Policy to support RH services</td>
<td>1.7.1 Develop checklist to ensure uniformity in reporting and that facility can accommodate MNH services</td>
</tr>
<tr>
<td></td>
<td>1.8 Integration of primary health care activities (malaria, EPI, HIV/AIDS, STI, Nutrition, etc.)</td>
<td>1.8.1 Develop and disseminate protocols and guidelines in MNH services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.8.2 Hold coordination meeting with service providers</td>
</tr>
<tr>
<td></td>
<td>1.9 Strengthen health management information system</td>
<td>1.9.1 Establish database system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.9.2 Train data managers/service providers</td>
</tr>
</tbody>
</table>
### 3.6.2 Strategies and Activities at Health Service Delivery Level:

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Strategy</th>
<th>Priority Activity</th>
</tr>
</thead>
</table>
| 2. To provide skilled attendants for all RH services at all levels of the health care system | 2.1 Strengthen and expand Health Training Institutions (Pre and In-Service) | 2.1.1 Conduct rapid needs assessment  
2.1.2 Provide institutional support: training, material, infrastructural support  
2.1.3 Train instructors to provide competency based training  
2.1.4 Increase and improve the training of MNH staff including skills in EMONC, family planning, adolescent health and development, STI diagnosis and treatment and MNH care management |
|                                                                                  |                                                                          | 2.2 Incorporate LSS in curricula of training institutions  
2.2.1 Review and update curricula of training institutions  
2.2.2 Disseminate revised curricula to training institutions |
| 3. To ensure the availability, accessibility to quality services by 70% of pregnant women and newborns | 3.1 Increase the number of MNH care facilities | 3.1.1 Rehabilitate nonfunctional health facilities in underserved communities  
3.1.2 Advocate and mobilize resources for the construction of additional health facilities in underserved communities |
|                                                                                  |                                                                          | 3.2 Provide essential drugs, supplies, equipment and other logistics for MNH service delivery  
3.2.1 Upgrade health facility to provide minimum package for MNH care  
3.2.2 Procure essential drugs, supplies, equipment and other logistics  
3.2.3 Establish a supply management system at all MNH service delivery points |
|                                                                                  |                                                                          | 3.3 Strengthen the use of MNH relevant tools: partograph, MDR, SM Protocol, M&E tools, etc.  
3.3.1 Review and update MNH tools  
3.3.2 Disseminate the revised tools  
3.3.3 Train RH staff in the use of the tools  
3.3.4 Establish RH data base at national and county levels to monitor and evaluate implementation of MNH activities |
|                                                                                  |                                                                          | 3.4 Strengthen the referral system  
3.4.1 Establish/strengthen communication system between clinics, health centers and referral hospitals  
3.4.2 Establish/strengthen transport system between community health center and referral hospitals (motorcycle ambulance and vehicle ambulance)  
3.4.3 Reinforce training of MNH ambulance staff  
3.4.4 Roll out community financial scheme to support MNH referral |
|                                                                                  |                                                                          | 3.5 Strengthen blood transfusion services  
3.5.1 Reinforce blood transfusion services at all referral MNH facilities: health centers and hospital  
3.5.2 Advocate and mobilize resources for the establishment of blood transfusion centers at national and regional levels  
3.5.3 Train MNH staff in blood transfusion services |
|                                                                                  |                                                                          | 3.6 Improving the availability of and access to quality MNH care  
3.6.1 Review and update existing ANC minimum package  
3.6.2 Introduce focused ANC including family planning, PMTCT and prevention of malaria in pregnancy |
### 3.6.3 Strategies and Activities at Community Level:

<table>
<thead>
<tr>
<th>Specific Objective</th>
<th>Strategy</th>
<th>Priority activities</th>
</tr>
</thead>
</table>
| 4. To network with community members through all Community Development Councils to strengthen MNH programs | 4.1 Strengthening community awareness for the utilization of MNH services | 4.1.1 Conduct health education on MNH  
4.1.2 Increase IEC/BCC among community members (pregnant women and families, etc.) for the improvement of MNH  
4.1.3 Conduct focus groups discussions  
4.1.4 Develop/Distribute audio visual aids  
4.1.5 Sensitize communities on the identification on the referable cases (pre and post natal hemorrhage, severe malaria anemia, etc.)  
4.1.6 Educate pregnant women, families and communities on the danger signs of MNH |
|  | 4.2 Strengthening the capacity of community for the prevention and control of malaria, STI/HIV/AIDS in pregnant women and newborn | 4.2.1 Conduct training for CHWs and TTM/TMs  
4.2.2 Assist community develop a sustainable approach to support MNH activities  
4.2.3 Provide logistics, equipment, material and supplies at the community level for MNH services  
4.2.4 Distribute IPTs, ITNs and condoms in the community |
|  | 4.3 Strengthen the capacity of the community for the utilization of Family planning services | 4.3.1 Conduct health education on family planning utilization  
4.3.2 Conduct counseling on the proper selection/usage of the family planning methods  
4.3.3 Distribute family planning supplies/equipment on a regular basis |
|  | 4.4. Strengthen involvement and build the capacity of community influential groups for the promotion of MNH services | 4.4.1 Identify and train traditional healers, Zoes and TMs  
4.4.2 Identify and train youth leaders, women groups, community leaders and religious leaders  
4.4.3 Have meeting with influential groups and discuss MNH aims  
4.4.4 Identify the cultural beliefs and practices as they relate to MNH  
4.4.5 Select and improve cultural practices that enhance/promote safe MNH care  
4.4.6 Increase IEC/BCC on the elimination of harmful cultural practices |
3.7 Monitoring and Evaluation

Four groups of Indicators were selected for monitoring the implementation of the Road Map as follows:

Group 1: Impact Indicators (Effects)

Group 2: Coverage indicators

Group 3: Availability of services process indicators

Group 4: Policy commitment indicators

Group 1: Impact Indicators (Effects)

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Definition</th>
<th>Frequency of data collection/reporting</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Maternal Mortality Ratio</td>
<td>Number of maternal deaths for 100,000 live births.</td>
<td>Every 10 years during the DHS the General Census of population</td>
<td>MPEA/LISGIS</td>
</tr>
<tr>
<td>2</td>
<td>Neonatal Mortality Rate</td>
<td>Number of babies dead during the neonatal period among the live births</td>
<td>Every 5 years during the DHS</td>
<td>MPEA/LISGIS/MOH</td>
</tr>
<tr>
<td>3</td>
<td>Fertility Rate</td>
<td>Mean number of children by women at the end of their procreative period</td>
<td>Every 5 years during the DHS</td>
<td>MPEA/LISGIS</td>
</tr>
</tbody>
</table>
## Group 2: Coverage Indicators

