Ministry of Community Development
Mother and Child Health

Zambia Newborn Health Framework 2013

ZAMBIA NEWBORN HEALTH CARE

FRAMEWORK

April 2013

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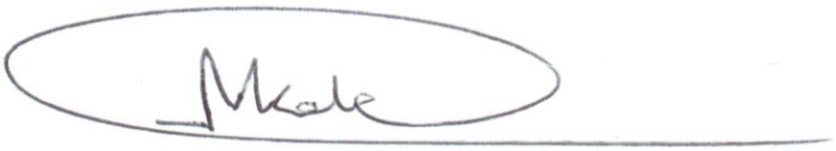
Foreword

Zambia, like many other countries within the African region, is characterized by high maternal and neonatal morbidity and mortality. In recognition of this situation, several policy and planning efforts have been made to prioritize maternal, newborn, and child health in the context of the Millennium Development Goals (MDGs). Addressing newborn health is a catalyst for improving maternal and child health and for accelerating progress towards MDG 4 (child survival), MDG 5 (maternal health), and MDG 6 (HIV/AIDS, tuberculosis, and malaria). *Levels & Trends in Child Mortality*—a report produced in 2011 by the United Nations Inter-agency Group for Child Mortality Estimation—documents that Zambia is one of 13 African countries on track to attain MDG 4 on reduction of the under-five mortality rate. If newborn care is not addressed adequately, however, this progress will be derailed.

This Newborn Health Scale-up Framework articulates the context of the implementation of newborn health interventions in Zambia, the priority interventions and activities that require our attention for scaling up our efforts in newborn health, and a description of interventions across the continuum of care commencing at community level. The framework will provide the necessary basis for the development of guidelines, training materials, and behaviour change communication materials and programming for newborn health.

In order to ensure that the information in this important document is available not only to the national and provincial levels but also to the district and health centre levels of our health care delivery system, a summarized version of the framework has been adapted from the main document.

I am confident that the wide dissemination of the Newborn Health Scale-up Framework will provide the necessary impetus for the rapid scale-up of newborn health care in Zambia.



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Acknowledgments

The Newborn Health Scale-up Framework is the culmination of work that began as a paper authored by stakeholders in child health whose intent was to draw the attention of decision-makers and partners to the need for increased resource allocation for newborn health at all levels. The need for accelerated implementation of newborn interventions was emphasized.

Development of the Newborn Health Care Scale-up Framework was actualized through the work of several organizations who convened in various meetings including an important workshop for the dissemination of evidence on maternal and newborn health held in April 2012 at the University Teaching Hospital. At this meeting, the local body of evidence that provided the context for scale-up of newborn interventions was derived from research conducted by the Zambia Centre for Applied Health Research and Development/Boston University, Professor Elwyn Chomba and Professor Mary Shilalukey Ngoma. The same meeting saw the constitution of a Core Group that was tasked to focus on newborn health commencing with the finalization of a Newborn Health Care Scale-up Framework. The United Nations Children's Fund (UNICEF), Zambia Integrated Systems Strengthening Program (ZISSP), and Save the Children were joined by PATH in this mandate.

The framework would provide the basis for development of guidelines and training materials for newborn health at all levels of health care. In the crafting of this important document, the Ministry of Community Development, Mother and Child Health acknowledges the direct participation of the following organizations and institutions:

World Health Organization, UNICEF, University Teaching Hospital, ZISSP (who also funded consultancy work for the development and elaboration on interventions in the continuum of care and convened several meetings), Save the Children, PATH - Programme for Appropriate Technology in Health- (who also funded consultancy work for finalizing the framework, meetings, and printing and dissemination of the framework), Centre for Infectious Disease Research in Zambia, Zambia Centre for Applied Health Research and Development/Boston University, World Vision International, Clinton Health Access Initiative, and the Pediatric Association of Zambia.

The Child Health Unit in the Ministry of Community Development, Mother and Child Health provided the necessary guidance and support for concluding work on the framework.

Professor Elwyn Chomba
Permanent Secretary
Ministry of Community Development, Mother and Child Health

Abbreviations

AIP	Action Implementation Plan
ANC	Antenatal care
ART	Antiretroviral therapy
BCC	Behaviour change communication
BCI	Behaviour change intervention
BEMOC	Basic emergency obstetric care
BF	Breastfeeding
CAC	Community Action Cycle
CBAs	Community-based agents
CBD	Community-based distributors
CBO	Community-based organization
CDK	Clean delivery kit
CHA	Community health assistant
CHW	Community health worker
c-IMCI	Community Integrated Management of Childhood Illnesses
CO	Clinical officer
CP	Cooperating Partner
DH	District hospital
DHO	District health office
DHS	Demographic and Health Survey
DIP	District Implementation Plan
DPT	Diphtheria pertussis tetanus (vaccine)
EmONC	Emergency obstetric and newborn care
ENC	Essential newborn care
EPI	Expanded Programme on Immunization
FANC	Focused antenatal care
FBO	Faith-based organization
f-IMCI	Facility Integrated Management of Childhood Illnesses
FP	Family planning
GRZ	Government of the Republic of Zambia
HBB	Helping babies breathe
HBNC	Home-based newborn care
HCC	Health Centre Committee
HCP	Health Communication Partnership
HepB	Hepatitis B (vaccine)
HFAs	Health facility assessments
HHS	Household survey
Hib	Haemophilus influenza type B (vaccine)
HIV	Human immunodeficiency virus
HMIS	Health management information system
ICC	Interagency Coordinating Committee
IEC	Information, education, and communication
ILO	International Labour Organization
IMCI	Integrated Management of Childhood Illnesses
IMNCI	Integrated Management of Newborn and Childhood Illnesses
IPT	Intermittent preventive treatment

ITNs	Insecticide-treated nets
IYCF	Infant and Young Child Feeding
KMC	Kangaroo mother care
LBW	Low birthweight
MCDMCH	Ministry of Community Development, Mother and Child Health
MDG	Millennium Development Goal
M&E	Monitoring and evaluation
MNCH	Maternal, newborn, and child health
NBH	Newborn health
NCHP	National Child Health Policy
NGO	Nongovernmental organization
NHSP	National Health Strategic Plan
Ob/gyn	Obstetrics and gynaecology
OPV	Oral polio vaccine
PH	Provincial hospital
PHC	Primary health care
PHO	Provincial health office
PMTCT	Prevention of mother-to-child transmission (of HIV)
PNC	Postnatal care
PPP	Public-private partnership
PRSP	Poverty Reduction Strategy Paper
RHC	Rural health centre
SBA	Skilled birth attendant
SMAG	Safe Motherhood Action Group
STI	Sexually transmitted infection
SWAP	Sector-Wide Approach
tSMAG	Trained Safe Motherhood Action Group
tTBA	Trained traditional birth attendant
TT	Tetanus toxoid
TWG	Technical Working Group
WHO	World Health Organization

1. Introduction

1.1. Global overview of newborn health

Every year nearly 40 percent of the world's under-five child deaths occur among newborn infants—babies in their first 28 days of life, or the neonatal period.[1] In 2011 this high death rate resulted in nearly 3 million deaths worldwide. South Asia and sub-Saharan Africa bear the heaviest burden, with both the largest number of annual births and the highest neonatal mortality rates. Even though under-five mortality overall has declined, the proportion of these deaths that occur during the neonatal period is up from 36 percent in the previous decade. Over the last two decades almost all regions have seen slower declines in neonatal mortality than in overall under-five mortality[2]. Faster reductions in neonatal mortality are critical for achieving Millennium Development Goal (MDG) 4.

The majority of neonatal deaths result from preterm birthcomplications (35 percent) and from complications during birth (23 percent),[3] usually asphyxia. More than 1.1 million children a year die due to complications of preterm birth, and many others experience a lifetime of disability. Approximately 80 percent of preterm births occur between 32 and 37 weeks of gestation, and most of these babies survive when they receive essential newborn care; 75 percent of deaths of preterm babies can be prevented without intensive care.[4]

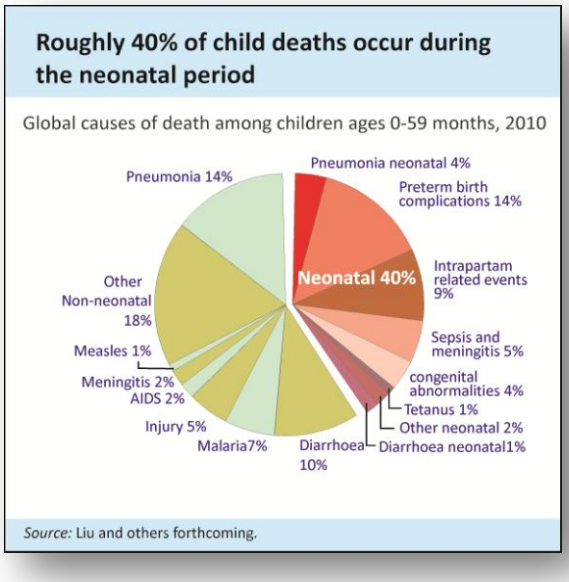

Figure 1. Neonatal deaths around the world, 2010

Many preterm babies can be saved through feasible, low-cost interventions such as breastfeeding support, thermal care, and basic care for infections and breathing difficulties. An analysis using the Lives Saved Tool[5] found that universal coverage of kangaroo mother care (KMC) alone could prevent 450,000 deaths a year. KMC includes early initiation of skin-to-skin contact, breastfeeding, early discharge from the hospital or clinic, and support for parents.

To ensure that these critical interventions reach those who need them, nurses, midwives and community-based workers providing postnatal

[1] *World Health Organization. Newborns: reducing mortality [fact sheet]. Geneva: WHO; 2012. Available at: http://www.who.int/mediacentre/factsheets/fs333/en/index.html.*
[2] *Levels & Trends in Child Mortality Report 2011: Estimates Developed by the UN Inter-agency Group for Child Mortality. New York: UNICEF; 2011. Available at: http://www.unicef.org/media/files/Child_Mortality_Report_2011_Final.pdf.*
[3] *UNICEF. Committing to Child Survival: A Promise Renewed. New York: UNICEF; 2012. Available at: http://www.unicef.org/videoaudio/PDFs/APR_Progress_Report_2012_final.pdf.*
[4] *Progress Towards Millennium Development Goals 4 and 5, Building a future for women and children, The 2012 Report, p. 17.*
[5] *The Lives Saved Tool (LiST) is an evidence-based decision-making tool for estimating the impact of different intervention packages. A consortium of academic and international organizations, led by the Institute of International Programs at the Johns Hopkins Bloomberg School, developed this computer-based tool.*

care need training as well as access to reliable supplies of key commodities and equipment. Effective care before, during, and between pregnancies and childbirth can help prevent preterm births and improve the survival chances of preterm babies.[6]

The Lancet reviewed and published the progress towards attaining MDG 4 and 5 between 1990 and 2010 in coverage of 26 key interventions in 68 Countdown priority countries (including Zambia) accounting for more than 90% of maternal and child deaths worldwide. The graph below illustrates the coverage estimates for interventions.

