Sri Lanka Every Newborn
An Action Plan to End Preventable Morbidity and Mortality

SLENAP

2017 - 2020

Family Health Bureau

World Health Organization

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Sri Lanka Every Newborn
An action plan to end preventable morbidity and mortality 2017-2020
Published in November 2016 by
Family Health Bureau,
Ministry of Health,
231, De Seram Place,
Colombo 10,
Sri Lanka.
Web site: www.familyhealth.gov.lk

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Printed by Vishwa Graphics Pvt Ltd

ISBN: 978-955-1503-45-1

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Preface

Sri Lanka can be proud of the progress achieved in Newborn Care over the past decades. Neonatal mortality has declined to rates comparable to some developed countries in the world. The Every Newborn An Action Plan to End Preventable Morbidity & Mortality (SLANAP) has generated new attention and investment to address some areas that need more focus at present times.

About 2000 babies die each year during the newborn period and another 2000 is lost as still births in our country. Some babies suffer long term disability due to complications at birth or in the perinatal period. Detailed analyses show that some of these disease conditions and deaths are preventable with existing interventions.

In the global health agenda newborns were rendered a prominent place even before the millennium declaration in 2015. The Every Newborn; An Action Plan (ENAP) to End Preventable Deaths were presented at the World Health Assembly in 2014 with clear strategies and evidence based interventions that can prevent neonatal deaths and still births. Sri Lanka is a signatory to implement the ENAP.

The SLENAP is developed, based on the core theme of focusing on the quality of care at birth that is known to render a triple return on investment by preventing maternal and neonatal deaths and still births. National Maternal and Newborn Health Strategic Plan 2012-2016 (MNH SP) provided strategic guidance to the newborn care programme until 2016 and the MNH SP 2017-2025 would provide strategic directions to the programme from 2017 onwards. The SLENAP 2017 – 2020 would guide development of action plans for Newborn Care at Central, Provincial and District levels and for Hospitals with maternity and newborn care facilities. Implementation of this plan as per given time lines would enable Sri Lanka to achieve the set goals and ensure better health for the newborns. All officials and organizations to which responsibilities are assigned in this plan should take measures to deliver expected output in the given time lines.

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November, 2016

Acknowledgement

Sri Lanka Every Newborn, An Action Plan to End Preventable Morbidity & Mortality (SLENAP) is the fulfillment of a commitment made to the global community at the 67th World Health Assembly at Geneva in May 2014. SLENAP is in synchrony with the Global Every Newborn Action Plan (2014) and the Sri Lanka Maternal and Newborn Health Strategic Plan (2017-2025).

We are extremely grateful to the guidance and unstinting support given by Dr P.G. Mahipala, Director General Health Services throughout the process. The leadership and support of Dr R.R.M.L.R. Siyambalagoda Additional Secretary Medical Services/Deputy Director General Public Health Services II as the Chairman of the SLENAP Advisory Committee and for the Advisory Committee for Bottle Neck Analysis of Newborn Care in Sri Lanka is greatly appreciated. Contribution of the Deputy Director Generals Medical Services I and II, Dr Luxmi Somatunga and Dr Amal Harsha de Silva is commendable.

Most sincerely we thank each and every member of the SLENAP Advisory Committee, for their valuable inputs in shaping this plan. We would like to express our deep appreciation to Dr Ramya de Silva, President, Sri Lanka College of Paediatricians, Prof Dulani Gunasekera, President, Perinatal Society of Sri Lanka and Dr Gamini Perera, President, Sri Lanka College of Obstetricians and Gynecologists for their individual contribution and also for the valuable contribution from their respective organizations.

We would like to express our deep gratitude to Dr Lalani Rajapaksa, the consultant for the Bottle Neck Analysis on Newborn Care in Sri Lanka that made solid recommendations to improve the Newborn Care Programme in Sri Lanka. Every member who participated from different parts of the country, from the field and hospitals in extensive stakeholder workshops for the Bottle Neck Analysis has contributed to this plan and is well appreciated. Also we acknowledge with gratitude the contribution and corporation of development partners, WHO, UNICEF and UNFPA.

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November, 2016

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List of Abbreviations

ACS	Antenatal Corticosteroids
BME	Biomedical Engineering Division
BW	Birth Weight
CCP	Consultant Community Physician
CPD	Continuous Professional Development
CPAP	Continuous positive airway pressure
DCS	Department of Census and Statistics
DDG	Deputy Director General
DGH	District General Hospital
DGHS	Director General Health Services
DHS	Demographic Health Survey
DMCH	Director Maternal and Child Health
ECMO	Extracorporeal Membrane Oxygenation
eIMMR	electronic Indoor Morbidity and Mortality Return
EMOC	Emergency Obstetric Care
ENC	Essential Newborn Care
END	Early Neonatal Deaths
EPMM	Ending Preventable Maternal Mortality
FHB	Family Health Bureau
HEB	Health Education Bureau
HoI	Head of Institution
I/V	Intravenous
ICD-10	International Classification of Diseases - 10
IMR	Infalt Mortality Rate
IPPV	Intermittent Positive Pressure Ventilation
IV	Intravenous
KMC	Kangaroo Mother Care
LBW	Low Birth Weight
LMC	Lactation Management Centre
LND	Late Neonatal Deaths
MBC	Mother Baby Centre
MCH	Maternal and Child Health
MCHIP	Maternal and Child Health Integrated Programme
MDG	Millennium Development Goals

MHTF	Maternal Health Task Force
MMR	Maternal Mortality Ratio
MNH	Maternal and Newborn Health
MO	Medical Officer
MOIC	Medical Officer in Charge
MOMCH	Medical Officer Maternal and Child Health
MOH	Medical Officer of Health
MS	Medical Superintendent
NCFH	National Committee on Family Health
NDQL	National Drug Quality Control Laboratory
NICU	Neonatal Intensive Care Unit
NLS	Neonatal Life Support
NMR	Neonatal Mortality Rate
NO	Nitric Oxide
ORS	Oral Rehydration Solution
PDHS	Provincial Director Health Services
PGH	Provincial General Hospital
PHM	Public Health Midwife
PHNS	Public Health Nursing Sister
PND	Post Neonatal Deaths
PSSL	Perinatal Society of Sri Lanka
RDHS	Regional Director of Health Services
RG	Registrar General
RH MIS	Reproductive Health – Management Information System
RMNCAH	Reproductive, Maternal, Newborn, Child and Adolescent Health
RSPHNO	Regional Supervising Public Health Nursing Officer
SBR	Still Birth Rate
SGA	Small for Gestational Age
SLCOG	Sri Lanka College of Obstetritians and Gynacologists
SLCP	Sri Lanka College of Peadiatricians
SLENAP	Sri Lanka Every Newborn Action Plan
TACNCH	Technical Advisory Committee on Newborn and Child Health
TPN	Total Parenteral Nutrition
VOG	Visiting Obstetrician and Gynaecologist
WHA	World Health Assembly
WHO/MICS	WHO Multi Country Survey

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Chapter 1

Introduction

Maternity homes for child birth existed in Sri Lanka as early as 340 – 368 AD where expectant mothers were admitted at the ninth month and deliveries conducted by experienced birth attendants. Around 15th century, separate hospitals had been established for women under Ayurvedic System. In 1505, Sri Lanka came under colonial rule and during this era western system of medicine was introduced to the country. First organized effort towards care of childbearing women was the establishment of De Soysa Lying-in Home (later to become the De Soysa Maternity Hospital; DMH) in 1879.

Box 1; Key landmarks of the Maternal and Child Health Programme that rendered lasting impressions to the newborn care programme in Sri Lanka until the turn of the millennium

1879-	Opening of De Soysa Lying-in Home (second maternity hospital in Asia)
1881-	First training school for Midwives established in De Soysa Lying-in-Home
1902-	Maternal and child health department created in Colombo Municipality
1906-	Field maternal services commenced in Colombo Municipality
1921-	First antenatal clinic started in De Soysa Lying-in-Home
1926-	Establishment of Health Unit system (later to become MOH system in Kalutara
1950-	Opening of Castle Street Hospital for Women, the second maternity hospital in Sri Lanka
1965-	Opening of Premature Baby Units at DMH and CSHW
1965-	Family Planning policy introduced to the country
1968-	Family Planning Bureau /Maternal and Child Health Bureau established
1973-	Re-naming of MCH Bureau as Family Health Bureau (FHB)
1978-	Expanded Programme on Immunization initiated
1983-	Sri Lanka Code for Promotion, Protection and Support of Breast Feeding and Marketing of Designated Products enacted
1987-	Safe motherhood concept introduced
1992-	Launch of the Baby Friendly Hospital Initiative (BFHI) and designating DMH as the first Baby Friendly Hospital
1995-	Staff training on 40 hr Breastfeeding Counselling Course initiated

Declaration of Millennium Development Goals (MDG) diverted focus especially towards newborn, as MDG 4 was to reduce child deaths by 2/3 by 2015, and more than 2/3 of child deaths were neonatal deaths. It was noted that unless neonatal mortality is reduced, Sri Lanka would not be able to achieve the MDG 4.

The External Review on Maternal and Newborn Health (Ministry of Health, 2006) clearly recommended that newborn care in the country's health system needs much improvement. This review provided an opportunity for systematic planning of island wide high quality services for the newborn. The National Maternal and Newborn Health (MNH) Strategic Plan 2012 – 2016 had clear goals and objectives to improve neonatal care in the country.

Box 2; Key Milestones of the Newborn Care Programme since the turn of the millennium

2000- Declaration of Millennium Development Goals
2006- External review of the maternal and newborn health programme
2007- WHO Essential New born Care Package introduced and scaled up throughout the country
2007- UK Resuscitation Council Accredited Neonatal Advanced Life Support Course introduced and scaled up throughout the country
2007- Guidelines for NICU, SCBU and MBC introduced
2007- Introduction of Newborn Formats to the Health Institutions
2008- Surfactant was introduced for the management of preterm neonates
2010- Nutrition Policy of Sri Lanka
2010- Launch of Newborn screening for congenital hypothyroidism in Southern Province and later scaled up throughout the country from 2015
2012- Maternal and Newborn Health Strategic Plan 2012-2016
2012- Maternal and Child Health Policy 2012
2012- Emergency Obstetric and Newborn Care Needs Assessment Survey
2012- Neonatal Standards introduced
2012- Care of the Sick Newborn SDF Training Programme initiated
2014- Neonatal Transport Service launched at Lady Ridgeway Hospital
2014 - Levels of Neonatal Care for Specialist Hospitals in Sri Lanka defined
2015 - Newborn Screening for Critical Congenital Heart Diseases launched
2015 - Newborn Care Clinical Guidelines along with a mobile application launched
2015 – Conducted Bottle Neck Analysis of Newborn Care Services in Sri Lanka

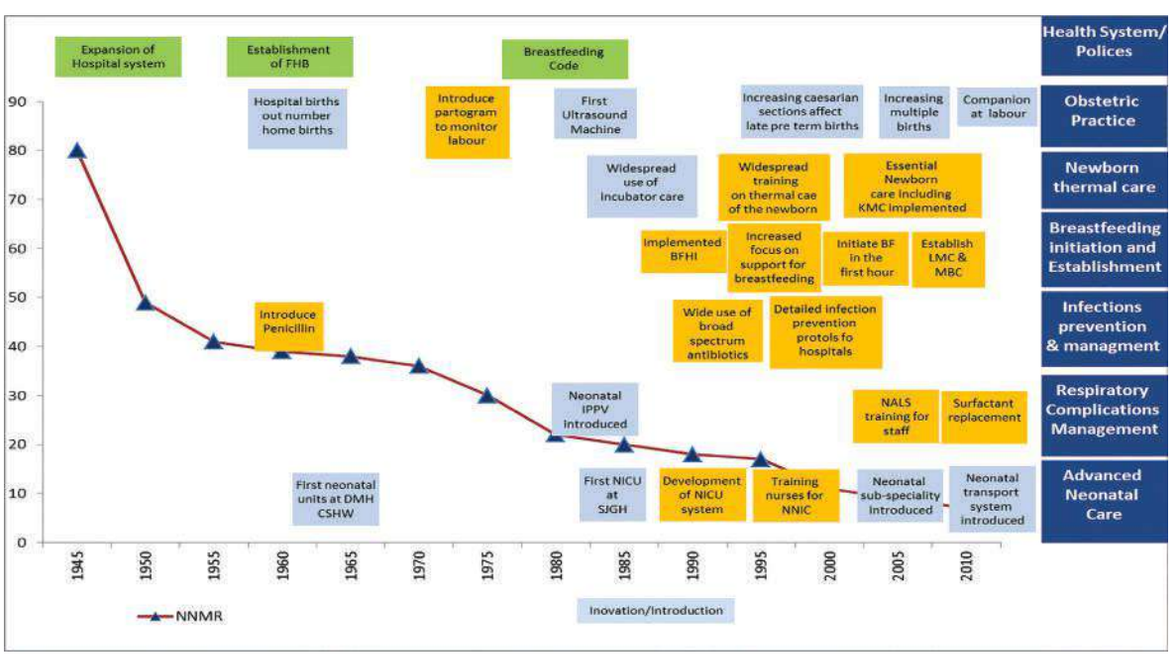


Figure 1.1 Overview of newborn care interventions in relation to decline of neonatal mortality in Sri Lanka from 1945 - 2015

Although remarkable progress has been made in recent times in reducing neonatal mortality, about 2000 (Registrar General 2013) newborns continue to die every year despite availability of feasible, evidence based solutions. Though newborn survival, health and prevention of stillbirths were not specifically addressed in the Millennium Development Goal framework, in Sri Lanka, the Newborn Care Programme was given more attention than before during the MDG era. Neonatology was identified as a sub specialty in postgraduate training in Paediatrics in 2005 and Newborn Care Programme was identified as a separate programme within MNH Programme with a distinct Programme Manager in the Family Health Programme since 2007.

At present there is an unprecedented opportunity to address newborn health as far more is known about effective interventions, service delivery channels and approaches to accelerate coverage and quality of care. Globally, much needed attention has triggered multiple stakeholders to propose the Every Newborn; An action plan to end preventable deaths. The final plan was endorsed at the 67th World Health Assembly in 2014 and it gave direction for the countries to develop their own plans.

In Sri Lanka, already the Maternal and Newborn Health Strategic Plan (MNH SP) 2012 -2016 was available to guide the national programme until 2016. The Technical Advisory Committee on Newborn and Child Health (TACNCH) proposed to conduct the Bottle Neck Analysis to identify gaps in the current programme. The recommendations from the BNA (FHB, 2015a) along with findings of other surveys such as the Emergency Obstetric and Newborn Care Needs Assessment Survey (FHB, 2012b) were taken into consideration in development of the Sri Lanka Every Newborn Action Plan.