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Definition</th>
<th>Rhythm of calculation or data collection</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Birth rate within Emergency Obstetric Care (EOC) facilities</td>
<td>Number of births occurred within EOC facilities among the total number of intended births</td>
<td>annually</td>
<td>FHD/MOH</td>
</tr>
<tr>
<td>2</td>
<td>Coverage of obstetric needs</td>
<td>Number of obstetric complications managed within EOC facilities among the total number of intended births X 15%</td>
<td>annually</td>
<td>FHD/MOH</td>
</tr>
<tr>
<td>3</td>
<td>Case fatality rate of obstetric complications within EOC facilities</td>
<td>Number of maternal deaths related to obstetric complications among all obstetric complications received within EOC facilities</td>
<td>annually</td>
<td>Vital Statistics/FHD/MOH</td>
</tr>
<tr>
<td>4</td>
<td>Rate of caesareans section</td>
<td>Number of pregnant women delivered by c-section among the total number of intended births</td>
<td>annually</td>
<td>Vital Statistics/FHD/MOH</td>
</tr>
<tr>
<td>5</td>
<td>Incidence of neonatal tetanus</td>
<td>Number of neonatal tetanus cases among the total number of live births during a period</td>
<td>annually</td>
<td>Vital Statistics/ MOH</td>
</tr>
<tr>
<td>6</td>
<td>Adequate coverage of pregnant women by at least 4 ANC</td>
<td>Number of pregnant women that received 4 ANC visits according to the norms among the total of intended pregnant women</td>
<td>annually</td>
<td>FHD/MOH</td>
</tr>
<tr>
<td>7</td>
<td>Coverage of 2 doses of Tetanus Toxoid (TT2) for pregnant women</td>
<td>Number of pregnant women that received at least 2 doses of TT among the total of intended pregnant women</td>
<td>annually</td>
<td>EPI/FHD/MOH</td>
</tr>
<tr>
<td>8</td>
<td>Proportion of pregnant women that sleep under ITNs</td>
<td>Number of pregnant women that slept under ITN the night before the survey among the total number of pregnant women included in the survey</td>
<td>Every 5 years during the DHS or during special survey such as evaluation of Abuja targets</td>
<td>NMCD/MOH</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Details</td>
<td>Frequency</td>
<td>Source(s)</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>9</td>
<td>Proportion of the population that knows the danger signs during pregnancy, childbirth and neonatal period</td>
<td>Number of interviewed persons (all ages and sex) that correctly cited 3 danger signs of obstetric and neonatal complication among the total population interviewed</td>
<td>Every 5 years during the DHS or during special survey</td>
<td>BPRD/MOH/MPEA</td>
</tr>
<tr>
<td>10</td>
<td>Rate of skill attendance at childbirth</td>
<td>Number of deliveries assisted by qualified personnel (Doctor, Midwife, Nurse) among the total intended deliveries</td>
<td>Annually</td>
<td>FHD/MOH</td>
</tr>
<tr>
<td>11</td>
<td>Proportion of Low Birth Weight (LBW)</td>
<td>Number of new born with a weight under 2500 g among the total number of live births</td>
<td>Annually</td>
<td>FHD/MOH</td>
</tr>
<tr>
<td>12</td>
<td>Percentage of stillbirths</td>
<td>Number of stillbirths among the total number of births</td>
<td>Annually</td>
<td>FHD/Vital Statistics/MOH</td>
</tr>
<tr>
<td>13</td>
<td>Proportion of pregnant women and/or delivered women that received prophylactic ARV within the PMTCT program</td>
<td>Number of delivered women that received prophylactic ARV according to the national protocol among the total number of seropositive pregnant women during the period</td>
<td>Annually</td>
<td>NACP/MOH</td>
</tr>
<tr>
<td>14</td>
<td>Proportion of women that experienced obstetric fistula and received care</td>
<td>Number of women that suffer from obstetric fistula and have received care among the total number of intended births</td>
<td>Annually or survey</td>
<td>Vital Statistics/FHD/MOH/VVF/JFK</td>
</tr>
<tr>
<td>15</td>
<td>Contraception Prevalence (all modern methods)</td>
<td>Percentage of women in reproductive age (or the partner) that uses a modern contraceptive method</td>
<td>Annually</td>
<td>FPAL/FHD/MOH/UNFPA</td>
</tr>
<tr>
<td>16</td>
<td>Rate of exclusive breastfeeding among children of 6 months age</td>
<td>Number of children of 6 months age exclusively breastfed among the total number of children of 6 months</td>
<td>Every 5 years during DHS or during special survey preferably on 2008-2009</td>
<td>FHD/BRD/MOH</td>
</tr>
<tr>
<td>17</td>
<td>Rate of girls education (First part of secondary school)</td>
<td>Number of girls that have continued education until the end of the first part of secondary school among the total</td>
<td>Annually</td>
<td>MOE</td>
</tr>
<tr>
<td>18</td>
<td>Vitamin A during postpartum period</td>
<td>Number of delivered women that have received vitamins. A among the total number of women delivered</td>
<td>Annually</td>
<td>EPI/FHD/MOH</td>
</tr>
</tbody>
</table>
### Group 3: Availability of Services Process Indicators

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Definition</th>
<th>Rhythm of calculation or data collection</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proportion of PMTCT sites that are functional</td>
<td>Number of PMTCT sites that are functional among the total number of health facilities</td>
<td>Every quarter</td>
<td>NACP/MOH</td>
</tr>
</tbody>
</table>
| 2  | Availability of EOC facilities. Norms: - 4 basic EOC facilities / 500 000 inhabitants - 1 comprehensive EOC facility / 500 000 inhabitants | Number of Essential EOC facilities / 500 000 inhabitants  
Number of complete EOC facilities / 500 000 inhabitants | Every quarter | LPMM/FHD/MOH |
| 3  | Proportion of first contact facilities with specific human resources (midwife, nurse) | Number of first contact facilities with specific human resources among the total number of existing first contact | Every quarter | MPEA/FHD/MOH |
| 4  | Proportion of second level facilities with specific human resources (doctor with competency in obstetrics and anesthesia) | Number of second level facilities with specific HR among the existing total number of second levels facilities | Every quarter | FHD/MOH |

### Group 4: Policy Commitment Indicators

<table>
<thead>
<tr>
<th>No</th>
<th>Indicators</th>
<th>Definition</th>
<th>Rhythm of calculation or data collection</th>
<th>Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Proportion of the State budget allocated to the Health Sector.</td>
<td>Health Sector budget amount reported to the total budget of the state during the same year</td>
<td>Every quarter</td>
<td>MOH/MPEA/MOF/BOB</td>
</tr>
<tr>
<td>2</td>
<td>Proportion of funds allocated to maternal and neonatal health including family planning</td>
<td>Budget allocated to MNH including FP reported to the global health sector budget during the same year</td>
<td>annually</td>
<td>MOF/MOH/MPEA</td>
</tr>
</tbody>
</table>
4.0 IMPLEMENTATION PLAN

The implementation of the Road Map will be based on an integrated and coordinated plan, highlighting the broad activities and the period of implementation.

