

Under Five's Child Health Policy: 2007-2015

Ministry Of Health, Ghana

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
BCG	Bacille Calmet Guerin (the vaccine for TB)
BF	Breastfeeding
CBA	Community Based Agent
CHO	Community Health Officer
CHN	Community Health Nurse
CHPS	Community Health Planning and Services (initiative)
CHV	Community Health Volunteer (often attached to CHPS compounds)
CRC	Convention on the Rights of the Child
DA	District Assembly
DHMT	District Health Management Team
DHS	Demographic and Health Survey
DPT	Diphtheria, Pertussis, Tetanus
EmONC	Emergency Obstetric and Neonatal Care
ENC	Essential Newborn Care
EPI	Expanded Programme on Immunization
ETAT	Emergency Triage Assessment and Treatment
FANC	Focused Antenatal Care
FDB	Food and Drugs Board
FP	Family Planning
GES	Ghana Educational Service
GHS	Ghana Health Service
HFS	Health Facility Survey
Hib	Haemophilus Influenza Type B
HIV	Human Immunodeficiency Virus
HIRD	High Impact Rapid Delivery (approach)
HMIS	Health Management Information System
ICD	Institutional Care Division
IEC	Information, Education, Communication
IMNCI	Integrated Management of Newborn and Childhood Illness
ITNs	Insecticide Treated Bednet
IPT	Intermittent Presumptive Treatment (of malaria)
KMC	Kangaroo Mother Care
MA	Medical Assistant
MCH	Maternal and Child Health
MDA	Minimum Daily Allowance
MDC	Medical and Dental Council
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MNH	Maternal and Neonatal Health
MW	Midwife
NCHCB	National Child Health Coordinating Body
NHIS	National Health Insurance Scheme
NGO	Nongovernmental Organization
NID	National Immunization Day
NMC	Nurses and Midwives Council
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Solution
ORT	Oral Rehydration Therapy
PMTCT	Prevention of Mother-To-Child Transmission (of HIV)
PNC	Postnatal Care
QHP	Quality Health Partners
RCH	Reproductive and Child Health
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UNICEF	United Nations Children's Fund
WHO	World Health Organization

Foreward

Child health is a major public health and development challenge in Ghana. After being static for close to two decades, the 2008 DHS showed a 30% reduction in the under-five mortality rate. This achievement sets Ghana in a positive direction to reaching the Millennium Development Goal (MDG) of reducing under-five mortality rate to 40/1000 live births by 2015.

Although some progress has been made, there are several challenges still to be addressed with regards to child survival and development. Newborn deaths are an important component of child mortality, representing 40% of all deaths. Mortality varies between geographic areas and by a number of other factors including the age and level of education of the mother and household income, with the most deprived, having higher mortality rates.

It is gratifying to note that efforts are being made at all levels to address problems confronting child survival and development in the country. Government, development partners and non-governmental organizations have been collaborating in implementing programmes to reduce under-five morbidity and mortality. In spite of these, the lack of synergy in coordinating activities is clearly one of the major constraints to adequately addressing child health challenges and indeed meeting the MDG's and other national goals. The complex and multifaceted causes of child morbidity and mortality call for a shared vision and an effective integrated approach.

This child health policy provides a framework for planning and implementing programmes. It builds on the previous document developed in 1999 and complements the Health Sector Programme of Work 2007-2011. It is organised along the continuum of care for mother and child - pregnancy, birth and immediate newborn period, neonatal period, infants and children. Policies are also presented for cross-cutting areas that are important for delivering effective programmes, namely health communication, health systems, human resource, monitoring, evaluation and research.

Interventions to improve child health cut across different technical areas. For this reason, child health interventions may be delivered through different programmes, many of which already have existing policy documents. This document does not repeat in detail such policies. The framework used here proposes a "child centred" rather than a "programme centred" approach. In order to improve child survival, different programme areas need to collaborate and link activities more effectively. The aim is for an integrated child health plan that will be regularly reviewed and funded by all stakeholders in order to achieve a high enough coverage of interventions to have an impact on national mortality rates.

I call on all agencies of the Ministry of Health, stakeholders and all relevant ministries, departments and agencies to rally behind this policy to give the best opportunity of health and development to the Ghanaian child.

Dr. Benjamin Kunbour

Minister For Health

1. Introduction

1.1. Background

Ghana has a population of over 21 million with 56% rural and 44% urban. The Total Fertility Rate (TFR) for the country is 4.4 with rural and urban rates of 5.6 and 3.1 respectively. Children under-15 years constitute an estimated 41% of the population, with 15% of the population estimated to be children under five years of age.

Over the past twenty years, Ghana has achieved sustained per capita economic growth accompanied by a reduction in poverty. This poverty reduction has been concentrated in Accra and the southern regions. The overall poverty level in Ghana in 1999 was 40% with 27% of the population living in extreme poverty. Food crop farmers, predominantly female, constitute almost 60% of the poor. Thirty-four percent of households in Ghana are headed by females. Ghanaian women have a significantly higher illiteracy rate (28% with no education) when compared to the men (18% with no education). Only 12% of women have some secondary education as compared to 23% of men¹.

1.2. Child Mortality in Ghana

Under 5 mortality in Ghana remains high (111/1000 live births in 2001-2006)². Declines in mortality that began in the 1980's have slowed. Between 1984 and 1998 child mortality declined by 43/1000 live births. Between 1999 and 2006 child mortality remained static. Newborn deaths (between birth and 28 days of life) are now an important component of child mortality, representing 40% of all deaths (43/1000 live births in 2003)³.

Mortality varies between geographic areas and by a number of other factors including the age and level of education of the mother, birth interval (shorter birth intervals are associated with higher mortality), rural or urban residence and household income.

The primary causes of newborn deaths are infections, asphyxia, prematurity and low birth weight. Available data estimate that 40% of neonatal deaths occur in the first 24 hours and 75% in the first 7 days of life. The majority of deaths after the newborn period are caused by malaria, pneumonia, diarrhoea and malnutrition/ vitamin A deficiency (as contributors to mortality from all causes). Deaths from measles have declined markedly in the last 5 years due to high measles vaccine coverage. Malnutrition remains an important problem. The proportion of children who are stunted (a measure of chronic malnutrition) was estimated to be 22% in 2006, with 18% of children estimated to be underweight. The prevalence of anaemia in women and children also remains high. In 2003, three quarters of children in Ghana were estimated to have some level of anaemia. Forty-five percent of women of child bearing age were anaemic.