Figure 2. Coverage estimates for interventions across the continuum of care in 68 Countdown priority countries (2000 –2006)

Source: Countdown Coverage Writing Group. [7]

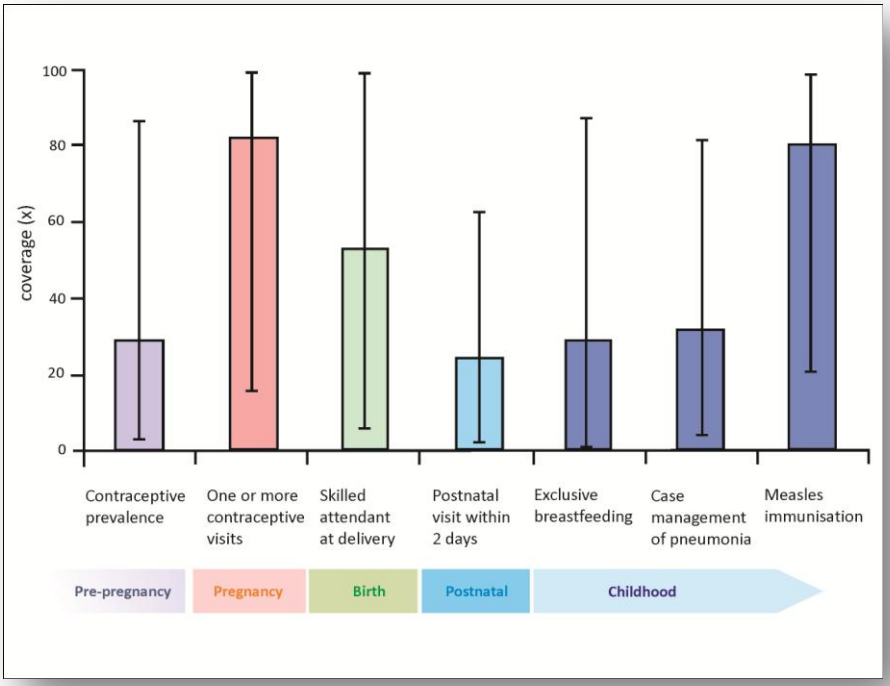

Figure 2 shows that coverage of interventions in many developing countries is low for delivery and immediate postnatal care, when most neonatal deaths occur. In the rural areas where the need is greatest, the coverage of most interventions critical for newborn health is lowest.

1.2. Zambia: overview and rationale for scale-up of newborn health care

Zambia, like many other countries in the African region, endures high maternal and neonatal morbidity and mortality.

In working towards several MDGs, namely MDG 4 (child survival) and MDG 5 (maternal health), the Government of the Republic of Zambia (GRZ) has made several policy and planning efforts to prioritize maternal, newborn, and child health (MNCH). According to the World Health Organization (WHO), Zambia is among 13 African countries on track to attain the MDG 4 goal of reducing the under-five

[6] *Progress Towards Millennium Development Goals 4 and 5, Building a future for women and children, The 2012 Report, p. 17.*
[7] *Countdown to 2015 for maternal, newborn, and child survival: the 2008 report on tracking coverage of interventions. The Lancet. 2008;371(9620):1247–1258.*

mortality rate by two-thirds.[8] However if newborn care is not addressed adequately, this progress will be derailed. A continuum of care linking maternal, newborn, and child health interventions throughout the lifecycle and among health service delivery levels is the best approach for attaining the goal.[9]

Newborn deaths are an important contributor to child under-five mortality in Zambia, accounting for about 30 percent of these deaths. The high neonatal mortality rate (34/1000 live births[10]) has not declined significantly over the last two decades.

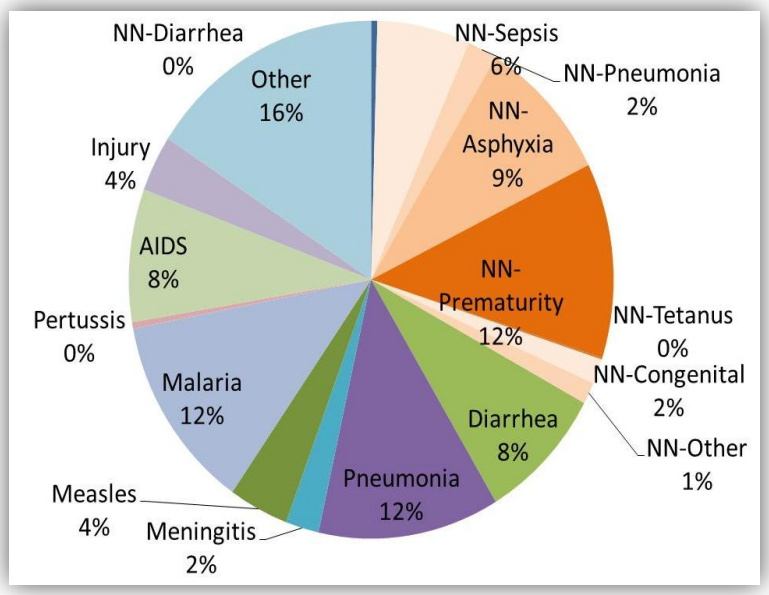

Figure 3. Causes of under-five mortality in Zambia in 2011

Source: Child Health Epidemiology Reference Group

Figure 3 illustrates the main causes of under-five mortality for Zambia in 2011, including neonatal (NN) causes.

Coverage of interventions is low, progress in scaling up is slow, and inequity is high, especially for skilled clinical interventions. When considering early neonatal care, only 39 percent of deliveries are reported to have had postnatal care within two days of delivery. In rural areas, only 4.6 percent of mothers had a postnatal visit within two days of delivery. This is clearly a missed opportunity during the most critical newborn time period—the first 24 hours of life.[11]

Many evidence-based, cost-effective, feasible interventions for neonatal survival are being implemented in Zambia, but, as shown in the country statistics summarized in Figure 2, coverage is low. National, provincial, and district health facilities must provide essential newborn care (ENC), as defined and promoted by WHO, and related care for the mother during pregnancy, childbirth, and postpartum periods. Under the Health Services and Systems Program that was carried out between 2004 and 2010, the GRZ developed and implemented a plan to scale up emergency obstetric and newborn care (EmONC) and expanded the number of facilities that are able to provide EmONC services, which increased the availability of newborn resuscitation in 41 districts. However, the coverage of this program also is low. All levels of health care in the country need to address newborn health, starting at the primary health care (PHC) level. Community-based agents (CBAs) who can provide ENC and EmONC—with appropriate training if necessary—include community health assistants (CHAs), community health workers (CHWs), trained traditional birth attendants (tTBAs), and trained Safe Motherhood Action

[8] *Levels & Trends in Child Mortality Report 2011: Estimates Developed by the UN Inter-agency Group for Child Mortality. New York: UNICEF; 2011. Available at: http://www.unicef.org/media/files/Child_Mortality_Report_2011_Final.pdf.*
[9] *Bhutta ZA, Chopra M, Axelson H, et al. Countdown to 2015 decade report (2000-10): taking stock of maternal, newborn and child survival. The Lancet. 2008;375(9730):2032–44.*
[10] *Demographic and Health Survey, Central Statistical Office, 2007.*
[11] *Demographic and Health Survey, Central Statistical Office, 2007.ome*

Groups (tSMAGs). According to WHO, the actions of skilled health care workers could greatly increase the chances for survival for newborns. [12]

Two-thirds of newborn deaths could be prevented with high coverage of essential MNCH packages already in policy in Zambia, as long as some specific aspects of newborn care are strengthened.[13] The Newborn Health Care Scale-up Framework is intended to assist the GRZ and collaborating partners to determine strategic objectives and priorities for scale-up of newborn health interventions. Developed through a consultative and participatory process, the framework will also guide further development of national strategies and interventions for improving newborn health that are integrated into maternal and child health plans and programming and are set within a broader health and development framework.

The selection of priority interventions and options for scaling up within the framework takes into account national needs and resources, makes critical consideration of several overarching challenges, and builds on existing programs and services.

2. Guiding Principles

The guiding principles articulated in the Road Map for Accelerating the Attainment of the Millennium Development Goals Related to Maternal, Newborn, and Child Health in Zambia[14] should guide the newborn health care scale-up planning and implementation to ensure effectiveness and sustainability:

- **Evidence base**: Ensuring that the interventions are evidence-based and cost-effective.
- **Health systems approach**: Focusing on integrated newborn and maternal health care. delivery at all levels, using primary health care as an entry point for engaging community resources and strengthening the referral system.
- **Complementarity**: Building on existing programmes and recognizing the comparative advantages of different partners in the planning, implementation, and evaluation of maternal and newborn health programmes.
- **Partnership**: Promoting partnership, coordination, and joint programming among stakeholders including the private sector, professional associations, and councils at all levels in order to improve collaboration, maximize resources, and avoid duplication.
- **Clear definition of roles and responsibilities**: Defining roles and responsibilities of all players in the implementation, monitoring, and evaluation of the identified activities for increased synergy.
- **Appropriateness and relevance**: Having a clear understanding of the local status and perception of maternal and newborn health in the country.
- **Transparency and accountability**: Promoting a sense of stewardship, accountability, and transparency on the part of the government as well as other stakeholders for enhanced sustainability.

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[12] World Health Organization. Newborns: reducing mortality [fact sheet]. Geneva: WHO; 2012. Available at: http://www.who.int/mediacentre/factsheets/fs333/en/index.html.

[13] The Partnership for Maternal, Newborn and Child Health. Opportunities for Africa's Newborn: Practical Data, Policy and Programmatic Support for Newborn Care in Africa. Geneva: PMNCH, WHO; 2006. Available at: http://www.who.int/pmnch/media/publications/africanewborns/en/.

[14] Road Map for Accelerating the Attainment of the Millennium Development Goals Related to Maternal, Newborn, and Child Health in Zambia

- **Equity and accessibility**: Supporting scaling up of cost-effective interventions that promote equitable access to quality health services with greater attention to the poor and vulnerable groups, especially in rural and under-served areas.
- **Phased planning and implementation at country level**: Promoting implementation in clear phases with timelines and benchmarks that enable re-planning for best results.[15]

3. Newborn Health Care Scale-up Framework

This framework articulates the goals and strategic objectives for the national scale-up of priority newborn health care interventions in Zambia. The appendices provide additional information:

- **Appendix 1** is a matrix listing the strategic objectives and activities of this framework and defining the interventions needed for each. Specific activities, indicators, proposed time periods, assumptions, and current status are also provided.
- **Appendix 2** is a matrix of interventions for newborn health across the continuum of care.
- **Appendix 3** is a summary of evidence-based interventions to save newborn lives.
- **Appendix 4** is a summary of evidence-based reproductive and maternal health interventions that contribute to newborn health.
- **Appendix 5** is a list of key opportunities in policy and programmes to save newborn lives.

Reference has been made to the National Maternal and Newborn Health Scale-up Plan (2013) in appropriate sections for activities that have a direct bearing on newborn health. This plan has been authored by the maternal health team at MCDMCH together with stakeholders. It outlines the priority activities and the costs thereof for key maternal health and some newborn interventions.

3.1. Goal and objectives of scale-up

Goal: To reduce neonatal morbidity and mortality by providing key high-impact interventions for newborn health care by 2015

The scale-up of newborn health care will focus on three strategic objectives that will guide programming and selection of interventions (described in detail in Appendix 1).

Strategic objective 1:	***To strengthen capacity to improve newborn health care at all levels of the health care delivery system***
Strategic objective 2:	***To increase the availability, access, and utilization of quality newborn health care services***
Strategic objective 3:	***To empower communities to improve community newborn health care practices and support the continuum of care***

[15] *Roadmap for Accelerating the Attainment of the Millennium Development Goals Related to Maternal and Newborn Health in Africa. 2005, p.7.*

3.2. Activities for implementing strategic objectives

Strategic objective 1:	*To strengthen capacity to improve newborn health care at all levels of the health care delivery system*

3.2.1. Strengthen health worker capacity to increase and improve essential newborn care services

To strengthen capacity to increase and improve essential newborn care will require the Ministry of Community Development, Mother and Child Health (MCDMCH) and stakeholders to adapt WHO and other training packages for pre-service and in-service curricula and other training programmes.

Priority interventions

1. Assess training needs and tailor training programs to needs at different service levels.
2. Build capacity of increased numbers of tutors and health providers in essential newborn care (ENC) competency-based training.
3. Equip training institutions and sites with ENC training equipment and supplies.
4. Strengthen and integrate newborn health components into pre-service and in-service curricula and other training programs.

3.2.2. Strengthen national, provincial, district and community level planning, management and supervision

The planning, management, and supervision of newborn health care programmes will be guided by the "Three Ones" approach: one coordinating mechanism, one national scale-up plan, and one monitoring and evaluation system. The Newborn Health subcommittee, which will be a subset of the Integrated Management of Childhood Illnesses (IMCI) Technical Working Group (TWG) under the MCDMCH Child Health TWG, will be responsible for the planning, management, and coordination of the newborn scale-up plan at all levels. Newborn health (NBH) components should be incorporated into annual technical updates for the national, provincial, and district planning launches.