Role of mother; Breastfeeding, Wood carving Embekke Devala, 17th century

De Soysa Maternity Hospital in 2015, First maternity hospital in Sri Lanka, established in 1879

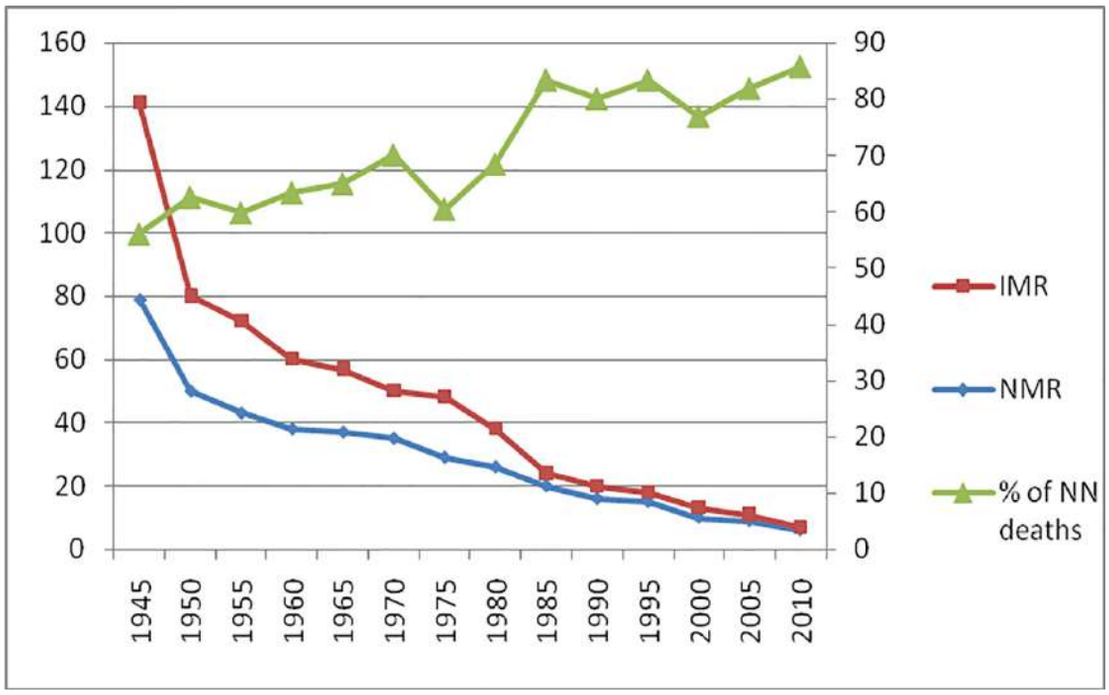
Chapter 2

Situation Analysis

2.1. Current Trends

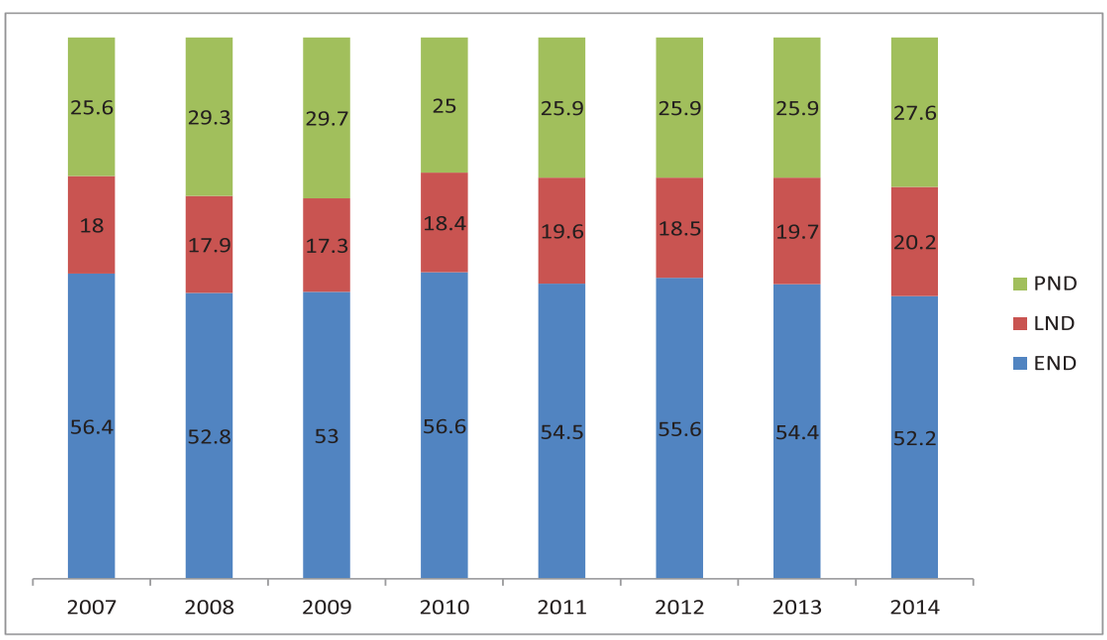
Sri Lanka has shown a steady decline in neonatal and perinatal mortality over many decades. Rapid decline shown in the mid 20th century could be attributed to expansion of hospital and public health infrastructure, increase in skilled birth attendants, control of malaria, introduction of antibiotics and healthy social policies of providing free health and free education. However this trend slowed during the 1990s and beyond (Fig 2.1).

Figure 2.1; Trends in Infant and Neonatal Mortality Rates 1945 -2010 *Source; Registrar General*



According to the infant death investigation reported through the RH MIS, most of the infant deaths occur within the first 7 days of life (Figure 2.2). The importance of focusing on care around the time of birth, to further reduce neonatal mortality is well highlighted by this fact.

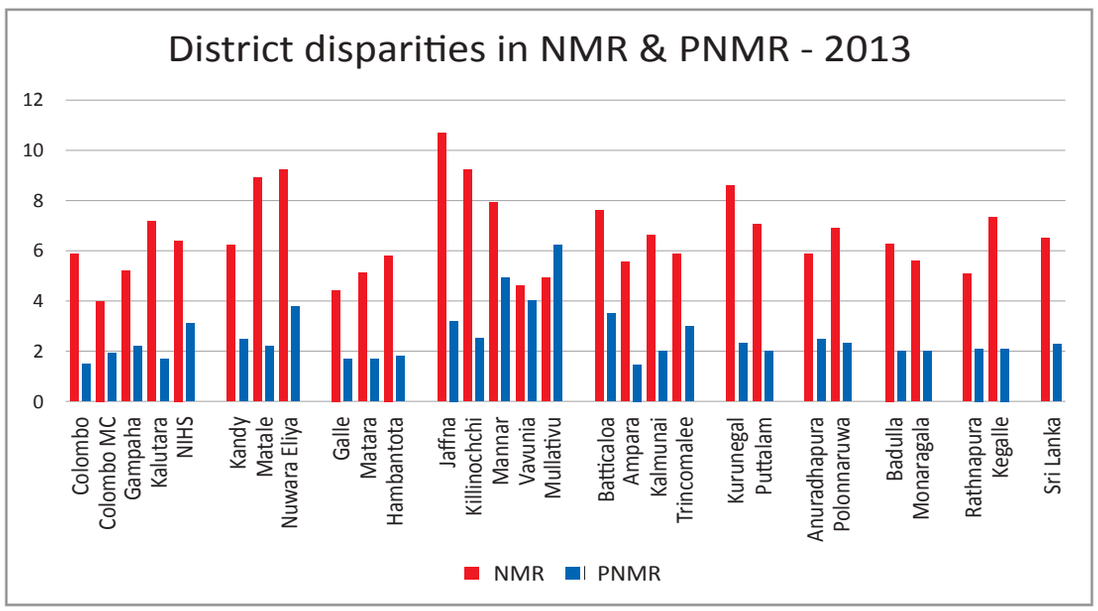
Figure 2.2 Percentage distribution of infant deaths according to age at death from 2007 - 2014



Source; Annual Report, Family Health Bureau, 2014

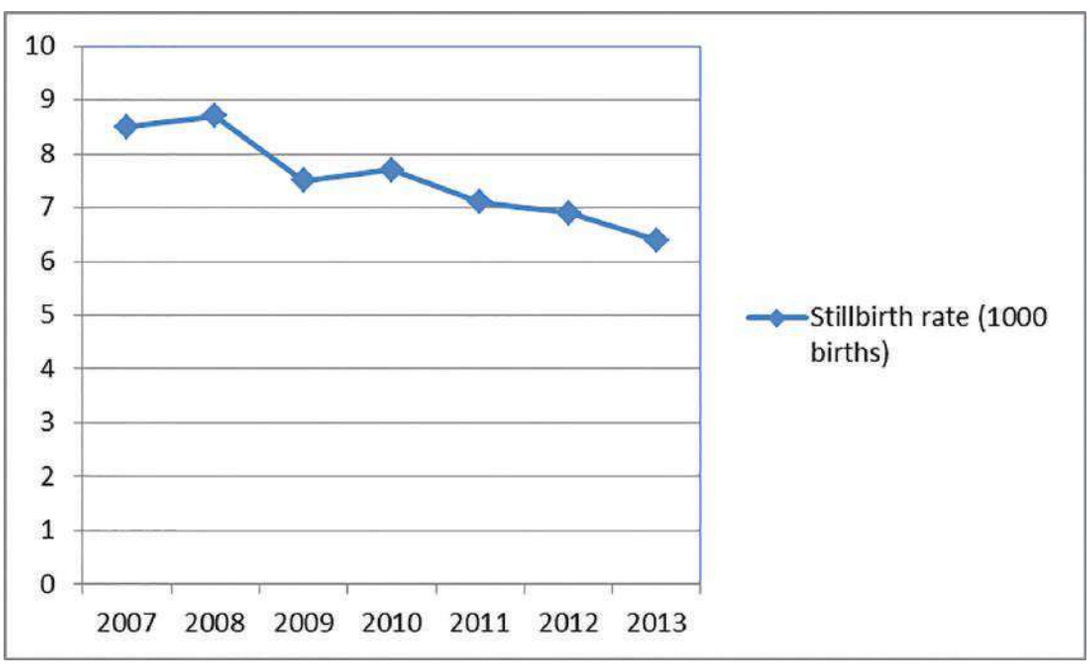
There are wide district disparities in both neonatal and post neonatal mortality, the differentials being more in respect of NMR (Figure 2.3).

Figure 2.3: District disparities in NMR and PNMR 2013 *Source; RH MIS*



Up to 2015, still births were reported only in proclaimed areas and data was not available from the Registrar General. Data from RH MIS depict that the still births too show a declining trend (Figure 2.4).

Figure 2.4; Trends in Still Birth Rates 2007 – 2013 Source; RH MIS



Causes of neonatal death

Causes of neonatal deaths are available from three sources, the Registrar General (RG), through the Indoor Morbidity and Mortality Return (IMMR) and through the field health services based on the field investigation of infant mortality (RH MIS).

It is seen that the cause of neonatal death in the majority of cases (73.7%) is given as conditions originating in the perinatal period, with nearly 17% being reported as being due to congenital malformations, deformations and chromosomal abnormalities from the Registrar General's information. The causes of death given for all infant deaths based on the field investigation into infant deaths in the Annual Report, Family Health Bureau (FHB, 2014) indicates that 46% of infant deaths are due to congenital deformities. The causes of death from the two sources are not compatible and suggest a probable misclassification of the causes of death in one of the sources.

2.2 Progress of Newborn Health Strategies and Activities

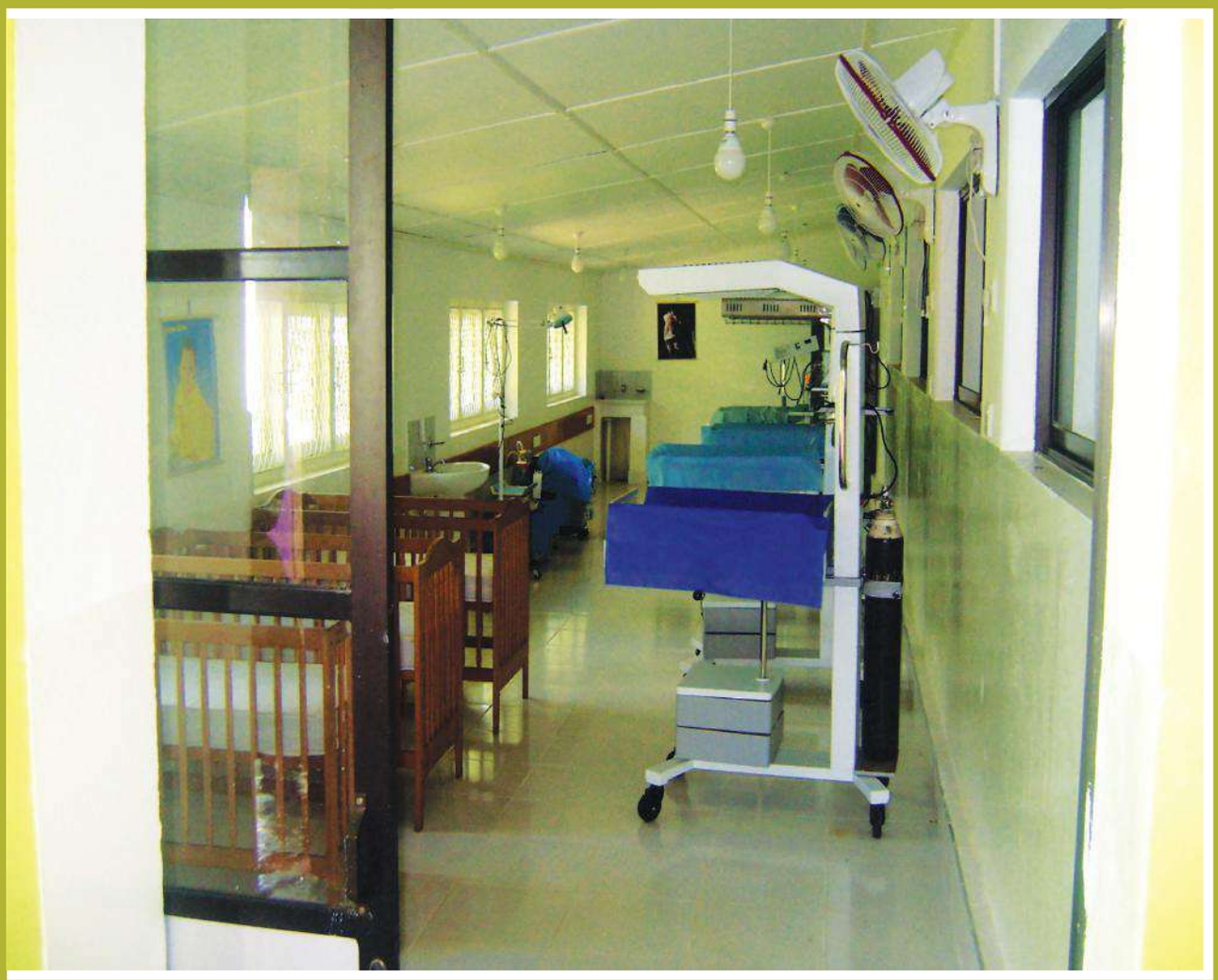
Maternal and Newborn Health Strategic Plan was introduced in 2012, and following is a brief summary of its status of implementation (table 2.1). Detailed account of the progress is given in the Newborn Care in Sri Lanka; Bottle Neck Analysis, (FHB, 2015b).