The majority of child deaths in Ghana are caused by conditions that are preventable or treatable with simple, low-cost interventions.

1.3. Coverage of child health interventions

Progress has been made in increasing the coverage of key child health interventions in a number of areas and improvements are needed in others⁴:

- **Antenatal care.** Fifty nine percent of pregnant women made 4+ visits in 2003. Visits tend to be made late, however, and the quality of care is limited in many cases. Only about 50% of pregnant women received TT2+ during pregnancy. The proportion of pregnant women making early antenatal care visits needs to be increased and the quality of care they receive further improved.
- **Delivery care.** Fifty percent of all deliveries were attended by a skilled birth attendant in 2006. A skilled attendant is necessary in order to manage the delivery and immediate period after delivery most effectively.
- **Postnatal care.** Fifty-four percent of newborns received postnatal care in 2006; when it is received, care is rarely received in the first 24-48 hours. In 2003, 34% of newborns received a

1 Ghana Living Standards Survey (GLSS) 1998/1999; and Ghana Demographic and Health Survey, 2003.

2 UNICEF MICS, 2006

3 DHS, 2003

4 Ghana DHS 2003 and MICS 2006

postnatal care visit in the first 7 days of life. Early postnatal visits are important for identifying, managing and referring sick newborns and reducing deaths. An upward trend for coverage with newborn interventions has been seen in the last decade – early initiation of BF (46% in 2003), exclusive BF in the newborn period (54% in 2003) – although coverage remains relatively low. In addition there are a number of traditional practices around the newborn period (early bathing, pre-lacteal feeds) that can be harmful. Overall home practices in the newborn period need further improvement.

- **Immunizations.** Measles coverage was estimated to be 78% in 2006; 64% of children 12-23 months of age were fully immunized. Immunization coverage has been relatively high and sustained over time.
- **Nutrition.** Fifty-four percent of infants 0-6 months were exclusively breastfed in 2006 and 58% of infants 6-9 months received appropriate complementary feeding. Sixty percent of children had received vitamin A in the previous 6 months. Further improvements in feeding practices will reduce stunting and underweight and contribute to a reduction in mortality from all causes.
- **Treatment of childhood illnesses.** In 2006, 37% of children with diarrhoea received ORT, 34% of children with suspected pneumonia sought care from an appropriate provider, 33% of children with suspected pneumonia received antibiotics, and 61% of children with fever received an appropriate anti-malarial. Appropriate recognition and management of child illness will reduce mortality. Coverage with treatment interventions needs further improvement.
- **Prevention of malaria.** In 2006, 22% of children and 40% of pregnant women in malaria risk areas reported having slept under an the previous night. These show an upward trend in the last 5 years, although coverage rates remain well below 50%. Further efforts to improve coverage are needed.

1.4. Quality of services

There are a number of areas where quality of care needs further improvement, including: ANC, neonatal resuscitation, and management of the sick newborn. Counselling is often not carried out or is poor quality. In general, it is assumed that training staff will result in improved practice additional approaches are needed to improve and sustain the quality of care more effectively. Possible reasons for limited quality of care include: lack of staff training; lack of staff supervision; organization of work; unavailability of essential drugs, equipment and supplies; and problems referring severely ill women and children⁵. There is evidence that demand for services are also a problem in some areas where caretakers do not seek services for a number of reasons, including poor quality, distance, cost, and lack of awareness of the importance of preventive and treatment services.

2. Rationale for the Child Health Policy

This child health policy provides a framework for planning and implementing programmes. The policy builds on the previous policy developed in 1999 and complements the Health Sector Programme of Work 2007-2011.

Policies are organised along the continuum of care for the mother and child (pregnancy, birth and immediate newborn period, neonatal period, infants and children). Policies are also presented for cross-cutting areas that are important for delivering effective programs: planning and management; community, health communication (IEC/BCC), health systems, human resources, monitoring, evaluation and research and finance.

Interventions to improve child health cut across a number of different technical areas. For this reason, child health interventions may be delivered by different programmes, many of which have existing policy documents available. This document references existing policies rather than repeat these policies in detail.

The policy framework used here proposes a **“child centred” approach rather than a “programme centred” approach**. In order to improve child survival, different programme areas need to collaborate

5 GHS, 2002. Health Services Assessment

and link activities more effectively. The aim is for a single integrated child health plan that is regularly reviewed and funded by all stakeholders.

3. Guiding principles for the child health policy

The focus of the child health programme is to improve population coverage with effective child health interventions. Child health interventions are defined as treatments, technologies, or key health behaviours that prevent or treat child illness and reduce deaths in children under 5.

- The ***continuum of care*** is a guiding principle for planning and implementing the child health programme.
- The ***continuum of care for the mother and child*** are the life stages of the child from pregnancy, through birth, the newborn period, infancy and older childhood. Interventions should be targeted at all of these stages in order to maximize impact. This is because action at all of these stages is necessary to reduce newborn, infant and child mortality.
- The ***continuum of care for the health system*** is the levels at which interventions are delivered: home and community, first level facility or referral level facility. Implementation must occur at each of these levels in order for interventions to be most effective. Facility-based interventions should be carried out alongside those at the home and community level, since the prevention and management of child ***illness and mortality*** begins in the home.
- ***The minimum essential package of medicines for the management of sick neonates and children at all levels of the health system will be regularly reviewed.*** The minimum package of neonatal and paediatric drugs are incorporated in the current MoH's National Medicines Policy. Reviews or updates to the essential medicines list will be coordinated with the National Drug Programme.
- ***Child health activities will be implemented collaboratively*** where possible with: a) other health units and divisions; b) development partners; c) NGOs; d) non-government workers and volunteers including - community-based volunteers (of several different categories), private providers (of clinical and preventive care), mission or faith based providers (such as CHAG), community groups or organizations such as faith based organisations, traditional healers, civil society organisations, NGOs e) other sectors including - the Ministry of Food and Agriculture (MoFA), Ministry of Women and Children's Affairs (MOWAC), Department of Social Welfare and other MDAs, Ghana Education Service, and District Assemblies.
- The child health programme will contribute to achieving other key ***Millennium Development Goals***:
 - Reduce the maternal mortality ratio by 75% by 2015 (MDG5)
 - Halt or reverse by 2015 the incidence of malaria and other major diseases (MDG6)
 - Halt or reverse by 2015 the spread of HIV/AIDS (MDG6)
 - Halve by 2015 the proportion of people without sustainable access to safe drinking water
 - (MDG7)
- ***Conventions and treaties*** for the protection of children, to which Ghana is a signatory, will inform all aspects of child health programming. These include:
 - The convention on the rights of the child and associated policies (Early Childhood Care and Development Policy, The Children's Act 560, Gender and Child Policy 2004, Orphans and Vulnerable Children's Policy 2005)
 - International Labour Organization (ILO) convention 182
 - Convention on the Elimination of all Forms of Discrimination against Women (CEDAW)

- Education for all (EFA)
- Declaration and plan of action of the World Summit for Children

4. Policy goal

The child health programme will promote the survival, growth and development of all children in Ghana.