Priority interventions

1. Sensitize/orient policymakers to integrate NBH components in key policy documents, strategies, and guidelines.
2. Sensitize/orient national, provincial, and district management teams to include NBH in annual action plans.
3. Support district implementation plans (DIPs) that include newborn health care through provision of required resources (human, material, and financial).
4. Strengthen supportive supervisory mechanisms to ensure implementation of newborn health care services through MNCH focal persons at different levels.

3.2.3. Strengthen reporting, monitoring, and evaluation

Monitoring of the newborn health scale-up will be guided by indicators in the framework's intervention matrix in Appendix 1. More specific indicators may be elaborated as particular interventions are selected for implementation. The NBH components should be incorporated into the Ministry of Health monitoring and evaluation (M&E) system to track progress towards identified objectives and outputs.

Priority interventions

1. Establish baselines through surveys (e.g., Demographic and Health Survey 2007), research, and other assessments.
2. Strengthen mechanisms/systems to capture both institutional and home deliveries and deaths (newborn birth and death registration, newborn death reviews and audits).
3. Strengthen community system to document and report pregnancies, births and deaths (community registers, birth and death registration).
4. Review/update and strengthen health management information systems (HMIS) to include newborn data and indicators at all levels.
5. Build capacity in documentation, record keeping, data analysis for decision-making, and reporting for newborn health (health staff and CBAs).
6. Improve national, provincial, district, and community data collection and management, reporting formats, documentation, and reporting (monthly, quarterly, annual).
7. Evaluate MNCH scale-up interventions over a determined time frame.

Strategic objective 2:	***To increase the availability, access, and utilization of quality newborn health care services***

3.2.4. Strengthen advocacy for increased commitment and resources and integrated newborn health policy

The current and new coordination structures and mechanisms at the central and sub-national levels of the MCDMCH will guide advocacy for increased commitment and leveraging of resources for newborn health programming. A focal point person(s) for newborn health programming will provide additional support to lead the proposed interventions.

Priority interventions

1. Review/revise national policies and strategies to strengthen and scale up NBH components.
2. Develop and implement advocacy plans to:
    - Increase commitment and mobilize resources (finances, technical, and material support).
    - Develop specific advocacy package for MNCH and support key strategies and services (e.g., EmONC services).
    - Host national fora that focus on NBH.
3. Support districts to update/revise existing MNH advocacy tools to include health, economic, and social benefits.
4. Accord priority to MNCH in district action planning.
5. Advocate for inclusion of a budget for MNCH in planning guidelines in health financing strategy at the district level.
6. Mobilize resources for MNCH from donors and partners.

7. Integrate MNCH into Sector-Wide Approaches (SWAPs) and Poverty Reduction Strategy Papers (PRSPs) funding.

3.2.5. Improve health care facilities and service delivery sites

The newborn health care package will be provided using existing service-delivery levels for continuum of care for MNCH. Efforts will be made to rehabilitate or upgrade infrastructure to provide the comprehensive ENC package. NBH will be integrated into other relevant systems, and logistical support at various service-delivery levels will be provided.

Priority interventions

1. Strengthen key health structures, systems, and logistical support.
2. Advocate for adequate staffing at the facility level as well as CBAs and volunteers at the community level for providing selected ENC packages.
3. Provide essential equipment, supplies, and drugs for ENC packages as appropriate for each level of care.
4. Rehabilitate or upgrade infrastructure or expand facilities (health posts/health centres/ hospitals, delivery rooms, waiting shelters) to provide selected ENC package components and maternal care, including EmONC and higher level care.

3.2.6. Improve provision and access to quality newborn health care services

Newborn health care will be provided and organized in packages of interventions across the continuum of care and will be defined for community and/or facility levels. All interventions will be guided by the three Cs of quality of care (clean, caring, and competent), will use existing MNCH services, and will be fully integrated into routine facility- and community-based MNCH services (e.g., HIV services, national health campaigns).

Priority interventions

1. Develop/revise/adapt and adopt minimum standards, protocols, and algorithms for ENC and management of basic NB problems (low birthweight [LBW], infection, asphyxia) and disseminate them for use.
2. Implement an appropriate ENC package at all levels of service delivery.
3. Implement kangaroo mother care (KMC) for LBW babies at all levels.
4. Increase the presence of skilled attendants at all health facility levels during antenatal, birth, and postnatal periods.
5. Train CHWs and SMAGs to identify danger signs during antenatal and postnatal periods.
6. Ensure clear linkages and integration between maternal health and other related services and programs (e.g., Integrated Management of Childhood Illness [IMCI], HIV, malaria).

3.2.7. Strengthen referral and outreach systems

Links between programmes will be strengthened through appropriate referral of mothers and babies to child and reproductive health services at all levels of service delivery. Outreach activities will be strengthened to increase access and utilization of newborn health care services.

Priority interventions

1. Strengthen the referral system and procedures between the primary level and subsequent referral points/levels, including back-referral and feedback.
2. Ensure a means of communication between referral points.
3. Ensure availability of transport for MNCH and explore community transport options.
4. Strengthen outreach mechanisms and support to mother and newborn, from health facility levels to community and household levels.
5. Include MNCH focus in planning guidelines within the health financing strategy at district level.
6. Increase resource mobilization for MNCH from diverse donors and partners.
7. Review Action Implementation Plans (AIPs) / District Implementation Plans (DIPs) and adjust current budgets and allocations for MNCH.
8. Integrate MNCH into SWAPs and PRSP funding.

3.2.8. Foster and strengthen partnerships

Priority interventions

1. Improve and increase key partner/stakeholder collaboration and coordination for planning, implementation, monitoring, and evaluation of MNCH interventions at regular intervals.
2. Enhance a multisectoral response, including public-private partnerships to improve NBH and related maternal health services and programmes.
3. Harmonize efforts and standardize modes of operation of all stakeholders to maximize and ensure complementarity in programming and services.
4. Identify best practices (local, regional, or global) of NBH programmes for adaptation/replication.
5. Disseminate and facilitate use of the Newborn Health Care Scale-Up Framework, which has been incorporated into other related planning and policy documents (e.g. the Road Map for Accelerating the Attainment of the Millennium Development Goals Related to Maternal, Newborn, and Child Health in Zambia).

Strategic objective 3:	***To empower communities to improve community newborn health care practices and support the continuum of care***

3.2.9. Promote behaviour change for healthy newborn care practices and strengthen community involvement and support

Priority interventions

1. Conduct baseline assessments for NBH practices and behaviour:
    - Conduct desk review to establish social-cultural and traditional practices and behaviour and identify gaps for further research.
    - Conduct baseline household surveys and qualitative research on newborn health care practices and behaviour.
2. Develop/strengthen behaviour change communication (BCC) strategies and behaviour change interventions (BCI) for improved birth planning, birth preparedness, recognition of danger signs and actions to take, timely care-seeking, clean and safe delivery, and immediate and essential newborn and maternal care.
3. Build capacity of CBAs, CHWs, SMAGs, and other key community stakeholders to implement and influence behaviour change for healthy newborn care and practices.
4. Target adolescents and high-risk pregnancies for focused BCC and BCI.

3.2.10. Strengthen community involvement and support for the continuum of care

Priority interventions

1. Increase community mobilization and participation in supporting the continuum of care.
2. Strengthen male involvement and support for antenatal care (ANC) attendance, delivery, family planning, and child health clinic attendance.
3. Sensitize and strengthen community committees (SMAGs, Health Centre Committees, and Neighbourhood Committees) to reinforce linkages to the formal health system (e.g., for referral/emergencies).

3.2.11. Establish and strengthen home-based newborn care

Priority interventions

1. Review and adapt home-based newborn care (HBNC) guidelines for use at the community level.
2. Train CBAs (CHWs/SMAGs) to implement simple, essential, and basic newborn health interventions at the community level:
    - Universal precautions and infection prevention.
    - Cord care.
    - Giving pre-referral oral antibiotic.
    - Drying and keeping newborn warm.
    - Maintaining a clear airway.
    - Helping babies breathe by using bag and mask in cases of birth asphyxia.
    - Initiating early and exclusive breastfeeding.
    - Strengthening the mothers' support groups for Infant and Young Child Feeding (IYCF) and Baby-Friendly initiatives at community level.
    - Special care for premature and LBW babies (KMC, feeding, infection prevention, referral).

3.2.12. Establish and strengthen community Integrated Management of Childhood Illnesses strategy

Priority interventions

1. Update community Integrated Management of Childhood Illnesses (c-IMCI) training materials to include key NBH interventions.
2. Orient and strengthen implementation of integrated NBH component at district, health facility, and community levels.
3. Strengthen linkages between facility-IMCI (f-IMCI) and c-IMCI at the district level.
4. Identify, train, and equip CBAs to implement interventions.
5. Define appropriate mechanisms to motivate and retain CBAs.
6. Monitor, supervise, and report on interventions.
7. Document progress and lessons learned.

3.2.13. Strengthen multisectoral community response to newborn health care

Priority interventions

1. Establish regular community events that focus on MNCH (e.g., MNCH day, week, or month).

2. Include NBH interventions in regular community sensitization activities and health actions:
    - Routine Expanded Programme on Immunization (EPI) activities.
    - Annual Child Health Week.
3. Strengthen the support and involvement of existing community-level structures (e.g., district and community development/health committees, faith-based organizations, nongovernmental organizations, and community-based organizations).

4. Time Frame

The recommended time frame for scaling up newborn health care interventions is within the proposed time frame of the Road Map for Accelerating the Attainment of the Millennium Development Goals Related to Maternal, Newborn, and Child Health in Zambia.

Phase I: Inception and formative research	2007–2010
Phase II: Initial implementation of interventions; revision and finalization of guidelines	2011–2013
Phase III: Scale-up of interventions	2013–2015
Phase IV: Reporting	2015–2016

Appendices

5. Appendix 1. Priority Interventions and Activities

Newborn Health Care Scale-up Framework: Priority Interventions and Activities					
Strategic objective 1: To strengthen capacity to improve newborn health care at all levels of the health care delivery system					
Strategy 1.1. Strengthen health worker capacity to increase and improve essential newborn care services					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status/proposed action**
1. Assess training needs and tailor training programs to needs at different service levels	• Conduct site assessment and health worker capacity for newborn care • Develop provincial training plans for newborn health	• National report of needs assessment of newborn health • Provincial and national newborn training plan	2008 2013	• Consultants hired to conduct training needs assessments • Baselines and benchmarks set	Need to determine comprehensiveness of previous site assessment and determine need for nationwide assessment in 2013
2. Build capacity among tutors and health care providers in essential newborn care (ENC) competency-based training.	• Training of trainers for newborn health • Cascade of trainings for district and health facility staff	• Proportion of training institutions with tutors trained in newborn health • Proportion of districts with newborn health trainers • Proportion of health facility staff trained in newborn health • Proportion of district hospital staff trained in newborn health	2013–2015	• Baselines and targets set for training institutions and health facilities	Need to increase number of core newborn health trainers in each district

3. Equip training institutions and sites with newborn health training materials, equipment, and supplies.	• Procure newborn health training materials, equipment, and supplies • Distribute and orient staff on use of newborn health training materials, equipment, and supplies	• Proportion of training institutions equipped with newborn health training materials, equipment, and supplies • Proportion of health facilities equipped with newborn health training materials, equipment, and supplies	2013	• Health facility assessments (HFAs) conducted • Sites prepared for training • Sites prepared for service implementation (equipment, supplies, drugs)	• In-service training guidelines with a newborn health component have been developed for facility-based health workers, including integrated management of newborn and childhood illnesses (IMNCI), emergency obstetric and neonatal care (EmONC), and essential newborn care (ENC) • Training of provincial and district managers has been conducted, using World Health Organization (WHO) ENC guidelines but not yet extended to primary facility level, prevention of mother-to-child transmission of HIV (PMTCT) and nutrition (early and exclusive breastfeeding) • Train traditional birth attendants (TBAs) and community health assistants (CHAs) in helping Babies Breathe (HBB) and PMTCT guidelines
4. Strengthen and integrate newborn health components into pre-service and in-service curricula and other training programs.	• Review newborn health pre-service and in-service curricula for health workers and community health workers	• # of pre-service training programs with newborn health component • # of in-service training programs with newborn health component	2013		• Pre-service and CHA curricula reviewed to include newborn health in-service modules/ packages developed and in place

