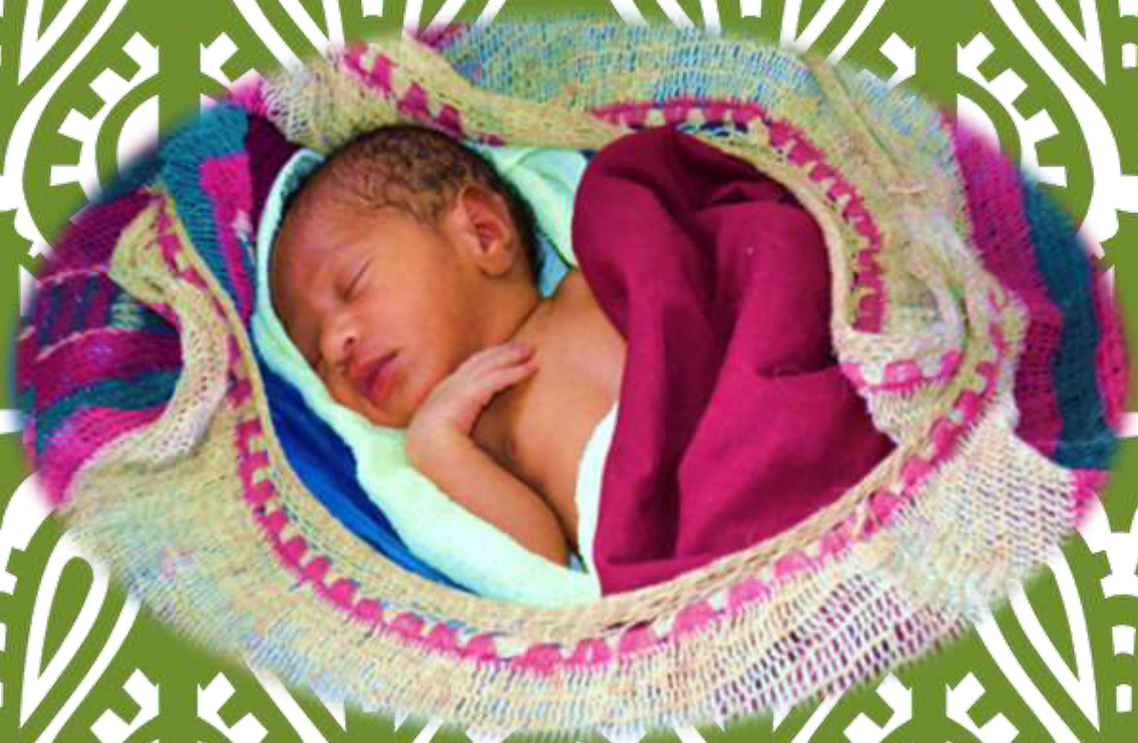
Papua New Guinea

DEPARTMENT OF HEALTH

NEWBORN HEALTH POLICY

2014



Approved by the Papua New Guinea National
Executive Council in the meeting No: 01/2014, NEC Decision No: 25/2014

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LIST OF ABBREVIATIONS

ANC	Antenatal Care
DHIS	District Health Information System
EENC	Essential Early Newborn Care
ENC	Early Newborn Care
FHS	Family Health Services
FP	Family Planning
FSB	Fresh Still Birth
HIV	Human Immuno-Deficiency Virus
IEC	Information, Education and Communication
IYCF	Infant and Young Child Feeding
KMC	Kangaroo Mothers Care
LBW	Low Birth Weight
MDG	Millennium Development Goal
NDoH	National Department of Health
NGO	Non-Government Organisation
NHIS	National Health Information System
NMR	Neonatal Mortality Rate
NTWG	Neonatal Technical Working Group
O&G	Obstetrics and Gynaecology
PHIS	Provincial Health Information System
PNG	Papua New Guinea
PPTCT	Prevention of Parent to Child Transmission
RDS	Respiratory Distress Syndrome
SCN	Special Care Nursery
STI	Sexually Transmitted Infections
STM	Standard Treatment Manual
UNICEF	United Nations International Children Emergency Fund
VHV	Village Health Volunteers
WHO	World Health Organization

Foreword

The UN Secretary-General, through its Global Strategy for Women and Children's Health, has called on national governments, international and nongovernmental organizations, corporations, foundations and advocates to reinforce their commitment and collective efforts to accelerate progress towards reaching MDGs 4 and 5.

In 2000, member states, through the Millennium Declaration, pledged to free people from extreme poverty and multiple deprivations. Millennium Development Goal 4 called for reduction of Child Mortality by two-thirds between 1990 and 2015. In 2006, the WHO/UNICEF Regional Child Survival Strategy was endorsed in response to the global commitments. Through these and other concerted efforts, progress in the Western Pacific Region and within the country – PNG, accelerated rapidly resulting in a 75% reduction in the Under-Five deaths between 1990 and 2010.

Despite this, more work is needed to further drive down the rates of under-five deaths, especially neonatal deaths.

Recent evidence shows that newborns account for an increasing proportion of all under 5-year old deaths. Currently, more than half of Under-Five deaths are among newborns, mostly from complications of preterm/LBW, birth asphyxia, infection and congenital anomalies.

Progress in reducing newborn mortality is uneven both within and between the country and the provinces.

This policy is the first edition of New-born health policy and compliments the Child Health policy and Sexual Reproductive Health Policy. It paves a path way to introduce the low-cost interventions that address the many issues that are affecting newborns in Papua New Guinea.

HON. MICHAEL BILL MALABAG-OBE, CBE, MP.
Minister for Health & HIV/AIDS

Acknowledgment

This is the first time the Department of Health has seriously considered developing a policy for Newborn Health in addressing high neonatal morbidity and mortality. Neonates are a vulnerable group whose age is from 0-28 days of life.

"Maternal labour issues are often discussed without seriously considering that the neonate is the reason why the mother is going into labour".

This policy is very comprehensive, covering all aspects of care expected to be provided to this vulnerable group of our population. It sets policy direction for serious considerations that maternal health and new-born health are part of one package as they are both equally important.

The National Department of Health sincerely appreciates and acknowledges all stakeholders and those who have contributed one way or other to the development of this policy.

These include:

- Members of the NDoH Senior Management Team
- Paediatrics Society Members
- Obstetrics and Gynaecology Society Members
- NDoH Program Managers and Technical Advisors
- Representatives from the Provincial Health Authorities
- Representatives from the Provinces
- Representatives from PMGH and NCD Health representing the different specialities in managing neonates
- Midwifery society
- Representatives from the Faith Based Organisations
- WHO
- UNICEF
- UNFPA

MR.PASCOE KASE
Secretary for Health

Executive Summary

Every year, around 5000 – 6000 neonates die every year, mainly from prematurity and Low Birth Weight (35%), birth asphyxia (34%) and neonatal infections (32%). Three-quarters of these deaths occur in the first week with the highest risk being on the first three days of life.

These children continue to die due to a lack of feasible, cost-effective care, such as warmth, breast feeding support, and basic care for infections and breathing difficulties.
Low quality of care before and during pregnancy, maternal and foetal complications during labour and after delivery, malnutrition and poverty are some factors associated with an increased risk of neonatal death.
Preventing deaths in newborns was not given adequate priority in child survival or safe motherhood programmes. There was no policy developed by the Department of Health as the roadmap for coordination, planning and management of newborn care services in Papua New Guinea. This Policy fills this gap through identification of issues affecting newborn health and proposing Policy Statements to address those issues.

It provides context and direction for newborn care strategies and activities that need to be implemented by stakeholders and service providers at all levels of government, NGO, pre-service institutions and private partners that have business in newborn health.
Furthermore it guides the implementers of this policy on their roles and responsibilities and applications of available, simple and low-cost interventions at their point of services.

The basis of this policy is derived from the National Health Plan 2011-2020 which calls for greater participation at all levels of health care, reduction in morbidity and mortality rates and safe motherhood. The policy, also calls for greater collaboration and consultation with health agencies and stakeholders, strengthening partnership and encouraging networking amongst all agencies and stakeholders.

CHAPTER ONE - BACKGROUND

1.1 Intent of Policy

The intent of the policy is to plan, guide and support implementation of newborn health programs to accelerate decrease of neonatal mortality and morbidity as stated in National Health Plan 2011-2020 (KRA 4, Objective 4.3).

The decrease of neonatal mortality and morbidity can be achieved through accessing quality maternal and new-born health care services plus other integrated programs.

The Policy addresses social, cultural, financial, health systems, political, and geographical barriers that limit access of newborn babies to quality health services.

1.2 Historical Context

Maternal and neonatal morbidity and mortality are a major public health concern worldwide and particularly in most developing countries and in under resourced settings. WHO estimates that almost 9 million children die every year, of which 4 million are newborn babies that die within the first month of their life. In addition, 3.3 million babies are born dead.