4.1. The goal of the child health programme is to reduce child mortality to 40/1000 live births by 2015. This is in line with Millennium Development Goal 4 (MDG4) which is a 2/3 reduction of child mortality between 1990 and 2015, and consistent with the goals and principles outlined in the National Health Policy III, the Health Sector Program of work (2007-2011) and the Ghana Poverty Reduction Strategy.^{6 7}

5. Technical interventions along the continuum of care

5.1. *Pregnancy*

5.1.1. Interventions that will be delivered during pregnancy are:

- At least 2 doses of tetanus toxoid vaccine (TT 2+);
- Prenatal nutrition including iron and foliate supplementation;
- At least 2 doses of intermittent preventive treatment for malaria;
- Promotion of ITNs use for pregnant women;
- Detection and treatment of problems complicating pregnancy (e.g. hypertensive disorders, bleeding, mal-presentations, multiple pregnancy, anaemia, de-worming);ITNs
- Birth and post-birth preparedness (post-birth includes post-natal care, recognition of danger signs and family planning);
- PMTCT of HIV.

Intervention packages that will be implemented to deliver pregnancy interventions will be:

- Focused Antenatal care (FANC)
- Promotion of key household and community practices.

5.1.2. A minimum of 4 ANC visits is recommended. The first visit should take place as soon as pregnancy is suspected. Three visits should take place after quickening (first noted movement of the fetus).

5.1.3. The Tetanus Toxoid (TT) vaccination status of all pregnant women will be reviewed at the first ANC visit. If the TT vaccination status is unknown, then 2 doses of TT shall be given during the pregnancy. The first dose of TT should be given at the first ANC visit.

5.1.4. Three doses of sulphadoxine pyrimethamine (SP) shall be given at regularly scheduled ANC visits. The first shall be given at quickening (first noted movement of the fetus) and thereafter at least one monthly intervals. The delivery of IPT with each scheduled visit should improve the likelihood that women receive at least two doses of SP⁸. IPT will be given as directly observed treatment (DOT), to ensure that the dose is taken.

6 MOH, Ghana 2007. Creating Wealth Through Health: The Health Sector Programme of Work 2007-2011

7 Ghana Poverty Reduction Strategy

8 GHS/Global Fund/WHO/NMCP. November 2004. Anti-malaria drug policy for Ghana.

5.1.5. Insecticide treated nets will be used at night by pregnant women shall be provided and distributed at a highly subsidized rate, as early as possible in pregnancy.

5.1.6. Pregnant women shall receive HIV testing and counselling at the first antenatal visit and at subsequent visits if necessary, unless they opt-out of testing⁹. All pregnant women who are found to be HIV positive shall receive a course of the currently recommended anti-retroviral therapy.

5.1.7 The primary providers of ANC will be midwives, CHOs, registered nurses, medical assistants, doctors. Community-based Agents (CBAs) may provide ITNs and net re-treatment.

5.1.8. ANC counselling will focus on the following key practices:

- √ Development of a birth preparedness plan – (including identification of birth attendant, home support, funds, availability and means of transport)
- √ Development of a complication readiness plan
- √ Recognition of complications of pregnancy
- √ What to do if early referral is needed
- √ How to secure male partner involvement
- √ Importance of TT, iron, folate and malaria prevention
- √ Importance and components of post-natal care (including infant feeding) – and timing of first visit
- √ Importance of birth spacing and family planning

5.1.9. Standard guidelines for providers on the content of ANC, including roles and responsibilities of staff and content of training materials are described in detail in the Reproductive Health Policy, Standards, and Protocols¹⁰.

5.2. *Delivery and immediate post-delivery period*

The immediate post-delivery period is defined as the first 1 hour after birth.

5.2.1. **Interventions that will be implemented for delivery and the immediate post-delivery period are:**

- Monitoring progress of labour, maternal and foetal well-being with partograph;
- Detection and management of problems and complications (e.g. malpresentations, prolonged/ obstructed labour, hypertension, bleeding, infection);
- Emergency obstetric and neonatal care for complications;
- Immediate newborn care (resuscitation if required, thermal care, hygienic cord and eye care, early initiation of breastfeeding and exclusive breastfeeding);
- PMTCT of HIV;
- Post partum vitamin A.

Packages that will be implemented for delivery and post-delivery interventions shall be:

- Skilled birth care
- Emergency obstetric and newborn care (EmONC)

⁹ Ghana AIDS Commission. August 2004. National HIV/AIDS and STI policy.

¹⁰ GHS (Ghana Health Service) (2003b) National Reproductive Health Service Policy and Standards

- Essential newborn care.

5.2.2. Skilled delivery care refers to the care provided to a woman and her newborn during pregnancy, childbirth and immediately after birth by an accredited and competent health care provider trained in obstetrics. This provider should have at her/his disposal the necessary equipment and the support of a functioning health system, including transport and referral facilities for emergency obstetric care¹¹.

5.2.3. The long-term national goal is for all deliveries to be attended by a skilled birth attendant. A skilled attendant is a health professional — midwife, doctor or nurse — who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns. Obstetricians or adequately trained general doctors provide EmONC. CHOs who are midwives are classified as skilled attendants. CHOs who are not midwives, can manage deliveries when they arrive in the second stage of labour or later.