MATRIX: NEWBORN HEALTH CARE SCALE-UP FRAMEWORK

Strategic objective 1: To strengthen capacity to improve newborn health care at all levels of the health care delivery system					
Strategy 1.2. Strengthen national, provincial, district and community level planning, management and supervision					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Sensitize/orient policymakers to integrate newborn health components in key policy documents, strategies, and guidelines.	• Constitute the sub-committee on Newborn Health at national level as a subset Integrated Management of Childhood Illnesses Technical Working Group (IMCI TWG) which feeds into the Child Health Technical Working Group (CH TWG) • Update child health policy to include guidelines for newborn health • Disseminate updated policy and guidelines	• # of Newborn TWG meetings each year • National child health policy and guidelines updated to include newborn health, and disseminated	2013	• Integration of newborn health components finalized within related policy and planning documents • Policies and planning guidelines disseminated as relevant	• A Newborn TWG was planned based in Reproductive Health of MOH but did not meet. There is an opportunity to make it operational under the Ministry of Community Development, Mother and Child Health (MCDMCH) as a subcommittee of the CH TWG. This would be the main advocacy group.
2. Sensitize/orient national, provincial, and district management teams to include newborn health in annual action plans.	• Update national planning guidelines to include newborn health	• # of district annual action plans with newborn health activities	2013	• Planning guidelines disseminated as relevant	• Technical guidance to be disseminated during the planning cycle
3. Support district implementation plans that include newborn health care through provision of required resources (human, material, and financial).	• Technical assistance at national level for newborn health	• Proportion of health facilities with staffing levels adequate for newborn care service delivery • Proportion of health facilities with adequate newborn health equipment and supplies	Ongoing	• Targets and benchmarks defined • Resources allocated as appropriate • Equipment and supply needs pre-determined for each level of care	• Maternal, newborn, and child health (MNCH) allocation is not yet calculated as a separate line-item; need to determine inputs to common basket and other donor contributions • There is a draft Road Map for Accelerating the Reduction of Maternal

					and Newborn Morbidity and Mortality in Zambia, 2010 • Performance assessment tool to include key elements of newborn health
4. Strengthen supportive supervisory mechanisms to ensure implementation of newborn health services through MNCH focal point persons at different levels.	• Develop a newborn health mentorship tool • Identify and train newborn health mentors • Support the implementation of a newborn health mentorship programme	• Frequency of supportive supervision for maternal, newborn, and child health	2008 2008–2010 ongoing quarterly	• MNCH focal point persons available at different levels • Supervisory plans and schedules available and implemented	• New position has been approved as part of the MCDMCH structure (no salary yet); a potential candidate has been identified who may take position • Mentor may be used to supervise pre- and in-service health workers trained in newborn health

MATRIX: NEWBORN HEALTH CARE SCALE-UP FRAMEWORK

Strategic objective 1: To strengthen capacity to improve newborn health care at all levels of the health care delivery system					
Strategy 1.3. Strengthen reporting, monitoring, and evaluation					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Establish baselines through surveys (e.g., Demographic and Health Survey 2007), research, and other assessments	• Summarize baseline newborn health surveys and related research	• Pregnancy, perinatal mortality (stillbirth and neonatal mortality), miscarriages, maternal mortality	2013	• Baselines set based on research and assessment findings/situation analysis	• Review of current research data and program reports
2. Strengthen mechanisms/systems to capture both institutional and home deliveries and deaths (newborn birth and death registration, newborn death reviews and audits)	• Establish sentinel or nationwide vital registration system to capture births and deaths	• Proportion of districts with functional monitoring systems to capture newborn health indicators, including births and deaths	2013	• Database developed to capture critical newborn health indicators for use at all levels • Monitoring systems in place and functional	• HMIS currently includes: stillbirths, abortions, neonatal mortality, skilled birth attendants (SBAs), breastfeeding (BF) within 1 hour, postnatal care (PNC) within 6 days
3. Strengthen community systems to document and report pregnancies, births, and deaths (community registers, birth and death registration)	• Review and update community registers to include data on births and newborn deaths	• Proportion of communities with functional systems and registers to document newborn births and deaths	2013	• Community system available, appropriate, and functional • Community-based agents (CBAs) or volunteers trained for implementation	• UNICEF child protection doing work in registration of births…consider scaling up
4. Review/update and strengthen health management information systems (HMIS) to include newborn data and indicators at all levels	• Review and update HMIS to include vital newborn data and indicators at all levels	• Proportion of districts monitoring newborn health with updated HMIS	2013	• Vital newborn health (NBH) indicators selected and agreed upon • NBH indicators added to routine HMIS	• Data currently in Demographic and Health Survey (DHS) includes: newborn deaths, stillbirths, SBAs, early BF, early PNC for mother • DHS does not include: early PNC for newborn, practices • Need for inclusion in HMIS data
5. Build capacity in documentation, record keeping, data analysis for decision-making, and reporting for newborn health (health staff and CBAs)	• In-service training on revised data collection tools for newborn health at all levels, including health facilities and communities	• Proportion of districts and communities with staff/CBAs trained in record keeping, and data review and interpretation • Proportion of districts	2013	• Data/records staff available at all levels • CBAs literate and available • Continued on-the-job training for monitoring and evaluation (M&E) performed at specified intervals at	• The recently completed HMIS training was inclusive of CBAs

	• In-service training for data review and interpretation for decision-making for newborn health	and communities reporting on newborn health indicators in a timely fashion		health facility and community	
6. Improve national, provincial, district, and community data collection and management, reporting (monthly, quarterly, annual) and reporting formats	• Design data collection tools, data management systems, and reporting tools	• Proportion of districts implementing and reporting on newborn health indicators using the data collection and reporting tools		• Monitoring plan developed and implemented • Designated staff managing data and reporting as scheduled	
7. Evaluate MNCH scale-up interventions over determined time frame		• Evaluation reports available	Annually	• Evaluation plan developed and schedules set	

MATRIX: NEWBORN HEALTH CARE SCALE-UP FRAMEWORK

Strategic objective 2: To increase the availability, access and utilization of quality newborn health care services					
Activity 2.1. Strengthen advocacy for increased commitment and resources and integrated newborn health policy					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status/ proposed action**
1. Review/revise national policies, plans, and strategies to strengthen and scale up NBH components	• Conduct inventory of policies, plans, and strategies and review them	• Revised policy and plans available (Road Map, Newborn Child Health Policy [NCHP], National Health Strategic Plan [NHSP], etc.) • # of policies with NBH integrated into them • # of districts implementing NBH components	2007	• Revised policy and plans in place and disseminated	• Communication strategy on maternal, NB, and child health (Health Communication Partnership [HCP]). Recently revised by Communication Support.for Health (follow on to HCP). Mostly focus on mother, but some newborn content. In theory, all organizations use same materials, counselling cards. • A number of elements of antenatal care (ANC), newborn health, and PNC are included in pre- and in-service guidelines for midwives, nurses and clinical officers (COs). Also included in IMNCI, HBB, EmONC, PMTCT, and nutrition guidelines
2. Develop and implement advocacy plans to: • Increase commitment and mobilize resources (finances, technical, and material support) • Develop specific advocacy package for MNCH and support key strategies and services (e.g., EmONC services) • Host national fora that focus	• Develop advocacy plans and schedule of activities	• Advocacy implementation plan in place • # of advocacy activities implemented • Evidence of resources mobilized and corresponding MNCH budgets, technical inputs, and materials • National MNCH day or week established and	2008	• Advocacy plans and schedule of activities in place • Donor priorities encompass newborn health • Consensus gained on establishing national MNCH day/week as appropriate	• Consider adapting from the child health communications strategy

on NBH 3. Support districts to update/ revise existing MNCH advocacy tools to include health, economic, and social benefits		commemorated • Revised district MNCH advocacy tools (REDUCE/ALIVE)			
4. Accord priority to MNCH in district planning (District Implementation Plan [DIP] and Action Implementation Plan [AIP])	• Develop technical guidelines to guide national, provincial, and district levels in planning for newborn health	• District and national plans include MNCH	2007–2010 Immediate and ongoing	• Budgets available for MNCH inclusion and implementation within AIP/DIP	• Consider submitting guidance on planning during the planning launch
5. Advocate for inclusion of a budget for MNCH in planning guidelines in health financing strategy at the district level	• Utilise the annual planning launch for advocacy	• # of districts with a budget for MNCH	By the end of the 2013 planning cycle		
6. Mobilize resources for MNCH from donors and partners	• Use platforms such as the Interagency Coordinating Committee (ICC) to mobilize funds	• # of district action plans with increased budget allocated to MNCH	By the end of the 2013 planning cycle		
7. Integrate MNCH into Sector Wide Approaches (SWAPs) and Poverty Reduction Strategy Papers (PRSPs) funding	• Ensure that national, provincial, and district levels document contribution of other sectors to MNCH	• National, provincial, and district reports reflect SWAPs and PRSPs aspects	By end of 2014		

MATRIX: NEWBORN HEALTH CARE SCALE-UP FRAMEWORK

Strategic objective 2: To increase the availability, access, and utilization of quality newborn health care services					
Strategy 2.2. Improve health care facilities and service delivery sites					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status/ proposed action**
1. Strengthen key health structures, systems, and logistical support	• Strengthen key health structures and systems • Procure necessary requisites/logistics	• # of service delivery sites with key health structures, systems, and logistical support in place	By 2013	• Plan developed for health facility service strengthening • Criteria set for investment of resources • Prioritization of areas in most need completed (e.g., targeting areas with poorest indicators for maternal and newborn health)	• Baby weighing scale, resuscitation equipment for newborns, and thermometer not included in the requisites at facility level
2. Advocate for adequate staffing at facility level as well as CBAs and volunteers at community level for providing selected ENC package components	• Review current levels of community health workers (CHWs) and trained Safe Motherhood Action Groups (tSMAGSs) and conduct refresher trainings and first trainings for more	• # of facilities with adequate midwives and other relevant cadres • # of SMAGS and CHWs at community implementing sites	2008 and ongoing	• Targets set for staffing components at different sites/levels	• Leverage the trainings in the maternal health scale-up plan (74 districts x 5 rural health centres (RHCs) per district per year leading to 20 RHCs per district at the end of four years)
3. Provide essential equipment, supplies, and drugs for selected ENC package as appropriate for each level of care	• Procure basic equipment for newborn care (baby weighing scale, resuscitation equipment for newborns, thermometers)	• # of facilities with essential equipment, supplies and drugs for newborn health • # of SMAGSs/ CHWs with "newborn health essential equipment and supplies	2008–2010	• Equipment/supplies/drug needs identified through HFAs at different levels of care	
4. Rehabilitate or upgrade infrastructure or expand facilities (health posts/health centres/ hospitals, delivery rooms, waiting shelters) to provide selected newborn health package components and maternal care including EmONC and higher level care.	• Rehabilitate/upgrade infrastructure as appropriate to facility level and needs	• # of facilities with rehabilitated/upgraded infrastructure as appropriate to facility level and needs	2008 onwards	• Plan developed for health facility upgrade/rehabilitation • Review of needs completed Note: This is a national priority within the National Health Strategic Plan (NHSP); some processes are underway through initiatives (e.g., by the Health Systems Strengthening Programme); EmONC related activities are in existence	• Collaborate and coordinate rehabilitation with maternal health (the national maternal newborn health scale-up plan stipulates renovation/ construction and refurbishment of 400 maternity waiting shelters; that is, 4 sites per district)