According to Demographic and Health Survey conducted in 2006, the neonatal mortality rate was 29/1000 live births. This puts Papua New Guinea in a group of countries with the highest mortality rate in Western Pacific Region.

While the under-five child mortality rate was reduced between years 1996 and 2006 from 93/1000 live births to 75/1000live births and infant mortality rate reduced from 70/1000 live births to 57/1000 live births, the new-born mortality rate did not decrease significantly.

While the efforts of the Government focused on reduction of child mortality in general, there was no policy in place addressing specific actions to scale up newborn survival interventions. The importance of the newborn health program was recognized in the National Health Plan 2011-2020. The focus of the National Health plan is for strengthening newborn health programs focusing on provision of life-saving support to neonates, scaling up preventative interventions such as tetanus toxoid vaccination and nutritional rehabilitation of pregnant women.

1.3 Audience

This Policy will be in use at all levels of health system in PNG including government and non-government health services as well as faith-based organizations, private sector, development partners and other stakeholders involved in provision of neonatal health services. The Policy should also be used by other government agencies like Central, Provincial, District and Local level governments.

The Policy will guide all health professionals at all levels of the health system from the community or primary health care level up to referral institutions such as provincial, regional or national referral hospitals.

This document will also institutionalize the responsibilities of non-health professionals at community level in regards to newborn health.

1.4 Policy Development Process

The development of this policy was initiated by the Family Health Services in November 2011 during the Short Programme review meeting in Madang. A technical officer was recruited in June 2012 to coordinate the program and the Neonatal Technical Working Group (NTWG) was established in July 2012 to provide guidance and accelerate the development of this policy.

Basing on the NTWG member's experiences and existing data and information, a desktop analysis was done on the status of newborn health in Papua New Guinea. It was presented and discussed in its first meeting at the end of August 2012. Both preventive and curative interventions that could reduce neonatal mortality in the most cost effective way were proposed and this formed this first working draft of the policy.

First draft of the neonatal policy was then presented and discussed in the two professional society mini symposiums (Paediatrics & Obstetrics and Gynaecology) in June 2013. The first draft was also presented and discussed in the Church Medical Council, Clinical midwifery conference and provinces during provincial technical support visits to Central,NCD,East Sepik,Sandaun,Enga, Kerema and New Ireland provinces.

Collective comments from above discussions were included in the policy during third NTWG meeting in July 2013 and this is the final draft of the neonatal policy.

CHAPTER TWO - POLICY CONTEXT AND DIRECTIONS

2.1 Goal

To accelerate reduction of neonatal mortality and morbidity in accordance with the National Health Plan 2011 – 2020, Key Result Area 4.

2.2 Vision and Mission

Vision: A healthy start for every newborn regardless of status in society and place of living.

Mission is to create an enabling environment to provide quality newborn care at every birth and during the first four weeks of life.

2.3 Objectives

2.3.1 To improve capacity of every health facility to provide appropriate quality newborn care in line with internationally recognise standards
2.3.2 To improve access to quality new born care at rural, under-serviced and marginalised communities
2.3.3 To improve reporting, monitoring and evaluation on new-born care.
2.3.4 To improve coordination, advocacy and partnerships with all relevant partners in implementing newborn health programs
2.3.5 To effectively manage new-born care programs using evidence-based decision making.
2.3.6 To improve newborn care practices at family, community and health facility levels.

2.4 Policy Principles

Neonatal Health Services shall be delivered with consideration of human rights, Christian and traditional values, and should cover also rural majority and marginalised populations. The newborn health services provided by health professionals should be characterised by professionalism, accountability, integration, innovation and teamwork.

The development of this Policy was guided by the following values and principles:

1. Human Rights, where new-born and their care-takers are respected, protected and have the right to be healthy.

2. Equitable Access, where every newborn regardless of social status, cultural background, tribal ethnicity of their parents or care-taker as well as geographical setting and urban or rural livelihood is given the same quality of care.

3. Community Participation, where men**,** women and other community members are involved in planning and implementation of the New-born Care activities.

4. Holistic and Integrated Approach, where every newborn is receiving comprehensive care combining provisions of services in the continuum of care from pre-pregnancy, pregnancy, birth/delivery, and post-partum period.

5. Evidence Based Services, where every newborn receiving health interventions that are proved to be effective, documented, and nationally and internationally recognized.

6. Good Governance, where implementation of newborn care program and activities comply with relevant government processes and legislations.

7. Transparency, where information on neonatal programs and activities are openly shared amongst all relevant stakeholders and partners.

8. Accountability, where newborn activities are monitored and relevant stakeholders are liable for their implementation results.

9. Leadership and Ownership, where the State takes responsibility for the overall coordination and implementation of newborn care program.

10. Sustainability, where programs and interventions, after initial support from development partners and other new-born health stakeholders, can be successfully continued and maintained with available resources and capacity available in the country.

11. Cost Effectiveness, where allocated funds and other resources justify results achieved.

12. Partnership, where newborn care programs and activities are implemented through effective dialogue and collaboration with all relevant stakeholders.

13. Friendly Services, where all newborns and their care-givers are receiving health care services in supportive, no cost, empathetic and hospitable environment.

14. Professionalism, where all newborn care services are provided according to highest possible standard between various professional groups.

2.5 Core Government Legislations and Policies

The National Health Plan is the basis of all operational directives, with the following documents and legislations being consulted:

Laws and Acts

1. Provincial Health Authority Act 2007
2. HIV Management and Prevention Act; 2003
3. Organic Law for Provincial and Local Level Governments; 1998
4. National Drug Policy of Papua New Guinea; 1998
5. National Health Administration Act; 1997
6. Public Finance Management Act; 1995
7. Public Hospital Act 1994
8. Papua New Guinea Constitution; 1975

Policies and Standards

1. Vision 2050, 2009
2. Family Planning Policy; 2014
3. National Tobacco Control Policy; 2014
4. Sexual Reproductive Health Policy 2014
5. Health Sector Partnership Policy 2014
6. National Health Service Standards 2013
7. Health Sector Human Resource Policy -2012
8. National Health Plan 2011-2020
9. Child Health Policy; 2009-2020
10. National Policy on Medical Equipment for Papua New Guinea; 2004
11. National Policy for Expanded Program on Immunization; 2004
12. National Policy on Health Promotion; 2003
13. Medical and Dental Stores Catalogue; 2002
14. National Population Policy 2001-2010; 1999
15. Papua New Guinea National Nutrition Policy; 1985
16. Community Health Post Policy 2013
17. Free Primary Health Care and Specialized Service Policy 2013

CHAPTER THREE: POLICIES AND STRATEGIES

3.1 Current Situation

Neonatal care was given minimal consideration and almost neglected over the last decade. This was reflected in the outcome of the DHS (2006) which showed significant reductions in the infant and child mortality rates but not the neonatal mortality rate.
During birth, more attention in terms of clinical management and operational resource allocation is given to the mother and what happens to her during delivery than providing the essential lifesaving care that the newborn baby needs.

According to Demographic health survey 2006, under five mortality rate reduced from 93/1000 live births to 75/1000 live births and infant mortality rate dropped from 69-70/1000 live births to 55-57/1000 live births. Neonatal mortality rate remained more or less the same from 32/1000 live births to 29/1000 live births.

According to the Child Health Plan (2009), two thirds of neonatal deaths are associated with high risk pregnancies, labour and delivery. Although there are many factors, preterm-low birth weight deliveries, neonatal sepsis, birth asphyxia, meconium aspiration, congenital abnormalities, hypothermia and hypoglycaemia accounts for more than half (54%) of the Under-five mortality in PNG.

In 2010, reports from 11 hospitals using the paediatric hospital reporting (PHR) system showed that neonatal admissions made up 1596 (14.6%) of all 10,897 paediatric admissions. Of the total deaths (646), 23.2% (150) of them were in the neonatal period. Common causes of admission were neonatal sepsis (37.1%); birth asphyxia (29.3%) and very low birth weight (6.6%). Neonatal sepsis accounted for 24.6% of all neonatal deaths while birth asphyxia accounted for 36%. The case fatality rate for very low birth weight babies (weight<1500g) was high with 32% of 106 VLBW newborns dying while in hospital. According to hospital annual reports, hypothermia and hypoglycaemia are factors contributing to high neonatal mortality.