**Phase I: Planning and jumpstart Phase – 2007 – 2008**

- Hold National Stakeholders meeting
- Finalize and launch Road Map
- Conduct needs assessments
- Review MNH/RH standards and norms
- Review and assemble training materials and equipment
- Develop County operational MNH Micro plans
- Enforce coordination mechanisms at all levels
- Develop advocacy plans and mobilize resources for MNH care services
- Incorporate MNH into ongoing PRS process

**Phase II: Mid Implementation Phase – 2009 – 2012**

- Implement advocacy plans considering staff motivation and deployment
- Build capacity of service providers and training institutions
- Review and implement MNH Minimum Package of care, integrating with minimum package for child survival, family planning strategic plan, nutrition for health services, etc
- Upgrade service delivery points
- Curricula updates of health training institutions
- Strengthen M&E System, including supply management system
- Regular monitoring and supervision of activities
- Strengthen referral mechanisms between service delivery points and communities
- Implement community MNH programs
- Conduct mid-term evaluation (2010) and use findings to adjust programming as necessary

**Phase III: Concluding and Ending Implementation Phase: 2013 – 2015**

- Finalize program adjustments as needed and obtain final scaled up implementation
- Conduct end of implementation evaluation (2014)
- Prepare country MDG Report
- Finalize and submit report (2015)
### Specific Objective 1: To create an enabling environment at all levels of health system to support MNH Services

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Activity</th>
<th>Target</th>
<th>Lead Agent(s)</th>
<th>Objectively Verifiable Indicator</th>
<th>Means of Verification</th>
<th>Cost</th>
<th>Remarks/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Improve incentives measures for all health workers at all levels commensurate with their training and experience</td>
<td>1.1.1 Advocate to the higher level for salaries increment</td>
<td>GOL</td>
<td>MOHSW</td>
<td>Proportion of health workers in GOL public sector</td>
<td>Salary statements</td>
<td>1500</td>
<td>Nine separate Consultations/meetings for 30 persons each @ $5 = 1,350 and stationery @ $150</td>
</tr>
<tr>
<td>1.1.2 Issuance of certificate of honor or letter of recognition to deserving health workers</td>
<td></td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Annual honoring ceremonies</td>
<td>Honor certificates</td>
<td>13,625</td>
<td>Consultancy for appraisal system @ $10,000; 100 certificates @ $125; county annual program @ $3,000; central MOHSW @ $500</td>
</tr>
</tbody>
</table>
| 1.1.3 Award scholarship to deserving health workers | | Nationwide | MOHSW, WHO | Proportion of fellows awarded GOL health scholarships | Fellowship forms/records | 539,550 | All cadres of health professionals:  
- Nursing/midwifery  
- Lab. Tech.  
- Nurse Anesthetists  
- Physician Assistants  
- Medical doctors  
Approximately a total of 220 students per training cycle including MPH |
<table>
<thead>
<tr>
<th>1.2 Advocate for increased commitment and budgetary allotment to MNH at all levels</th>
<th>1.2.1 Organize advocacy workshop for lawmakers/business community, line ministries, NGOs, civil society and developmental partners to support MNH program in Liberia</th>
<th>Nationwide</th>
<th>MOHSW</th>
<th>MNH Program funding source/level</th>
<th>Grant agreements; National budgets</th>
<th>11,650.00</th>
<th>Parliament, business houses, government agencies central level @ $2,150 each; civil society @ county level @ $3,050 for a cycle of five meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.2 Develop and implement an advocacy communication plan for MNH</td>
<td></td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Plan available</td>
<td>Copy of plan</td>
<td>10,000.00</td>
<td>Consultancy @ $5,000; activities @ $5,000</td>
</tr>
<tr>
<td>1.2.3 Establish National MNH week</td>
<td></td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>MNH Week program</td>
<td>Copy of program; press releases</td>
<td>210,000.00</td>
<td>Legislation @ $10,000; national weekly celebrations @ $200,000 @ $40,000 per year</td>
</tr>
<tr>
<td>1.3 Ensure equitable distribution and management of trained RH staff to service delivery points including rural communities</td>
<td>1.3.1 Reinstate mandatory rural service program for training institutions</td>
<td>Health Training Institutions</td>
<td>MOHSW</td>
<td>Training program curricula</td>
<td>Copy of curricula</td>
<td>45,000.00</td>
<td>Medical College plus eight Paramedical schools officially recognized at $5,000 each to upgrade curriculum.</td>
</tr>
<tr>
<td>1.3.2 Deploy trained RH staff to underserved community</td>
<td></td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Number of trained health workers living &amp; working in rural setting</td>
<td>Attendance records; employment records</td>
<td>192,000.00</td>
<td>All cadres of health professionals at various TOP UP motivational rates yearly: CM/Lab tech/x-ray tech @ $200 each; PA/RN @ $300 each; MDs at $600 each</td>
</tr>
<tr>
<td>1.3.3 Establish additional health training institutions in underserved regions: Southeast, Western</td>
<td>Underserved areas</td>
<td>MOHSW</td>
<td>Number of health training institutions built in underserved areas</td>
<td>Construction reports</td>
<td>1,000,000.00</td>
<td>One each in Zwedru and Tubmanburg @ $5,000,000 each</td>
<td></td>
</tr>
<tr>
<td>1.4 Foster partnership and</td>
<td>1.4.1 Develop Memorandum of</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>MOUs &amp; partnership</td>
<td>Copy of MOUs; minutes of</td>
<td>1,000.00</td>
<td>Legal consul services</td>
</tr>
<tr>
<td>collaboration among: line ministries, civil society, NGOs, private sectors, CBOs, CDC and other developmental organizations for MNH care for Liberia</td>
<td>Understanding with partners, stakeholders for MNH programs</td>
<td>meetings</td>
<td>meetings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1.4.2 Establish MNH task force</strong></td>
<td>Nationwide</td>
<td>MOHSW; Partners</td>
<td>MNH Task force available</td>
<td>Records on task force</td>
<td>3,000.00</td>
<td>Refreshment and documentation of meetings at all levels</td>
<td></td>
</tr>
<tr>
<td><strong>1.5 Ensure that MNH activities are planned with county health team, health districts and communities</strong></td>
<td>Nationwide</td>
<td>MOHSW; WHO</td>
<td>Number of counties with MNH micro plans</td>
<td>Copies of plans</td>
<td>95,000.00</td>
<td>Central planning @ $3,800; County planning @ $6,080 per county x 15 counties</td>
<td></td>
</tr>
<tr>
<td><strong>1.5.2 Monitor and supervise MNH micro planning activities</strong></td>
<td>Nationwide</td>
<td>MOHSW; partners</td>
<td>Supervisory plans</td>
<td>Copies of plans</td>
<td>4,001.00</td>
<td>GOL national per diem rates/cadre of staff and fuel; more fuel for far off counties</td>
<td></td>
</tr>
<tr>
<td><strong>1.6 Develop, review and update policies that enable health professional to apply skills in RH program</strong></td>
<td>RHTC</td>
<td>MOHSW; WHO</td>
<td>Revised RH policy document</td>
<td>Copy of document</td>
<td>10,000.00</td>
<td>Consultancy @ $5,000; activities @ 5,000.00</td>
<td></td>
</tr>
<tr>
<td><strong>1.7 Ensure that all health facilities are up to standard in keeping with national health policy to support RH services</strong></td>
<td>RHTC</td>
<td>MOHSW; WHO</td>
<td>Revised RH standards available</td>
<td>Copies of RH documents</td>
<td>4,050.00</td>
<td>Consultative meetings &amp; seminars; production of standards</td>
<td></td>
</tr>
<tr>
<td><strong>1.8 Integration of primary</strong></td>
<td>RHTC</td>
<td>MOHSW; WHO</td>
<td>Revised RH standards</td>
<td>Copies of RH documents</td>
<td>4,050.00</td>
<td>Consultative meetings &amp; seminars; production of standards</td>
<td></td>
</tr>
</tbody>
</table>
Specific Objective 2. To provide skilled attendants for all RH services at all levels of the health care system