Strategic objective 2: To increase the availability, access, and utilization of quality newborn health care services					
Strategy 2.3. Improve provision and access to quality newborn health care and services					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Develop /revise and adopt minimum standards, protocols, and algorithms for newborn health and management of basic problems (low birthweight [LBW], infections, asphyxia) and disseminate them for use	• Develop, print, and disseminate protocols, guidelines, and algorithms for newborn care	• # of facilities adopting minimum standards and have protocols, guidelines, and algorithms for use in caring for newborns	2008	• Minimum standards developed and disseminated • Protocols, guidelines, and algorithms available for use • Staff trained for implementation	Guidelines required
2. Implement an appropriate ENC package at all levels of service delivery	• Orient provincial health offices (PHOs), district health offices (DHOs), and communities on newborn health • Train health facility staff on the newborn health package • Conduct follow-up/ supportive supervision of trained cadres to monitor practice concerning newborn health	• # of orientation meetings conducted for PHOs/DHOs/ communities • # of staff trained in newborn health package • # of trained staff actually practising newborn health • # of supervisory visits conducted	2008 and ongoing	• Basic newborn health package determined appropriate to implementation levels • Staff trained and implementing services	• CHW manuals were updated with NB care at same time that IMCI was updated, but newborn health and PNC need more work; Child Health division does not have money for implementation; partners may not use all components in training. • Leverage with maternal health group who plan to support process to update community IMCI (c-IMCI) training materials to include key NBH interventions (MNH scale-up plan) • Community health assistant (CHA) curriculum: previous training included some components of ANC and newborn health, but is being revised; new version has more (resuscitation, newborn

					health, PNC) but is not yet final
3. Implement kangaroo mother care (KMC) for LBW babies at all levels	• Adapt guidelines on KMC and train facility staff at appropriate levels of care • Support facilities in including KMC in their newborn care protocols	• # of facilities using alternative methods of care for LBW babies as appropriate • Proportion of LBW babies on KMC/skin-to-skin at community level	2008–2009	• Visit(s) conducted to KMC sites within region (e.g., Malawi; Capetown, South Africa) • Facility sites selected and equipped for KMC implementation • Staff trained in KMC • CBAs/volunteers trained in KMC Note: National consensus already gained to adopt KMC	• KMC needs to be included in all guidelines on newborn health • Collaborate with maternal health group in supporting the development of guidelines for KMC services (MNH scale-up plan)
4. Increase skilled attendance at all facility levels during antenatal, birth, and postnatal periods	• Equitably distribute trained skilled attendants to all districts	• # of skilled attendants ○ # of midwives ○ # of nurses ○ # of obstetricians	2008 and ongoing	• Training targets set • Deployment of relevant staff completed for various sites as appropriate Note: MCH nurse to be adequately trained to link newborn to treatment and have capacity to assess clinical conditions. All health workers to be trained on follow up.	
5. Train community health workers and SMAGSs to identify danger signs during antenatal and postnatal periods	• See Activity 2.2.2	• # of trained attendants ○ # of CHWs ○ # of SMAGSs	2008 and ongoing	• Targets set for CBA training	• Collaborate with maternal group who plan to support development of guidelines for home-based newborn care (HBNC) (National Maternal and Newborn Health scale-up plan)
6. Ensure clear linkages and integration between maternal health and other related services and programs (e.g., IMCI, HIV, malaria)	• Conduct an inventory of staff who are trained in components of newborn health • Conduct an inventory of facilities with clearly defined pathways for linking service areas	• # of staff trained in components related to newborn health (PMTCT, IMCI, etc.) • # of facilities with clearly defined pathways for linking service areas	2008 onwards	• Service guidelines available • Integrated training for MCH nurses available and strengthened	• Refer to the National Maternal and Newborn Health Scale-up plan

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Strategic objective 2: To increase the availability, access, and utilization of quality newborn health care services					
Strategy 2.4. Strengthen referral and outreach systems					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status/ proposed action**
1. Strengthen the referral system and procedures between the primary level and subsequent referral points/levels including back-referral and feedback	• Assess the functionality of referral procedures/systems (during follow-up/supportive supervision)	• # of facilities with functioning referral system and procedures between the primary level and referral points	2008–2010	• Referral system in place • Referral system is functional • Referral procedures available, known, and used	
2. Ensure a means of communication between referral points	• Provide facilities with referral procedures within newborn care training package	• # of facilities with functioning communication (radios, telephones, etc.)	2008 and ongoing	• Communication needs identified through health facility assessments (HFAs) • Communication networks established and functioning (radios, telephones, etc.)	
3. Ensure availability of transport for MNCH and explore community transport options	• Procure radios and telephones for facilities	• # of facilities and communities with functioning transport (ambulance, van, oxcart, etc.)	2008 and ongoing	• Transport vehicles available and functioning (ambulance, van, motorcycle, etc.) • Local transport modes exist and function within communities (bicycle, carts, etc.)	
4. Strengthen outreach mechanisms and support to mother and newborn, from health facility levels to community and household levels	• Equip facilities and communities with appropriate transport • Support facilities with logistics and funding for outreach activities • Support communities in utilizing available local modes of transport	• # of facilities with community outreach activities and schedules that target newborn/mother • # of outreach activities that target newborn/ mother held (quarterly/ annually)	2008 and ongoing	• Outreach plan and schedule available and implemented • Staff, supplies, drugs, equipment, and transport available	Collaborate and coordinate with maternal group who plan to: • Procure ambulances for all districts (400 ambulances, 4/district) • Procure motorcycle ambulances for 400 basic EmONC sites
5. Include MNCH focus in planning guidelines within the health financing strategy at district level	• Provide guidelines to districts on prioritizing newborn health in district budgets	• Number of districts with MNCH included in plans	2008	• Plans available and resources allocated	
6. Increase resource mobilization for MNCH from	• Advocate for increased resourcing	• Percent increase in MNCH resources	2008 and ongoing	• Donor priorities include MNCH	• Consider a more proactive approach to fundraising for

diverse donors and partners	to newborn health			• Budgets developed and resources allocated	NB health • Utilise public-private partnership (PPP) approach
7. Review AIP/DIP and adjust current budgets and allocations for MNCH	• Review district action plans and budgets during supportive supervision visits	• Number of districts with plans and budgets that include MNCH	2008 onwards	• Resources available to support AIP/DIP	
8. Integrate MNCH into SWAPs and PRSP funding		• Number of districts with MNCH in their plans	2008	• Resources available to support MNCH components within SWAPs and PRSP	• Consider sharing the NB scale-up plan at the Cooperating Partners (CPs) meeting

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Strategic objective 2: To increase the availability, access and utilization of quality newborn health care services					
Strategy 2.5. Foster and strengthen partnerships					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Improve and increase key partner/stakeholder collaboration and coordination for planning, implementation, monitoring, and evaluation of MNCH interventions at regular intervals	• Utilise various MNCH fora to increase and improve collaboration and coordination	• Activity reports available	2008 and ongoing	• Inventory of partners/ stakeholders supporting and implementing MNCH programs and services available • Schedule of collaborative and coordination activities developed and disseminated	• Consider putting this on ICC agenda
2. Enhance a multisectoral response, including public-private partnerships, to improve NBH and related maternal health services and programmes	• Newborn Health Technical Working Group (NBH TWG) to develop activity plan for fostering multisectoral response	• # of partners involved in MNCH and programs	2008 and ongoing	• Inventory of public-private partnerships supporting and implementing MNCH programs and services available	• NBH TWG will work with other stakeholders
3. Harmonize efforts and standardize modes of operation of all stakeholders to maximize and ensure complementarity in programming and services	• NBH TWG to coordinate and ensure networking among and standardization of trainings by partners	• # of partners adhering to standard modes of operation • Evidence of harmonization	2008	• Consensus gained on standard modes of operation	•
4. Identify best practices (local, regional, or global) of NBH programmes for adaptation/replication	• NBH TWG to explore and advocate for the adoption of best practices	• Reports of best practices identified • Implementation/Activity Reports	2008–2009	• Known best practices identified in-country and within the region • Sites identified for adaptation or adoption • Resources allocated	•
5. Disseminate and facilitate use of the Newborn Health Care Scale-up Framework as incorporated within other related planning and policy documents (e.g., Zambia Road Map)	• Develop, print, and disseminate a summarized version of the framework for districts	• # of districts with documents available • # of districts with NBH included in plans	2007	• NBH scale-up framework document incorporated, disseminated, and used	• Consider linking with: PMTCT elimination intervention, adolescent and reproductive health; commodities related interventions and nutrition (1000 critical days)

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Strategic objective 3: To empower communities to improve community newborn health care practices, and support the continuum of care					
Strategy 3.1. Promote behaviour change for healthy newborn care practices and strengthen community involvement and support					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Conduct baseline assessments for NBH practices and behaviour: • Conduct desk review to establish social-cultural and traditional practices and behaviour and identify gaps for further research • Conduct baseline household surveys (HHS) and qualitative research on newborn health care practices and behaviour	• Solicit the services of a consultant to conduct a desk review of local reports pertaining to newborn health care practices and behaviour and social-cultural and traditional practices and behaviour	• Key practices and behaviour identified • Report of HHS and qualitative research available	2008	• Previous research findings available • Baselines determined and targets set	• Consider desk review of local evidence data and programming reports from various stakeholders
2. Develop/strengthen behaviour change communication (BCC) strategies and interventions (BCI) for improved: birth planning, birth preparedness, recognition of danger signs and actions to take, timely care-seeking, clean and safe delivery, immediate and essential newborn care and maternal care	• Develop a BCC strategy	• BCC strategy and interventions developed • BCI implemented	2008 2008–2010 ongoing	• Community receptive to behaviour change towards healthy newborn health care practices • BCC materials available	• Consider adapting from the child health communications strategy
3. Build capacity of CBAs (CHW/CHA/SMAGs) and other key community stakeholders to implement and influence behaviour change towards healthy newborn care practices	• Include training on BCC aspects in the CHW/SMAGs training package	• # of CBAs trained in BCC • # of community stakeholders trained in BCC	2008–2009	• Key community change agents identified	
4. Target adolescents and high-risk pregnancies for focused BCC and BCI	• Develop technical guidelines for targeting adolescents	• # of focused BCC interventions and activities that target adolescents	2008 and ongoing	• Youth-friendly services and youth-focused BCC materials available	

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Strategic objective 3: To empower communities to improve community maternal and newborn health care practices, and support the continuum of care					
Strategy 3.2. Strengthen community involvement and support for the continuum of care					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Increase community mobilization and participation in supporting the continuum of care	• Conduct training of CHWs and CHAs in community mobilization as part of their training package	• # of community groups trained in the Community Action Cycle (CAC) • Increased community participation with involvement in specifically identified key interventions	2008 and ongoing	• Community mobilization strategy developed (CAC)	• Community-based MNCH package not yet developed; all CHW and CHA training on newborn health is conducted as part of the basic or pre-service training
2. Strengthen male involvement and support for ANC attendance, delivery, family planning (FP), and child health clinic attendance	• NBH TWG to identify and collate best practices from other programmes/countries and make recommendations	• Proportion of males directly involved in MNCH activities	2008 and ongoing	• Male involvement strategy developed	• Consider adopting best practices from other programmes
3. Sensitize and strengthen community committees (Safe Motherhood Action Groups [SMAGs], Health Centre Committees [HCC], and Neighbourhood Committees) to reinforce linkages to the formal health system (e.g., for referral/emergencies)	• Collaborate with the maternal health group in sensitizing and strengthening community committees	• # of communities sensitized and participating in key strategies of (HBNC)	2008 and ongoing	• Community committees exist and are functional	