5.2.4. Traditional Birth Attendants (TBAs) can be trained or untrained. TBAs are not classified as skilled. It is recognized, however, that in many settings, TBAs are the only providers of delivery care available. In these settings, TBAs should receive up-to-date training on basic management of normal deliveries, newborn resuscitation, management of the mother and newborn in the immediate post-delivery period, and when to refer. TBAs can play a valuable role in birth planning, identification of problems, and newborn resuscitation. All women who deliver with TBAs shall be referred within 48 hours to a health facility.

5.2.5. CHOs are trained to provide delivery services to women who present in the second stage of labour or later (“emergency” deliveries). CHOs shall be adequately equipped to conduct a normal delivery, prevent post-partum haemorrhage, resuscitate the newborn when necessary, and to provide appropriate care for newborns.

5.2.6. Standard guidelines for resuscitation of the newborn shall be reviewed and revised regularly to reflect current best practices. All personnel who may have contact with the newborn in the immediate post-delivery period shall be trained in newborn resuscitation. Pre-delivery training of mothers and family members shall include key resuscitation tasks. Refresher training should be provided regularly. Bulb syringes and Ambu bags are considered the minimum standard equipment for providing safe and effective resuscitation at health facilities.

5.2.7. All women shall receive 200,000 IU of vitamin A immediately after delivery, and another dose of 200,000 IU twenty-four hours after delivery.

5.2.8. Essential newborn care tasks in the immediate post-delivery period include prevention and management of haemorrhage, thermal care, cord care, early initiation of breastfeeding, eye care and recognition of when to refer. Low birth weight babies (LBW) shall be managed with Kangaroo Mother Care (KMC). All personnel who have contact in the immediate post-delivery period shall be trained in key tasks. Pre-delivery education of mothers and other family members will review immediate post-delivery tasks. Since post-delivery tasks generally require minimal special knowledge or skills, they can be promoted and reinforced by family members, and community groups and volunteers. Community health education should emphasize key post-delivery practices.

5.2.9. Standard guidelines on the content of delivery and immediate post-delivery care, for skilled and unskilled providers and for the content of EmONC are described in detail in the Reproductive Health Service Policy and Standards¹²

5.3. *Neonatal period*

The neonatal period is defined as the period between birth and 28 days of life.

11 WHO 2004. Making Pregnancy Safer: the critical role of the skilled attendant. A Joint Statement by WHO, ICM and FIGO. Making Pregnancy Safer. Department of Reproductive Health and Research. WHO, Geneva.

12 GHS (Ghana Health Service) (2003b) National Reproductive Health Service Policy and Standards

5.3.1. Interventions that will be delivered during the neonatal period are:

- Exclusive breastfeeding;
- Thermal care (including kangaroo mother care);
- Hygienic cord care;
- Prompt care-seeking for illness;
- Management of the sick newborn (including sepsis, asphyxia, and prematurity);
- PMTCT of HIV
- Immunizations
- Screening for sickle cell anaemia

Packages that will be implemented to deliver neonatal interventions are:

- Postnatal care (PNC)
- IMNCI - management of sick newborn
- Promotion of key household and community practices.

5.3.2. Timing for the minimum number of postnatal care (PNC) contacts is as follows:

First PNC contact: within the first 48 hours after delivery

Second PNC contact: within the first 7 days after delivery

5.3.3. PNC contacts shall be conducted by home-visits, or at outpatient health facilities. The first or second PNC review may be done before discharge if a delivery has been conducted at a health facility.

5.3.4. PNC shall be provided by skilled and trained providers. Skilled providers include: midwives, CHOs, medical assistants, registered nurses, doctors (including obstetricians and paediatricians). Trained providers include: TBAs, community volunteers including health extension workers and health aids, and family members.

5.3.5. Key neonatal care practices that shall be reinforced by all providers, including trained community providers, include:

- No early bathing (bathing in the first 6 hours after birth for normal weight newborns, bathing in at least 12 -24 hours for LBW/ preterm newborns)
- Breastfeeding initiation within 30 minutes after delivery. No pre-lacteal feeds.
- Thermal care
- Skin-to-skin contact (KMC) for low birth weight babies
- Early identification of sick neonates, and early referral
- Appropriate cord care
- Exclusive breastfeeding
- Giving immunizations – BCG and OPV
- Screening for sickle-cell disease
- Thorough general examination of the newborn before discharge (jaundice, congenital malfunctions, etc)

5.3.6. Neonates born to mothers known to be HIV positive, shall receive anti-retroviral treatment according to national HIV treatment guidelines¹³. Infant feeding choices for these babies will be reviewed and discussed with the mother according to current practice guidelines¹⁴ (PMTCT guidelines).

5.3.7. Standard guidelines for the management of neonatal illness at first level health facilities will be IMNCI. All first-level providers seeing sick neonates should receive IMNCI training using materials that have been adapted to include management of the sick neonate.

5.3.8. Standard guidelines for the management of neonatal illness and neonatal care at referral level health facilities will be EmONC and Essential Newborn Care (ENC). All referral level providers seeing sick neonates should receive training in EmONC and ENC using materials that have been adopted by Ghana.

5.3.9. Recognition and management of neonatal illness is critical to reducing neonatal mortality. CHOs and midwives will manage neonatal illness in the community and promptly refer as per IMNCI guideline. Family members and community providers shall be trained to recognize danger signs and refer to an appropriate referral site. Every community will be encouraged to have a referral plan in place for sick neonates – communities are responsible for ensuring that timely transportation is available. Child health programmes at the district and sub-district level will work with communities to develop local approaches to referral.

5.3.10. Improved community awareness of the importance of the neonatal period, and of appropriate practices during this period, is critical to changing behaviour. For this reason the programme will emphasize health communication on neonatal care, and will ensure that community-based providers (TBAs, CHOs, community volunteers) provide counselling and support. Methods for improving demand for PNC shall include: counselling as part of the client-provider interaction during ANC and at any other contacts; provision of PNC as a part of outreach services; encouraging pregnant women to register with the NHIS; education of community leaders, traditional healers, women's groups, religious organizations, husbands and other significant individuals.

5.3.11. Standard guidelines on the content of PNC, for skilled and unskilled providers, are described in detail in the Reproductive Health Service Policy and Standards¹⁵ and the RH & Neonate Health Strategic Plan.

5.3.12. Guidelines for newborn screening for sickle-cell disease are currently under development.

5.4. *Infants and children*

Children include all infants and older children between 1 and 59 months of age.