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Activity</th>
<th>Target</th>
<th>Lead Agent(s)</th>
<th>Objectively Verifiable Indicators</th>
<th>Means of Verification</th>
<th>Cost</th>
<th>Remarks/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Strengthen and expand Health Training Institutions (Pre and In-Service)</td>
<td>2.1.1 Conduct rapid needs assessment</td>
<td>Nationwide</td>
<td>MOHSW; Partners</td>
<td>Assessment document prepared</td>
<td>Assessment report/document</td>
<td>59,385.00</td>
<td>Cost of assessment in 15 counties covering 15 county hospitals, three health centers and five clinics per county; tools development, training and consultancy; assessment report &amp; launching</td>
</tr>
<tr>
<td></td>
<td>2.1.2 Provide institutional support: training, material, infrastructural support</td>
<td>Health Training Institutions</td>
<td>MOHSW</td>
<td>Number of institutions supplied</td>
<td>Distribution lists; procurement records</td>
<td>594,950.00</td>
<td>Subsidy to existing schools; pre-service &amp; in-service training packages</td>
</tr>
<tr>
<td></td>
<td>2.1.3 Train instructors to provide competency based training</td>
<td>Health Training Institutions</td>
<td>MOHSW; Health Boards</td>
<td>Cadres of health instructors trained</td>
<td>Training report</td>
<td>143,000.00</td>
<td>Continuing education at least 6 sessions/year; training materials development</td>
</tr>
<tr>
<td></td>
<td>2.1.4 Increase and improve the training of MNH staff including skills in EMONC</td>
<td>Nation wide</td>
<td>MOHSW; partners</td>
<td>Comprehensive training plan developed</td>
<td>Copy of plan</td>
<td>22,000.00</td>
<td>Materials for five regional training sites &amp; training</td>
</tr>
</tbody>
</table>

Sub-Total: 2,254,426.00
<table>
<thead>
<tr>
<th>2.2 Incorporate LSS in curricula of training institutions</th>
<th>2.2.1 Review and update curricula of training institutions</th>
<th>Health Training Institutions</th>
<th>MOHSW; partners</th>
<th>Revised curricula available</th>
<th>Copy of revised curricula</th>
<th>202,500.00</th>
<th>Consultancy; curricula for various cadres of health professionals – RN, RNCM, MD, NA, ETC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.2 Disseminate revised curricula to training institutions</td>
<td>Health Training Institutions</td>
<td>MOHSW; partners</td>
<td>Revised curricula available</td>
<td>Distribution list</td>
<td>3,000.00</td>
<td>Transport support nationwide</td>
<td></td>
</tr>
</tbody>
</table>

**Sub Total** 1,024,835.00

### Specific Objective 3: To ensure the availability, accessibility to quality services by 70% of pregnant women and newborns

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Activity</th>
<th>Target</th>
<th>Lead Agent(s)</th>
<th>Objectively Verifiable Indicator</th>
<th>Means of Verification</th>
<th>Cost</th>
<th>Remarks/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Increase the number of MNH care facilities</td>
<td>3.1.1 Rehabilitate nonfunctional health facilities in underserved communities</td>
<td>Underserved areas</td>
<td>MOHSW</td>
<td>Number of health facilities rehabilitated in underserved areas</td>
<td>Copies of contracts awarded</td>
<td>3,750,000.00</td>
<td>Rehabilitate 125 non functional facilities including equipping at 30,000/unit</td>
</tr>
<tr>
<td></td>
<td>3.1.2 Advocate and mobilize resources for the construction of additional health facilities in underserved communities</td>
<td>Underserved areas</td>
<td>MOHSW</td>
<td>Number of health facilities rehabilitated in underserved areas</td>
<td>Copies of contracts awarded</td>
<td>1,200,000.00</td>
<td>Construct three new clinics in underserved areas in Grand Kru, River gee, Lofa, Sinoe, Nimba (Gbee &amp; Doru clans), Grand Gedeh, Gbarpolu &amp; Bong counties (Yeadawuah/Suakoko District)</td>
</tr>
<tr>
<td>3.2 Provide essential drugs, supplies,</td>
<td>3.2.1 Upgrade health facility to provide minimum package for MNH care</td>
<td>Nationwide</td>
<td>MOHSW; RHTC</td>
<td>Minimum MNH package available</td>
<td>Copy of package</td>
<td>1,000,000.00</td>
<td>Resources to maintain a sustainable supply of essentials</td>
</tr>
</tbody>
</table>