Table 2.1; Progress of the strategies and major activities related to newborn care in the MNH strategic plan 2012-2016

	Strategy/Major Activity	Progress
1.	Ensure that newborn care is adequately addressed within the MCH/FP policy and strategic plan	Adequately addressed. Only gap is that the implementation of the strategic plan was not regularly monitored.
2.	Ensure availability of uniform, updated evidence based technical guidance and direction to improve newborn care	Evidence based Essential Newborn Care Package, Newborn Guidelines, Newborn Standards have been introduced.
3.	Ensure provision of quality essential care to all newborns at institutional and field levels	Essential Newborn Package is introduced, however a system to ensure provision of quality essential care was not introduced.
4.	Improve the quality of care provision for high risk newborns	Many aspects of quality care provision to high risk new borns have been improved, however a system to ensure provision of quality advance care was not introduced.

5.	Improve knowledge, skills and competencies of health staff on essential and advanced newborn care	Training packages to improve knowledge, skills and competencies of health staff on essential and advance newborn care are in place. But 100% coverage of training not achieved and a system to assess skills and competencies not in built.
6.	Strengthen the infrastructure for provision of basic and advanced newborn care	Infrastructure for the provision of basic and advanced newborn care has improved throughout the country in most of the hospitals. It has to be done according to a needs assessment, based on a master plan for the institutions. A functioning referral system has to be established. Supportive services need strengthening in order to address the needs of neonatal units.
7.	Ensure effective implementation of the Baby Friendly Hospital Initiative	BFHI ten steps are introduced to all the hospitals and practiced in all the maternity hospitals in the country. Monitoring of BFHI status is now planned to be incorporated to the quality assurance system.
8.	Strengthen the neonatal information system	Neonatal formats are institutionalized throughout the country. A system to gather information on all newborns through eIMMR is being introduced. A Neonatal Intensive care surveillance system was introduced to 20 units and will be expanded. Need to publish a report on neonatal mortality and morbidity periodically.
9.	Ensure availability of evidence based information for improving newborn care	Collaborative research has been carried out that provides timely information for improving newborn care. Costing of interventions are awaiting.
10.	Strengthen collaboration and partnership with all stakeholders working towards improving new born care at all levels	Good collaboration and partnership is ensured through the Technical Advisory Committees and the National Committee on Family Health.
11.	Strengthen the Newborn Care Unit of the Family Health Bureau for effective implementation and monitoring of the newborn care programme	Effective implementation of the programme needs to be monitored.

Showcasing Sri Lanka as the blue print of the SAARC Devolopment Fund MCH Project to members of other SAARC countries –
Visit to BH Wathupitiwela
Courtesy of Dr. Sisira Wijewardena



Level I Neonatal Unit - Base Hospital Deniyaya devoloped under SDF MCH project

Courtesy of Dr. Parami Gunasekera

Level III Neonatal Care Unit, DMH
Courtesy of Dr. Girlie de Silva

Chapter 3

Bottle Neck Analysis

Prior to development of the Sri Lanka Every Newborn Action Plan focusing on ending preventable newborn deaths and preventable stillbirths, the Bottle Neck Analysis (BNA) was conducted. The objective of conducting the BNA was to identify gaps in the current newborn care programme and to identify the bottlenecks for scaling up of interventions. The BNA was conducted through a wide stakeholder consultation, review of available of information and visits to a sample of hospitals of different categories. The feedback obtained from the above process was synthesized to facilitate the formulation of the Sri Lanka Every Newborn Action Plan to achieve the goals for Sri Lanka.

3.1 The WHO/UNICEF tool for BNA

There were two sections in this tool;

Section 1 of the tool, the current analysis focused specifically on the bottlenecks for strengthening the infrastructure necessary to provide essential and advanced care for newborns and information was gathered based on seven health services building blocks; leadership and governance, health financing, health workforce, health services delivery, essential medical products and technologies, health information system and community ownership and partnership.

Section 2, bottlenecks for the implementation of the following were examined:

- Providing the essential new born care package to every new born in the country irrespective of the place of delivery (Kangaroo mother care and neonatal resuscitation is included in the package). This was examined against the national standards for neonatal care.
- Use of the partogram
- Management of preterm birth (tracer; use of antenatal corticosteroids)
- Treatment of severe infections and inpatient supportive care for the sick and small newborns
- Assisted vaginal delivery - the level of institution where this should be made available and bottlenecks for providing service
- Providing companionship during labour which is identified in the MNH strategic plan 2012 – 2016)

3.2 Summary of key bottle necks identified in the BNA

3.2.1 Strengthening the infrastructure necessary to provide essential and advanced care for the newborns

Leadership and Governance

The lack of attention given to the perinatal / neonatal care services by policy makers, staff shortages in the intranatal and newborn care unit at FHB, ineffectiveness of the mechanisms for dissemination of policy documents and plans to the provinces / districts and the absence of a mechanism to hold the key partners accountable for the implementation of the national plan within an agreed time frame were the key bottle necks identified at the national level.

The key bottlenecks identified in relation to leadership and governance at provincial level were: weak and ineffective provincial planning processes, prioritization of competing interests often not being evidence based, in some districts, the MOMCH being not adequately effective specially in relation to supervision and monitoring of the institutional MNH program.

The key bottlenecks identified in relation to leadership and governance at institutional level were the lack of knowledge of the level of neonatal care services assigned to the institution, priority and attention to location given to neonatal care facilities in institutional building construction plans and the absence of an institutional mechanism to address issues arising in service provision.

Health information system

The key bottlenecks identified in relation to the health information system were the paucity of information on the extent and causes of neonatal

deaths leading to low visibility of the problem, the current practice of stillbirth registration in a few selected death registration divisions of the country, perinatal and early neonatal information not being given prominence at national level, lack of data disaggregated by province/district and the less effective current perinatal death surveillance system and difficulties in timely compiling and analysis of available data.

Health workforce

The key bottlenecks identified in relation to health workforce were; the non-availability of policy, projections and plans for the development of human resources necessary for the planned neonatal care services of the country, absence of specific job descriptions and responsibilities of the different categories of staff, reluctance on the part of staff to work in specialized units leading to problems in providing 24*7 care, difficulties in ensuring in-service training for all care providers to deliver the selected interventions. Absence of a database of information on in-service training of staff at institutional and district level, the absence of a regular training schedule at district level, lack of dedicated staff responsible for training (training faculty), a designated person to coordinate training in the district, as well as a dedicated financial allocation for continued in-service training.

Health service delivery

The bottlenecks identified in relation to planning services are the paucity of information on the proportion of newborns that may need interventions. At institutional level there is a lack of knowledge about national / district targets to be achieved. Unplanned institutional upgrading and the absence of regular intakes for training has led to staff shortages, absence of a system of auditing of clinical care to monitor the implementation of standards and adherence to guidelines.The absence of a culture that promotes supportive supervision and mentoring at unit level.

Health financing

The key bottlenecks identified in relation to health financing were that there were no means of identifying the financial allocation for MNH separately at national, regional and institutional levels. Although the health services were free at point of delivery, there were considerable out of pocket expenditure associated with maternal and newborn care, especially for infants admitted to specialized neonatal care units.

Essential medical products and technologies

The key bottlenecks identified for essential medical products and technologies were the ineffective functioning of the institutional drug review committees, essential items not being available continuously and lack of an information system on equipment and difficulties in relation to repair and maintenance of the equipment.

Community ownership and participation

The key bottlenecks identified in relation to community ownership and participation were the delay in initiation of an educational strategy for the MNH strategy and the deficiency of knowledge about danger signals of illness in the newborn among parents.

3.2.2 Maternal and newborn facility based intervention packages at the time of birth (labour, childbirth, immediate postnatal care)

Essential newborn care

Lack of awareness about the standards for newborn care and guidelines, unavailability of these at ward level and the documents not being available in Sinhala and Tamil, were key bottlenecks identified. It was observed that a considerable percentage of staff providing care at birth had not received training on the essential newborn care package. A lack of confidence in skills acquired such as use of bag and mask ventilation, absence of monitoring / audits of care practices and supervision of activities at ward level.

At institution and ward level, bottlenecks identified were, absence of hand washing facilities at entrance to labour rooms, not having elbow or foot operated taps, inadequacy in quantity of hand rub available, low quality of cord clamps supplied through Ministry of Health, labour room beds not being of a standard size, not wide enough to have the baby with the mother, inadequate attention to labour room temperature and calibration of weighing scales.

Skilled care at birth – use of the Partograph

The bottlenecks identified were; in-service training programmes currently available do not deal adequately with the use of the Partograph, lack of supportive supervision of the accuracy of recording and interpretation of the partograph at unit level, no indicator to monitor its use. In addition, poor pain relief during labour was identified as a deficiency in providing skilled care at birth.

Management of preterm delivery

Guidelines for the management of preterm deliveries are in the process of being developed by the Sri Lanka College of Obstetricians and Gynecologists in collaboration with the Family Health Bureau.

Although the neonatal management guidelines specify that pre term deliveries have to be managed in a level III/III+ facility (Annexure 2), difficulties have been encountered in in-utero transfer of patients. Difficulties are also encountered when pre term neonates need to be transferred. Many were not aware of the use of dexamethasone (steroids) to improve lung maturation in preterm deliveries. Information on dexamethasone use was available only from the WHO/Multi Country Survey . In this study, out of 1412 pre term babies identified in the sample only 7 had received prophylactic steroids. The information on pre term birth, its management and outcomes are not included in the current RH-MIS.

Provision of care for sick and small newborns

The overwhelming majority of the bottlenecks identified in this section were addressed in the section on strengthening the infrastructure necessary to provide essential and advanced care for the newborns. In addition the following bottlenecks were identified: Norms for equipment for each level have to be updated at regular intervals, deficiencies in specifications of equipment and problems in maintenance of equipment, overcrowding in higher level institutions and poor condition of neonates transferred to NICUs, absence of a culture of analysis and use of data at unit level.

Assisted vaginal delivery

It is noted that the frequency of assisted vaginal delivery in the country is low. It is recognized that competency in the procedure is an important part of specialist training. The consensus of opinion was that the procedure should be carried out only in an institution where specialist services are available and under direct supervision of the consultant.

The bottlenecks identified were unavailability of disposable vacuum cups and instruments in proper working order. However, it was also felt that low use of the technique may have contributed to the necessary equipment not being available.

Companionship during labour

The majority of providers felt that under the present facilities available in most labour rooms, even the presence of a female companion would pose problems. They also felt that in an emergency this would hamper provision of services.

However, there are institutions/units where a female companion is allowed to be with the mother during labour. It was suggested that visits to such units would provide an opportunity to discuss the perceived problems and see how they have been overcome and also be made aware of the positive aspects of the practice for patients as well as service providers.

The consensus was that it could be introduced first on a voluntary basis to units who would like to provide the service and then gradually expanded.

Emergency Obstectric and Newborn Care Master Training Programme conducted by Liverpool School of Tropical Medicine - 2016
Courtesy of Dr. Dhammica Rowel

Well Baby Clinic, Base Hospital Wathupitiwala

Courtesy of Dr. Manel Panapitiya

Chapter 4

Sri Lanka Every Newborn; An Action Plan to End Preventable Morbidity and Mortality (SLENAP)

Vision

To ensure that Sri Lanka is a country in which
there are no preventable deaths and illness of newborns or stillbirths,
where every pregnancy is wanted, every birth celebrated,
and women, babies and children survive, thrive and reach their full potential.

4.1 Goals

Goal 1

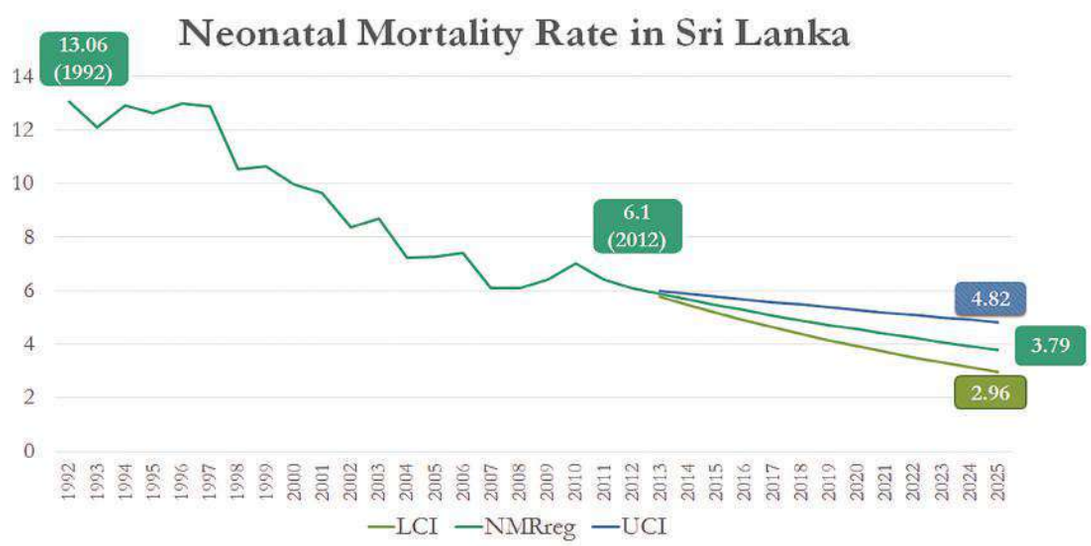
To reduce neonatal mortality rate from 6.5/1000 LB (2013) to 4.2 / 1000 LB by the end of 2020.

In order to achieve the target goal of Every Newborn Action Plan (WHO, 2014) of a Neonatal Mortality Rate 3.4/1000LB by 2025, it is required for the country to reach a Neonatal Mortality Rate of 4.2/1000 LB by 2020.

A time series analysis of Neonatal Mortality Rates from 1996 -2012 , depict that the country can achieve the expected target if we reduce the neonatal mortality with the same rate of reduction, as shown from 1996-2012 (Figure 4.1).