5.4.1. Interventions that will be delivered to infants and children include:

PREVENTIVE:

- Exclusive BF to 6 months;ITNs
- Continued breastfeeding to 2 years and beyond;ITNs
- Appropriate complementary feeding from 6 months;ITNs
- Appropriate feeding of infants of HIV + mothers;
- Use of ITNs s;ITNs
- Complete vaccination by 12 months of age (polio, diphtheria, pertussis, tetanus, Hib, hepatitis B, measles, yellow fever and new vaccines as per EPI policy)

13 Ghana AIDS Commission. August 2004. National HIV/AIDS and STI policy.

14 MOH (Ministry of Health) (1995a) National Breastfeeding Policy

15 GHS (Ghana Health Service) (2003b) National Reproductive Health Service Policy and Standards

(continued)

- Vitamin A supplementation;ITNs
- Access to clean water, sanitation and promotion of hygiene;
- Consumption of iodated salt. Anti-malarials for malaria;
- ORT and zinc for diarrhoea;
- Anti-biotics, ORT and zinc for dysentery;
- Anti-biotics for pneumonia;
- Vitamin A for measles;
- Management of malnutrition;
- Management of HIV infected/exposed children.

TREATMENT:

- Anti-malarials for malaria;
- ORT and zinc for diarrhoea;
- Anti-biotics, ORT and zinc for dysentery;
- Anti-biotics for pneumonia;
- Vitamin A for measles;
- Management of malnutrition;
- Management of HIV infected/exposed children.

Intervention packages that will be implemented to deliver infant and child interventions will include:

- PMTCT+16
- IMNCI
- ETAT and referral management of severely ill child
- EPI
- Promotion of key household and community practices

Child health record cards will be made available to all children, for use at every well and sick child consultation.

5.4.2. Nutrition

5.4.2.1. Breastfeeding

Exclusive breastfeeding will be promoted from birth to 6 months (children less than 180 days)

Exclusive breastfeeding means that the infant is breastfed and given no other solids or liquids, including water (drops of vitamins, minerals or medicines, are allowed, when medically indicated). This policy is in line with the National Breastfeeding Policy¹⁷ and recognizes the 'International Code of Marketing of Breast Milk Substitutes'. Policies on breastfeeding and the use and promotion of breast milk substitutes are outlined in the National Breastfeeding Policy and 'Breastfeeding Promotion Regulations, Legislative Instrument 1667', enacted by Parliament in May 2000. The child health programme will support and encourage monitoring of this legislation in collaboration with the Food and Drugs Board.

16 PMTCT+ Prevention of mother to child transmission

17 MOH (Ministry of Health) (1995a) National Breastfeeding Policy

All mothers shall be supported to provide appropriate feeding of their infants. Health facilities with maternity services shall be encouraged to be accredited as 'Baby Friendly' and monitored to retain their status.

5.4.2.2. Complementary feeding

Complementary feeding shall begin at 6 months of age.

Complementary foods should be of an appropriate: a) quality (energy density, micronutrient composition, food handling); b) quantity; c) frequency. Use of locally available, affordable and acceptable complementary foods will be promoted. In addition to complementary feeding, breastfeeding should continue until 2 years of age and beyond.

5.4.2.3. Feeding infants of mothers with HIV

Where replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding is recommended. Otherwise, exclusive breastfeeding for the first 6 months is recommended¹⁸

5.4.2.4. Vitamin A

All children 6-11 months of age shall receive 1 dose of vitamin A (100,000 I.U). All children between 12 months and 59 months shall receive vitamin A supplements (200,000 I.U) twice every year at 6-monthly intervals.

High dose Vitamin A (100,000 IU for children <1 and 200,000 IU for older children) shall be administered on day 1, day 2 and 1 month later to all cases of measles and severe malnutrition.

Vitamin A will be distributed through a number of channels including: Child Health Promotion Week, outreach through the school health programme (crèche, preschool and basic school), EPI, growth monitoring and promotion sessions, and sick and well child health facility contacts.

5.4.2.5. Anaemia

Primary approaches for preventing anaemia in children shall be promotion of a diet adequate in iron, regular de-worming, and prompt treatment of malaria. Prevention of anaemia will be promoted at all facility and community contacts with children and their mothers.

5.4.2.6. Iodine

The consumption of iodized salt shall be promoted at health education contacts and to the general public. The child health programme will work with the Food and drugs Board to ensure that salt producers adequately iodize salt.

5.4.2.7. Children with special nutritional needs

Feeding of low birth weight children, abandoned children, orphans, refugees will be managed according to the Infant and Young Child Feeding Strategy (IYCFs)¹⁹.

The revised WHO guidelines on the rehabilitation of severely malnourished children shall be followed. Hospital staff and outpatient staff at nutrition rehabilitation centres shall be trained. Ready-to-Use Therapeutic Foods (RUTF) such as 'Plumpy Nut' will be used where available. Community –based management of severely malnourished children without complications will be encouraged.

5.4.2.8. Growth monitoring and promotion

The revised WHO Growth Standard shall be used for monitoring weight for age for all children between birth and 5 years. Separate charts will be provided for boys and girls.

Growth monitoring and promotion shall be conducted at static facilities and in communities through outreach services and community-based growth promotion (CBGP). Growth

18 Ghana AIDS Commission. August 2004. National HIV/AIDS and STI policy

19 (Ghana Health Service) (2007a) Infant and Young Child feeding Strategy for Ghana

monitoring and promotion will include at a minimum; a) identification of children with low weight for age; or who are falling off growth curves; c) counselling and demonstrations on how to improve feeding practices d) regular follow-up; d) vitamin A supplementation. The frequency of monitoring shall be: monthly in the first year; quarterly in the second year; twice yearly from 3 - 5 years.

Efforts shall be made to provide logistics and training for measuring length and height at all levels.

5.4.2.9. Baby Friendly Hospitals

Accredited 'Baby Friendly' hospitals shall be established to promote early and exclusive breastfeeding. The WHO and UNICEF criteria for determining whether facilities are 'Baby-Friendly' shall be used. Local accreditation shall be carried out by a team that visit each site. As facilities can change over time, accredited sites shall be required to be 're-accredited' (designated) every two years.

5.4.2.10. Schools

Schools are partners in the delivery of health services as defined by the School Health Education Policy and school feeding programme.