Strategic objective 3: To empower communities to improve community maternal and newborn health care practices, and support the continuum of care					
Strategy 3.3. Establish and strengthen home-based newborn care (HBNC)					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Review and adapt HBNC guidelines for use at community level	• Conduct inventory of community guidelines and adapt	• Proportion of communities using adapted HBNC guidelines	2008	• Community HBNC guidelines finalized • Community HBNC guidelines disseminated for use • CBAs trained to implement guidelines	• Collaborate with the maternal health group at MCDMCH; the MNH scale-up plan indicates support of development of guidelines for HBNC services
2. Train CBAs (CHA/CHW/tSMAGs) to implement simple, essential, and basic newborn health interventions at community level: • Universal precautions and infection prevention • Cord care • Giving pre-referral oral antibiotic • Drying and keeping newborn warm • Maintaining a clear airway • Using bag and mask in cases of birth asphyxia • Initiating early and exclusive breastfeeding • Strengthening of mothers' support groups for Infant and Young Child Feeding (IYCF) and Baby-Friendly initiatives at community level • Special care for premature and LBW babies (KMC, feeding, infection prevention, referral)	• Training providers in prioritized essential newborn health interventions	• # of CBAs trained/active in HBNC • % of trained/active CBAs supplied with essential HBNC equipment • % of CBAs implementing key HBNC practices	2008	• Community HBNC package defined and available for use • Human resources, supplies and equipment, available	• Consider harmonizing with CHA curriculum and guidelines

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Strategic objective 3: To empower communities to improve community maternal and newborn health care practices, and support the continuum of care					
Strategy 3.4. Establish and strengthen community Integrated Management of Childhood Illnesses (c-IMCI) strategy					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status /proposed action**
1. Update c-IMCI training materials to include key NBH interventions	• Complete updating the c-IMCI training materials to include key NBH interventions	• c-IMCI training and information, education, and communication (IEC) materials updated	2008	• Final materials available for training	• Partially done
2. Orient and strengthen implementation of integrated NBH component at district, health facility, and community levels	• Orient districts, facilities, and communities on integrated NBH	• # of districts and communities oriented and implementing integrated NBH/IMCI components	2008 –2009	• HHS and desk review completed • Consensus gained on c-IMCI package • Service guidelines reproduced and disseminated • Adequate human resources available	
3. Strengthen linkages between facility IMCI (f-IMCI) and c-IMCI at district level	• Ascertain the existence of linkages between f-IMCI and c-IMCI at district level during supportive supervision	• Evidence of linkages		• Service linkage guidelines available and used	
4. Identify, train, and equip CBAs to implement interventions	• Support districts in conducting training of CHWs	• # of CBAs, trained and equipped (drugs/supplies) • # of CBAs implementing c-IMCI	2008 and ongoing	• Adequate #s of CBAs available at appropriate sites • Budgets available for training, equipment, and supplies	
5. Define appropriate mechanisms to motivate and retain CBAs	• Develop and disseminate guidelines to stakeholders on appropriate mechanisms to motivate and retain CBAs	• Evidence of appropriate mechanisms • Proportion of CBAs retained and motivated	2008 and ongoing	• Mechanisms and modes of incentives defined • Conducive implementation environment exists including supplies and equipment • Resources for refresher trainings	

				• Resources for monetary or other incentives	
6. Monitor, supervise, and report on interventions	• Develop a monitoring and evaluation plan	• # of monitoring/ supervisory visits and reports (quarterly, annual)	2008–2010 and ongoing	• Monitoring and supervision plans and schedules available and implemented	
7. Document progress and lessons learned	• Institute measures for ensuring prompt reporting on progress and lessons learned	• Reports available	2008 and ongoing	• Implementation, monitoring, and supervision ongoing	

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Strategic objective 3: To empower communities to improve community maternal and newborn health care practices, and support the continuum of care					
Strategy 3.5. Strengthen multisectoral community response to newborn health care					
Priority intervention	**Activity**	**Indicators**	**Time frame**	**Assumptions**	**Current status**
1. Establish regular community events that focus on MNCH (e.g., MNCH day, week, or month)	• NBH TWG in consultation with stakeholders to propose dates and format for regular community events that focus on MNCH	• # of community MNCH activities and events	2008 and ongoing	• Consensus gained on community events and MNCH focus Note: events can be commemorated in addition to, or to coincide with, national events	•
2. Include NBH messages in regular community sensitization activities and health actions, such as: • Routine Expanded Programme on Immunization (EPI) activities • Annual Child Health (CH) Week	• Review community sensitisation messaging in child health programmes and revise to include messages on newborn health	• # and frequency of NBH messages included in ongoing EPI/CH Week or other appropriate activities	2008 and ongoing	• Consensus gained on activities and schedule	•
3. Strengthen support and involvement of existing community-level structures (e.g., district and community development/health committees; political structures; and faith-based, nongovernmental, and community-based organizations)	• Ascertain involvement of existing community-level structures in MNCH activities using supportive visits and minutes of proceedings of district health office–based meetings	• # of existing community level structures and stakeholders involved in MNCH activities	2008 and ongoing	• Community stakeholders receptive to supporting and participating in MNCH activities	•

3. Appendix 2. Newborn Health Interventions Across the Continuum of Care

The time from pre-pregnancy through the first month of the newborn's life is divided into several periods: pre-pregnancy; pregnancy; labour, delivery, and the first 1–2 hours of life; and the early and late neonatal periods. The "continuum of care" for reproductive, maternal, newborn, and child health includes integrated service delivery for mothers and children across these time periods and also across place (i.e., the various levels of home, community, and health facilities). Interventions provided via this continuum of care approach are the subjects of Appendix 2.

Pre-pregnancy – Neonatal survival and health are influenced by factors that are present before conception. Maternal education, socioeconomic status, nutrition, health, age, and the time between pregnancies (spacing) are important predictors of neonatal outcomes. Comprehensive strategies need to emphasize integration with a range of other services, such as family planning, and sectors, such as poverty reduction and education, as well as synergies between maternal and child health programmes.

Pregnancy – Appropriate antenatal care is critical to reduce maternal mortality, stillbirth, and neonatal death. Interventions during pregnancy can reduce premature birth,[16] low birthweight, congenital malformations, congenital infections, and neonatal tetanus.

Labour, delivery, and the first 1–2 hours of life – Skilled care at birth to ensure safe and clean delivery benefits mothers and babies. This period is critical for preventing birth asphyxia, birth injuries and infections in the newborn, and provision of supportive care for preterm babies. Newborns also must receive help with a number of activities immediately after birth, such as establishing breathing, keeping warm, initiating breastfeeding, and avoiding or coping with life-threatening complications.

Early neonatal period (7 days) – Providing basic care for all mothers and newborns, and identifying and managing those in need of special care, is critical in the first week of life, when over two-thirds of neonatal deaths, and many maternal deaths, occur. This period is critical for prevention and management of infections in all newborns and for provision of extra care for low birthweight babies and those with complications following delivery. The highest mortality rate for both mothers and newborns occurs in first the 48 hours after birth, and this time period has the lowest coverage of care.[17]

Mortality can be reduced in most moderately low birthweight babies through low-tech approaches that include keeping babies warm, providing breastfeeding support, and ensuring early management of complications. Strategies such as kangaroo mother care (KMC) reduce the risk of death by 50 percent in low birthweight and premature babies.[18]

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[16] *WHO, UNICEF. Building a Future for Women and Children: The 2012 Report. Geneva: WHO, UNICEF; 2012, p. 17. Available at: http://www.countdown2015mnch.org/documents/2012Report/2012-complete-no-profiles.pdf.*

[17] *WHO/UNICEF, 2009. "Home visits for the newborn child: A strategy to improve child survival." WHO/UNICEF joint statement. Geneva: World Health Organization, 2009.*

[18] *Kangaroo mother care to prevent neonatal deaths due to preterm birth complications Joy E Lawn, Judith Mwansa-Kambafwile, Bernardo L Horta, Fernando C Barros and Simon Cousens, International journal of epidemiology*
Kangaroo mother care to reduce morbidity and mortality in low birthweight infants (Review), Conde-Agudelo A, Belizán JM, Diaz-Rossello J, Cochrane Review 2011

Extra care may also require a functional referral system and access to a referral centre where complications can be properly addressed. Newborns should be immediately assessed for emergency (life threatening, danger) signs and identification of those who require immediate management and/or referral. Basic standards for equipment and commodities at all levels of care should be provided to enable effective care of sick and small newborn babies.

Late neonatal period (8–28 days) – Prevention and treatment of infections is the highest priority during this period. One-third of neonatal deaths occur in this period but this number can be reduced through interventions to ensure that families recognize the signs of infection and seek care promptly, and that antibiotics are available, accessible, and used correctly.

Newborn Health Care Scale-up Framework: Interventions Across the Continuum of Care					
LEVEL OF CARE	**PACKAGE OF INTERVENTIONS[19]**				
	Care during pregnancy/ focused antenatal care	**Care during delivery**	**Immediate care of the newborn and early postnatal care**	**Continued care of the young infant and mother/ postnatal care**	**Related requirements**
Community	**Provide and/or ensure the following actions are taken:**				
	Maternal **Health education and promotion plus outreach services** • Identify women of childbearing age and register any pregnancies • Refer for Focused Antenatal Care (FANC): start as early as possible in the first trimester, before 12 weeks of gestation, minimum 4 visits • At least 2 tetanus toxoid (TT2+) vaccinations in first pregnancy • Encourage good nutrition • Iron/folate supplementation • Birth planning, birth and emergency preparedness	**Maternal and newborn** • Refer for delivery by skilled birth attendant • Identify trained birth attendant (TBA, community health worker [CHW], or suitable other) to be present at delivery for support* • Ensure availability of clean delivery kit/items (gloves, soap, razor blade, cord tie, cotton wool, and plastic sheet) • Clean delivery (wash hands, use clean items and surface), and appropriate disposal of placenta*	**Newborn** • Help baby to breathe (stimulation, suction, bag and mask), and refer to Health facility • Dry and wrap baby, and encourage skin-to-skin contact baby/mother, (essential thermal care) • Initiate exclusive breastfeeding within 1 hour of birth • Keep mother and baby together • Eye care • Cord care – keep clean and dry, apply nothing • Recognition of danger signs in mother and baby followed by immediate referral • Kangaroo mother care (KMC)	**Newborn** • Thermal care (delayed bathing and keeping baby warm) • Promotion and support for continuation of exclusive breastfeeding • Promotion and provision of hygienic (clean) cord care and skin care • Infection prevention (limit exposure of newborn to potential infection) • Recognition of danger signs and referral to health facility • Pre-referral treatment as needed • Referral to U-5 clinic for continued postnatal visits on day 14 and day 28	• Supportive policy environment • Baby-friendly health initiatives • Implement International Labour Organization (ILO) maternity protection Convention 183 • Implement the international code of marketing of breast milk substitutes • Updated national HIV policy and guidelines • Public-private partnerships • Ensure availability and support of trained delivery attendants • Support and strengthen Neighborhood Health Committees (NHC) and Safe Motherhood Action Groups (SMAGs)