Figure 4.1: Neonatal Mortality Rate for Sri Lanka 1996 - 2012 and projections for 2025

(Source Registrar General)



Goal 2

To reduce the still birth rate from 6.4/1000 births (2013) to 4.5 / 1000 births by the end of 2020

In order to reduce the still birth rate from 6.4/1000 births (2013) to 3.5/1000 births by the end of 2025 as given in ENAP (2014), a still birth rate of 4.5/1000 births by 2020 is required to be achieved.

It is noted that the Annual Report on Family Health (FHB, 2014) reported a stillbirth rate of 6.4 per 1000 live births in 2013 and an average annual rate of decline of 4.6% for the period 2007-2013. The findings of the EmONC needs assessment of 2012 and the WHO MCS 2012 support the stillbirth rate reported by the FHB. It appears that the country is on course to achieve the goals for stillbirths (Figure 4.2).

Figure 4.2: Stillbirth rate for Sri Lanka 2007 – 2013 and projection for 2025

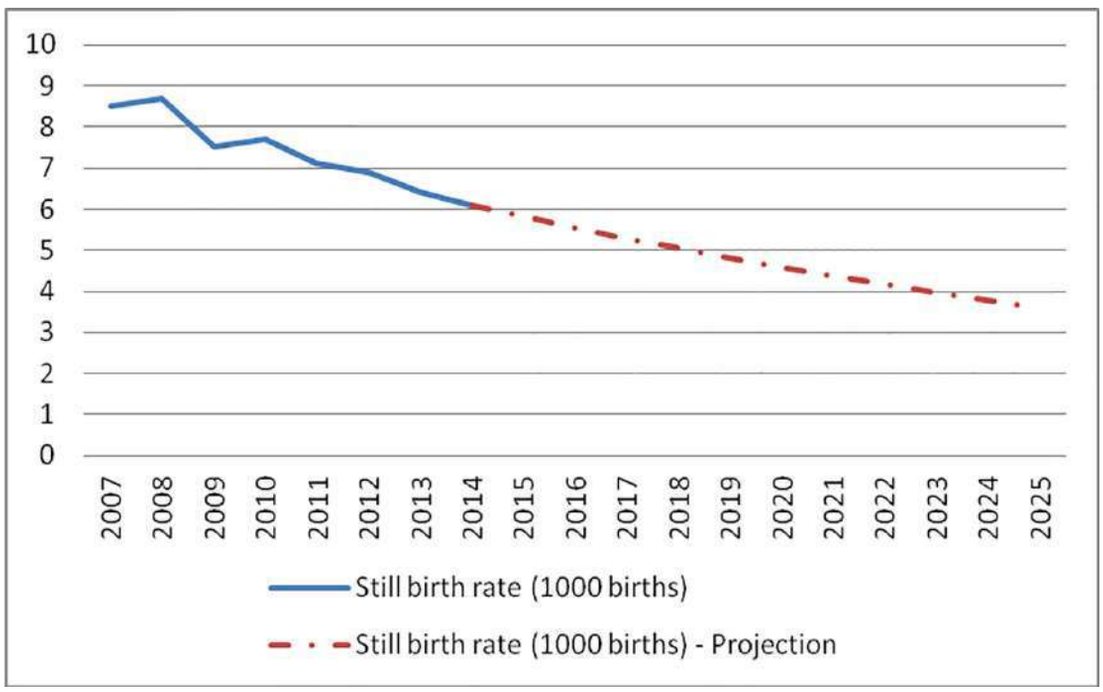


Table 4.1; Targets for MMR, NMR and SBR for 2020, 2025 and 2030 in the MNH SP (2017-2025)

	2015	2020	2025	2030 (SDG)
Maternal Mortality Ratio (per 100,000 LB)	33.7	25	15	< 10
Neonatal Mortality Rate (per 1000 LB)	5.8	4.2	3.4	< 2.2
Still birth Rate (per 1000 births)	5.7	4.5	3.5	< 2

4.2 SLENAP core and additional indicators

Ten ENAP core indicators and additional 8 indicators are selected on the basis of their importance and relevance to the SLENAP targets of reduction in neonatal mortality and stillbirths rates and to achieve SLENAP objectives (WHO, 2014). Definitions and the sources for data collection of the indicators selected for the SLENAP matrix identified below are given in Annexure 1. Current status of the selected indicators and the targets to be achieved for some of the indicators, in order to achieve the SLENAP goals are given in table 4.2. It has to be noted that current levels for some of the indicators are not available in the system at present. For some indicators, it is not possible to calculate targets, but are included as useful monitoring indicators.

Table 4.2; SLENAP indicators and targets for 2020, 2025 and 2030

		Current	2020	2025	2030
	Core Indicators				
IMPACT	MMR (per 100,000 LB)	33.7 (FHB, 2015)			10
	SBR (per 1000 births)	6.4 (FHB, 2013)	4.5	3.5	2.2
	NMR (per 1000 LB)	6.5 (FHB, 2013)	4.2	3.4	2.2
	Additional Indicators				
	Fresh SBR/1000 births	2.7 (EmONC Survey, 2012)			
	LBW rate (per 100 LB)	16.3 (DHS, 2007)			
	Preterm birth rate	7.8% (WHO, MCS, 2014)			
	SGA rate	No data			
	Neonatal morbidity rate %	No data			
COVERAGE; Care for mothers and newborns	**Core Indicators**				
	Skilled attendant at birth (%)	99.9 (FHB, 2014)	99.9	99.9	99.9
	Essential newborn care (tracer is early breastfeeding within one hour %)	80 (DHS, 2007)	95	95	95
	Newborns examined within 24 hrs by a MO	90 (EmONC Survey, 2012)	100	100	100
	Early postnatal care for mothers (%)	92.2 (FHB, 2014)	99.9	99.9	99.9
	Additional Indicators				
	Antenatal Care (%)	95 (FHB, 2014)			
	Exclusive breastfeeding up to 6 months (%)	76 (DHS, 2007)	85%	90%	90%
COVERAGE; care of newborns at risk or with complications	**Core Indicators**				
	Antenatal corticosteroid use	44.1 (WHO, MCS, 2014)	85	98	98
	Neonatal resuscitation (%)	No data	90	100	100
	Kangaroo Mother Care (%)	No data	90	100	100
	Additional Indicators				
	Caesarean section rate (%)	34 (FHB, 2014)			

4.3 Guiding principles

The SLENAP is developed based on following guiding principles related to the key areas under which the plan is developed.

Country leadership

Country is primarily responsible for providing quality health care for mothers and newborns. Establishing good governance and leadership in health services is a pre requisite for improving health care in the country. The government is responsible to improve health systems in a way that would ensure quality health care delivery. Cost effectiveness of the interventions need to be considered especially as the country provides free health care at the point of delivery to all the citizens.

Human rights

Concerns of human rights including the rights of the patients and patient safety are increasingly brought to light. There is a strong need to focus on all aspects which concern the patient's or client's respect, dignity and satisfaction about services delivered to them. Patients and clients have a right to demand such services. Hence the principles and standards derived from international human rights treaties guide all planning and programming for maternal and newborn health.

Integration

Providing every woman and newborn with good quality care that is available, accessible and acceptable, requires an integrated service delivery. Sri Lanka has adopted the life cycle approach with continuum of care across the health systems which are corner stones of integration. However, it is of paramount importance to ensure visibility and due emphasis for newborn specific contents in all the programmes.

Equity

Universal coverage of high impact interventions, encompassing all population groups, ensuring equity is well covered in the current newborn action plan true to the meaning. The right of every woman and newborn to life, survival, health and development is assured.

Accountability

For equitable coverage of interventions, to deliver them with quality while utilizing the resources optimally, the health care providers need to be accountable. This concept is deficient in the current system. The systems and procedures need to be established to ensure accountability among all categories of staff.

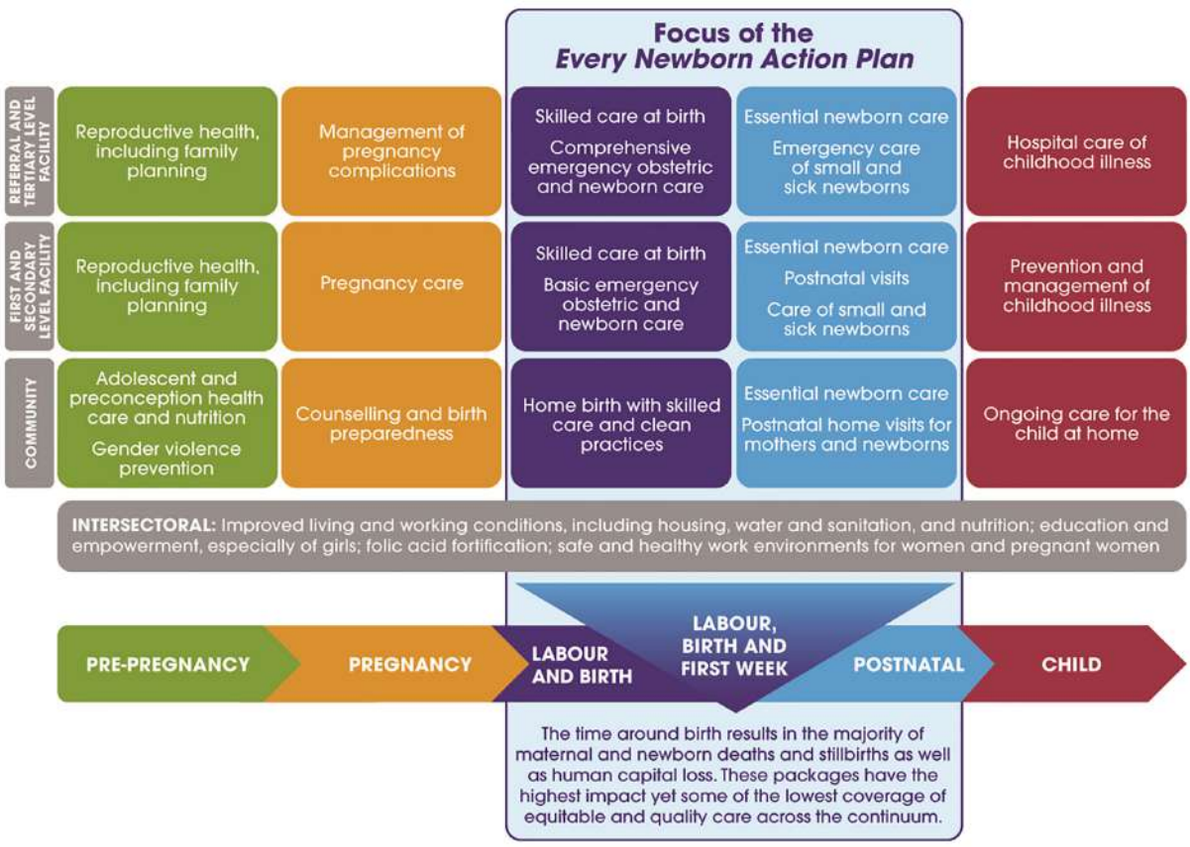
Innovation

Innovation is essential to optimize the application of evidence based interventions and strategies for the improvement of maternal and newborn care programmes. While applying the best practices, innovation within the country with knowledge of successful applications increase participation of all stakeholders and enable to reach the whole population.

4.4 Strategic Intervention Packages

In the integrated health service, Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH), adopting the life cycle approach, effective interventions for improving survival and health of newborns form one important component. As shown in the figure adopted from the Every Newborn; An Action Plan to End Preventable Newborn Deaths (WHO, 2014), based on available evidence on the effective interventions across the life cycle, the focus is mainly on skilled care at birth and on provision of essential newborn care package.

Figure 4.3; Packages of interventions in the continuum of care across the life cycle and across the health system

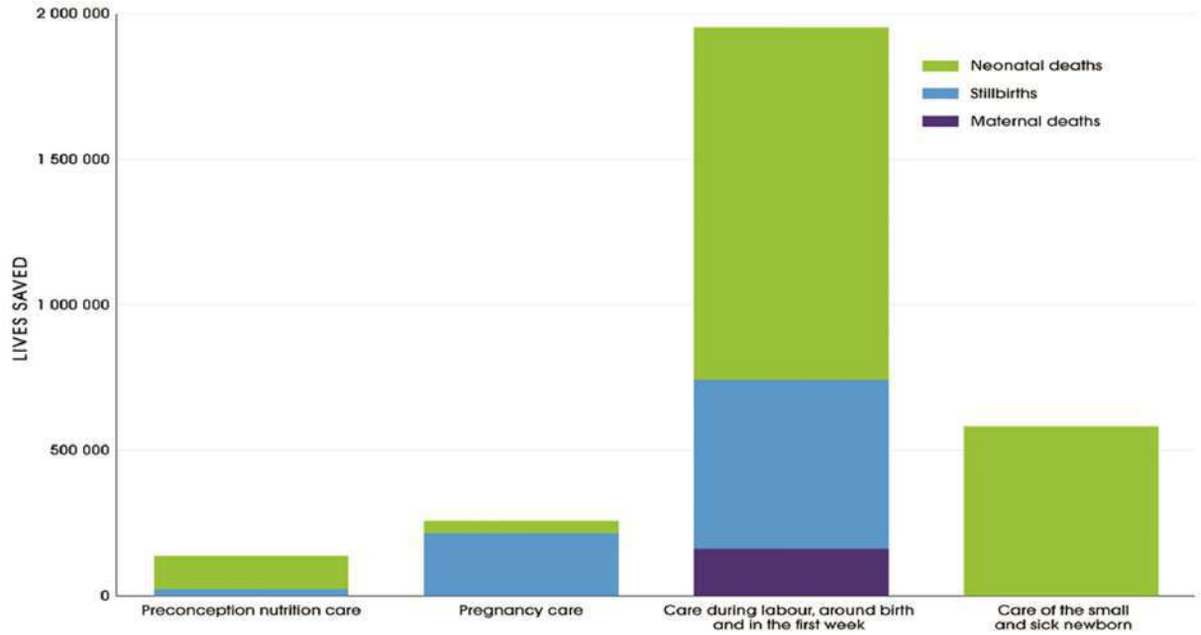


Source; The Lancet Every Newborn Series, Mason E et al. Lancet 2014

It is estimated that high coverage of available intervention packages could prevent almost three-quarter of the newborn deaths, one third of stillbirths and half of maternal deaths (Lancet 2014).