5.4.2.11. Standards and guidelines

Standards and guidelines for growth monitoring and promotion, breastfeeding and complementary feeding practices, supplementation with vitamin A, iodine and other micronutrients and management of severe malnutrition, are described in detail in the National Nutrition Policy Guidelines²⁰

5.4.3. Immunisations

5.4.3.1. Schedule

All children shall receive vaccinations as per the EPI schedule. As per 2009, all children shall receive before their first birthday: a) one dose of BCG, measles, and yellow fever vaccine; b) three doses of DPT, hepatitis B and Hib vaccine; c) four doses of polio vaccine.

The schedule for administering the above vaccines is:

- At birth BCG, OPV0
- At 6 weeks OPV1, DPT/HepB/Hib1
- At 10 weeks OPV2, DPT/HepB/Hib2
- At 14 weeks OPV3, DPT/HepB/Hib3
- At 9 months Measles, Yellow Fever

New vaccines shall be included on the schedule as determined by the EPI programme. Rotavirus, pneumococcal and a second dose of measles are currently being considered for inclusion in 2011

Vaccination status of all children will be checked at every child health contact with facilities and outreach sites, both preventive and curative.

5.4.3.3. Standards and guidelines

Standards and guidelines for the immunisation programme, including roles and responsibilities of staff, cold chain and other logistics management, and monitoring progress are described in detail in the National Immunisation Policy and Standards²¹.

20 GHS (Ghana Health Service) (2003a) Anaemia Strategy; GHS (Ghana Health Service) (2005) Imagine Ghana Free of Malnutrition ; MOH (Ministry of Health) (1995a) National Breastfeeding Policy

21 GHS 2007. National Immunization Policy and Standards

5.4.4. Prevention and Treatment of Child Illness

5.4.4.1. IMNCI

5.4.4.1.1. Standards and guidelines

- IMNCI shall be the primary clinical approach for the management of childhood illness at first level facilities and in communities. IMNCI guidelines will be regularly reviewed and updated. Current IMNCI clinical guidelines for facility-based workers include: 1) updated malaria treatment guidelines; 2) new WHO growth standards; 3) the management of the sick newborn and HIV. Clinical IMNCI guidelines will be adapted for use by community-based providers of care to sick children²².
- CHNs, MA, registered nurses and doctors will be trained to provide IMNCI at first level health facilities. CHOs and community volunteers will be trained to provide community-based IMNCI.
- ETAT shall be the primary clinical approach for the management of severely ill children coming to referral facilities²³. In-patient management of sick children will be based on WHO treatment guidelines for severely ill children.
- Eighteen key family practices will be promoted for the prevention and management of child illness. A number of communication, health education and community mobilization methods may be employed in order to improve key practices.

Key Family Practices for Child Health, Ghana

Pregnancy, delivery and newborn care

1. Pregnant women make at least 4 antenatal care visits
2. Pregnant women receive at least 2 doses of tetanus toxoid vaccine
3. Pregnant women receive at least 2 doses of IPT during pregnancy
4. Women are delivered by a skilled birth attendant
5. Breastfeeding is initiated within 30 minutes of birth
6. Women and newborns are seen within 2 days of delivery by a trained provider

Infant Feeding

7. Children under 6 months of age are exclusively breastfed
8. Children aged 6 – 24mths months receive appropriate breastfeeding and complementary feeding

Prevention of illness

9. Children 6-59 months receive a dose of vitamin A every 6 months
10. Children receive all vaccines before 12 months of age
11. Children sleep under an insecticide treated net
12. Households use improved sources of drinking water and store water safely
13. Households use adequate sanitary means of waste disposal

Management of illness

14. Sick children are offered increased fluids and continued feeding
15. Children with fever receive appropriate anti-malarial treatment
16. Children with diarrhoea receive ORT (ORS and/or appropriate home fluid) and zinc
17. Children with pneumonia receive antibiotic from a trained provider
18. Caretakers know at least two signs for seeking care immediately

22 GHS 2008 National IMCI Guidelines

23 WHO, Geneva, 2005. Emergency Triage Assessment and Treatment Course. WHO/CAH

5.4.4.2. Malaria

5.4.4.2.1. Treatment

ACTs as per the malaria treatment guidelines shall be used for treatment of uncomplicated malaria at all levels including the community. If treatment failure is confirmed oral Quinine will be used. Medicine policy will be based on regular monitoring of anti-malarial resistance patterns of parasites in different areas of the country.

Quinine shall be the drug of choice for treating severe and complicated malaria. Quinine shall be given intramuscularly until patient can swallow, then treatment shall be continued orally.

Early provision of effective anti-malarials to children with suspected malaria will be the focus of the programme. This will be done by improving early recognition of illness and care seeking from an appropriate provider. An appropriate provider is any provider who has been trained in IMNCI case-management for malaria, including doctors, registered nurses, medical assistants, midwives, CHOs, and appropriately trained community volunteers.

Community-based management of malaria shall complement facility based management. Community-based workers who have received training in standard case-management of malaria can give anti-malarials to treat malaria.

5.4.4.2.1. Prevention

The use of insecticide treated nets (ITNs) shall be promoted for all children under 5 years, in line with the National Malaria Control Policy. Distribution and re-treatment of ITNs will be conducted at the community level by trained community volunteers. ITNs for use by children shall be subsidized. Long lasting ITNs shall be procured by the MOH.

5.4.4.2.3. Standards and guidelines

Standards and guidelines for malaria control, including roles and responsibilities of staff, treatment protocols, and monitoring and evaluation are described in detail in the National Malaria Policy²⁴

5.4.4.3. Diarrhoea

5.4.4.3.1. ORT

Oral rehydration therapy (ORT) shall be used for the management of acute and persistent diarrhoea.

ORT can include oral rehydration salts (ORS) and/or recommended home fluids (RHF). Low osmolarity ORS shall be used for the management of acute and persistent diarrhoea including cholera. ORS will be packaged in sachets for preparation of 600ml solution. Oral feeding and/or breastfeeding shall be continued during an episode of diarrhoea and feeding will be continued and increased during and after the episode. Recommended home fluids for the home-based management of diarrhoea include: porridges, coconut juice, plain rice water, and mashed kenkey. ORT corners will be established in all facilities for the management of diarrhoea, and demonstrations to caregivers. Severely malnourished children with diarrhoea shall be given Resomal instead of standard formulation ORS.