[19] *Based on: The Partnership for Maternal, Newborn & Child Health (PMNCH). Essential Interventions, Commodities, and Guidelines for Reproductive, Maternal, Newborn, and Child Health: A Global Review of the Key Interventions Related to RMNCH. Geneva: PMNCH; 2011.*

	including transportation • Counselling and support for pregnant teenagers and other high-risk pregnancies • Breastfeeding counselling • Intermittent preventive treatment for malaria (IPTp) • Encourage insecticide-treated net (ITN) use • Recognition of danger signs and referral to health facility as needed • Referral for sexually transmitted infection (STI) screening and treatment • HIV counselling and testing • Referral for prevention of mother-to-child transmission of HIV (PMTCT) services • Prevention and referral for gender-based violence (male involvement) • Family planning	• Recognition of danger signs in mother and baby followed by immediate referral • Treatment of minor (non-severe) illness • Encourage PMTCT during labour and delivery (for HIV-positive women)	for low birthweight (LBW) or premature babies (PTB) then referral to HC[20] • Postnatal care by trained birth attendant, CHW, or CHA with 1st postnatal care visit within 24 hours and then 2nd visit on day 3 and 3rd visit on day 7 • Referral to under-five (U-5) clinic for immunization – (BCG, OPV 0) • Examination of newborn • Weigh baby • Registration of birth • Counselling to spouse and key family members on essential newborn care • Continue PMTCT prophylaxis as per current guidelines plus referral for diagnosis and treatment as needed in HIV-exposed babies • Encourage HIV counselling, testing, and PMTCT for mothers not tested during pregnancy • Encourage baby-friendly community interventions	• Refer for immunization (OPV1, DPT, HepB, Hib1) and growth monitoring • Cotrimoxazole prophylaxis for HIV-exposed infants beginning at 6 weeks **Maternal** • Vitamin A supplement • Continue folic acid supplementation • Postnatal visits at 6 hours and on postpartum days – 2, 6, and 42 • Family planning counselling and care • Breastfeeding support • Nutrition and general care counselling • Counselling on hygienic practices • Recognition of danger signs • Referral as needed • Continued support to teenage and single mothers • Referral to antiretroviral therapy (ART) clinic for HIV-positive mothers	• Regular review of training curricula • Availability of community-based distributors (CBD) agents[21] (for family planning) • Supporting behaviour change communication (BCC); information, education, and communication (IEC); and community advocacy interventions, materials, and job aids • Antenatal and prenatal care supplies, antimalarials, ITNs, vaccines, supplements, etc • Clean delivery kits (CDKs) or items/supplies • Overall infection prevention, hygienic practices • Bags, masks for resuscitation • Schedule and adequate budget for outreach services • Community health management information system (HMIS)/records system • Referral system defined for community (health facility sites and location, communication, transport) • Supervision, M&E, regular coaching and mentorship • Encourage male involvement in birth planning, HIV testing, and family planning

[20] *The development of guidelines for low birth and premature babies has been included in the National MNH Scale-up Plan.*
[21] *Training for community based distributors is included in the National MNH Scale-up Plan.*
** This intervention applies to circumstances when facility-based delivery is not possible.*

LEVEL OF CARE	PACKAGE OF INTERVENTIONS				
	Care during pregnancy/ focused antenatal care	**Care during delivery**	**Immediate care of the newborn and early postnatal care**	**Continued care of the young infant and mother/ postnatal care**	**Related requirements**
	Provide and/or ensure the following actions are taken:				
Primary level **Community health post (CHP) and health centre (HC)**	**Maternal** **Health education, counselling, and services** • FANC: women to start as early as possible in the first trimester, before 12 weeks pregnancy and have a minimum of 4 visits • At least 2 tetanus toxoid (TT2+) vaccinations • Nutritional support • Iron/folate and vitamin A supplementation • Birth planning, birth and emergency preparedness, including transportation • Counselling and support for pregnant teenagers and other high-risk pregnancies • Breastfeeding counselling • Recognition of danger signs plus treatment and/or referral to district hospital (DH) as needed • Intermittent preventive treatment for malaria (IPTp) • Encourage insecticide-treated net (ITN) use • STI screening ± treatment • HIV counselling and testing • PMTCT services • Family planning services	**Maternal and newborn** • Trained/skilled birth attendant (nurse, midwife, CHW, clinical officer, physician) at delivery • Clean delivery pack or kit (gloves, soap, razor blade, cord clamp, cotton wool, gauze, plastic sheet) • Clean delivery (wash hands, use clean items and surface), and appropriate disposal of placenta • Recognition and management of danger signs in mother and newborn • Pre-referral antibiotic treatment of mothers with preterm premature rupture of membranes • Pre-referral corticosteroid treatment to mothers in preterm labour (before 34 weeks gestation) • Pre-referral treatment and referral for mother and newborn with complications requiring management at a	**Newborn** • Immediate resuscitation—help baby to breathe (stimulation, suction, bag and mask) • Thermal care (immediate drying, wrapping, warming, skin-to-skin contact baby/mother) • Low birthweight (LBW) or premature babies in KMC position, skin-to-skin • Weighing baby • Initiation and exclusive BF within 1 hour of birth • Immediate examination of newborn at birth and again at 6 hours • Expressed breastmilk for premature/LBW babies • Keep mother and baby together • Prophylactic eye care • Cord care – keep clean, dry, apply nothing • Recommend 1st postnatal visit on day 3 and 2nd visit on day 7 • Referral to under-five (U-5) clinic for immunization (BCG, OPV	**Newborn** • Exclusive breastfeeding • Provision of hygienic cord care • Thermal care (delayed bathing and keeping baby warm) • Recognition and management of danger signs • Pre-referral treatment and referral as needed • Postnatal visits on days 14 and 28 • Referral feedback to the community (CHW, CHA, TBA, SMAGs) • Continued postnatal care and U-5 clinic for immunization (OPV1, DPT, HepB, Hib1) • Reminder to complete immunizations at U-5 clinic • Cotrimoxazole prophylaxis for HIV-exposed infants beginning at 6 weeks **Mother** • Vitamin A supplement • Continue folic acid supplementation • Family planning counselling and care	• Supportive policy environment • Implement ILO Maternity Protection Convention 183 • Implement the international code of marketing of breast milk substitutes • Water source, power source, and emergency communication system • Availability of emergency transport • Public-private partnerships • Accessible labour and delivery and postnatal care services always available (24 h/7d) • Staff: nurse/midwife, clinical officers, trained birth attendants, CHAs (at CHP) • Supporting BCC/IEC/advocacy interventions and materials, job aids • Critical newborn and maternal danger signs defined • ANC and PNC supplies, antimalarials, ITNs, vaccines, supplements, etc • Corticosteroids • Clean delivery kits, supplies, and partographs • Overall infection prevention, hygienic practices • Basic emergency obstetric care /Piloted emergency obstetric and neonatal care (EmONC) • Bags, masks for resuscitation

		higher level of the health system • Initiation/referral or continuation of HIV care and treatment for HIV-positive women	0) • Referral of babies with major problems to DH • Registration of birth • Any counselling to spouse and key family members • Continue PMTCT prophylaxis as per current guidelines plus diagnosis and treatment as needed in HIV-exposed babies • Baby-friendly health facility initiative interventions	• Breastfeeding support • Nutrition and general care counselling • Counselling on hygienic practices • Recognition and management of danger signs • Referral as needed • Recommend 1st postnatal visit on day 3 and 2nd visit on day 7 • Continued support to teenage and single mothers • Referral to/linkage with ART clinic for HIV-positive mothers	• Facilities and supplies for outreach services • Family planning commodities and services • HMIS/records system • Referral and back-referral system in place and known by staff (health facility sites and locations, communication, transport) • Supervision, M&E, regular coaching and mentorship

LEVEL OF CARE	PACKAGE OF INTERVENTIONS				
	Care during pregnancy/ focused antenatal care	**Care during delivery**	**Immediate care of the newborn and early postnatal care**	**Continued care of the young infant and mother/ postnatal care**	**Related requirements**
	Provide and/or ensure the following actions are taken:				
Secondary level **District hospital (DH)**	**Maternal** **Counselling and services** • FANC: women to start as early as possible in the first trimester, before 12 weeks of gestation, and have a minimum of 4 visits • At least 2 tetanus toxoid (TT2+) vaccinations • Nutritional support • Iron/folate and Vitamin A supplements • Birth planning, birth and emergency preparedness, including transportation • Counselling and support for pregnant teenagers and other high-risk pregnancies • Counselling of all pregnant women about benefits and management of breastfeeding • Family planning services • Recognition of danger signs • Intermittent preventive treatment for malaria (IPTp) • Encourage ITN use • Syphilis/STI screening and treatment • HIV counselling and testing • PMTCT services • Management of special or emerging conditions in pregnancy and attention to special groups (e.g., pre-existing conditions, adolescents, etc.)	**Maternal and newborn** • Skilled birth attendant (midwife, clinical officer, doctor, ob/gyn) • Clean delivery pack • Clean delivery – Spontaneous Vaginal Delivery, vacuum or Caesarean Section and appropriate disposal of placenta • Recognition and management of danger signs in mother and newborn • Treatment of mothers with preterm premature rupture of membranes with antibiotics • Give corticosteroids to mothers in preterm labour (before 34 weeks gestation)	**Newborn** • Help baby to breathe (stimulation, suction, bag and mask) • Continuous positive airway pressure (CPAP) to manage preterm babies with respiratory distress syndrome); treatment of other conditions or referral as needed • Drying, wrapping, warmth, skin-to-skin contact between baby/mother, delayed bathing, incubators • Weighing baby • Examination of newborn immediately and at 6 hours • Encourage breastfeeding (BF) on demand • Initiation of and exclusive BF within 1 hour of birth • Expressed breastmilk for premature/LBW babies • Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants • Give newborn infants no food or drink other than breastmilk, unless *medically* indicated • Practice rooming-in (allow mothers and infants to remain together 24 hours a day)	**Newborn** • Exclusive BF • Provision of hygienic cord care • Thermal control (delayed bathing and keeping baby warm) • Recognition and treatment of danger signs • Treatment of other conditions or referral as needed • Link with community volunteers for home visits in community on day 3, 7 • Refer to U-5 clinic for immunization (OPV1, DPT, HepB, Hib1) • Reminder to complete all immunizations/U-5 clinic • Cotrimoxazole prophylaxis for HIV-exposed infants beginning at 6 weeks **Maternal** • Vitamin A supplement • Family planning counselling and care • BF support including counselling mother not to give any artificial teats or pacifiers (also	• Supportive policy environment • Implement ILO maternity protection Convention 183 • Implement the international code of marketing of breastmilk substitutes • Public-private partnerships • Pregnant women should have accessible health services 24 hours a day, 7 days a week • Foster the establishment of BF support groups and refer mothers to them on discharge from the hospital or clinic • Accessible ANC services organized 24/7 • Skilled staff – nurses, midwives, doctors, ob/gyn, paediatrics • Supporting BCC/IEC/advocacy interventions & materials, job aids • ANC and PNC supplies, antimalarials, ITNs, vaccines, supplements, etc. • Corticosteroids • Clean delivery packs/supplies/partographs • Overall infection prevention, hygienic practices • EmONC • Bags, masks for resuscitation • Surfactant and CPAP supplies • Facilities and supplies for mobile outreach services

	• Treatment and/or referral to provincial hospital (PH) as needed • Promotion and counselling on healthy MNCH practices	• Treatment of existing maternal and newborn conditions • Management of delivery complications • Treatment or referral of mother and baby with further special care needs • Initiation or continuation of HIV care and treatment for HIV-positive women	• Prophylactic eye care • Cord care – keep clean, dry, apply nothing • LBW or premature babies: KMC, incubator, intravenous fluids, antibiotics and other special care • Recommend 1st postnatal visit on day 3 and 2nd visit on day 7 • Referral to U-5 clinic for immunization (BCG, OPV 0) • Registration of birth • Any counselling to spouse and key family members • PMTCT in postnatal care, diagnosis and treatment as needed in HIV-exposed babies • Other baby-friendly hospital initiative interventions including having a written BF policy that is routinely communicated to all health care staff; training all health workers in skills necessary to implement it • Referral of babies with further major problems, special conditions to PH	called dummies or soothers) to breastfeeding infants • Nutrition and general care counselling • Counselling on hygienic practices • Recognition and management of danger signs • Treatment of conditions/illness • Referral as needed • Refer for postnatal visits in community • Continued support to teenage and single mothers • Vulnerable mothers referred back to mothers' shelter (halfway house)	• FP commodities and services • Facilities for special care (e.g., theatre supplies, essential equipment and supplies, including accurate weighing scales and a microdropper for infusions • Capability to provide safe blood transfusion and incubators, basic laboratory capabilities for measurement of haemoglobin or haematocrit blood glucose, and serum bilirubin, as well as culture and sensitivity of blood, pus, and cerebrospinal fluid, etc. • Selected essential drugs, including key antibiotics • HMIS/records system • Referral and back-referral system in place and known by staff (health facility sites and locations, communication, transport) • Supervision, M&E, coaching and mentorship • Maternal and perinatal death reviews