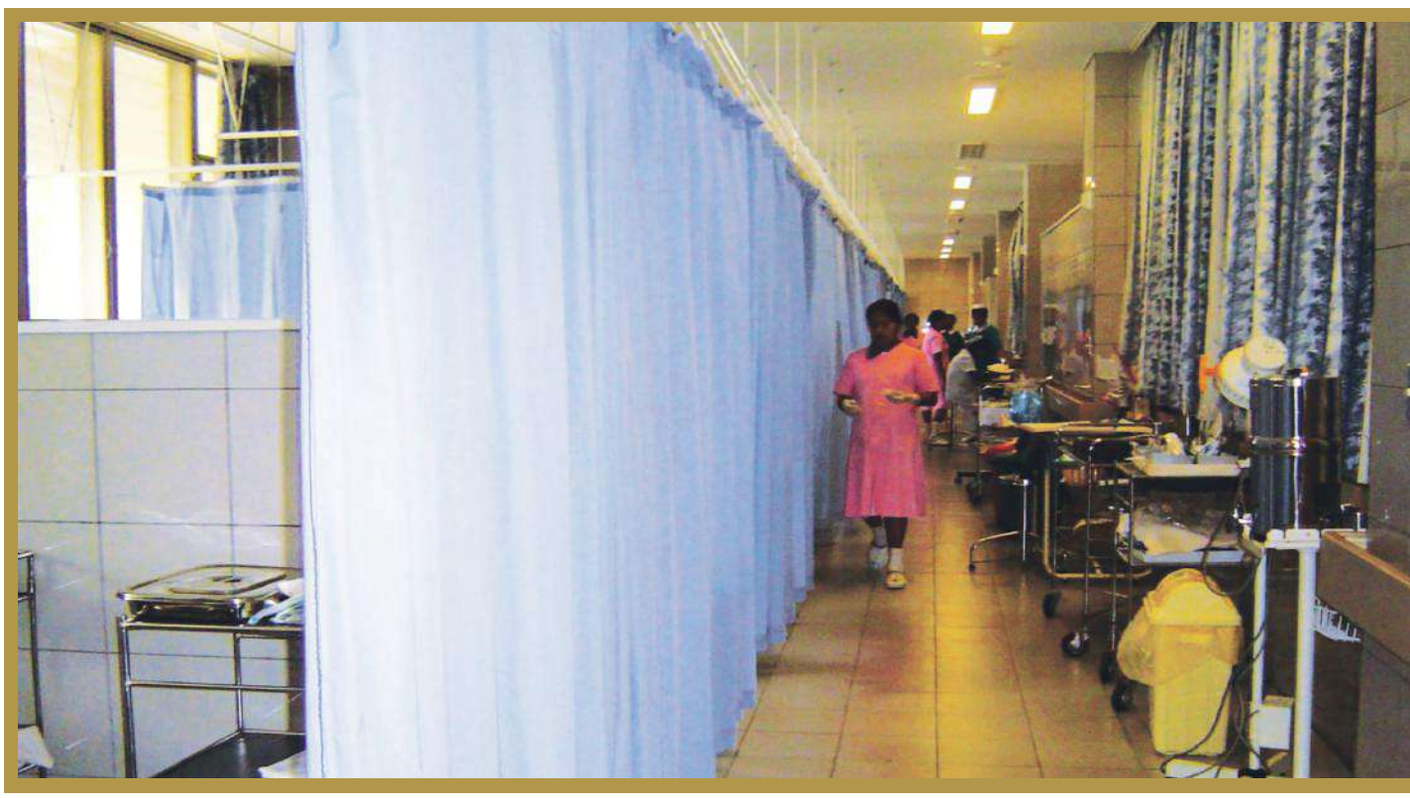
The packages of care with the greatest impact on ending preventable neonatal deaths and stillbirths include; care during labour, around birth and first week of life; and care for small and sick newborn . High coverage of interventions before conception as well as before, during and after pregnancy also could save substantial number of women, stillbirths and newborns.

Figure 4.4; Lives that could be saved by 2025 with universal coverage of care



Source; The Lancet Every Newborn Series, Bhutta Z et al. Lancet, 2014

In order to achieve the Goals of the SLENAP, the priority packages and priority interventions were selected taking the above facts and findings from the following reports in to consideration; Bottle Neck Analysis (FHB, 2015a), National Emergency Obstetric and Neonatal Care Needs Assessment (FHB, 2012b) and the WHO multicountry survey on Maternal and Newborn health, Country Report-Sri Lanka (FHB, 2014b).



Labour Room PGH Ratnapura

Table 4.3; Priority packages and interventions in the SLENAP

Priority Packages in the SLENAP	Priority Interventions in the SLENAP
Care during labour and child birth	Promote and support skilled care at birth
	Infection prevention
	Promote female companion of choice at birth
	Monitoring progress of labour, maternal and fetal wellbeing with partograph
	Antenatal corticosteroids in preterm labour
	Magnesium sulphate for neuroprotection in pre-term deliveries
	Antibiotics for premature rupture of membranes
Essential Newborn Care	Skin to skin care
	Prevention of hypothermia
	Delayed cord clamping
	Hygienic cord care
	Early initiation of breastfeeding within one hour
	Exclusive breastfeeding
	Newborn resuscitation if required
Care of sick and small newborn	Recognition of danger signs and prompt treatment
	Identification and initial management of newborn complications and appropriate referral
	Management of newborn complications
	Extra thermal care
	Support for feeding small and preterm babies
	Kangaroo Mother Care
	Antibiotic treatment for infections
	Full supportive facility care
	Infection prevention and management
	Safe oxygen therapy
	Case management of jaundice
	Surfactant therapy
	Respiratory support
Care beyond newborn survival	Newborn screening
	Management of birth defects
	Follow up of high risk newborns (Pre-term, SGA, SCBU discharges)

4.5 Strategic objectives and key activities in SLENAP

Five strategic objectives are identified in order to achieve the vision and goals of the SLENAP.

Strategic Objective 1

Strengthen and invest in care during labour, birth, first day and first week of life

Strategic Objective 2

Improve the quality of maternal and newborn care

Strategic Objective 3

Reach every woman and newborn to reduce inequities

Strategic Objective 4

Harness the power of parents, families and communities

Strategic Objective 5

Count every newborn through measurement, programme-tracking and accountability

Strategic Objective 1

Strengthen and invest in care during labour, birth, first day and first week of life

The period occurring after 28 weeks of gestation to the first month after birth is especially important not just for survival but also for early childhood interaction and development, when foundations for evolution of cognitive and psychosocial skills are known to be created. Furthermore it is during labor, birth, first day and first week of life that 44% of still births, 73% of newborn deaths and 61% of maternal deaths occur. Every pregnant woman receives essential care provided by a skilled attendant who is competent to monitor labor and assist the birth, and they are able to promptly detect and manage complications competently and capable of arranging immediate referrals when needed. Every baby receives essential newborn care from the time of birth, through first day and critical care needs to be ensured in the first week of life and beyond.

Skilled attendance at birth has increased and 99.9% of mothers deliver in hospitals and out of them 92% deliver in hospitals with specialist facilities and 5% deliver in private hospitals. All the evidence based interventions are introduced to the system through Essential Newborn Care Package (FHB, 2007), Newborn Care Standards (FHB, 2012c) and Newborn Guidelines (FHB, 2015b). These packages of interventions should ensure provision of basic and additional care for women and newborns to prevent or treat the main causes of morbidity and mortality. However there are concerns about the effective coverage of interventions when the quality of care provision is considered.

Major activities under strategic objective 1

1. Preparation of a costed and time based implementation plan to develop the neonatal care services island wide, according to the four levels of care (Annex II)
2. Improve facilities in all labour rooms to provide evidence based care
3. Ensure effective usage of the partograph so that progress of every stage of labour including maternal and fetal wellbeing is monitored
4. Promote and establish the evidence based practice of a female companion of choice at birth
5. Strengthen practice of essential newborn care (ENC)
   - 5.1 Ensure implementation of guidelines and standards for newborn care
   - 5.2 Ensure all staff have skills and competencies on ENC including KMC, prevention of hypothermia and skin to skin care
   - 5.3 Ensure neonatal life support is provided to all newborns who require resuscitation as per guideline
6. Improve management of preterm delivery
7. Develop a process to disseminate new evidence based practices on guideline areas that need special attention in the SLENAP

Newborn Corner in the Labour Room DGH Polonnaruwa

Courtesy of Dr. Thushara Kudagammana

Strategic Objective 2

Improve the quality of maternal and newborn care

Skilled care is ensured by doctors, nurses and midwives for 99.9% of deliveries in Sri Lanka. Some women who receive skilled attendance do not receive optimal care which is sometimes of poor quality and/or dis-respectful. To further reduce newborn deaths, quality of care at the time of births in health facilities needs much improvement. Quality of care for mothers and newborns need to be assured at all times including at times of disasters.

Quality and equity of care greatly affects health outcomes especially in lower mortality settings such as Sri Lanka. High quality emergency obstetric and newborn care services should be accessible to every mother and newborn, and when needed, safe transport and referral facilities should be available. Improving the quality of care is also important to reduce risks of disabilities or impairments for quality survival.

Bottle neck analysis of neonatal care services in Sri Lanka has shown many areas in the health system that need strengthening in order to improve the quality of care for the mother and newborn. They include; Strengthen leadership and governance at National, Provincial, District and Institutional level, strengthen health workforce, improve health service delivery, essential medical products and technologies and regularizing finances.

Major activities under strategic objective 2

1. Strengthening leadership and governance in maternal and neonatal care
2. Identify a separate allocation for new developments in neonatal care including in-service training in neonatal care
3. Plan and strengthen the health workforce in numbers, skills, competencies on a regular basis so that skill levels are maintained to provide quality care
4. Strengthen health service delivery by introducing quality assurance in maternal and neonatal care
5. Revamp the Baby Friendly Hospital Initiative and incorporate it to the quality assurance system with an inbuilt accreditation mechanism
6. Strengthen promotion, protection and support for breastfeeding
7. Scale up Neonatal Retrieval Programme and set up neonatal networks as proposed in the Bottle Neck analysis on newborn care in Sri Lanka
8. Ensure that all essential medical products, equipment, laboratory facilities and technologies are availably uninterruptedly
9. Strengthen newborn care in the field setting
10. Strengthen and update advanced care for newborns

Level II Neonatal Unit DGH Nawalapitiya

Courtesy of Dr. Nilani Fernando

Strategic Objective 3

Reach every woman and newborn to reduce inequities – reduce inequalities

Every woman and newborn has the right to good quality health care in line with the principles of universal health coverage and as expected to be achieved by the sustainable development goals and in the spirit of human rights. Sri Lanka as a country offering free health care at the point of delivery, every mother and newborn has access to health care. The distribution of the network of health facilities throughout the country enables the mothers and newborns to reach a health facility serviced by trained health professionals including qualified Medical Officers within 30 minutes.

Though there are no direct costs for the clients, indirect costs such as transport and lost income can lead to sharp inequalities in coverage. There are instances when direct costs such as laboratory and drugs too have to be borne by the clients.

Special measures are required in health facilities in the hospital sector and in the preventive sector to be mindful of the human rights where violations are possible. Rights of women, parents and newborns are forgotten some times by the health care workers, though they strive to provide best care to prevent morbidity and mortality at all times. Physical, emotional and rarely sexual violence have been reported by adult patients. The rights violations of the newborn child would not be reported unless uncovered by parents or fellow workers. The right to be with the mother, the right to exclusively breastfeed is sometimes violated unknowingly by health care workers.

Major activities under strategic objective 3

1. Ensure provision of quality maternal and newborn care at all levels of hospitals to ensure universal coverage
2. Strengthen continuum of care across the health system and across life cycle
3. Ensure respectful behavior among the health staff
4. Develop strategies to provide quality care for the vulnerable populations eg urban low income, estate sector, some religious sectors, refugees from neighboring countries

Postanatal domicilliary visit by Public Health Midwife - Courtesy of Dr. Anoma Jayathilake

Strategic Objective 4

Harness the power of parents, families and communities

Harnessing the power of parents, families and communities is very important to overcome barriers to address some of the key issues related to newborn care. Empowering women, parents, families and communities to seek health care services when needed and to ensure they can provide recommended care in the home by them is essential. Health outcomes both positive and negative are determined by decisions made within the household, the family's ability to reach care when needed and the quality of services received when they reach services. Programmes that seek to strengthen health services through mobilizing community members to adopt healthy practices, shifting social norms to increase social support and addressing barriers to access have demonstrated the effects of such approaches.

Families, especially parents are at the forefront of providing newborn care. They can ensure certain aspects of care for the healthy baby after birth. Though practices like breastfeeding are considered as natural behaviors, many women require support from the family.

Men need to play an important role in maternal and newborn health as fathers. As men often become key decision makers, it is important that they understand the needs, risks and danger signs of pregnancy, childbirth and postnatal periods. Health care workers should make it convenient for men to accompany their partners at antenatal visits, postnatal visits, supporting them to enhance couples communication, providing support and decision-making.

Major activities under strategic objective 4

1. Promote zero tolerance for preventable stillbirths, maternal and newborn deaths in communities
2. Take early steps to implement the communication strategy related to newborn care developed by the Health Education Bureau.
3. Maximize the power of parents voices, civil society, mass media and social media to provide information and change norms
4. Equip families including men, with the knowledge and capacities to provide good maternal and newborn care
5. Strengthen links between community and health facilities through applying innovative approaches

Strategic Objective 5

Count every newborn – measurement, programme tracking and accountability

Vital statistics provide the most decisive information to influence policies and strategies in maternal and newborn care. Registration of vital events such as births and deaths has been in place in Sri Lanka for over a century. There are opportunities for improvements in such registration systems and in the ability to ensure quality. For further improvement in newborn care more and better information is needed for monitoring and assessing progress towards achieving the commitments to end preventable newborn deaths as well as stillbirths.

Major gaps persist in the collection of data on outcomes, coverage and quality of care around the time of birth. The hospital information system is at a stage of shaping up to gather information locally, and measures to collate data more centrally has to be devised. With more attention being paid to care around time of birth, training and motivating staff in the hospitals to provide information to which they are not routinely accustomed to, need to play an important role. Information about population based coverage of effective interventions and quality of care around birth are now required.

Maternal death audit is streamlined in Sri Lanka. The perinatal death audit system already introduced nationally has the potential to reduce mortality when solutions identified from the audit process are linked to action.

Major activities under strategic objective 5

1. Invest in birth and death registration coverage and quality, promoting recording of every birth, live or stillbirth and recording of neonatal death
2. Strengthen the perinatal mortality information system for collection, consolidation, analysis and dissemination of information within the RH-HMIS
3. Strengthen the information system on neonatal interventions in the institutions
4. Include the information on pre-term birth, its management and outcomes in the RH-MIS

Proposed sub activities under each of the major activity identified for the strategic objectives are given in Annexure III.