The WHO Immunisation Surveillance, Assessment & Monitoring report (2012) showed that since 1992, 1500 suspected neonatal tetanus cases were reported from PNG using the syndromic surveillance system reporting. . In 2011, two cases of NNT were reported from Port Moresby General Hospital (PMGH) and 1 case from Rumginae Rural Hospital in Western Province. The confirmation of these cases along with the reported cases through the syndromic surveillance system led to the drafting of the National Action Plan for Elimination of Maternal and Neonatal Tetanus in PNG. In 2012, WHO classified PNG as one of the 31 countries that is yet to eradicate neonatal tetanus. During the mid-year paediatric symposium meeting in 2013, it was highlighted that there are general paediatricians and paediatric nursing officers providing neonatal care with an unbalance staff to patient ratio. Paediatricians are not informed about high risk deliveries.

Many health facilities are in urgent need of maintenance and upgrading to meet the standards of neonatal care and lack appropriately trained staff and essential drugs. Many hospitals do not have prenatal statistics review with their O&G colleagues. Paediatricians are not informed on time to attend to problem deliveries.

According to the quarterly report and observation from provincial monitoring visit in 8 rural birthing facilities and two referral hospitals conducted by Technical Officer - Newborn health revealed that newborn babies are not managed according to the sequence of events as outlined in the EENC on First Embrace, Born Too Soon and Care of the Sick Neonatal guidelines.
In the routine National Health Information system only neonatal sepsis is captured in Conditions Under five years of age. Other leading causes of neonatal mortality like preterm/LBW, birth asphyxia and congenital abnormalities are not captured in the NHIS making it difficult to measure the outcome indicators.

According to 2000 Community and Household Survey conducted by Institute of Medical Research, many children under five years of age died in communities due to easily preventable and treatable diseases. It also showed that mothers lacked the knowledge in taking their sick children earlier to the nearest health facilities for appropriate treatment. On the other hand, the study also showed many health facilities that were operating lacked essential medicines.
According to the Health Facility Survey (HFS) conducted in 2007, many facilities were not equipped with essential drugs and equipment. Cold chain at many facilities were either not available or not maintained so many babies were not immunised. In addition the study showed lack of supervisory visits from higher authorities

A study on neonates conducted in Wosera, East Sepik Province in 2001 showed that many babies died from infections, hypothermia (too cold), hypoglycaemia (low blood sugar) and low birth weight including prematurity.

According to the studies on 'factors contributing to low supervised deliveries' in Wewak, ESP and in Kagua-Erave, SHP many babies were delivered outside health facilities because of staff attitude, pregnant women lacking the knowledge on the importance facility based deliveries and poor labour ward facilities like water supply and delivery beds. Lack of finance, poor road conditions and distance were other factors that were found to discourage mothers from delivering at the Health Centres.

A study on the Effect of introduction of minimal standards of neonatal care on in-hospital mortality showed that high neonatal mortality occurred outside the hospital so major efforts must be made to provide better antenatal, perinatal and neonatal services in communities and to improve access to high- quality child health services.

There is evidence of existing harmful practises such as not allowing skin to skin contact, delayed drying, unnecessary suction are not only happening in hospitals and health facilities but are also occurring in the communities.

The current situation was caused by lack of policy guideline and lack of proper skills of the health workers.

3.2 Analysis of Issues and Policies and Strategies

3.2.1 Leadership Commitment and Co-ordination

Implementation of this policy requires substantial resources and support from leadership and management at all levels of government, health system and development partners. NDoH as the steward of the health system has not developed a policy on new born health to guide implementation all these years. In the absence of a policy, NDoH was not able to effectively carry out its mandated responsibilities. The development of this policy requires NDoH to strengthen its internal capacity to lead and coordinate all stakeholders in implementing this policy. Political support is required for community engagement and participation in decision making on issues impacting their communities. Current experiences shows little commitment offered to roll-out all components of new born services throughout the country.

Policy Statement:
NDoH shall lead and maintain central coordination of newborn care services and advocate for political and management commitment at all levels of government and among development partners to implement this policy.

Strategies:

1. NDoH will advocate for planning and implementation of new born programs at provincial, district and local levels of government as guided by the Provincial Health Plan, National Health Plan, National Health Service Standards and New-born Health Policy.
2. NDoH to advocate and ensure information on status of newborn care implementation is collected through National Health Information System and other data not captured by NHIS be collected through research and surveys.
3. NDoH will advocate for newborn programs for political support at all levels of government.
4. All development partners and including other relevant stakeholders will be informed about Newborn Health policy and status of its implementation.

3.2.2 Prevention of Prematurity, Low Birth Weight and Congenital Abnormalities.

Prematurity and low birth weights are one of the most important direct causes of newborn mortality in Papua New Guinea. Morbidity and Mortality among preterm babies are higher than in term newborns. Factors in preterm babies that cause higher mortality include low and immature immune system, immature organs such lungs or digestive system. Congenital abnormalities (though lower in incidence) such as neural tube defects also contribute to neonatal mortality and morbidity and can be prevented by administration of folic acid before and at the beginning of pregnancy. Certain drugs and harmful substances such as alcohol, illicit drugs are known to affect foetal development. Maternal factors such as teenage pregnancy, maternal infections while being pregnant, pregnancy induced hypertension, placenta praevia, placental abruption and maternal malnutrition as well as other factors affecting placental function in utero contribute to premature labour and delivery of

preterm babies. All these can be significantly reduced by proper care during pregnancy and childbirth.

Policy Statement:
Every mother shall be given proper antenatal care and nutrition counselling from the first trimester of pregnancy and should be advised to avoid harmful practices to reduce risk of prematurity, low birth weight and congenital anomalies of their babies.

Strategies:

1. The Health sector partners to ensure every pregnant woman receives folic acid, iron and malaria prophylaxis and nutrition counselling during pregnancy.

2. The Health sector partners advocate for every pregnant woman to start receiving antenatal care from the first trimester onwards.

3. All pregnant women and their families must know and avoid harmful practices during pregnancy such as alcohol consumption, drug abuse, smoking or being exposed to smoke (passive smoking).

4. The Health sector and relevant partners ensures that all families and communities are informed about the need for proper nutrition and supportive environment during pregnancy to prevent premature labour and ensure proper development of the babies.

3.2.3 Early Identification and Management of Premature Labour

In addition to poor nutrition of mothers, late antenatal care and exposure to risk factors, late recognition and referral of high risk pregnancies and poor management of premature labour are other common factors that lead to high prevalence and mortality of neonates due to prematurity. Lack of tocolytics and skills to inhibit preterm labour are also contributing to the high number of premature labours. Not routinely using corticosteroids among women with premature labour to help foetal lung maturity also worsens respiratory difficulty amongst premature babies and hence increase mortality among them.

Policy Statement:
Every complicated and high risk pregnancy that could lead to premature labour has to be identified and referred for proper management.

Strategies:

1. All facilities providing antenatal services ensures that all high risk pregnancies that could lead to premature labour (sick mothers, teenage pregnancies, multiple pregnancies etc.) are identified during the antenatal care visits and referred for proper management.

2. Health sector partners to ensure that in areas without regular antenatal care services there is capacity to identify and refer high risk pregnancies for proper management.

3. Health sector partners to ensure that every health facilities offering birthing services have capacity to take care of high risk pregnancies and to prevent and manage premature labour.

4. Health sector agencies and partners to support and advocate for prevention of pregnancies among adolescents.

3.2.4 Management of Preterm Babies

Capacity for proper management of preterm babies is lacking in many health facilities and communities. While half of babies born at 24 weeks of gestation survive in high income countries, in Papua New Guinea majority of babies born below 32 weeks of gestation continue to die due to lack of feasible, cost-effective care such as warmth, breast feeding support and basic care for infections and breathing difficulties.

Policy Statement:
Every pre-term baby should at all-time stay with the mother, receive Kangaroo Mother Care (Skin to skin care), be fed with breast milk (including colostrum and early breast milk) and receive other appropriate treatment at Special Care Nursery.

Strategies:

1. All health sector partners delivering neonatal care to advocate and ensure that all pre-term babies stay with their mothers all the time.

2. All health sector partners delivering neonatal care to advocate and ensure that every pre-mature baby receives Kangaroo Mother Care.

3. All health sector partners delivering neonatal care to advocate and ensure that every premature baby at the community level is receiving appropriate care and support and is referred for further treatment at Special Care Nursery.

4. All health sector partners delivering neonatal care to advocate and ensure that every pre-mature baby is receiving colostrums and is breastfed according to IYCF Policy.

3.2.5 Recommended Place of Delivery

More than 85% of the population of PNG live in rural areas where access to quality health care is limited. Many births are not supervised by skilled health workers and occur outside recommended health facilities hence appropriate health interventions are not administered where necessary to the newborns. Even if there are trained personnel, they are not always available and accessible all the time.

Policy Statement:
Every newborn should be delivered at a health facility

Strategies:

1. All health sector partners advocate and ensure that every community is advised about the importance of birthing at health facility to save life of mothers and new-borns.