5.4.4.3.2. Zinc

Zinc (zinc acetate, gluconate or sulphate) shall be administered as well as ORT in all cases of acute and persistent diarrhoea.

Zinc will also be given in addition to antimicrobials for the management of dysentery (see below). The recommended dosage schedule for zinc is:

Children under 6 months: 10mg of elemental zinc per day for 10-14 days

Children 6 -59 months: 20 mg elemental zinc per day for 10-14 days

Zinc will be classified as a Class C drug – for purchase over the counter.

Community-based management of diarrhoea shall be encouraged. Community-based workers

24 GHS/Global Fund/WHO/NMCP. November 2004. Anti-malaria Drug Policy for Ghana.

who have received training in standard case-management of diarrhoea can give ORT and zinc to treat diarrhoea.

5.4.4.3.3. *Dysentery*

Co-trimoxazole shall be used as first line antibiotic in the treatment of dysentery (bloody diarrhoea). Ciprofloxacin shall be used as second line antibiotic treatment. Treatment in each case shall be for 5 days. Zinc will be given with antimicrobials for the management of dysentery (see above). Drug policy will be based on regular monitoring of anti-microbial resistance patterns of shigella sp. in different areas of the country.

5.4.4.3.4. *Water, sanitation and hygiene*

The Child Health Programme will advocate: a) adequate access to reliable supply of safe water for all communities, households and schools; b) access to sanitary facilities for human excreta disposal; c) storage and use of water under hygienic conditions; d) safe disposal of all solid and liquid wastes for communities, households and schools. The National Environmental Policy on Water Sanitation and Hygiene²⁵ shall be followed.

5.4.4.3.5. *Clinical standards and guidelines*

Clinical standards and guidelines for the management of diarrhoea as described in detail in the National IMNCI Guidelines²⁶ will be followed.

5.4.4.4. *Pneumonia*

A child with suspected pneumonia is any child who is reported to have a cough, is breathing faster than usual with short, quick breaths or is having difficulty breathing (excluding children that have only a blocked nose).

5.4.4.4.1. *Treatment*

Oral Amoxicillin will be the first line treatment for non-severe pneumonia in children at all levels. Antimicrobial resistance of pneumonia pathogens to Amoxicillin will be routinely monitored.

IV Benzylpenicillin for 24-48 hours will be the first line treatment for severe pneumonia, switching to oral amoxicillin when the patients clinical state has stabilized.

Early provision of antimicrobials to children with suspected pneumonia will be the focus of the programme. This will be done by improving early recognition of illness and care seeking from an appropriate provider. An appropriate provider is any provider who has been trained in IMNCI case-management for pneumonia, including doctors, registered nurses, medical assistants, midwives, CHOs and appropriately trained community volunteers.

Community-based management of pneumonia shall be encouraged. Community-based workers who have received training in standard case-management of pneumonia can give appropriate oral antibiotics to treat pneumonia.

5.4.4.4.2. *Prevention*

Routine administration of Haemophilus Influenzae type B (Hib) vaccine is recommended as a preventive strategy for pneumonia. It is estimated that Hib accounts for up to one-quarter of the severe pneumonia cases in young children – routine vaccination of all children with three doses of the vaccine in the first year of life is expected therefore to prevent a proportion of severe cases.

5.4.4.4.3. *Clinical standards and guidelines*

Clinical standards and guidelines for the management of pneumonia are described in detail in the National IMNCI Guidelines²⁷.

²⁵ National Environmental Policy on Water, Sanitation and Hygiene

²⁶ GHS 2008. National IMCI Guidelines

²⁷ GHS 2008. National IMCI Guidelines

5.4.4.5. Management of HIV infected/exposed children

Children who have been exposed to or infected with HIV will be managed according to National HIV/AIDS treatment policy guidelines²⁸.

6. Violence and abuse against children

- Health staff will have an understanding of the principles of how to approach children who have been victims of violence.
- The approach to the management of violence against children will be based on principles outlined in the Children's Act²⁹. Health staff shall be trained to recognize and manage cases of violence or abuse.
- Clinical guidelines and health education messages and materials on the recognition or management of violence against children are not available. Data on violence against children shall be collected to help determine the extent of the problem and the best approaches to preventing, identifying and managing violence. Issues on violence and abuse shall be included in the curricula of health training institutions.

7. Injuries in children

- Childhood injuries do not, based on currently available data, contribute significantly to overall child mortality. Data on the contribution of injuries to overall child morbidity are not yet available. More data on the epidemiology of injuries are needed.
- The child health programme does not currently include activities to prevent injuries – activities may be added as more data become available.
- Injury prevention shall be incorporated into existing programme approaches, including community education, laws and public policy regulating the safety of products, play equipment, and child labour.

8. Physical and mental disabilities in children

- Physical and mental disabilities do not contribute significantly to overall child mortality or morbidity. It is recognised that more data on the epidemiology of physical and mental disabilities in young children are needed. The child health programme will advocate for collection and use of appropriate data in planning interventions to address these.
- A number of interventions or strategies that are currently a part of the child health programme will prevent some childhood disabilities, including: pregnancy interventions (folate to prevent neural tube defects); polio vaccination (prevention of muscular-skeletal disabilities); measles vaccination (prevention of measles encephalitis); Hib vaccination (prevention of hearing loss and other complications of meningitis). Improvement of the nutritional status of children, including micronutrients such as iodine, may improve long term cognitive status. Strategies to prevent and manage violence and abuse against children, and to manage orphans, may help prevent the long term sequelae of abuse or neglect.

The management of children with existing long term mental and physical disabilities from congenital malformations, birth trauma and other factors needs improvement. More data are needed on the extent of these problems, and on the most cost effective approaches to managing them.

9. Private sector partnerships

- Private sector providers shall provide the minimum essential package of child health interventions along the continuum of care.

²⁸ Ghana AIDS Commission. August 2004 National HIV/AIDS and STI policy.

²⁹ Ministry of Women and Children's Affairs. August 2004. Early Childhood Care and Development Policy.