Triplets at DGH Nuwaraeliya - Courtesy of Dr. Deepthi Perera

Harnessing the power of family

Young mother with her own mother and mother-in-law

Courtesy of Dr. Dhammica Rowel

Annexures I

SLENAP Indicators

Core impact indicators

Indicator	Neonatal mortality rate
Numerator	Number of live born infants per year who die before 28 completed days of age
Denominator	1000 live births
Source of information	Registrars General Department / RH MIS

Indicator	Maternal mortality ratio
Numerator	Number of maternal deaths per year during pregnancy and childbirth or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy. Defined as a death from any cause related to or aggravated by pregnancy or its management (excluding accidental or incidental causes)
Denominator	100 000 live births
Source of information	National Maternal Mortality Surveillance System

Indicator	Stillbirth rate
Numerator	For international comparison: Number of infants per year born with no sign of life and weighing ≥ 1000 g or after 28 weeks' gestation (ICD-10 recommends the inclusion of fetal deaths ≥ 22 weeks or ≥ 500 g)
Denominator	1000 total live and stillborn births
Source of information	Registrars General Department National Perinatal Mortality Surveillance System

Additional impact indicators

Indicator	Fresh Still Birth Rate
Numerator	No of babies not showing signs of life at birth & no signs of maceration
Denominator	1000 total live and stillborn births
Source of information	National Perinatal Mortality Surveillance System / e IMMR

Indicator	Low Birth Weight Rate (%)
Numerator	Number of live born babies with birth weight less than 2,500 g
Denominator	Total live births
Source of information	H 830, e IMMR, RH MIS

Indicator	**Preterm Birth Rate (%)**
Numerator	Number of babies born alive before 37 weeks of pregnancy are completed
Denominator	Total Live births
Source of information	H 830, e IMMR

Indicator	**Small for Gestational Age (%)**
Numerator	Number of newborns with a birth weight below the 10th percentile of a reference weight specific to that gestational age
Denominator	Total Live Births
Source of information	e IMMR

Indicator	**Neonatal Morbidity Rate (%)**
Numerator	Number of neonates admitted to a Neonatal Care Unit with selected neonatal conditions
Denominator	Total live births
Source of information	Monthly Return from Neonatal Unit

Core Coverage Indicators

Care for mothers and newborns

Indicator	**Skilled attendant at birth (%)**
Numerator	Number of live births assisted by a skilled provider (skilled provider includes doctor, nurse, and midwife)
Denominator	Number of all births
Source of information	DHS

Indicator	**Percentage of early initiation of exclusive breastfeeding**
Numerator	Number of live born neonates who are breastfed within 1 h of birth
Denominator	Total number of live births
Source of information	eIMMR, RH MIS , DHS

Indicator	**Percentage of newborns examined by a Medical Officer within 24 hrs of birth in the hospital**
Numerator	Number of newborns who were examined by a Medical Officer within 24 hours of birth in the hospital
Denominator	Total number of live births
Source of information	e IMMR

Indicator	Percentage of mothers and newborns who received early postnatal care
Numerator	Number of postnatal mothers who received a health visit by a PHM within 5 days after delivery
Denominator	Total number of deliveries
Source of information	RH MIS

Additional coverage indicator

Indicator	Antenatal Care
Numerator	No of antenatal mothers making at least one clinic visit to the field clinic
Denominator	Total number of mothers registered
Source of information	RH MIS

Indicator	Percentage of Exclusive breastfeeding for 6 months
Numerator	Number of living children < 6 months of age who are exclusively breastfed "Exclusive breastfeeding" is defined as no other food or drink, not even water, except breast milk (including milk expressed or from a wet nurse) for 6 months of life, but allows the infant to receive ORS, drops and syrups (vitamins, minerals and medicines).
Denominator	Total number of living infants < 6 months of age
Source of information	DHS / Annual data sheet

Care for newborns at risk or with complications

Core Indicators

Indicator	Antenatal corticosteroid use (ACS) (%)
Numerator	Coverage indicator (requires validation): All women who give birth in facility at < 34 completed weeks (ultra sound confirmed) and received one dose of ACS for risk of preterm birth
Denominator	Total live births at < 34 completed weeks of live births with ultra sound confirmed gestational age of less than 34 weeks
Source of information	e IMMR

Indicator	Newborn Resuscitation
Numerator	Number of newborns who were not breathing spontaneously or crying at birth for whom resuscitation (stimulation and/or bag and mask) was initiated

Denominator	Total No of babies not breathing after birth
Source of information	e IMMR

Indicator	**Percentage of small babies who received Kangaroo Mother Care**
Numerator	Number of newborns initiated on KMC at a facility
Denominator	Target population for coverage: i.e. total number of newborns with birth weight < 2500 g
Source of information	e IMMR

Additional Indicators

Indicator	**Cesarean Section Rate (%)**
Numerator	No of births by caesarian section
Denominator	Total Live Births
Source of information	H830 , e IMMR , RH MIS

BFHI Master Training at Castle Street Hospital for Women

Courtesy of Dr. Dhammica Rowel

Annexure II
Circular No. 01-36/2015

Levels of Neonatal Care

Services for neonatal care have improved over the past decades in Sri Lanka. Many hospitals have established facilities to provide special care and neonatal intensive care to the newborn babies. Provision of surgical facilities when needed for the newborns also has improved over the years. In addition to the Lady Ridgeway Hospital in Colombo, the oldest children's hospital in Sri Lanka, another hospital for children, the Sirimavo Banadaranayake Children's Hospital was established in Peradeniya.

The availability of neonatal care has improved outcomes for high risk infants including those born preterm or with serious medical or surgical conditions. The concept of regionalized perinatal care was articulated in 1976 March of Dimes report named Improving the Outcome of Pregnancy; The 90s and Beyond. The report included criteria that stratified maternal and neonatal care into 3 levels of complexity and recommended referral of high risk patients to centres with the personnel and resources needed for their degree of risk and severity of illness.

During the past decade Sri Lanka has developed Consultant Neonatologists and many hospitals have established Special Care and Intensive Care facilities for new born babies in the specialist hospitals. However no consistent relationship is observed in the availability and spread of such services throughout the country.

Evidence suggests it is best to provide neonatal care for the critically ill neonates in a more centralised manner as it would lead to better outcomes in the newborn. As the number of critically ill newborns that are treated by the unit increases, the outcomes have shown to improve. In addition for the provision of care for the critically ill newborns more sophisticated facilities are required and centralization of such services have shown to be most cost effective.

For further improvement of neonatal care services following are recommended;

1. Neonatal Intensive and Special care is now provided in a widely dispersed manner. There is a need for agreed national standards of care.
2. There is a need to spell out clear definitions of levels of care and the capacity of larger units which provide care for the most ill babies and dealing with transfers from the periphery need to be improved.
3. Current pattern of transfers could be improved, need of a bed manager system
4. Need to develop a neonatal transport system for the whole country
5. Staffing issues – adequacy, training needs
6. Facilities at each level of care has to be improved to provide optimum care
7. Need of a data management system to record outcomes for intensive and special care
8. Defining Clinical Networks
   – Make it possible to provide all NN care within the network – Special Care, High Dependency, NICU
   - Define area for the clinical network. Eg; Province or District.

Following are the four levels of care with the minimum facilities that should be available in such units;

Level III+ Criteria

- Cardiac surgery
- Neonatal neuro surgery
- ECMO
- Head Cooling
- Extremely low BW < 1000g
- And Level III Facilities
- And a MBC and LMC

Level III Criteria

- Neonatal surgery (in selected units)
- Ventilation up to CPAP, IPPV, high frequency + NO
- Exchange transfusion
- Cooling (selected centers only)
- BW <1250g + > 1250g with complications
- TPN
- And Level II Facilities
- And Level I Facilities
- And a MBC and LMC

Level II Criteria

- Short term ventilation + CPAP
- Other SCBU facilities
- Continuation of care of transferred back babies from level 3 & 4
- Intensive photo therapy
- BW> 1250g without complications

Level I Criteria

- Feeding problems-tube
- Nasal prong O2
- Photo therapy-single
- Incubator care/ thermal
- IV fluids
- IV antibiotics
- Management of hypoglycemia
- Thermal Care
- Stabilization and transport

Neonatal Transport Training Workshop for Nothern Province in Jaffna

Courtesy of Dr. Jeyabalan Sivalingam

Quality Assestment in Maternal and Newborn Care at Labour Room DMH

Courtesy of Dr. Dhammica Rowel

Annexure III

Strategic objectives and key activities

Strategic Objective 1 (A)

Strengthen and invest in care during labour, birth, first day and week of life

	Proposed Activity	Time Frame	Responsibility
A 1.	**Preparation of a costed and time based implementation plan to develop the neonatal care services island wide, according to the four Levels of Neonatal care**		
A 1.1	Prepare and implement a plan that includes building needs, upgrading / establishment of supporting services (X-ray, laboratory, blood bank etc) equipment needs, and the human resources necessary to run the services according to the norms and standards that have been identified	2017-2019	DDG PHS II, DDG Logistics, DDG Laboratory Services, DDG Bio Medical Engineering Services, DDG MS, DDG Admin, DMCH, PDHS, RDHS
A 1.2	Identify a separate financial allocation for implementation of the national plan for neonatal care including infrastructure development according to Levels of Neonatal Care	2017-2020	Chief Accountant, DDG Planning, DDG PHS II
A 1.3	Identify a separate financial allocation for improvements in Labour Rooms institution/ district level with audit of the usage of such accounts	2017-2020	Chief Accountant, DDG Planning, DDG PHS II, DDG Logistics
A 1.4	Preparation of a costed implementation plan Identifying accountability of different stakeholders.	2017	DDG Planning, DDG PHS II, DMCH, PDHS, RDHS
A 2.	**Improve facilities in all the labour rooms to provide evidence based care**		
A 2.1	Develop specifications and designs labour room beds and replace existing beds that are not the ideal size in a planned stepwise fashion	2017-2020	FHB, RDHS, MOMCH, HoI
A 2.2	Strengthen standard practice of infection prevention and control	2017 -2020	HoI, Matron, Consultants, Sisters in-charge
A 2.2.1	Establish a systematic program for establishing hand washing facilities at the entrance to labour rooms and replacement of existing taps with elbow or foot operated taps	2017-2018	HoI
A 2.2.2	Procure sufficient quantities of hand rub. Test the efficacy of the local preparation and ensure standard procedures for preparation.	2017-2020	HoI

A 2.3	Facilities to maintain the recommended temperature at all times - A wall thermometer in working condition to be available in all labour rooms, the temperature that has to be maintained must be displayed on the wall.	2017 -2020	HoI, Matron, Consultants in-charge, Sister in-charge
A 2.4	Regularly calibrate weighing scales in the labour room	2017 -2020	Sisters in-charge of units
A 2.5	Provide pain relief during labour	2017-2020	Consultants in-charge
A.2.6	Warm towels and a source of radiant heat to be available at all times	2017 -2020	Sisters in-charge of units
A 2.7	Separate packs with two towels for the babies use so that they can be pre-warmed (a baby pack with the delivery set)	2017 -2020	Sisters in-charge of units
A 3.	**Ensure effective usage of the partograph so that progress of every labour including maternal and fetal wellbeing is monitored**		
A 3.1	Train a pool of trainers from every district on maintenance of partogram	2017 -2018	FHB, SLCOG
A 3.2	Conduct regular in service training programs at institution / ward level or at regional level for refreshing the knowledge on recording progress of labour in the partogram and their interpretation	2017 - 2020	RDHS, Heads of Institutions, Consultant Obstetricians in-charge of respective units, MOMCH, MO Public Health
A 3.3	Introduce a system of competency certification at specific intervals of time (3-5 years) for all levels of midwifery staff (doctors, nurses and mid wives). (This would include the use of the partogram as well as other skills necessary for providing care during labour and essential newborn care)	2017-2020	D/MS, DMCH, SLCOG, PSSL, RDHS, Heads of Institutions
A 3.4	Develop/Update easy to use guidelines and protocols in the form of wall charts, desk references in Sinhala, Tamil and English and ensure availability in every unit/labour room	2017 -2018	FHB, SLCOG, MOMCH
A 3.5	Conduct of regular (at least monthly) audits on the use of the partogram at unit level	2017-2020	Heads of Institutions, Matrons, Consultant Obstetricians and Sisters in-charge of respective units
A 3.6	Include the partogram to the newly introduced obstetric formats as an essential component of the BHT of a woman for whom delivery care is provided	2017	FHB
A 3.7	Examine the partogram in maternal death and "near miss" investigations as well as in perinatal mortality surveillance	2017-2020	FHB, SLCOG, Head of hospitals

A 3.8	Include the use of partogram as an indicator of skilled care at birth in the new e-IMMR	2017	FHB, Medical Statistical Unit
A 4.	**Promote a female companion of choice at birth**		
A 4.1	Advocate on the positive effects of the evidence based practice of a female companion of choice at the time of labour to all stakeholders	2017-2018	FHB, SLCOG
A 4.2	Develop and disseminate a circular on female companion of choice to all institutions	2017	FHB
A 4.3	Organize observation visits to units that allow a female companion to discuss the perceived problems and see how they have been overcome	2017-2019	FHB, PDHS, RDHS, SLCOG, Hospital Directors
A 4.4	Increase awareness on the positive aspects of the practice among antenatal mothers and service providers and there by scale up the practice throughout all the labour rooms in the country	2017-2020	FHB, SLCOG, MOOMCH, VOGs
A 5.	**Strengthen the practice of essential newborn care**		
A 5.1	**Ensure implementation of guidelines and standards for newborn care**		
A 5.1.1	Develop/upgrade standard guidelines on newborn care on a regular basis	2017-2020	FHB, SLCP
A 5.1.2	Develop protocols based on standards and guidelines in all three languages and have e-based copies of same. Ensure a user friendly format in documents	2017-2018	FHB, SLCP
A 5.1.3	Introduce a system of accountability for the guidelines and protocols that are sent to institutions/units as well as methods to ensure that they are accessible and are made use of by the midwifery staff.	2017	FHB, Heads of Institutions, RDHS, Consultants in charge of the units
	When new interventions/ guidelines and standards are introduced, the consultant in charge of the unit should introduce the guidelines/protocols to all members of his unit so that they are aware of the new care practices.		Heads of Institutions, RDHS, Consultants in charge of the units
A 5.1.4	Strengthen the delivery of the antenatal care package component on process of a normal delivery and the concept and importance of skin to skin care at birth. Ensure mothers are aware of the practice before they come in for delivery	2017 - 2020	FHB, MOMCH, MOOH