2. NDoH, Provinces and Provincial Health Authorities work with relevant partners to advocate and ensure that every community has access to safe and supervised births.

3. Provinces and Provincial Health Authorities work with communities without health facilities offering birthing services have arrangements in place to support mothers to deliver at health facilities.

3.2.6 Prevention and Management of Birth Asphyxia

The case fatality rate for birth asphyxia in PNG is 13.5% and is one of the common factors causing higher neonatal mortality. Birth asphyxia can occur while the babies are still in utero and during childbirth. Factors affecting oxygen delivery to brain in utero and contributes to asphyxia. Meconium aspiration in-utero or during childbirth and placental insufficiency causes asphyxia because they interfere with adequate oxygen delivery to brain and other vital organs. Some facilities are reporting increasing number of fresh stillbirths exceeding macerated stillbirths in normal birth weight babies that could be a result of poor management of labour leading to child death before birth.

Policy Statement:
All birthing facilities should have capacity for timely detection and management of birth asphyxia.

Strategies:

1. NDoH, Provinces and Provincial Health Authorities work with relevant partners to ensure that every health facility offering birthing services have equipment and other monitoring tools for timely detection of prolonged labour and foetal distress that can lead to asphyxia:

2. NDoH, Provinces and Provincial Health Authorities work with relevant partners and ensure that every health worker is trained in detecting prolonged labour and foetal distress that can lead to asphyxia:

3. Management of facilities providing birthing services to support and equip care givers to ensure that every case of prolonged labour is properly managed to prevent asphyxia;

3.2.7 Prevention and Management of Neonatal Infections

Early and late onset neonatal infections also contribute to a higher mortality among neonates. Various factors contribute to neonatal infections. Such factors include: immature immune system of neonates, cross infection from health workers or carers to babies, use of contaminated delivery equipment, unsterile practice, acquiring of multi-drug resistant hospital acquired (nosocomial) infections, inappropriate and unnecessary separation of babies and mothers and babies not getting

the “good organisms” to colonise and protect them. Discarding colostrums which is a common practice in many rural areas of PNG makes neonates more susceptible to infections because they miss out on antibodies and immunoglobulin that would have protected them from infections. Premature babies have a higher risk of having neonatal sepsis because they miss out on the protective effects of antibodies transferred from their mothers Certain maternal infections like HIV, malaria, Cytomegalovirus, Hepatitis B, Syphilis and Rubella can also be transmitted from the mothers to their unborn child. Irrational use of antibiotics and lack of clinical skills in diagnosing and instituting appropriate antibiotics results in multidrug resistant neonatal infections and mortality.

Policy Statement:
All babies should be protected against infections by cutting of cord with a sterile instrument, skin-to-skin care and early and exclusive breastfeeding. Harmful practices shall be discouraged or prohibited.

Strategies:

1. Management of facilities providing birthing services to ensure all health workers are aware and practice cutting of the cord with sterile instruments using sterile techniques and applying appropriate cord care.

2. Management of facilities providing birthing services provide support to care givers and mothers and ensure that every newborn is receiving exclusive breastfeeding that should be initiated within 1 hour after birth.

3. All health facilities providing birthing services to ensure proper infection control and elimination of harmful practices in the health facilities.

4. All local health facilities and care providers and givers are to ensure that every child delivered outside health facilities have access to safe and appropriate cord care, is breastfed with colostrums and is receiving proper thermal and postnatal care.

3.2.8 Prevention and Management of Hypothermia:

Hypothermia is one of the preventable leading causes of neonatal death. Because neonates have a higher body surface area, they lose a lot more heat compared to older children and the adult population. In addition; they have less stores of brown fat so they cannot shiver to help control their body temperature. Hypothermia can cause prolonged apnoeic attacks resulting in respiratory failure and even death. Factors causing hypothermia among neonates include: inappropriate covering, neglecting “first embrace” hence no skin to skin contact between mother and newborn babies, unnecessary separation of mother and babies, not drying babies properly after birth, bathing newborn babies in cold water, wrapping babies in wet coverings and unavailability of equipment to address hypothermia.

Policy Statement:
Every child born should be immediately and thoroughly dried and any harmful practice compromising thermal care should be discouraged.

Strategies:

1. All health workers to ensure that every neonate born in health facility is immediately and thoroughly dried after birth and its thermal care is not compromised.

2. All local health facilities, care providers and givers to ensure that every neonate born outside health facility is receiving proper thermal care and any harmful practices are avoided.

3.2.9 Prevention and Management of Anaemia in Neonates

Prevalence of anaemia in neonates still remains high. Causes of anaemia in neonates are multi factorial but can generally be classified into blood loss, increased RBC destruction or reduced RBC production.

Blood loss can occur from obstetrical causes like placenta praevia and placenta abruption, birth trauma such as subgalealhaemorrhage and improper cord care. Increased RBC destruction can be due to abnormalities of the RBC, immune mediated breakdown of RBC and neonatal infections. Preterm babies suffer from anaemia of prematurity and are also at a greater risk of developing anaemia from frequent blood sampling. Maternal malnutrition and infections like malaria can also cause anaemia in newborns in PNG.

Policy Statement:
Anaemia in neonates shall be prevented by improved maternal nutrition, minimal birth trauma and clamping of the cord after the cord pulsations stop.

Strategies:

1. All health facilities management teams, health workers and relevant partners to ensure that every pregnant woman is receiving regular malaria prophylaxis, iron and folic acid supplementation and proper nutrition to prevent anaemia in neonates.

2. All health facilities management teams to ensure that all health workers assisting deliveries are aware and practice clamping of the cord of newborn babies after pulsation stop.

3. All health sector agencies to ensure that every health facility have capacity to detect anaemia of neonates.

4. All health facilities management teams and health workers to support and ensure that all preterm babies and neonates with symptoms of anaemia receive iron supplementation.

3.2.10 Prevention and Management of Hypoglycaemia.

There is high mortality in babies with hypoglycaemia which can result from inadequate glucose intake, poor uptake and utilisation of glucose due to enzyme deficiencies or inadequate stores of glucose. Poor feeding practises are the main factors contributing to hypoglycaemia in newborns. Maternal factors causing placental insufficiency often results in babies who are growth restricted and develop hypoglycaemia. Because of hyper-insulinaemia, babies of diabetic mothers (gestational diabetes/established diabetes) can easily die from hypoglycaemia if their blood glucose level is not well monitored and corrected.

Policy Statement:
All health facilities offering birthing services should have capacity to prevent and manage hypoglycaemia in newborns.

Strategies:

1. All health facilities management teams, and health workers to support and ensure that every neonates born in Health Facility is breastfed as soon as possible (preferable within 30 minutes after birth) and as often as the child wants to prevent hypoglycaemia.

2. All local health facilities, care providers and givers to ensure that every neonate born at communities is protected against hypoglycaemia by breastfeeding and children not able to suck are referred to Special Care Nursery or a facility that has the capacity to provide appropriate professional care.

3. All health facilities management teams and health workers to support and ensure that every health facility have equipment for detecting hypoglycaemia and staff trained to manage children with hypoglycaemia.

3.2.11 Prevention and Elimination of Neonatal Tetanus

Coverage for tetanus immunisation of mothers to prevent neonatal tetanus is low because not all pregnant women attend antenatal clinic. Even, if they attend, availability of vaccine is a problem. Since 1992, 1500 suspected cases of neonatal tetanus have been reported in PNG. In 2012WHO has listed PNG as one of the 31 countries that have yet to eradicate tetanus infection. Immunisation campaigns such as SIA are currently ongoing, but limited by funding constraints.

Policy Statement:
Tetanus of neonates shall be eliminated by immunization of all women in reproductive age against tetanus and carry out clean cord care after delivery.

Strategies:

1. Conduct advocacy and awareness to ensure all women in reproductive age are fully immunized against tetanus.

2. All health facilities management teams and health workers to support and ensure clean cord care is practiced at all health facilities.

3. All local health facilities, care providers and givers to ensure that every baby delivered outside health facility have access to clean cord care.

4. All local health facilities, care providers and givers to ensure that every case of neonatal tetanus is identified and referred to health facility for treatment and proper management.

5. All local health facilities, care providers and givers to ensure that every confirmed or suspected case of neonatal tetanus is reported both at health facilities and community levels.

3.2.12 Proper Sequence of Events in Newborn Care at Birth.

Majority of neonatal deaths occur during the first three days after birth and are often the result of poor quality of care offered to newborn. Improving the sequence of procedures following Early ENC, also called “First Embrace” could avert considerable number of neonatal deaths. This includes the following order of the procedures;

1. Immediate and thorough drying.
2. Skin to skin contact.
3. Delayed cord clamping after pulsations stop and cutting with sterile instrument.
4. Initiation of breast feeding supported by hand hygiene and other health facility infection control measures.