33
<table>
<thead>
<tr>
<th>Section</th>
<th>Activity</th>
<th>Location</th>
<th>Responsible Authorities</th>
<th>Details</th>
<th>Cost</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.2</td>
<td>Procure essential drugs, supplies, equipment and other logistics</td>
<td>Nationwide</td>
<td>MOHSW; Partners</td>
<td>Medical consignments for MNH available; Procurement orders; distribution lists</td>
<td>1,000,000.00</td>
<td>Supplementary support to NDS</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Establish a supply management system at all MNH service delivery points</td>
<td>Nationwide</td>
<td>MOHSW, WHO</td>
<td>Database on MNH supply management system</td>
<td>Databases</td>
<td>1,000,000.00</td>
</tr>
<tr>
<td>3.3</td>
<td>Strengthen the use of MNH relevant tools: partograph, MDR, SM Protocol, M&amp;E tools, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3.1</td>
<td>Review and update MNH tools</td>
<td>RHTC</td>
<td>MOHSW</td>
<td>Revised tools available; Copies of tools</td>
<td>30,000.00</td>
<td>Consultancy and technical sessions</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Disseminate the revised tools</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Revised tools available; Dissemination reports</td>
<td>1,000.00</td>
<td>Support to RHTC for dissemination</td>
</tr>
<tr>
<td>3.3.3</td>
<td>Train RH staff in the use of the tools</td>
<td>Nationwide</td>
<td>MOHSW; partners</td>
<td>Number of trained MNH staff; Training reports</td>
<td>499,800.00</td>
<td>One thousand four hundred &amp; twenty-eight (1,428) RH staff in use of tools @ 350/person</td>
</tr>
<tr>
<td>3.3.4</td>
<td>Establish RH data base at national and county levels to monitor and evaluate implementation of MNH activities</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>MNH Database on M &amp; E available; M&amp;E Databases</td>
<td>0</td>
<td>Cost covered by policy level</td>
</tr>
<tr>
<td>3.4</td>
<td>Strengthen the referral system</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4.1</td>
<td>Establish/strengthen communication system between clinics, health centers and referral hospitals</td>
<td>Nationwide</td>
<td>MOHSW; RHTC</td>
<td>Functional radio communication network available; Radio communication linkage reports</td>
<td>200,000.00</td>
<td>Various communication equipment, installation and training of users; also maintenance</td>
</tr>
<tr>
<td>3.4.2</td>
<td>Establish/strengthen transport system between community health center and referral hospitals (motorcycle ambulance and vehicle ambulance)</td>
<td>Selected Districts in hard to reach areas</td>
<td>MOHSW; WHO, NGOs</td>
<td>Community transport links established</td>
<td>Community transport vehicles; documentation on use of transport links</td>
<td>1,800,000.00</td>
</tr>
<tr>
<td>3.4.3</td>
<td>Reinforce training of MNH ambulance staff</td>
<td>Nationwide</td>
<td>MOHSW; NGOs; UN</td>
<td>Trained MNH ambulance staff in place</td>
<td>Training report; performance records</td>
<td>240,000.00</td>
</tr>
<tr>
<td>3.4.4</td>
<td>Roll out community financial scheme to support MNH referral</td>
<td>Nationwide</td>
<td>MOHSW; NGOs; UN</td>
<td>Number of communities with financial scheme for MNH referral</td>
<td>Documentations on financial schemes</td>
<td>7,500,000.00</td>
</tr>
<tr>
<td>3.5</td>
<td>Strengthen blood transfusion services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5.1</td>
<td>Reinforce blood transfusion services at all referral MNH facilities: health centers and hospital</td>
<td>Nationwide</td>
<td>MOHSW; WHO</td>
<td>Number of health facilities with blood transfusion services</td>
<td>Patient records</td>
<td>3,000,000.00</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Advocate and mobilize resources for the establishment of blood transfusion centers at national and regional levels</td>
<td>Regional health facilities</td>
<td>MOHSW</td>
<td>Number of regional health facilities with transfusion services</td>
<td>Patient records</td>
<td>0</td>
</tr>
<tr>
<td>3.5.3</td>
<td>Train MNH staff in blood transfusion services</td>
<td>Nationwide</td>
<td>MOHSW; VOBDAL</td>
<td>Number of trained staff available for blood transfusion</td>
<td>Training report</td>
<td>105,000.00</td>
</tr>
<tr>
<td>3.6 Improving the availability of and access to quality MNH care</td>
<td>3.6.1 Review and update existing ANC minimum package</td>
<td>Nationwide</td>
<td>MOHSW; WHO</td>
<td>Revised minimum MNH package</td>
<td>Copy of package</td>
<td>0</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>3.6.2 Introduce focused ANC including family planning, PMTCT and prevention of malaria in pregnancy</td>
<td>Nationwide</td>
<td>MOHSW; Partners</td>
<td>Comprehensively training plan for focused ANC</td>
<td>Copy of plan</td>
<td>0</td>
<td>Integrated with LSS Training package</td>
</tr>
<tr>
<td>3.6.3 Reinforce the use of the partograph at all MNH facilities</td>
<td>Nationwide</td>
<td>MOHSW; WHO; LPMM</td>
<td>Number of health facilities using the partograph</td>
<td>Patient records/delivery records</td>
<td>0</td>
<td>Integrated with LSS Training package</td>
</tr>
<tr>
<td>3.6.4 Provide essential newborn and postpartum care</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Number of health facilities with newborn care services</td>
<td>Patient records/delivery records</td>
<td>0</td>
<td>Integrated with LSS Training package</td>
</tr>
<tr>
<td>3.6.5 Provide family planning commodities and services at all MNH facilities</td>
<td>Nationwide</td>
<td>MOHSW; FPAL; UNFPA; USAID</td>
<td>Number of health facilities providing FP services</td>
<td>Patient records/delivery records</td>
<td>0</td>
<td>Cost covered in National RH Commodity Security Plan</td>
</tr>
<tr>
<td>3.6.6 Finalize and implement contraceptive security strategic plan</td>
<td>Nationwide</td>
<td>MOHSW; USAID</td>
<td>Revised CS Strategic Plan</td>
<td>Copy of plan</td>
<td>0</td>
<td>Cost covered in National RH Commodity Security Plan</td>
</tr>
<tr>
<td>3.6.7 Conduct rapid needs assessment for and provide essential adolescent friendly services at all MNH facilities</td>
<td>Nationwide</td>
<td>MOHSW; UNFPA; WHO</td>
<td>Number of health facilities made adolescent friendly</td>
<td>Patient records</td>
<td>3,310.00</td>
<td>Tools and report preparation</td>
</tr>
<tr>
<td>3.6.8 Establish adolescent friendly centers at community level</td>
<td>Nationwide</td>
<td>MOHSW; UNFPA; WHO</td>
<td>Proportion of communities with adolescent friendly centers</td>
<td>Documentations on centers</td>
<td>750,000.00</td>
<td>10% of 1500 communities @ $500 each to jumpstart the process</td>
</tr>
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<tr>
<td>3.6.9 Upgrade health facilities to provide basic and comprehensive EMONC including PMTCT</td>
<td>Nationwide</td>
<td>MOHSW; NGOs</td>
<td>Comprehensively EMONC plan available</td>
<td>Copy of plan</td>
<td>1,250,000.00</td>
<td>Two counselors with top ups, two lab technicians, VCT Centers, medical doctors for 25 referral hospitals @ $50,000/hospital/county</td>
</tr>
<tr>
<td>3.6.10 Define a mechanism to integrate MNH and other health programs including EPI, HIV/AIDS/STI, malaria, TB, family planning, Child survival, etc.</td>
<td>Nationwide</td>
<td>MOHSW; CS coordinating committee</td>
<td>CS strategy</td>
<td>Copy of strategy</td>
<td>0</td>
<td>Covered in BPHS</td>
</tr>
<tr>
<td>3.7 Strengthen M&amp;E mechanism for quality MNH care services</td>
<td>National Division of Epidemiology</td>
<td>MOHSW</td>
<td>Database on MNH Services in place</td>
<td>MNH database</td>
<td>70,000.00</td>
<td>Two sessions each @ $35,000/year</td>
</tr>
<tr>
<td>3.7.1 Strengthen MOH capacity for M&amp;E of MNH care services</td>
<td>Selected sites</td>
<td>MOHSW</td>
<td>Survey reports prepared</td>
<td>Copies of survey reports</td>
<td>300,000.00</td>
<td>40% of 389 functional health facilities and catchment communities</td>
</tr>
<tr>
<td>3.7.2 Conduct operational research</td>
<td>Nationwide</td>
<td>MOHSW; WHO</td>
<td>Evaluation report prepared</td>
<td>Copy of report</td>
<td>0</td>
<td>Covered in operational research</td>
</tr>
<tr>
<td>3.7.3 Evaluate the implementation of the Road Map</td>
<td>MOHSW; UNFPA; WHO</td>
<td></td>
<td></td>
<td></td>
<td>0</td>
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<tr>
<td><strong>Sub-total:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>24,723,945.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
Specific Objective 4: To network with community members through all Community Development Councils to strengthen MNH programs