A 5.1.5	Conduct regular auditing of important interventions at the time of birth to ensure effective coverage - Skin to skin care including delivery on to the abdomen in normal vaginal deliveries has to be made the common practice at delivery. - Skin to skin care after caesarian section - Keeping mother and baby together until the first feed is completed, after a normal vaginal delivery and after a caesarian section - Ensure mother and baby are together after a caesarean section. - Delay weighing of the newborn until the first breastfeed is complete	2017-2020	Heads of institutions, Consultant Obstetricians, Nursing Sisters in-charge of maternity wards
A 5.2	**Ensure all staff have skills and competencies on ENC including KMC, prevention of hypothermia and skin to skin care**		
A 5.2.1	Train all staff caring for newborns on ENC including KMC, temperature/range necessary for optimum comfort of the baby. Maintain 100% training levels for all the staff in the units by conducting regular training sessions in the hospitals or districts	2017 -2020	FHB, SLCP, Heads of Institutions, RDHS, MOMCH
A 5.3	**Ensure neonatal life support is provided to all newborns who require resuscitation as per guideline**		
A 5.3.1	Compulsory training in NALS and ENCC for medical officers including interns, and NLS and ENCC for nurses and midwives appointed to obstetrics and pediatrics units	2017-2020	FHB, Director Training, Heads of institutions, Consultants in-charge of maternity units
A 5.3.2	Conduct regular audits of resuscitation skills of staff	2017-2020	Heads of institutions, Consultants and Sisters in-charge of maternity units
A 6	**Improve management of preterm delivery**		
A 6.1	Identify the cluster networks of institutions where the capacity of the level III/III+ institution has been planned to include preterm deliveries from the satellite institutions and improve facilities of those centres to cater to the demand	2017-2020	FHB, Heads of institutions, PDHS, RDHS
A 6.2	Develop and update management guidelines on preterm delivery	2017-2018	FHB, SLCOG, SLCP

A 7	**Develop a process to disseminate information on evidence based practices on areas that need special attention in the SLENAP**		
A 7.1	Develop protocols on the key/new areas that need special attention in the new plan - Pain relief in labour - Management of pre-term labour, delivery and care of the newborn - Use of dexamethasone (steroids) to improve lung maturation in preterm deliveries - Use of magnesium sulphate for neuroprotection for preterm labor - Use of antibiotics for premature rupture of membranes	2017	FHB, SLCOG, SLCP, PSSL
A 7..2	Develop a process to disseminate information on evidence based practices on the above areas	2017	FHB, SLCOG, SLCP
A 7.3	Conduct regular in-service training and refresher training regularly to address the above areas of work	2017-2020	FHB, Heads of Institutions, RDHS, Respective Consultants

Antenatal Breast Feeding Class at a field clinic in Hambantota District

Courtesy of Dr. Sriyanthi Rajapaksha

Strategic Objective 2 (B)

Improve the quality of maternal and newborn care

	Proposed Activity	Time Frame	Responsibility
B 1.	**Strengthening leadership and governance in maternal and neonatal care**		
B 1.1.	Strengthen the health development links and improve coordination between National, Provincial and District health authorities in improving intranatal and neonatal care services Island wide through the National Health Development Committee	2017-2020	DGHS, DDG Planning, DDG PHS II, DMCH
B 1.2.	Strengthen the Intranatal and Newborn Care Unit of the Family Health Bureau with special emphasis towards improvement in: Additional staff / designated posts, duties, responsibilities and appointing middle level officers with technical competency to the unit to facilitate it's functions	2017-2020	DDG PHS II, DMCH
B 1.3.	Communicate the national plan for providing neonatal care to all the administrators and consultants working in the Province, Districts and Hospitals	2017	DGHS, DDG PHS II, DMCH
B 1.4.	Incorporate the monitoring and supervision of the implementation of the institution based on components of intranatal and neonatal care under the duties of the Provincial CCP - planning	2017-2020	DDG MS II, DDG PHS II
B 1.5.	Establish pre placement training for MOMCH. The knowledge and skills necessary for the supervision and monitoring of Maternal and Newborn programmes within the district should be strengthened in the pre placement training	2017-2020	DDG MS II, DDG PHS II, DMCH
B 1.6	Ensure conduction of management committee meetings regularly with the participation of the relevant officers under the chairmanship of the Head of the Institution. The issues identified at quality assessment visits, unit supervisions and unit meetings should be discussed and corrective action taken and followed up at this meeting.	2017 - 2020	HoI of respective hospitals

B 1.7	Establish a system to collect information at neonatal unit level quarterly to monitor workload and training needs of all categories of staff in neonatal care	2017-2020	Consultant Neonatalogist, Director, MS, FHB, RDHS, MOMCH
B 2.	**Identify a separate allocation for new developments in neonatal care including in-service training in neonatal care**		
B 2.1	There should be a separate allocation for in-service training in neonatal care and refresher training at District level.	2017-2020	DDG Planning, DDG ETR, DMCH, HoI
B 2.2	Develop a system and monitor regular auditing of usage of such allocation	2017-2020	DDG Planning, DDG ETR, DMCH, HoI
B 2.3	Financial allocations for establishing/scaling up the national neonatal screening programme as a part of the planned neonatal care services needs to be identified	2017-2020	DDG Planning, DDG MS I, DMCH
B 3.	**Plan and strengthen the health workforce in numbers, skills, competencies on a regular basis so that skill levels are maintained to provide quality care**		
B 3.1	Plan the human resources necessary to staff neonatal care services. Staffing norms, job descriptions and responsibilities have to be developed in respect of the different categories of staff, providing essential and specialized neonatal care	2017-2018	DDG MS I , DDG Admin, DDG ETR and , DDG PHS II, DMCH
B 3.2	Develop policy on first contact medical person in a neonatal unit level I and above. An intern medical officer should not be the first contact medical person in such a unit. A Medical officer as senior as a post intern or above should be assigned with this task	2017	DDG MS II, DDG PHS II, DMCH
B 3.3	Develop staff recruitment and retention criteria based on job descriptions to the neonatal units with an intention of retention of highly trained staff in the units as well as provide opportunities for entry into the system	2017-2018	DDG MS II, DDG MS I, DDG PHS II, DMCH
B 3.4	Develop and implement institution based compulsory skills and competency based training for all grades/categories of new comers into neonatal care services.	2017-2020	DMCH, SLCP, Director, MS
B 3.5	Develop/ or update training curricula and in-service training modules to address the present day priority issues in intranatal and neonatal care Assign training and certification of all categories of neonatal care staff as a function of Level 3 and 3+ institutions within a Province	2017-2018	DMCH, SLCP

B 3.6	Establish human resource management systems at Provincial level/District level and assign responsibility of in-service training related to neonatal care at District level to MOMCH. Provide facilities and supporting staff necessary for effective functioning to the MOMCH. In the institutions this task should be assigned to the MO Public Health	2017-2020	DDG MS II, DDG PHS II, PDHS, RDHS
B 3.7	Identify and establish a training Faculty for in-service training in neonatal care from among the Medical Specialists in the District/ Province and their contribution be recognized in an appropriate fashion. (Adequate monetary compensation and or special points in considering transfers/special posts etc.)	2017-2018	DDG MS I, DDG PHS II, DMCH, PDHS, RDHS
B 3.8	Provide equipment and material necessary such as mannequins, training guides and audiovisual material to ensure uniformity of training programmes to the Provinces/ Districts	2017-2020	DDG MSD, DMCH, PDHS
B 3.9	Develop annual training calendars at district and institutional level for competence based in-service training in all aspects of neonatal care and for certification The concept of CPD in neonatal care be applied to all categories of staff and incentives be provided to encourage staff to acquire CPD points such as partial fulfillment for annual increments, transfers etc.	2017-2020	RDHS, MOMCH, HoI DMCH
B 3.10	Introduce and scale up staff training in Care of the Sick Newborn at Facility Level to all staff in Neonatal Units	2017-2020	FHB, HoI, Consultants in-charge of units
B 4.	**Strengthen health service delivery by introducing quality assurance in maternal and neonatal care**		
B 4.1	Advocate institutional administrators and consultants on national targets in neonatal care, the strategies to reach goals and the proposed plans for neonatal care.	2017	DMCH, MOMCH, SLCP, SLCOG
B 4.2	Promote the use of tools already available such as checklists for supervision of labour rooms and neonatal units for supervision at unit / institutional level.	2017-2020	HOI, Matrons of Hospitals, Consultants in-charge of the Units, DMCH, MOMCH
B 4.3	Ensure quality assurance of the units in the hospitals using National Quality Assessment Tools at least quarterly (internal assessment) and once in two years through external assessment	2017-2020	HoI, MO Quality, Consultants in-charge of units, Sisters in-charge of units, DMCH, D/Health Care quality and safety

B 4.4	Introduce a clinical auditing system led by the Consultant in-charge of the unit linking up with internal and external quality assurance.	2017-2020	DMCH, HoI, MO Quality in hospitals, Consultants in-charge of units, Sisters in-charge of units
B 4.5	Make the protocols and clinical guidelines available in user friendly formats such as flow charts, wall charts and desktop guides in Sinhala and Tamil for easy reference by nurses and midwives	2017-2018	FHB, SLCP, SLCOG
B 4.6	Regularly monitor and conduct audits of care practices and supervision of activities at Labour Room and ward level	2017-2020	Director , MS, , Matrons of Hospitals, Consultants in-charge of the Units , CCP Province, MOMCH, FHB
B 4.7	Include indicators of quality of care for newborn care in the RH-MIS	2017	FHB, Medical Statistician
B 4.7	Introduce quality accreditation systems for institutions/ units/labor rooms/ neonatal care units	2017	FHB, D/Health Care Quality and Safety
B 4.8	Establish institutional arrangements for universal neonatal screening for specific morbidities to be established within the national plan. - Newborn Screening for Congenital Hypothyroidism - Newborn Screening for Critical congenital heart diseases - Newborn hearing screening	2017-2020	HoI, PDHS, RDHS, DMCH, MOMCH
B 4.9	Develop and introduce a system for hospitals for risk identification in all newborns using standardized protocols and surveillance using standardized observation charts with specific plans for management including transfer be planned in consultation with the professional bodies	2017-2018	DMCH, SLCP, SLCOG, PSSL
B 4.10	Develop and introduce a system of risk identification for field staff in all newborns using standardized protocols and surveillance, using standardized observation charts with specific plans for management including referral to institutions	2017-2018	DMCH, SLCP, SLCOG, PSSL

B 5.	**Revamp the Baby Friendly Hospital Initiative and incorporate it to the system with an inbuilt accreditation mechanism**		
B 5.1	Re-launch the Baby Friendly Hospital Initiative including additional components of Baby Friendly concept such as Mother Baby Friendly Hospitals, Baby Friendly NICUs, Baby Friendly Communities, Cities, etc	2017	FHB, SLCP, SLCOG, PSSL
B 5.2	Train all staff in maternal and neonatal units on BFHI 20 hour course	2017-2020	FHB, HoI, RDHS, MOMCH, Consultants in-charge of units
B 5.3	Incorporate the BFHI assessment in to the routine quality assessment tools for the maternal and neonatal units and make it part of the quality assurance process	2017	FHB, D/Health Care Quality and Safety
B 6	**Strengthen promotion, protection and support for breastfeeding**		
B 6.1	Strengthen and streamline antenatal classes on breastfeeding in all MOH areas and improve quality of such classes	2017-2020	RDHS, MOMCH, HoI, MO Public Health/ Health Education
B 6.2	Ensure quality of postnatal support at domiciliary visits for breastfeeding by introducing an auditing system	2017-2020	MOMCH, MOOH, RSPHNO, PHNS
B 6.3	Promote and support working mothers to breastfeeding as per national policy	2017-2020	MOMCH, MOOH, RSPHNO, PHNS
B 6.4	Strengthen services provided by the Lactation Management Centers in Hospitals by improving skills and competencies of staff, improving infrastructure facilities and by streamlining information system	2017 - 2020	DMCH, RDHS, HoI, Matron, Consultant in-charge of Neonatal Unit
B 6.5	Strengthen breastfeeding code monitoring by introducing an easy system for reporting code violations	2017-2018	FHB, RDHS
B 7.	**Scale up the Neonatal Retrieval Programme and set up neonatal networks as proposed in the Bottle Neck analysis on newborn care in Sri Lanka**		
B 7.1	Establish neonatal retrieval centers at the identifying the neonatal networks with a Level III+/III unit as a lead	2017-2018	FHB, PDHS, RDHS, SLCP, PSSL
B 7.2	Institutionalize the guideline and training on neonatal retrieval and continue regular training	2017-2018	FHB, SLCP
B 7.3	Strengthen infrastructure and human resource for neonatal retrieval	2018-2020	FHB, PDHS, RDHS
B 7.4	Strengthen the information system on neonatal retrieval by producing regular reports by the neonatal networks	2017	FHB, Director information

B 8.	**Ensure that all essential medical products, equipment, laboratory facilities and technologies are availably uninterruptedly**		
B 8.1	Address shortages and quality issues of drugs supplied to the neonatal units through the system and take measures to provide drugs as per new developments.	2017 - 2020	DDG MSD, PDHS, RDHS, Director, MS
B 8.2	Develop an integrated logistics management system for drugs and commodities for neonatal care within the planned national drug logistics system.	2017	DDG MSD, D MSD
B 8.3	Improve the quality control process for drugs and commodities through strengthening the National Drug Quality control Laboratory (NDQL) with necessary equipment and human resources	2017-2020	DMSD
B 8.4	Improve laboratory services so that services are available 24*7 as appropriate to the level of the institution and minimize out of pocket expenditure for patients	2017-2020	DDG LS, PDHS, RDHS, Director , MS
B 8.5	Update norms for equipment	2017-2020	DDG BME, DDG LS, DMCH, SLCP, SLCOG, PSSL
B 8.6	Develop and update specifications for equipment with inputs from the relevant professionals and submit to BME. Provinces and districts should follow the same specifications	2017-2020	DDG BME, FHB, SLCP, SLCOG
B 8.7	Strengthen BME units at regional levels.	2017-2020	DDG BME, PDHS, RDHS
B 8.8	Maintain a computerized neonatal equipment database at the national and regional level BME units. Ensure that a replacement is available when a piece of equipment is removed for repair	2017-2020	DDG BME, PSHS, RDHS
B 9.	**Strengthen newborn care in the field setting**		
B 9.1	Develop and introduce a training package on newborn care for public health staff in field setting	2017-2018	FHB, SLCP
B9.2	Strengthen provision of domiciliary care for newborns by improving coverage and quality of postnatal care	2017-2020	PDHS, RDHS, MOOMCH, MOOH
B 9.3	Strengthen care provision for newborn in the field clinics by strengthening skills and competencies of staff in risk identification and management	2017-2018	FHB, MOOMCH