LEVEL OF CARE	PACKAGE OF INTERVENTIONS				
	Care during pregnancy/ focused antenatal care	**Care during delivery**	**Immediate care of the newborn and early postnatal care**	**Continued care of the newborn/ postnatal care**	**Related requirements**
Tertiary level **Provincial hospital and national referral/teaching hospital**	**Provide and/or ensure the following actions are taken:**				
	Maternal **Counselling and services** • FANC: women to start as early as possible in the first trimester, before 12 weeks of gestation, and have a minimum of 4 visits • At least 2 tetanus toxoid (TT2+) vaccinations • Nutritional support • Iron/folate and vitamin A supplements • Birth planning, birth and emergency preparedness including transportation • Counselling and support for pregnant teenagers and other high-risk pregnancies • Counselling of all pregnant women about the benefits and management of breastfeeding • Recognition of danger signs • Intermittent preventive treatment for malaria (IPTp) • Encourage ITN use • Syphilis/STI screening and treatment • PMTCT services • Management of special or emerging conditions in pregnancy and attention to special groups (e.g., pre-existing conditions, adolescents, etc.)	**Maternal and newborn** • Skilled birth attendant (midwife, doctor, ob/gyn) • Clean delivery pack • Clean delivery – SVD, vacuum or C/S and appropriate disposal of placenta • Recognition and management of danger signs in mother and newborn • Treatment of mothers with preterm premature rupture of membranes with antibiotics • Give corticosteroids to mothers in preterm labour (before 34 weeks gestation • Treatment of existing maternal and newborn conditions • Management of delivery complications • Treatment of mother and baby with further special care needs • Initiation or continuation of HIV care and treatment for HIV-positive women	**Newborn** • Immediate treatment and resuscitation for asphyxia; give surfactant to preterm babies to prevent Respiratory Distress Syndrome • Thermal care (drying, wrapping, warmth, skin-to-skin contact between baby/mother) • Examination of newborn immediate and at 6 hours • Weighing baby • Initiation and exclusive BF within 1 hour of birth • Expressed breastmilk for premature/LBW babies • Show mothers how to breastfeed, and how to maintain lactation even if they should be separated from their infants • Give newborn infants no food or drink, including water, other than breastmilk, unless *medically* indicated • Practice rooming-in (allow mothers and infants to remain together 24 hours a day) • Encourage BF on demand • Prophylactic eye care • Cord care – keep clean, dry, and apply nothing	**Newborn** • Exclusive BF • Provision of hygienic cord care • Thermal control (delayed bathing and keeping baby warm) • Recognition and treatment of danger signs • Treatment of other conditions, complications as needed • Link with health centre volunteers for home visits in community on day 3, 7 • Refer to U-5 clinic for immunization (OPV1, DPT, HepB, Hib1) • Reminder to complete immunizations/U-5 clinic • Cotrimoxazole prophylaxis for HIV-exposed infants beginning at 6 weeks • Treatment or referral as needed **Maternal** • Refer for postnatal visits in community on days 1, 3, and 7 • Vitamin A supplement • Family planning counselling and care • BF support including	• Supportive policy environment • Implement ILO maternity protection Convention 183 • Implement the international code of marketing of breastmilk substitutes • Public-private partnerships • Pregnant mothers should have accessible health services 24 hours a day, 7 days a week • Foster the establishment of BF support groups and refer mothers to them on discharge from the hospital or clinic • Accessible ANC services organized 24/7 • Skilled staff – nurses, midwives, doctors, ob/gyn, paediatrics • Supporting BCC/IEC/advocacy interventions and materials, job aids • ANC and PNC supplies, antimalarials, ITNs, vaccines, supplements, etc. • Corticosteroids • Clean delivery packs/supplies/partographs • Overall infection prevention, hygienic practices • Comprehensive EmONC • Bags, masks for resuscitation • Surfactant supplies • Facilities and supplies for mobile outreach services • FP commodities and services

	• Treatment of spectrum of illness as needed • Promotion and counselling on healthy MNCH practices • Family planning counselling		• LBW or premature babies: KMC, incubator, or other special care • Continuous positive airway pressure (CPAP) to manage preterm babies with respiratory distress syndrome • Recommend 1st postnatal visit on day 3 and 2nd visit on day 7 • Referral to U-5 clinic for immunization (BCG, OPV 0) • Registration of birth • Any counselling to spouse and key family members • PMTCT in postnatal care, diagnosis and treatment as needed in HIV-exposed babies • Other baby-friendly hospital initiative interventions including having a written BF policy that is routinely communicated to all health care staff; training all health workers in skills necessary to implement it • Management of babies with major problems, special conditions	counselling mother not to give any artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants • Nutrition and general care counselling • Counselling on hygienic practices • Recognition and management of danger signs • Treatment of illness special conditions, complications • Continued support to teenage and single mothers • Vulnerable mothers referred back to mothers shelter (halfway house)	• Facilities for special care (e.g., theatre supplies, essential equipment and supplies, including accurate weighing scales and a microdropper for infusions • Capability to provide safe blood transfusion and incubators, basic laboratory capabilities for measurement of haemoglobin or haematocrit blood glucose, and serum bilirubin, as well as culture and sensitivity of blood, pus, and cerebrospinal fluid, etc. • Selected essential drugs, including key antibiotics • HMIS/records system • Back-referral system in place and known by staff (communication, transport) • Supervision, M&E, coaching and mentorship

4. Appendix 3. Evidence-Based Interventions to Save Newborn Lives

This table of evidence-based interventions was developed from the World Health Organization-led collaboration, Partnership for Maternal, Newborn and Child Health's *Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn and Child Health*.[22]

Interventions for the newborn

Priority Interventions	Level of Care (Community, Primary, Referral)
IMMEDIATE ESSENTIAL NEWBORN CARE (at the time of birth)	
Promotion and provision of thermal care for all newborns to prevent hypothermia (immediate drying, warming, skin to skin, delayed bathing)	Community Primary Referral
Promotion and support for early initiation (within the first hour) and exclusive breastfeeding (for six months)	Community Primary Referral
Promotion and provision of hygienic cord and skin care	Community Primary Referral
Basic neonatal resuscitation (helping babies breathe) for asphyxiated babies (babies who cannot breathe at birth)	Community Primary Referral
Newborn immunization	Primary Referral
General hygiene practices emphasizing hand washing	Community Primary Referral
NEONATAL INFECTION MANAGEMENT	
Antibiotic therapy for newborns at risk of bacterial infection	Community Primary Referral
Case management of neonatal sepsis, meningitis, and pneumonia	Primary Referral
Initiation of antiretroviral therapy (ART) in babies born to HIV-infected mothers	Primary Referral
INTERVENTIONS FOR SMALL AND ILL BABIES	
Kangaroo mother care (KMC) for preterm and low birthweight (< 2500g) babies	Community Primary Referral
Extra support for feeding small and preterm babies	Community Primary Referral
Continuous positive airway pressure (CPAP) to manage preterm babies with respiratory distress syndrome	Referral
Management of newborns with jaundice	Referral

[22] *The Partnership for Maternal, Newborn & Child Health (PMNCH). Essential Interventions, Commodities and Guidelines for Reproductive, Maternal, Newborn and Child Health: A Global Review of the Key Interventions Related to RMNCH. Geneva: PMNCH; 2011, p. 17–18. Available at: http://www.who.int/pmnch/topics/part_publications/essentialinterventions14_12_2011low.pdf.*

6. Appendix 4. Reproductive and maternal health interventions that contribute to newborn health[23]

Priority Interventions	Level of Care (Community, Primary, Referral)
PRECONCEPTION/PERICONCEPTION INTERVENTIONS	
Family planning	Community Primary Referral
Prevention and management of sexually transmitted infections (STIs) including HIV, for prevention of mother-to-child transmission (PMTCT) of HIV and syphilis	Community Primary Referral
PREGNANCY	
Antenatal care – essential package	Primary Referral
Iron and folic acid supplementation during pregnancy	Community Primary Referral
Tetanus immunization in pregnancy for preventing neonatal tetanus	Community (outreach) Primary Referral
Prevention and management of malaria in pregnancy: a) Prophylactic antimalarial for preventing malaria in pregnancy b) Provision and promotion of use of insecticide-treated nets (ITNs) for preventing malaria in pregnancy	Community (outreach) Primary Referral
Screening and treatment of syphilis (including sexual partner)	Primary Referral
Prevention and management of HIV and prevention of mother-to-child transmission in pregnancy	Community Primary Referral
CHILDBIRTH	
Caesarean section for maternal/foetal indication such as obstructed labour and central placenta previa (established practice)	Referral
Initiation or continuation of HIV care for HIV-positive women and HIV-exposed babies	Primary Referral
POSTNATAL AND POSTPARTUM – MOTHER AND BABY	
Postnatal visits at recommended times	Community Primary
Advice and provision of family planning	Community Primary Referral
Screening and initiation or continuation of antiretroviral therapy for HIV	Primary Referral

[23] *The Partnership for Maternal, Newborn & Child Health (PMNCH). Essential Interventions, Commodities, and Guidelines for Reproductive, Maternal, Newborn, and Child Health: A Global Review of the Key Interventions Related to RMNCH. Geneva: PMNCH; 2011, p. 12-16.*

7. Appendix 5. Key Opportunities in Policy and Programmes to Save Newborn Lives[24]

Care for girls and women before pregnancy

- Promote delay of first pregnancy until after 18 years and spacing of each pregnancy until at least 24 months after the last birth.
- Prevent and manage HIV and other sexually transmitted infections (STIs), especially among adolescent girls.

Care during pregnancy

- Increase the quality of antenatal care (ANC), ensuring that women receive four visits and all the evidence-based interventions that are part of focused ANC.
- Promote improved care for women in the home and look for opportunities to actively involve women and communities in analyzing and meeting maternal, newborn, and child health (MNCH) needs.

Childbirth care

- Increase availability of skilled care during childbirth and ensure skilled attendants are competent and equipped for essential newborn care and resuscitation.
- Include emergency neonatal care when scaling up emergency obstetric and newborn care (EmONC).
- Promote better linkages between home and facility (e.g., emergency transportation schemes).

Postnatal care

- Develop national consensus regarding a postnatal care (PNC) package.
- Adapt PNC models to accelerate scale-up, including care at community level.

Integrated Management of Childhood Illness (IMCI)

- Adapt IMCI case management algorithms to address newborn illness and implement them at scale.
- Ensure hospitals can provide care of low birthweight (LBW) babies including kangaroo mother care (KMC) and support for feeding.
- Strengthen community practices for newborn health.

Nutrition and breastfeeding promotion

- Address anaemia in pregnancy through iron and folate supplementation, hookworm treatment, and malaria prevention.
- Review and strengthen policy and programmes to support early and exclusive breastfeeding, adapting the Global Strategy for Infant and Young Child Feeding.

Prevention of mother-to-child transmission of HIV

- Increase coverage of prevention of mother-to-child transmission of HIV (PMTCT) and improve integration of PMTCT, especially with ANC and PNC.
- Use opportunities presented by expanding HIV programmes to strengthen MNCH services (e.g., tracking of women and babies especially in the postnatal period, better laboratory and supply management).

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[24] *The Partnership for Maternal, Newborn and Child Health (PMNCH). Opportunities for Africa's Newborn: Practical Data, Policy and Programmatic Support for Newborn Care in Africa. Geneva: PMNCH; 2006, p. 9. Available at: http://www.who.int/pmnch/media/publications/africanewborns/en/.*

Malaria control

- Increase coverage of insecticide-treated nets and intermittent preventive treatment (IPT) to address malaria during pregnancy.
- Use the current momentum of malaria programmes to strengthen MNCH services (e.g., laboratory, supplies, and social mobilization).

Immunization

- Accelerate the elimination of maternal and neonatal tetanus.
- Use the solid management and wide reach of immunization programmes to strengthen MNCH services (e.g., social mobilization, linked interventions, and monitoring).


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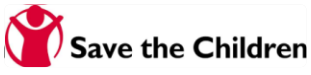
Save the Children

United Nations
ZAMBIA