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Activity</th>
<th>Target</th>
<th>Lead Agent(s)</th>
<th>Objectively Verifiable Indicator</th>
<th>Means of Verification</th>
<th>Cost</th>
<th>Remarks/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Strengthening community awareness for the utilization of MNH services</td>
<td>4.1.1 Carryout health education on MNH</td>
<td>Nationwide NGOs</td>
<td>MNH IEC/BCC materials developed</td>
<td>Copies of materials; installation reports</td>
<td>6,000.00</td>
<td>Regional TOT involving central level facilitators and administrative support; facilitator’s honorarium @ $20; 10 trained information disseminators per region; five days training each</td>
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<tr>
<td></td>
<td>4.1.2 Increase IEC/BCC among community members (pregnant women and families, etc.) for the improvement of MNH</td>
<td>Nationwide NGOs</td>
<td>MNH IEC/BCC materials developed</td>
<td>MNH IEC/BCC material utilization records</td>
<td>100,000.00</td>
<td>Regionally trained persons to train community members; National Health Promotion Unit to develop materials; an estimate of $25,000 annually</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1.3 Conduct focus groups discussions</td>
<td>Selected areas NGOs</td>
<td>FGD reports prepared</td>
<td>Copies of reports</td>
<td>151,200.00</td>
<td>Seven groups formed with 12 members each covering five regions; approximately involving 1,680 persons at county level</td>
<td></td>
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<td></td>
<td>4.1.4 Develop/Distribute audio visual aids</td>
<td>Nationwide NGOs; MOHSW</td>
<td>Types of materials available at service delivery points</td>
<td>Distribution records</td>
<td>1,000,000.00</td>
<td>Development of various materials involving consultancy @ $6,000; Brochures, leaflets, etc @ 60,000; media channels @ $34,000</td>
<td></td>
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<td></td>
<td>4.1.5 Sensitize communities on the identification on the referable cases (pre and post natal hemorrhage, severe malaria anemia, etc.)</td>
<td>Nationwide NGOs; MOHSW</td>
<td>Proportion of communities with knowledge on danger signs &amp; emergencies</td>
<td>Documentations on community knowledge of MNH emergencies</td>
<td>100,000.00</td>
<td>Focus group sessions – 25,000</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Awareness campaigns – 40,000</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>Peer to peer consultations – 35,000</td>
<td></td>
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<tr>
<td></td>
<td>4.1.6 Build capacity of pregnant women, families and communities on the danger signs of MNH</td>
<td>Nationwide NGOs; MOHSW</td>
<td>Proportion of communities with knowledge on danger signs &amp; emergencies</td>
<td>Documentations on community knowledge of MNH emergencies</td>
<td>9,604,800.00</td>
<td>Strategy on improved health seeking behavior; mama kits locally at $20-kit for 450,000 pregnant annually</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Strengthening the capacity of community for the prevention and control of malaria, STI/HIV/AIDS in pregnant women and newborns</td>
<td></td>
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<tr>
<td><strong>4.2.1</strong> Conduct training for CHWs and TTM/TMs</td>
<td>Nationwide</td>
<td>MOHSW; NGOs</td>
<td>Number of trained community health workers</td>
<td>Training records</td>
<td>106,000.00</td>
<td>TOT and step down training; also basic training for a minimum of six to nine months per cycle per category of CHWs/TM/TTM</td>
<td></td>
</tr>
<tr>
<td><strong>4.2.2</strong> Assist community develop a sustainable approach to support MNH activities</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Proportion of communities with sustainable community MNH initiatives</td>
<td>Documentations on initiatives</td>
<td>0</td>
<td>Covered in service delivery</td>
<td></td>
</tr>
<tr>
<td><strong>4.2.3</strong> Provide logistics, equipment, material and supplies at the community level for MNH services</td>
<td>Nationwide</td>
<td>MOHSW</td>
<td>Availability of community MNH supplies</td>
<td>Distribution lists</td>
<td>758,075.00</td>
<td>Appropriate transportation technology; basic road maintenance equipment/supplies</td>
<td></td>
</tr>
<tr>
<td><strong>4.2.4</strong> Distribute IPTs, ITNs and condoms in the community</td>
<td>Nationwide</td>
<td>MOHSW; NGOs</td>
<td>Number of communities using preventive measures for health</td>
<td>Documentations/reports on community health programs</td>
<td>0</td>
<td>Cost covered by National Malaria Control Program</td>
<td></td>
</tr>
<tr>
<td><strong>4.2.5</strong> Develop IEC &amp; BCC materials on HIV &amp; AIDS</td>
<td>Nationwide</td>
<td>MOHSW; NGOs</td>
<td>Proportion of community residents accessing FP services</td>
<td>Client records</td>
<td>50,000.00</td>
<td>Complementary fund to GF to include nutritional support and means for follow up</td>
<td></td>
</tr>
<tr>
<td><strong>4.2.6</strong> Support home based HIV &amp; AIDS care</td>
<td>Nationwide</td>
<td>MOHSW; NGOs</td>
<td>Proportion of community residents accessing FP services</td>
<td>Client records</td>
<td>150,000.00</td>
<td>Training for counselors in 15 counties at 10,000 over two years</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.3</th>
<th>Strengthen the capacity of the community for the utilization of Family planning services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.3.1</strong> Conduct health education on family planning utilization</td>
<td>Nationwide</td>
</tr>
<tr>
<td><strong>4.3.2</strong> Conduct counseling on the proper selection/usage of the family planning methods</td>
<td>Nationwide</td>
</tr>
<tr>
<td><strong>4.3.3</strong> Distribute family planning</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4 Strengthen involvement and build the capacity of community influential groups for the promotion of MNH services</td>
<td>4.4.1 Identify and train traditional healers, Zoes and TMs</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>4.4.2 Identify and train youth leaders, women groups, community leaders and religious leaders</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4.3 Have meeting with influential groups and discuss MNH aims</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4.4 Identify the cultural beliefs and practices as they relate to MNH care</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4.5 Select and improve cultural practices that enhance/promote safe MNH care</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4.6 Increase IEC/BCC on the elimination of harmful practices</td>
<td>Nationwide</td>
</tr>
<tr>
<td>4.4.7 Develop IEC &amp; BCC materials of OB fistulas</td>
<td>Nationwide</td>
</tr>
</tbody>
</table>