- Private sector providers shall use national standards and guidelines for all aspects of clinical care. The Child Health programme shall ensure that private providers are provided with updated protocols and materials. Private providers shall be included, where possible, in regular in-service training, and shall receive supervisory visits to monitor progress and solve problems.
- Private facilities shall use standard referral forms.
- Private health facilities shall report routine morbidity and mortality data using the standard reporting formats.
- Renewal of license for private providers shall be based on their adherence to reporting using the appropriate reporting formats and staff participation in training programmes at least annually.
- Private providers in communities such as pharmacists, chemical sellers or traditional healers, shall be involved in community-based health promotion and counselling on key family practices – and in discouraging inappropriate practices.

10. Financing

10.1. *Improving the availability of financial resources*

The child health programme will work to improve available financial resources for child health, consistent with the Health Sector Programme of Work by:

- Promoting the enrolment of all caretakers and their children in the national health insurance scheme. Effective health financing in the next five years will depend on sustained uptake of the national health insurance scheme – to support an increasing proportion of costs.
- Better coordinating donor resources for child health by forming a National Child Health Coordinating Body. This aims to ensure that available resources are used most efficiently.
- Adopting cost-saving approaches for IMNCI and other child health training packages.
- Improving the productivity of existing staff by: 1) improving their capacity to plan and manage effectively; 2) better coordinating activities at the national and local levels with donors and health units and divisions; 3) expanding community activities – to take pressure off facilities and health workers.
- Increasing the use of the HIRD approach by districts. The HIRD approach brings more donor funding to Regions and Districts for essential child health packages. In order for this funding to be used more effectively, it is critical that strategies for reaching communities and improving quality are included and budgeted realistically.

10.2. *National Health Insurance Scheme*

- All pregnant women, neonates and children shall have access to health care through the National Health Insurance Scheme (NHIS)³⁰.
- The Child Health programme shall advocate for children to be decoupled from their parents under the NHIS and arrangements made to ensure that all newborns and children under five can be registered and access care under the NHIS.
- Newborns that are not registered with the NHIS at birth shall still be able to receive health services. The child health programme will advocate for the Child Welfare Card to be accepted as a NHIS ID card for the first 12 months of a baby's life. Caretakers shall be encouraged to get a health insurance card as soon as possible.
- Health workers attending to pregnant women at ANC shall encourage them to register with the NHIS before delivery.
- Community health providers trained in case-management shall be recognized as prescribers under the NHIS to ensure that communities have access to treatment.
- Medicines approved for use by trained community health providers shall be consistent with the

³⁰ Reference NHIS policy document

11. Monitoring, Evaluation and Research

11.1 *Health Management Information System (HMIS)*

- Care givers shall be encouraged to register all births in the first year of life.
- All newborn and child deaths shall be registered within 1 month of the death.
- Child health data on immunizations, morbidity and mortality, ANC, deliveries and PNC, and outreach shall be collected monthly from health facilities and compiled at district, regional and national levels.
- Routine outpatient data will be used to calculate coverage rates for some measures, using estimates of the catchment population. HMIS coverage data will be used to track trends over time. In areas where rates are over 100%, the data collection process will be reviewed by district and regional managers in order to determine if: 1) denominators are being underestimated; 2) numerators are being over-estimated (or double-counted); 3) the quality of data collection and tabulation is flawed. Where any of these are apparent action to address the problem will be taken.
- Neonatal mortality and morbidity shall be collected and reported as a separate category by facility-based sites.
- Routine data shall be reviewed and used for problem solving. District managers shall be trained in the use of data for decision making.
- Hospital-based data on neonatal deaths, causes of death and on referrals and outcomes of severely ill children shall be routinely reported.

11.2 *Monitoring of program activities*

- Monitoring is the continuous collection of programme data in order to determine whether or not programme activities are reaching mothers and children effectively.
- Implementation of activities shall be tracked by measuring programme outputs (such as training coverage, CHPS coverage, IEC coverage, supervisory coverage, availability of essential drugs, equipment and supplies). Most output measures shall be collected from routine reports available to regional and district managers. Output data will also be collected from health facility assessments and supervisory visits. Health facility assessments will be conducted, where possible, to provide better data on quality of care.
- An emphasis shall be placed on collecting community-based data, where possible. Methods for routinely collecting community-based data will include: 1) Community-based surveillance using community volunteers; 2) small-sample (usually 30 cluster) HH surveys. Regular community-based data, will be used to provide information on how well program activities are reaching communities, and if not, why not. Demographic sentinel sites (Kintampo, Navrongo) will continue to be used for monitoring implementation of child health activities.
- Supervisory data on the quality of care provided at outpatient health facilities shall be used to follow the performance of trained health workers and barriers to performance. At least 1 supervisory visit every 6 months is recommended.
- IMNCI trained staff shall be followed up at their facilities within 6 weeks of completing training.
- Maternal and neonatal death audits shall be instituted at hospitals in order to identify clinical and system reasons for deaths, and to take actions to address problem areas.

11.3 *Evaluation*

- Evaluation is the periodic assessment of progress toward programme goals and objectives.
- Large-sample household surveys of child mortality, nutritional status and intervention coverage will be done every 3-5 years using MICS or DHS. Additional questions on delivery care, early newborn care, PNC and referral practice will be added to the evaluation surveys, in order to

31 GHS, May 2005. Community-Based Health Planning And Services (CHPS): The Operational Policy

understand practices in these areas better.

- Small-sample (30-cluster) household surveys of intervention coverage and knowledge and practices that are important for improving coverage will be conducted every 2-3 years, where possible, at district level. These surveys will provide data for local planning.
- Facility-based surveys of the quality of care at outpatient health facilities and hospitals will be conducted every 3 years. HFS data will be used for assessing quality of care and barriers to improved quality of care and for planning activities.

11.4 Research

- Health research shall be coordinated at the national level by the Health Research Directorate (HRD). Input into the research agenda and priority setting shall be sought from the NCHCB. The Child Health Programme will collaborate with the HRD.
- A national research agenda outlining child health policy, program and service needs, will be developed and regularly reviewed. Health partners and researchers shall be encouraged to use this agenda. Regular meetings between research and programme staff shall allow key questions to be raised, staff identified to conduct research, and help coordinate inputs.
- Findings from research shall be regularly disseminated through e-mail, small meetings and an annual research conference/performance review.
- Regional and District performance reviews shall include dissemination of research. Issues that arise from these together with issues from the national annual performance review shall be used to determine the research agenda for the next period.

ACKNOWLEDGEMENTS

The MOH acknowledges with thanks the valuable contributions of the staff and partners involved in the development of the child health policy.

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