Policy Statement:
All newborn should receive quality care following proper sequence of events (First Embrace).

Strategies:

1. All health facilities management teams to ensure that all health workers have capacity and are implementing proper sequence of events (First embrace) in newborn care.

2. All local health facilities, care providers and givers to ensure that all newborns born at community are assisted following proper sequence of events (First Embrace)

3.2.13 Prevention of Disease in Neonatal Period

The first 28 days of life of newborns is the time to implement interventions to protect the children against infectious diseases, which could affect their health in the future. These include: hepatitis B, polio, tetanus, pertussis, diphtheria, haemophilus influence and TB. It is also vital time for prevention of mother-to-child transmission of HIV with breast-milk if the mother was exposed to HIV infection. The newborn child should be also protected from syphilis, by checking the syphilis status of their antenatal mothers and treated if they are found to be positive. They should also receive a dose of Vitamin K and eye ointment to prevent haemorrhages and infection of the eyes.

The reports from health facilities and results of household survey indicate still low coverage of immunization in the neonatal period according to vaccination calendar as well as significant proportion of mothers whose HIV status is not known, or which are HIV positive but not on ARV treatment during breastfeeding.

The syphilis status is often not checked and other preventive interventions such as supplementation with Vitamin K and applying eye ointment are often not practised. There are also a significant number of mothers with TB not being on treatment and breastfeeding their children contributing to spread of TB among children.

Policy statement:
All newborns should receive basic immunizations according to recommended vaccination calendar, protected against mother-to-child transmission of HIV, syphilis and TB and should receive Vitamin K and eye ointment afterbirth to be protected against communicable diseases.

Strategies:

1. NDoH, PHAs and provinces ensure that every health facility offering birthing services has capacity to provide immunization services.
2. NDoH, PHAs and provinces ensure that every newborn is fully immunized according to vaccination calendar.
3. All facilities to ensure that there is capacity to detect HIV, syphilis and TB in mothers before and during birth to protect newborn children against syphilis, HIV and TB.
4. All health facilities ensure that every mother is tested for HIV, syphilis and TB during antenatal care or labour and her HIV/syphilis/TB status is known.
5. All health facilities to ensure that every HIV, syphilis or/and TB positive mother is on treatment to protect her baby from HIV, syphilis and TB.
6. All health facilities to ensure that every newborn is receiving Vitamin K and eye ointment to protect them against haemorrhages and eye infections at birth.

3.2.14 Resuscitation and Other Lifesaving Procedures of Newborns

Most birthing facilities in the country lack the capacity to provide life-saving support such as resuscitation of newborns. Though implementation of resuscitation services can be required only in about 1% of all born children, it is important to have them available at all health facilities offering birthing services following Policy principles of human rights and equity.

Policy Statement:
Every health facility should have capacity to provide resuscitation and other life-saving procedures for new-borns.

Strategies:

1. NDoH, provinces and PHAs to support and ensure that all facilities providing birthing services have equipment for neonatal resuscitation.

2. NDoH, provinces and PHAs ensure that every health worker has skills to perform resuscitation procedures.

3.2.15 Prevention and Elimination of Harmful Practices

Certain harmful practices such as discarding colostrum, unnecessary separation of mother and babies after birth and cultural taboos such as fathers not actively involved in early neonatal care (patrilineal society restricting child rearing practices to women) contribute to higher neonatal mortality. Substance abuse amongst pregnant women and unplanned teenage pregnancies also contribute to higher neonatal mortality.

Policy Statement:
All harmful traditional and cultural practices affecting newborn's health or compromising quality of care of new-born sat health facilities should be abandoned.

Strategies:

1. NDoH, provinces and PHAs advocate and ensure that all harmful practices compromising newborn health at community and health facilities should be identified

2. NDoH, provinces and PHAs advocate, support and ensure that harmful practices compromising quality of newborn care in health facilities are responded and abandoned.

3. NDoH, provinces and PHAs to advocate and ensure that harmful practices compromising newborn health at community level are responded and abandoned.

3.2.16 High Risk of Neonatal Deaths in Maternal Deaths, Disasters and Other Special Situations

Maternal Death:

While the feeding of neonates in maternal death and special situations is covered under the IYCF policy, there is no protocol or guideline in place regarding care of the newborn. Child welfare services are only available at provincial level but are non-existent at the district and community level. Neonates are vulnerable to malnutrition, infection, abuse and other problems without the support from the biological mother. A well-defined practical approach that will work in our setting regarding care of new-born is needed to address this issue.

Abandoned Newborn:

There are currently no clinical guidelines in place to address abandoned new born that usually are from unplanned teenage pregnancies.

Disaster Situations:

Newborn health can be also compromised during natural and made-man disasters that require special protections and care of newborns being the most vulnerable group of population affected by such disasters. Preparation of plans and procedures to deal with disaster situation can result in reducing lives lost in such events.

Policy Statement:
All health facilities offering birthing services should have capacity to provide newborn care in special situations and disasters.

Strategies:

1. NDoH, provinces and PHAs to advocate and ensure that all health staff working in health facilities providing birthing services, special care nursery and postnatal wards are trained to protect and care for new-borns in special situations such as deaths of mother, child abandonment and natural or man-made disasters.

2. NDoH, provinces and PHAs to advocate andensure that all health facilities offering birthing services have equipment, IEC materials and consumables on care of new-borns in special situation such as deaths of mother, child abandonment and natural or man-made disasters.

3. NDoH ensures that all provinces, PHAs and hospitals have a plan based on existing capacity, to protect and care for new-borns in disaster situations.

3.2.17 Poor Referral of New-borns

Referral system in the health system is generally weak to manage new born referrals. Communication problem is widespread in the health system. Even in the presence of a good communication, transportation can be a nightmare given the geographical terrains, unavailability of appropriate transportation media, and unavailability of appropriate resuscitation equipment and poor training of those accompanying the baby in medical emergencies

Policy Statement:
Early identification of complications and functioning referral systems should be established in all levels of service delivery.

Strategies:

1. Provinces, Hospitals, PHAs develop and build up reliable communication network between all health facilities offering birthing services and referral health facilities with comprehensive obstetric care services and Special Care Nursery.
2. Provinces, Hospitals, PHAs work with NDoH to ensure that the health staff have capacity and tools for timely identification of maternal and child health complications that requires referrals.
3. Provinces, Hospitals, PHAs Ensure that every health facility offering birthing services have capacity to organize referral of patients to referral health facilities
4. Provinces, Hospitals, PHAs plan and budget for availability of staff and quality support of patients during referrals.
5. Provinces, Hospitals, PHAs advocate and seek support for community participation in establishing local referral systems.

3.3.18 Management for New-borns with Congenital Abnormalities

Though mortality due to congenital abnormalities is not a major contributor to neonatal deaths, with the change in life style and industrial development that taking place in many parts of Papua New Guinea, the prevalence and severity of congenital abnormalities can significantly increase in the years to come. Exposure of pregnant mothers to risk factors such as drugs, chemicals or pollution of environment by mining and other extracting industry can have disastrous effects on newborn health and development, and requires health staff to be prepared to deal with such situations.

Policy Statement:
Every child born should be checked for congenital abnormalities and referred for further diagnosis and treatment if necessary.

Strategies:

1. Provinces, Hospitals, PHAs and partners work with NDoH to develop health staffs' skills to detect and manage congenital abnormalities.
2. All birthing facilities to ensure that all neonates with congenital abnormalities are referred for further management if necessary.
3. Provinces, Hospitals, PHAs eensure resources and equipment to care for neonates with congenital abnormalities are available at referral

3.2.19 Postnatal Care for Newborns

Three quarters of neonatal deaths occur in the first week after birth due to maternal and neonatal complications during this period. One cause of neonatal death is inadequate care and follow-up after delivery. During postnatal visits health workers can check for feeding problems, detect early signs of severe life-threatening infections, encourage proper cord care and update vaccination status of newborns. Health workers can also observe and counsel mothers about breast feeding practises encourage proper thermal care and discourage the use of any harmful practises identified and identify complications in the mother. Post-natal care is not used in the country and with its implementation utilising skilled health workers or trained care provider at proper time can significantly improve not only neonatal but also maternal morbidity and mortality.

Policy Statement:
Every newborn baby should be followed-up on day 1, 3 and 7 days and 6 weeks after delivery.

Strategies:

1. Every health staff is informed about the timing and procedures of postnatal follow-up visits.
2. Every child born at health facility will receive postnatal care visit 1, 3, 7 days and 6 weeks after the birth.
3. Every child born outside health facility is reported and the mother will receive postnatal care visits.