Sub-Total 11,551,075.00
6.0 COSTING OF THE ROAD MAP

This component of the Road Map has been quite an intensive exercise in itself. Several consultations were held both locally and with international experts. Due to the intense need to produce, disseminate and make the Road Map available to all stakeholders, the RHTC decided to approach the costing exercise traditionally, launch the document and make it available for planning and programming for maternal newborn health care services by January 2008. The formal training and use of the relevant software usually used for costing in RH was thus deferred to 2008 to be particularly executed prior to and during the county micro planning exercises.

A sub group of the RHTC set out to do the costing traditionally over a period of two days to produce an initial budget for the implementation of Road Map. The key considerations included:

- Itemizing each detail of an activity to determine an estimated cost for that activity
- Initially cost each activity for a year or up to five years where possible;
- Ensure that the cost of an activity is not entered more than once along the three levels of Road Map implementation
- Where applicable, Counties would be grouped in accordance with existing regional grouping for costing of some activities to facilitate practical budgeting
- A once over review of the bulk budget and detailed notes would be done to harmonize as much as possible

The costing was thus done along these considerations in addition to the technical know how of the costing team as well as special consideration for existing national instruments for health care delivery like the basic package of health services, the National Health Policy and the national Health Plan. The initial cost of implementing the Road map is approximately **UDS 39,554,281.00**, categorized as follows:

1. **Policy and Environment Level:** $2,254,426.00
2. **Health Service Delivery Level:** $25,748,780.00
3. **Community Level:** $11,551,075.00
II. Reproductive Health Minimum Package of Services

Clinic Level

i. Equipped and skilled attendants to manage complications during pregnancy, childbirth and all areas of women's health. E.g. Midwives, PAs & RNs

ii. Provision of essential RH drugs in addition to standard health facility drug items. E.g. Pitocin*, Diazepam & Ergometrine.

iii. Specialized RH Equipment and Supplies in addition to standard clinic supplies:
   - Partograph
   - MVA Kits
   - Fetal scope
   - Bulb Syringe
   - Delivery kits

IV. Adequate Lab Facility. Basic lab work to include urinalysis, malaria smear, hemoglobin

V. Provision of FP Services including GYN/Infertility counseling and referral and IUD insertion*

VI. EPI services

VII. VCT services

VIII. Routine pre & post natal care/services, intrapartum care for low-risk cases

IX. Establishment of two-way feedback system to the original referring point or health professional

X. STI Syndromic approach and condom distribution

XI. Dispensary

XII. SGBV response to include counseling, medical care and referral

XIII. Universal Precautions

XIV. Health promotion and outreach services
Health Center Level

I. Equipped and skilled attendants to manage complications during pregnancy, child birth and other areas of women’s health. E.g. Midwives, RNs, PAs and Doctors.

II. Provision of essential RH drugs in addition to standard health facility drug items. E.g. Pitocin*, Diazepam, Anticonvulsant Drugs such as Magnesium Sulphate*, Antihypertensive Drugs such as Hydralazine* & Ergometrine.

III. Specialized RH Equipment and Supplies in addition to standard HC supplies:
   - Partograph
   - MVA Kits
   - Vacuum Extractors
   - Delivery Sets
   - Fetal Scope
   - Ambu Bag
   - Bulb Syringe
   - IUD set

IV. Adequate Lab Facility to include urinalysis, hemoglobin, malaria smear, WBC

V. Provision of FP Services including GYN/Infertility counseling and referral and IUD insertion*

VI. EPI Services

VII. VCT services

VIII. Routine pre & post natal care/services and intrapartum services for low risk cases

IX. Establishment of two-way feedback system to the original referring point or health professional

X. STI Syndromic approach and condom distribution

XI. Dispensary

XII. SGBV response to include counseling, medical care and referral

XIII. Universal Precautions

XIV. Health promotion and outreach services
Hospital Level

1. Levels of staff should include all at clinic and health center, and in addition more specialized personnel to include:
   - Gynecologist
   - Obstetrician
   - Neonatologist
   - X-Ray Technician
   - Lab Technician
   - Anesthesiologist and Anesthetist
   - OT staff

2. Provision of more essential RH drugs, to include: Magnesium Sulphate, antihypertensive, ergometrine, pitocin, ARVs, anesthetics, analgesics. Also gynecological drugs should include Microgynon, Norethisterone (Primolut-N and antibiotics.