B 10.	Strengthen and update advance care for the newborn		
B 10.1	Update infrastructure required to provide advance care for newborns taking into consideration new developments from time to time	2017-2020	DDG Planning, DDG BME, DDG MSD, DMCH,
B 10.2	Strengthen and scale of neonatal bed availability system to ensure advanced care for all newborns	2017-2018	DDG MS, DDG PHS II, DMCH, D/MS

Lactation Management Center Base Hospital Karawanella

Courtesy of Prof. Asvini Fernando

Strategic Objective 3 (C)

Reach every woman and newborn to reduce inequalities

	Proposed Activity	Time Frame	Responsibility
C 1.	**Ensure provision of quality maternal and newborn care at all levels of hospitals to ensure universal coverage**		
	This area is addressed under strategic objective 2	2017 -2020	
C 2.	**Strengthen continuum of care across the health system and across life cycle**		
C 2.1	Develop a referral back referral system with the hospital and public health system	2017	FHB, MOMCH
C 2.2	Strengthen linkages with adolescent health, pre pregnancy care, maternal care so that the health of the newborn would be ensured	2017-2020	FHB

C 3.	**Ensure respectful behavior among the health staff**		
C 3.1	Educate and sensitize health staff in the hospitals and in the field on rights of patients and respectful behavior	2017-2020	FHB, MOMCH, Director , MS
C 3.2	Conduct regular audits on respectful behavior among staff members and provide feedback for improvement (link to QA programme)	2017-2020	HoI, Matron, Nursing sister in-charge
C 4.	**Develop strategies to provide quality care for the vulnerable populations eg urban slums, estate sector, some religious sectors, refugees from neighboring countries**		
C 4.1	Develop strategies pertaining to the geographical areas identifying specific needs according to area and population group	2017-2020	FHB, D/Estate and Urban Development, RDHS, MOMCH

Training a Grandmother on Kangaroo Mother Care - BH Diyatalawa

Courtesy of Dr. Kumudini Cooray

Strategic Objective 4 (D)

Harness the power of parents, families and communities

	Proposed Activity	Time Frame	Responsibility
D 1.	**Promote zero tolerance for preventable stillbirths and maternal and newborn deaths in communities**		
D1.1	Improve community awareness on prevention of preventable still births, neonatal and maternal deaths. Address their right to health, right to know the causes of illness and death.	2017-2020	HEB, FHB, RDHS, MOOMCH
D 1.2	Develop and monitor a system for the community to report violation of their rights to health	2017-2018	FHB, RDHS, MOOMCH, MOOH
D 2.	**Take early steps to implement the communication strategy related to newborn care that has been developed by the Health Education Bureau.**		
D 2.1	Develop and incorporate appropriate communication strategies for newborn care concurrently with program plans	2017	HEB, FHB
D 2.2	Utilize community based mother support groups to educate the community on danger signs during neonatal period, provide support to parents especially those with small and sick infants, to alleviate common myths around child birth and neonatal care and promoting, protecting and supporting in breastfeeding.	2017-2020	HEB, FHB
D 2.3	Develop and disseminate appropriate IEC material to support the maternal and newborn care programme	2017-2018	HEB, FHB, MOMCH, MOH
D 3.	**Maximize the power of parents voices, civil society, mass media and social media to provide information and change norms**		
D 3.1	Use all forms of appropriate media including social media to provide information for the public and engage with the parents and civil society as a platform to raise concerns	2017-2020	HEB, FHB
D 3.2	Optimally utilize mass media to change norms when required and strengthen existing good practices	2017 -2020	HEB, FHB
D 4.	**Equip families including men with the knowledge and capacities to provide good maternal and newborn care**		
D 4.1	Strengthen the existing parent craft classes with special emphasis on participation of fathers	2017-2020	FHB, MOMCH, MOOH

D 4.2	Special emphasis on involvement of extended family members in maternal and newborn care as per traditional practices in our country, in order to obtain the benefit to the mother and newborn	2017-2020	FHB, MOMCH, MOOH
D 5.	**Strengthen links between community and health facilities through applying innovative approaches**		
D 5.1	Establish "phone in services" (hot lines) in specified maternity / neonatal units in a district with adequate staffing to maintain a 24 hour service so that the public as well as community based health care workers can obtain advice on neonatal problems.	2017-2018	FHB, HoI
D 5.2	Include a special place in the neonatal BHT/ diagnosis card to indicate that the consultant or a senior member of the team had spoken to the parents prior to discharge of a baby from a NICU	2017	FHB

Breast Feeding Training of Trainers at FHB

Courtesy of Dr. Hiranya Jayawickrama

Strategic Objective 5 (E)

Count every newborn – measurement, programme tracking and accountability

	Proposed Activity	Time Frame	Responsibility
E 1.	**Invest in birth and death registration coverage and quality, promoting recording of every birth, live or stillbirth and recording neonatal death**		
E 1.1	Strengthen the recently introduced registration of all still births with the Registrar General. A stillbirth declaration form on the lines of the death declaration forms that are currently used in the hospital system may be suggested.	2017-2018	FHB, Director , MS
E 1.2	Advocate and increase awareness among the staff on definitions of neonatal death, perianal deaths, still births so as to encourage them to report every death. This can be linked to routine in-service and pre-service training programmes for the staff in maternal and neonatal care units	2017-2020	FHB, MOMCH, HoI, Consultants in-charge of units
E 1.3	Introduce all the relevant information to the eIMMR and support in the compiling of national data by streamlining information system from the hospital where all births and most of the deaths occur	2017	Medical Statistician, FHB
E 1.4	Produce a quarterly report on neonatal perinatal data from the hospitals to support policy and practice	2017-2020	Medical Statistician FHB
E 2.	**Strengthen the perinatal mortality information system for collection, consolidation, analysis and dissemination of information within the RH-HMIS**		
E 2.1	Develop and disseminate accurate definitions of perinatal deaths (i.e., fetal and early neonatal deaths) and definitions and guidelines for reporting in the form of flowcharts for easy reference to all institutions that provide services for births	2017	FHB, SLCP, SLCOG
E 2.2	Train staff on correct identification and reporting of data on perinatal deaths	2017	FHB, MOMCH
E 2.3	Strengthen the current system of perinatal death audits, and introduce a system of confidential inquiry	2017-2018	FHB, SLCP, SLCOG, PSSL
E 2.4	Expand the system in the future, to include perinatal audits of severe morbidity	2017-2020	FHB, SLCP, SLCOG, PSSL

E 2.5	Establish methods for translating "lessons learnt" into actions following perinatal audits at institutional, regional and national level so that the professionals involved perceive the usefulness of the exercise	2017-2020	FHB
E 3.	Strengthen the information system on neonatal interventions in the institutions		
E 3.1	Ensure that the new e-health management information system (e-IMMR/eRHMIS) would provide information on most of the neonatal interventions that have been introduced	2017-2018	Medical Statistician, FHB
E 3.2	Scale up information from the maternal units on all the newborns received through the neonatal examination format through the eIMMR	2017	Medical Statistician, FHB, Director , MS
E 3.3	Include information necessary to monitor the use of intra-natal interventions through the obstetric formats and thereby through the eIMMR	2017-2019	Medical Statistician, FHB, HoI
E 3.4	Devise a methodology to include in the information system the health institutions below the level of Base Hospitals. If it is not feasible to collect this information from all such hospitals, a subsample of institutions from districts where the number of deliveries in this category of institution is high may be included in the first instance and gradually expanded to cover all institutions	2017-2019	Medical Statistician, FHB, MOIC
E 3.5	Scale up the Neonatal Surveillance system already established in 20 hospitals to cover all the neonatal units (Level III+, III, II and I). A standard data collection system be developed and used at unit level so that information from all units can be pooled for analysis	2017-2018	FHB, NeoNICS, HoI
E 3.6	Develop data necessary to monitor performance including audit tools and protocols appropriate for each level of care	2017-2018	FHB, SLCP, PSSL
E 3.7	Produce a standardized annual report from units/ "neonatal networks"/neonatal services in a Province using data from these sources	2018-2020	HoI and Heads of the Neonatal Units, Heads of NICUs
E 3.8	Present both outcome and process indicators routinely disaggregated by "neonatal network"/district/ province, so that performance may be examined linked to outcome	2017-2020	FHB, NeoNICS,

E 3.9	Include few indicators of clinical standards in neonatal medicine routinely in the HMIS. These may be selected in consultation with the professional colleges as appropriate for the level of neonatal services – Following indicators may be used; use of antenatal corticosteroids, surfactant replacement therapy, use of Magnesium Sulphate for neuroprotection, nitric oxide for persistent pulmonary hypertension, therapeutic hypothermia for babies with hypoxic ischemic encephalopathy, screening for retinopathy of prematurity may be included in information from level 3 and 3+ units.	2017	FHB, SLCOG, SLCP, PSSL
E 4.	**Include the information on pre-term birth, its management and outcomes in the RH-MIS**		
E 4.1	Develop specific indicators based on the tracer interventions identified. The indicator needs to be incorporated in to the routine data collection system and they have to be presented by level of institution / network, district and country.	2017-2018	Medical Statistician, FHB,

Mother - Baby Center at Kethumathi Hospital Panadura

Courtesy of Dr. Sandya Doluweera

Annexure IV

SIXTY-SEVENTH WORLD HEALTH ASSEMBLY WHA67.10

Agenda item 14.2 24 May 2014

Newborn health action plan

The Sixty-seventh World Health Assembly,

Having considered the reports on the newborn health: draft action plan,1 monitoring the achievement of the health-related Millennium Development Goals,2 and health in the post-2015 development agenda;3

Recalling resolution WHA58.31 on working towards universal coverage of maternal, newborn and child health intervention, resolution WHA63.15 on monitoring of the achievement of the health-related Millennium Development Goals, resolution WHA64.9 on sustainable health financing structures and universal coverage, resolution WHA64.13 on working towards the reduction of perinatal and neonatal mortality, and resolution WHA65.7 on implementation of the recommendations of the Commission on Information and Accountability for Women's and Children's Health;

Acknowledging the pledges and commitments made by a large number of Member States and partners to the United Nations Secretary-General's Global Strategy for Women's and Children's Health, which aims to save 16 million lives by 2015;

Recognizing that millions of children and women die needlessly each year during and around the time of childbirth, and that effective interventions are available and feasible for implementation at scale to end preventable maternal, newborn and child deaths;

Recognizing that ending preventable maternal mortality will accelerate the achievement of the newborn mortality target;

Concerned that there has been insufficient and uneven progress towards achieving Millennium Development Goal 5 (Improve maternal health);

Also concerned that, although progress has been made towards achieving Millennium Development Goal 4 (Reduce child mortality) in terms of the overall reduction of child mortality, the reduction of perinatal and neonatal mortality has stagnated and the proportion of neonatal deaths among all child deaths is increasing;

1 Document A67/21.
2 Document A67/19.

3 Document A67/20.

WHA67.10

Recognizing the need to intensify action urgently in order to end preventable neonatal deaths and preventable stillbirths, especially by improving access to and quality of health care for women and newborns, particularly of those at risk, especially for high-risk groups and including the prevention of the transmission of HIV from mother to child, within the continuum of care for reproductive, maternal, newborn and child health,

1. ENDORSES the newborn health action plan,1

2. URGES Member States2 to put into practice the newborn health action plan, through steps that include:

   (1) reviewing, revising and strengthening their national strategies, policies, plans and guidelines for reproductive, maternal, newborn and child health in line with the goal, targets and indicators defined in the newborn health: action plan, and strongly committing to their implementation with particular focus on high-risk groups;

   (2) committing themselves, according to their capacities, to allocating adequate human and financial resources to improve the access to and the quality of care, particularly care for the mother and the newborn during labour, around birth and the first week, and achieve the national newborn health targets in line with the global action plan;

   (3) strengthening health information systems so as better to monitor quality of care and to track progress towards ending preventable maternal and neonatal deaths and stillbirths;

   (4) sharing information on lessons learnt, progress made, remaining challenges and updated actions to reach the national newborn and maternal health targets;

3. REQUESTS the Director-General:

   (1) to foster alignment and coordination of all stakeholders to support the implementation of the newborn health action plan;

   (2) to identify and mobilize, within approved current and subsequent programme budgets, more human and financial resources for the provision of technical support to Member States in implementing the newborn health component of

national plans and monitoring their impact;

(3) to prioritize the finalization of the more detailed monitoring plan with coverage and outcome metrics to track progress of the newborn health action plan;

(4) to take into due account the views expressed at the Sixty-seventh World Health Assembly as well as the domestic context when supporting the implementation of the action plan at the national level;

(5) to monitor progress and report, periodically until 2030, to the Health Assembly on progress towards achievement of the global goal and targets using the proposed monitoring framework to guide discussion and future actions.

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Ninth plenary meeting, 24 May 2014

A67/VR/9

1 "Every newborn: an action plan to end preventable deaths" contained in document A67/21.

2 And, where applicable, regional economic integration organizations.

Annex V

Ending preventable Maternal Mortality (EPMM) Targets beyond 2015

A series of technical consultations and discussions convened by WHO,UNFPA,UNICEF,USAID, the Maternal Health Task Force (MHTF), and the Maternal and Child Health Integrated Programme (MCHIP) and attended by a large number of stakeholders has resulted in the proposal of a vision for ending preventable maternal mortality (EPMM) and maternal mortality targets for 2030.The latest of these consultations , held in April 2014 in Bangkok, was attended by over 95 participants from 34 countries, including many countries with high rates of maternal mortality. At this consultation it was affirmed that EPMM is within reach and that progress can be accelerated by positioning maternal survival in the context of every womans's right to healthcare and the highest attainable level of health across the lifespan. In acknowledgement that maternal health is a crucial element of development, the consultation forged consensus on maternal mortality reduction targets for inclusion in the post-2015 development agenda.

Targets for equitable GLOBAL maternal mortality reduction post-2105

Global target: Reduce global Maternal Mortality Ratio (MMR) to less than 70 maternal deaths per 100,000 live births by 2030.

Secondary global target: By 2030, no country should have an MMR greater than 140, a number twice the global target.

Achieving the average global target implies that all countries contribute by reducing their MMR in 2010 by at least two-thirds by 2030.In order to meet the global target, countries with the highest MMRs (MMR >420) will need to reduce their MMR at an annual rate of reduction greater than 5.5%.Therefore, the secondary target aims to eliminate extremes of inequity in global maternal survival.

COUNTRY targets to reduce inequity in global MMR reduction

For countries with MMR less than 420 in 2010 (the majority of countries worldwide):

Reduce the MMR by at least two-thirds from the 2010 baseline by 2030.

For all countries with baseline MMR greater than 420: The rate of decline should be greater, and in 2030, no country should have an MMR over 140.

To address inequity, the global community should work together to reduce extremes of mortality and avert a situation where some countries have MMRs far above the global average and eliminate disparities in MMR between sub-populations within countries.

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