3.2.20 Integration Between Maternal and Child Health

Lack of corporation between professional bodies and lack of integration of activities towards addressing maternal and child health services exist and need to be addressed. Maternal and neonatal health goes hand in hand and hence parties involved in both speciality must work together to design policy and guidelines to provide better neonatal and maternal health care.

Policy Statement:
Maternal and Child Health Programs both in pre-service and in-service level should be integrated and should complement each other.

Strategies:

1. Ensure that Maternal and Child Health programs are complimenting each other.
2. Maternal and Child Health programs are integrated in both: pre-service and in-service level.
3. Ensure close cooperation of child health oriented health workers and maternal health workers in resolving issues related to maternal and child health.

3.2.21 Low Quality of Care:

There is lack of appropriate birthing facilities and newborn care services at all levels of the health system. Birthing facilities include pharmaceuticals and consumables, clean hygienic environment, adequate and safe space for mother-baby bonding as well as availability of clean water, toilet and good light source. All labour needs monitoring using partograph or more advanced technologies such as cardio-topography to identify early signs of foetal distress and prevent life-threatening complication as birth asphyxia which is one of the leading causes of neonatal mortality. This important care is not practiced in all health facilities and even if they are being practiced, they are not done properly. There are reports of using the same trays and instruments for multiple deliveries due to lack of surgical instruments and functioning equipment for sterilizations. There is limited access to health facilities with capacity to offer comprehensive maternal care that includes caesarean section, which can be the only medical procedure to save newborn and maternal life in case of obstructed and/or prolonged labour.

The health facilities offering birthing services and postnatal care are not mother and baby friendly, are lacking furniture, and should offer newborn care services like care at special care nursery and postnatal wards.

Policy Statement:
All birthing facilities should have proper infrastructure and should be properly equipped to offer quality maternal and newborn care services including comprehensive maternal health care and special care for newborns, if justified by needs and size of the population served.

Strategies:

1. Infrastructure of maternal and child health care facilities are responding to the needs of populations.
2. Every health facility offering birthing services have appropriate and functioning equipment and tools to offer quality maternal and newborn care services.
3. Every health staff have skills to use, care and maintain equipment, consumables and drugs needed for provision of quality Maternal and Newborn Health Services.

3.2.22 Family and Community Participation in Improving Newborn Health

Community and family are currently not actively involved in newborn care due to cultural and personal reasons or due to lack of education and awareness regarding their role in supporting mothers and newborn babies. Health promotional messages regarding newborn care is almost non-existent and even if it's there, accessibility to such information is complicated by low literacy, health seeking behaviours of parents, attitude of health care providers, majority rural population and other factors hindering communication. Every community and family has to be informed about proper Care of Newborns and participate in organizing referrals and improving access to maternal and newborn care services.

Policy Statement:
Community members have to be actively involved in organizing and provision of maternal and newborn care at community level.

Strategies:

1. Health workers, administration staff and community leaders have capacity and leadership skills to involve local communities in the process of improving quality and coverage of maternal and newborn child health care.
2. Every community understands the needs and is involved in improving quality and coverage of maternal and newborn child health care including provision of care for those in need.
3. Every adult and adolescent member of the community has the skills to identify danger signs for mothers and newborns, knows where to seek care and understand the need that every child has to be delivered at health facility.

3.2.23 Man Involvement in Maternal and Newborn Care

Men should take more responsibility with provision of adequate support and care for their wives and children. This includes provision of appropriate care and nutrition of pregnant women, protection against risk factors such as hard work or verbal or physical abuse, participation in antenatal care visits, participation and development of emergency delivery plans, support in detection of early danger signs in both mothers and newborns, and support in referrals of mother and children to health facilities in case of emergency. Though it can be difficult, it should be recommended for men to assist their wives during labour as it happens in other countries to improve respect for women and increase Family bonds.

Policy Statement:
Every man should participate in at least one antenatal care visit with their wives, be involved in preparation of delivery or emergency plans and, if culturally accepted and agreed by women, should be allowed to participate in child birth.

Strategies:

1. Every health workers understands and support the policy of involvement of men in antenatal care, designing delivery and emergency plans, and participation in the birth of their babies.
2. Every health facility offering birthing services have capacity to enable: participation of men in antenatal care, designing of delivery and emergency plans, and presence of men during labour and birth of babies by their wives without compromising safety and privacy of other women.
3. Every man is informed about the right and recommendation to assist their wives during antenatal care and childbirth.

3.2.24 Fee Limits Access to Newborn Care Service

Charging of fees limits access to new born services. The medical charges regulations exclude children, especially neonates from user fees. The Free Primary Health Care & Subsidized Specialist Care policy under the Alotau Accord further emphasizes and prohibits charging of new born services.

Policy Statement:
All public health facilities, state funded (through annual grants) facilities and partners shall not charge user fees for new born care services.

Strategies:

1. Public health facilities, state funded facilities and partners know about the Free Primary Health & Subsidized Specialist Care (FPH&SSHC) Policy and the Medical Charges Regulations, 1998.
2. All Memorandums of Understanding and Service Contracts capture the exclusion of fees on new born care services.
3. All Public health facilities, state funded facilities and partners implement the Free Primary Health care and Subsidised Specialist health care services.

3.2.25 Skilled Staff for Newborn Care

Limited skilled manpower has resulted in sequence of events following childbirth not being applied appropriately. There is a demand for more skilled manpower. There is currently no neonatologist in PNG and although there are talks of Centre of Excellence in Port Moresby to be used for neonatal care training for health workers, there is still more effort needed to make it feasible. More effort is still needed to develop human resources to provide medical, nursing and other supportive services that provide and enhance neonatal care. There is a need for more pre-service and in-service training and updates regarding neonatal care.

Policy Statement:
Human resources for newborn care shall be developed according to the needs and equitably distributed throughout the country to ensure that every first care and referral health facility have adequate number of staff skilled in newborn care.

Strategies:

1. Number of skilled staff needed to support supervised births and newborn care is assessed in all districts.
2. Short and long term plans to address the shortage of skilled staff to support supervised births and newborn care, are periodically updated.
3. Short and long term plans to address the shortage of staff needed to support supervised births and newborn care is implemented.
4. There is capacity to run pre- and in-service trainings on newborn care.
5. Availability of funding to employ new staff needed to support supervised births and newborn care.
6. Equitable distribution and monitoring of employment of skilled staff supporting supervised births and newborn care.

3.2.26 Division of Responsibilities During Labour

Observation and feedback from health workers indicate that it is very difficult for one person (midwife or midwife assistance) to give quality care for mother and newborn at the same time. "First embrace" including thorough drying of neonates, skin to skin contact and initiation of breastfeeding require time and commitment. If the same person needs to take care of delivering mother, actively supporting third stage of labour, it can be quite difficult to implement "first embrace" according to recommended standard. This could be avoided if second health workers assist delivery, with one focusing on active management of the third stage of labour and responding to any complications during the delivering of the placenta, and the second one implementing "First Embrace" procedures and examining the child for any abnormalities.

Policy Statement:
It is recommended that each birth should be supervised by at least two health workers with the first one focusing on delivering the mother and second one taking care of newborn baby according to standards agreed in this policy.

Strategies:

1. Every health manager and health worker knows about the Policy to have two health workers assisting mother during the child birth.
2. There is adequate number of staff and resources available to support presence of two health workers during the child birth.
3. Every delivery is supported by two health workers.

3.3.27 Maintaining Skills of Staff in Essential Newborn Care including First Embrace and Resuscitation of Newborns.

Problems with maintaining clinical skills by health workers, is one of the reasons for low quality of care delivered to newborns. Reports from health facilities and observations of workforce indicate that without establishing of systems of maintaining and upgrading clinical skills of health workers, the quality of care deteriorates with time resulting in lack of compliance with recommended standards and procedures of care. This is a priority to establish a system for periodical refresher courses on Essential Newborn Care that support maintaining quality of care delivered to newborns.

Policy Statement:
Every health worker assisting deliveries and managing children shall be trained or re-trained in Essential Newborn Care including First Embrace and resuscitation of newborns at least once per 3 years.

Strategies:

1. Ensure that every health worker has a log of accomplished trainings and his/her participation in the ENC training is registered.

2. There is capacity to offer pre-service and in-service trainings in *Essential Newborn Care* including modules on *First Embrace* and *Resuscitation of Newborns*.

3. Every health worker involved in MCH care is trained (or re-trained) in *Essential Newborn Care* including modules on *First Embrace* and *Resuscitation of Newborns* at least once per three years.

3.3.28 Birth and Death Registration of Newborns and Reporting

Vital registration is crucial for tracing trends in child and maternal mortality. Due to insufficiency of system of civil registrations, the child and maternal mortalities and population growth has to be based on estimations and surveys that give space for errors and speculation about precision of the given indicators. Reporting births and deaths with providing reasons for maternal and newborn deaths is also important for proper planning of activities of Department of Health on national, provincial and district levels as part of the National Health Information System.