3. Specialized equipment and supplies in addition to standard hospital supplies:
   - Ambulance
   - Radio Communications (CHF)
   - X-Ray Machine
   - Ultra-Sound
   - Incubator
   - Major and minor surgical equipment (EOU, C/S, Hysterectomy, ectopic pregnancy, cystectomy).
   - Post surgery beds

4. Family Planning services as per clinic and health center level, with addition of long term and permanent methods, such as IUD insertion, vasectomy, bilateral tubal ligation and contraceptives implants*

5. Laboratory facilities at clinic and health center level with the addition of blood grouping and cross matching, blood storage for transfusion, blood cultures and sensitivities.
MINIMUM PACKAGE RH SUPPLIES AT CARE LEVEL (AS PER WHO MANUAL)

EQUIPMENT, SUPPLIES, DRUGS AND TESTS FOR PREGNANCY AND POSTPARTUM CARE:

Equipment
- Blood pressure machines and stethoscope
- Body thermometer
- Fetal stethoscope
- Baby scales
- Urinary catheters various sizes
- Syringes and needles various sizes
- IV tubing
- IV canulas various sizes
- Suture material for tear or episiotomy repair
- Antiseptic solution (iodophors or chlorhexidine)
- Spirit (70% alcohol)
- Swabs
- Bleach (chlorine base compound)
- Impregnated bed nets
- Condoms
- Sterile gloves
- Disposable gloves
- IUD kit
- MVA

Tests
- RPR testing kit
- Proteinuria sticks
- Container for catching urine
- HIV rapid tests
- Parachecks

Delivery Instruments (sterile)
- Scissors
- Needle holder
- Artery forceps or clamp
- Dissecting forceps
- Sponge forceps
- Vaginal speculum

Drugs
- Oxytocin
- Ergometine
- Magnesium sulphate
- Calcium gluconate
- Diazepam
- Hydralazine
- Ampicillin
- Gentamicin
- Metronidazole
- Benzathine penicillin
- Cloxacillin
- Amoxicillin
- Ceftriaxone
- Trimethoprim + sulfamethoxazole
- Clotrimazole vaginal pessary
- Erythromycin
- Ciprofloxacin
- ACT
- Tetracycline or doxycycline
- Arthemether or quinine
- Chloroquine tablet
- Nevirapine or zidovudine
- Lignocaine
- Adrenaline
- Ringer lactate
- Normal saline 0.9%
- Glucose 50% solution
- Water for injection
- Paracetamol
- Gentian violet
- Iron/folic acid tablet
- Mebendazole
- Sulphadoxine-pyrimethamine

**Vaccine**
- Tetanus Toxoid

**Universal Precaution**
- Hand washing
  - Clean water supply
  - Soap
  - Bail brush or stick
  - Clean towels
- Waste
  - Bucket for soiled pads and swabs
  - Receptacle for soiled linens
  - Container for sharps disposal
- Sterilization
  - Instrument sterilizer
  - Jar for forceps
Work Space and Environment
- Warm and clean room
  - Examination table or bed with clean linen
  - Light source
  - Heat source

Miscellaneous
- Wall clock
- Torch with extra batteries and bulb
- Log book
- Records
- Refrigerator

EQUIPMENT, SUPPLIES AND DRUGS FOR INTRAPARTUM CARE:

Equipment
- Blood pressure machine and stethoscope
- Body thermometer
- Fetal stethoscope
- Baby scale
- Self inflating bag and mask – neonatal sizes
- Mucus extractor with suction tube

Delivery Instruments (sterile)
- Scissors
- Needle holder
- Artery forceps or clamp
- Dissecting forceps
- Sponge forceps
- Vaginal speculum

Supplies
- Partograph
- Gloves
  - Utility
  - Sterile or highly disinfected
  - Long sterile for manual removal of placenta
  - Long plastic apron
- Urinary catheter
- Syringes and needles
- IV Tubing
- Suture material for tear or episiotomy repair
- Antiseptic solution (iodophors or chlorhexidine)
- Spirit (70% alcohol)
- Swabs
- Bleach (chlorine-based compound)
- Clean (plastic) sheet to place under mother
- Sanitary pads
- Clean towels for drying and wrapping the baby
• Cord ties (sterile)
• Blanket for the baby
• Baby feeding cup
• Impregnated bed net

Drugs
• Oxytocin
• Ergometrine
• Magnesium sulphate
• Calcium gluconate
• Diazepam
• Hadrulazine
• Ampicillin
• Gentamicin
• Netronidazole
• Benzathine penicillin
• Nevirapine or zidovudine
• Lignocaine
• Adrenaline
• Ringer lactate
• Normal saline 0.9%
• Water for injection
• Eye antimicrobial (1% silver nitrate or 2.5% povidine iodine)
• Tetracycline 1% eye ointment
• Vitamin A
• Isoniazid

Vaccine
• BCG
• OPV
• Hepatitis B

Contraceptives

Universal Precaution
• Hand washing
  o Clean water supply
  o Soap
  o Bail brush or stick
  o Clean towels
• Waste
  o Bucket for soiled pads and swabs
  o Receptacle for soiled linens
  o Container for sharps disposal
  o Bowl and plastic bag for placenta
• Sterilization
  o Instrument sterilizer
  o Jar for forceps
Work Space and Environment

- Warm and clean room
  - Delivery bed: a bed that supports the woman in a semi-sitting or lying in a lateral position, with removable stirrups (only for repairing the perineum or instrumental delivery)
  - Clean bed linen
  - Curtains if more than one bed
  - Clean surface (for alternative delivery position)
  - Work surface for resuscitation of newborn near delivery beds
  - Light source
  - Heat source
  - Room thermometer

- Miscellaneous
  - Wall clock
  - Torch with extra batteries and bulb
  - Log book
  - Records
  - Refrigerator
8.0 REFERENCES

1. Liberia Demographic and Health Survey, 1999 - 2000

2. Liberia Demographic and Health Survey, 2006 - 2007

3. LPMM, Report, Liberia, 2005


6. WHO & MOHSW, Health Situation Analysis, Liberia, 2002

7. WHO Sexual Gender-Based Violence and Health Facility Needs Assessment (Lofa, Nimba, Grand Gedeh and Grand Bassa Counties) Liberia, 2005

8. WHO, Sexual Gender-Based Violence and Health Facility Needs Assessment (Montserrado and Bong Counties), Liberia, 2004