Policy Statement:
Every birth and death of newborns shall be registered in civil registry and reported as part of NHIS.

Strategies:

1. Availability of data about on mechanisms and issues related to birth and death registration and reporting.

2. Every mother and other community members know about the needs and advantages of birth registration and know about the required procedure.

3. Every birth and death of newborn is recorded in civil registration system and reported in the NHIS.

4. Ensure continuous improvement of the birth and death registration system and reporting mechanisms.

3.2.29 Neonatal Death Audit

There is no functioning neonatal death audit implemented and used in Papua New Guinea. Some information on newborns deaths and their circumstances are available indirectly through maternal death audit. Lack of neonatal death audit becomes an obstacle in the process of improvement of quality of care for newborns and prevention of new newborn deaths from deviation from recommended procedures or due to new factors that have to be responded. The neonatal death audit should cover all cases of newborn deaths including deaths in health facilities and within communities or during transport and referrals, and its results should be discussed with health staff and health managers and used to improve access and quality of maternal and newborn care.

Policy Statement:
All newborn deaths and fresh stillbirths(perinatal deaths)should be audited and analysed at health facility, district, provincial and national levels and results used to improve quality of care and to prevent similar cases in the future.

Strategies:

1. Neonatal deaths audits procedures are known to health workers and there is capacity to conduct neonatal death audit on provincial, district and health facility level.

2. Allnew-born deaths and stillborn are analysed and audited and report used for improving quality of newborn care services.

3.2.30 Management of Newborn Health Programs

Experience and day-to-day observations of health services clearly indicate that slow progress of reduction of newborn mortality is caused by low quality of planning and decision making processes regarding newborn health. Prioritization of other health programme areas and focusing on much less important health issues from epidemiological and public health point of view, result in lack of funding andskilled staff for newborn care and as its consequence, no progress in reduction of newborn mortality during the last 10 years or more. This calls for evidence-based decision making process with usage of local data on maternal and newborn mortality and about access, quality and coverage of live-saving interventions such as “First Embrace”, early detection of management of asphyxia or thermal care.

Policy Statement:
All newborn care service planning, budgeting and implementation must be based on evidence.

Strategies:

1. There is capacity on the national, provincial, district and health facility for evidence based planning, budgeting and implementation of the newborn health care activities.

2. Usage of all available data and reports on newborn health and coverage of newborn survival interventions from national, provincial and district levels during planning, budgeting and implementation of the newborn health care activities.

3.3 Resource, Staffing and service Implications

3.3.1 Resource Implications

This is the first policy outlining interventions that require adequate resources to effectively implement this policy. For the health sector to be sensitized to provide the minimum standard of services, increased funding is required. The estimated cost of implementation will be outlined in the Implementation Schedule, in Annex three (3) of this policy.

Adequate human resources both in numbers and appropriately trained on new born management skills will move the program in a big way in the health facilities with birthing services and in the communities as well. Retention packages for appropriately trained human resources both in the public health sector and churches are important and should be considered.

Appropriately resourced personnel and offices and facilities are important aspect of any effective programs, business or organisations.

3.3.2 Service Implications

Successful implementation of this policy will see improve health results and better human development outcomes in future. Healthy newborn sets foundation for the baby to grow up to be a healthy and strong child and later healthy adult who will contribute to the nations development outcomes. Healthy individuals contribute towards healthier communities and healthy nation.

CHAPTER FOUR - IMPLEMENTATION PLAN

This policy will be implemented by all levels of the health system in a more coordinated manner for better outcomes as envisaged in this policy.

Detailed roles, responsibilities and expectations are outlined in Annexure one (2) of this policy and detailed activities in implementing this policy is outlined in the Implementation Schedule in Annexure five (5).

The Child Health Advisory Committee will provide overall technical advice and governance framework to meet standards and quality services. The Family Health Services through the Health Secretary will provide overall technical leadership and guidance by advocating and advising respective implementers through circular instructions, policy coordination and advocacies on neonatal and child health programs throughout the health system.

The public health system will plan and budget for resources for implementation through normal government existing planning and budgetary processes. At the national level, the NDoH will incorporate main strategies into the Child Health Strategic Plan and NDoH Corporate Plan and operationalize these activities annually through the Annual Implementation Planning (AIP) and budget appropriations.

Provinces, Provincial Health Authorities and the Provincial Hospitals will implement this policy by incorporating strategies and activities of this policy into their 5 year Provincial Health Strategic Implementation Plans, 5 year Provincial Health Authorities Strategic Implementation Plans and 5 year Hospital Strategic Implementation Plans respectively. Operationalization of this policy will be on annual basis through the normal AIP and budget appropriations.

Others partners will implement this policy in their own settings, but are encouraged to work with respective government agencies where they operate from in a coordinated manner as outlined in the Health Sector Partnership Policy. This will bring about better health outcomes through maximisation of limited resources in strategic priority activities.

CHAPTER FIVE - MONITORING AND EVALUATION

The implementation of the Newborn Health Policy will be measured on impact, outcome and process (input, output) levels.

The overall impact of the Policy on newborn health on national and regional levels will be measured by reduction of newborn mortality. The newborn mortality will be assessed by Demographic and Health Survey conducted every 5 years and by analysis of reports and data on newborn deaths and case fatality rates from health facilities.

Implementation of the Policy Statements and strategies proposed to contribute to achievement of Policy Directives will be measured by outcome indicators. The list of proposed outcome indicators for each Policy Statement with mechanisms of data collection is presented in the table below. The outcome indicators should be measured on national, provincial and district levels every 1-2 years and used to determine the results of implementation of activities by all implementers and used to support planning of activities by taking informed decisions about budget and priorities based on achieved results.

The implementation of activities will be measured by process indicators such as inputs and output indicators. Input indicators will measure utilization of resources required for implementation of activities under each strategy. Output indicators will measure direct results of implemented activities. Both proposed input and output indicators aiming in monitoring of implementation process of Newborn Health Policy are presented in the implementation schedule of the Policy and should be measured on district, provincial and national level on quarterly and yearly basis such as annual health sector review report.

The monitoring and evaluation of this Policy should become an integrated part of the National Health Information System. Successful implementation of Newborn Health Policy is very much dependent on proper reporting, monitoring and evaluation of approaches and activities aiming to reduce newborn deaths in Papua New Guinea and is solemn responsibility of all health workers on all levels of the health system.

Monitoring framework will be carried out by the information officers at all levels of health system (the facility, district, provincial and the National Health Information).

National Level

- Monitor implementation of this policy through quarterly reviews, annual sector review,
- Household survey to measure access and facility surveys to measure indicators
- Advocate for adequate resources for implementation of policy at provincial, districts and local level
- By incorporating newborn indicators into Demographic health survey and National Nutritional Survey.

Provincial Level/PHA

- Monitor implementation of this policy through provincial quarterly reviews.
- Conduct operational research
- Conduct household and facility research
- Monitor and report case fatality rates of the leading causes highlighted in the policy
- Monitor morbidity and mortality of leading causes highlighted in the policy
- Coordinate implementation with all relevant stakeholders at the provincial level

District Level

- Ensure all births are supervised at the facilities
- Provincial paediatricians to do regular visits minimum of twice a year to monitor:
  - number of births in the facility
  - deaths in the facilities
  - leading causes of morbidity and mortality
- Participate in quarterly reviews

Facility Level

- Record every birth in facility and outside facility in the birth Register.
- Record every death in facility and outside facility in the Death Register.
- Record leading causes of death in facility and outside facility in Death Register.
- Report every birth, death and leading cause of death at Facility, DHIS,PHIS and NHIS

ANNEX ONE: ROLES AND RESPONSIBLITIES OF MAIN STAKE HOLDERS

Different partners/stakeholders will play an important role in the implementation of this policy for better alignment and coordination. The following are defined to guide the different roles each and every partners/stakeholder plays in implementation process.

National Level

- Develop operational policies on paediatric referral careto complement and operationalize this policy
- Development of standards and guidelines on neonatal management/newborn care
- Review existing training curricula for both in-service and pre-service
- Advice provinces and relevant stakeholders to plan for neo-natal activities in their various planning processes, especially annual activity plans
- Collaborate with other government agencies, NGOs, institutions and partners on the implementation of this policy.
- Advocate for resource mobilization for neonatal programs for all levels
- Coordinate partnership to strengthen and utilize existing committees to support the implementation of this policy
- Advocate and provide technical support to health facilities on implementation.
- Develop tools for monitoring and evaluation of Neonatal/newborn care program
- Monitor and evaluate neonatal/newborn care programs
- Identify priority areas for research and surveys
- Coordinate and conduct research and survey
- Monitor implementation of this policy at provincial level
- Advocate for adequate and appropriate level of resources from Central agencies and development partners to implement the policy
- Develop operational guidelines and manuals to guide implementation of this policy
- Advocate for adequate resources for implementation of policy at provincial, districts and local level
- Regularly update standard treatment of manuals
- Incorporate updated medicine and medical device requirements into medical and dental catalogue

Provincial Level

- Coordinate implementation of this policy in the province
- Coordinate and strengthen partnerships with other partners including NGOs at provincial level in implementing this policy
- Plan and budget for neonatal/newborn care program activities in the province
- Coordinate monitoring and reporting of neonatal activities and provide monthly reports to NDoH through the NHIS and to FHS whenever required
- Provide technical support to districts and local level governments, NGOs in implementing this policy
- Coordinate training of provincial, district and local level staffs on neonatal/newborn care

- Create position for neonatal/newborn care coordinators in the province to coordinate neonatal activities
- Monitor and evaluate neonatal/newborn care programs in the province
- Support and conduct research and surveys on neonatal/newborn care priority areas

Hospital

- Provide technical support to the province on best practices on neonatal/newborn care
- Plan and budget for neonatal/newborn care program activities in hospitals
- Support and facilitate in-service training in hospital and province in neonatal/newborn care practices.
- Support and conduct research and surveys on neonatal/newborn care priority areas

Provincial Health Authority (PHA)

- Coordinate implementation of the neonatal/newborn care policy in the hospital and rural health facilities
- Coordinate and strengthen partnerships at provincial, district and local level in implementing this policy
- Plan and budget for neonatal activities in the province, hospital, district and local level
- Coordinate monitoring and reporting of neonatal activities and provide monthly reports to NDoH through the NHIS or to FHS whenever required
- Provide technical support to hospital, districts and local level governments in implementing this policy
- Coordinate training of hospital, district and local level staff on neonatal/newborn care
- Create position for neonatal service coordinators to coordinate neonatal activities in the province
- Monitor and evaluate neonatal health programs in the province
- Support and conduct research and surveys on neonatal priority areas

Development Partners

- Support implementation of this policy by aligning to this policy
- Supporting capacity building for implementation in line with the policy
- Support and conduct research and surveys in collaboration with NDoH on priority neonatal care areas as identified by NDoH
- Advocate implementation of this policy to other partners for successful implementation.
- Advocate on Capacity building and up skilling of health workers at all stakeholders

NGOs/FBOs/CBOs are Responsible For;

- Support Health sector and other partners in conducting training, education and advocacy on neonatal/newborn care programs
- Working with partners and stakeholders and maintaining good linkages for multi-sectoral approach

- Provide ongoing neonatal program reports to NDoH through the Provincial Public Health System
- Adhere to NDoH Child Health referral guidelines in the management of neonatal care
- Providing treatment and support in neonatal health care and health service delivery in accordance with the National Policies and Protocols.
- Align and adhere to government plans on implementation of this policy in the province.

District Level

- Implementation of the neonatal policy in the district
- Coordinate and strengthen partnerships at district level in implementing this policy.
- Implementing activities with established partners
- Plan and budget for neonatal activities in the district
- Monitoring and reporting of neonatal activities and provide monthly reports to the province through the NHIS or whenever required
- Provide technical support to local level governments in implementing this policy
- Conduct training of district and local level staff on neonatal
- Support research and surveys on neonatal priority areas
- Collaborate with other government agencies and institutions on the implementation of this policy.

Local Level Government (LLG)

- Implementation of the neonatal policy in LLG with community groups
- Implementing activities with established partners
- Plan and budget for neonatal activities in the LLG
- Monitoring and reporting of neonatal activities and provide monthly reports to the district and province or whenever required
- Support research and surveys on neonatal priority areas
- Collaborate with other government agencies and institutions on the implementation of this policy.

ANNEX TWO: GLOSSARY

Birth Asphyxia-Suffocation	A life threatening condition leading to hypoxemia due to blockage of airways preventing oxygen to reach vital organs. Birth asphyxia is often a result of delayed and obstacle delivery.
Child Mortality Rate	The probability of dying between exact age one and five.
Community Support	Care or interventions delivered to patients (including neonates) by members of community to prevent or manage sickness.
Complementary Food	Any food suitable or represented as suitable as an addition to breast milk, infant formula or follow-up formula.
Early Essential Newborn	Sets of interventions focusing on reduction morbidity and mortality of children during their first days of life and containing the following elements and approaches: First embrace, Care for low birth weight/pre-term babies and care for sick newborns.
Early Recognition of Risk Factors	Identification of conditions that can lead to severe morbidity or mortality at the early stage to allow for preparation in advance to treat or refer to higher level facility for proper assess and management to avoid further complication and death.
Early Referrals	Transfer of patient from lower level health facility to higher care level health facility for proper management before complications deteriorate.
Exclusive Breast Feeding	Feeding infants with human milk with no supplementation of any type of food (not even water, juice, non-human milk nor other foods) except for vitamins, minerals and medications.
Family Support	Care or interventions delivered to patients (including neonates) by members of family to prevent or manage sickness.
First Embrace	Set of interventions that when delivered to newborns improving breastfeeding, breathing, reducing anemia and infection and facilitate adaptation of the newborn to life outside uterus. The first embrace includes: 1/ Immediate and thorough drying; 2/ Immediate skin-to-skin contact; 3/ Appropriately-timed cord clamping; and 4/ Appropriately timed initial breastfeed.
Healthcare Providers	Individual, organization or institution who provide care for the sick child.
Health Indicators	Measures or indicate state of health of a certain group of persons in a defined population.
Health Professionals	A health worker registered with the Medical Board or Nursing Council under the Medical Registration Act 1980.

Health Worker	A person providing or in training to provide health care services, whether professional or non-professional including voluntary unpaid workers.
Hypoglycaemia	Deficiency or lack of glucose in the blood leading to deficiency of energy required for normal function of the human body. Can be a life threatening especially for the neonates.
Hypothermia	Condition characterised by low body temperature, often due to lack of proper care of children that could lead to dysfunction of life processes and deaths of newborns.
Hypoxemia	Low level of oxygen in the body's fluids and tissues. Can be a life threatening condition.
Infant	A child from birth up to the age of 12 months.
Infant Mortality Rate	The number of infant deaths per 1000 live births during the first 12 months of life or the probability of dying between birth and age one year.
Intervention	Technology or medical procedure that aims at reducing morbidity and mortality of the neonates and infants.
Kangaroo Mother Care	The approach to care of low birth and premature babies by continues skin-to-skin contact between mother (and father) and baby that has been found to help bonding, support breastfeeding and thermal care. Usually the baby is located between breasts of mother inside her clothes.
Low Birth Weight	Children that were born with weight below 2500 g (up to and including 2499g) regardless of gestational age. This includes babies who are born *premature* and babies who are *small for gestational age*.
Meconium	Content of baby's bowels accumulated during development in uterus before delivery. Can be toxic if accidently inhaled, leading to pneumonia.
Meconium Aspiration	A condition in which the baby inhales meconium into the lungs during delivery resulting in respiratory distress and/or hypoxia.
Morbidity	Estimation of number or proportion of children that become sick within given period of time within investigated population.
Mortality	Estimation of number or proportion of children that die within given period of time within investigated population.
Neonatal Health Indicators	Measures that reflect the state of health of babies within their 28 days of life.

Neonatal Mortality Rate	The probability of dying within the first 28 days of life described by nnumber of deaths in the 28 completed days of life per 1000 live births per year. Also known as neonatal death rate.
Neonatal Resuscitation	Process of reviving the baby by cardiac message or artificial respiration counting from birth up to 28 days of life.
Neonatal Sepsis	Infection of the newborn in the first 28 days of life that have to be treated with antibiotics. Can be a life threatening especially for the neonates.
Neonate	A child from birth up to the age of 28 days (4 weeks).
Newborn	A child from birth till the age of 7 days of life.
Partogram	A graphic record of the course of labour. It shows the health worker when to take the action in to save the life that is stills in uterus.
Postnatal Mortality Rate	The probability of dying after the first month of birth but before age one year
Pre-term babies	Children who are born before 37 weeks of gestational age (37 weeks counted from the first day of the last period of the mother before pregnancy).
Resuscitation	The process of reviving someone from cardiac and respiratory arrest by cardiac message or artificial respiration supported by other live saving interventions
Strategies	Approaches to implement policies. Strategies group activities that aiming to achieve specific goal, contributing to implementation of Policy Statements.
Supervised Birth	Birth of a newborn baby with the support of qualified health professional in the health facility.
Under Five Mortality Rate	The probability of dying between birth and before age five.


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