CHILD HEALTH POLICY AND STRATEGY (2017 – 2025)

MAY 2017

Child Health Policy and Strategy (2017 – 2025)

Partners' Logos

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ACRONYMS

ACTs	Artemisinin-based Combination Therapy
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
CHERG	Child Health Epidemiology Reference Group
CHN	Community Health Nurse
CHO	Community Health Officer
CHPS	Community-based Health Planning and Services
CMAM	Community-based Management of Acute Malnutrition
CWC	Child Welfare Clinic
DHMIS	District Health Management Information System
DHS	Demographic and Health Survey
EmONC	Emergency Obstetric and Neonatal Care
ENC	Essential Newborn Care
ETAT	Emergency Triage Assessment and Treatment
GHS	Ghana Health Service
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IEC	Information, Education and Communication
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
IPT	Intermittent Preventive Treatment
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Nets
IYCF	Infant and Young Child Feeding

KMC	Kangaroo Mother Care
LBW	Low Birth Weight
LLIN	Long Lasting Insecticide-treated Net
M&E	Monitoring and evaluation
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
MUAC	Mid-Upper Arm Circumference
NCDs	Non-Communicable Diseases
NGO	Non-Governmental Organisation
NHIS	National Health Insurance Scheme
NMR	Neonatal Mortality Rate
ORT	Oral Rehydration Therapy
PMTCT	Prevention of Mother-to-Child Transmission of HIV
PNC	Postnatal Care
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Attendants
TD	Tetanus-Diphtheria
U5MR	Under-Five Mortality Rate
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

FOREWORD

ACKNOWLEDGEMENTS

1. BACKGROUND

1.1: Geographic and Demographic Profile

Ghana is a lower-middle income country, administratively divided into 10 regions. These regions are categorized into three ecological zones: southern coastal zone comprising of Western, Central, Greater Accra and Volta regions; the middle zone consisting of Eastern, Ashanti and Brong Ahafo regions and the northern zone made up of Northern, Upper East and Upper West regions.

The national population and housing census conducted in 2010 reported a total population of 24,658,823 people in the country. However, the 2016 projected population by the Ghana Statistical Service was 28,308,301 people[1]. The females were 14,421,567 (50.9%), comparatively more than the males who were 13,886,734 (49.1%). Ashanti region has the highest population accounting for 19.1% of the total, followed by Greater Accra (16.3%), while Upper East and Upper West regions have the lowest populations, accounting for 4.2% and 2.8%, respectively.

The Crude Birth Rate declined slightly from 30.8 per 1,000 population in 2008 to 30.6 per 1,000 population in 2014. The Total Fertility Rate declined from 6.4 children per woman in 1988 to 4.0 in 2008, which has been followed by a slight increase to 4.2 in 2014. Table 1 summarizes some of the important national socio-demographic indices.

Table 1: Selected National Socio-Demographic Data

Indicator	Urban	Rural	Total	Source
Crude Birth Rate (births per 1,000 population)	*28.2*	*33.1*	*30.6*	*DHS 2014*
Modern Contraceptive Prevalence Rate	*19.8%*	*24.6%*	*22.2%*	*DHS 2014*
Unmet Need for Family Planning	*28.7%*	*31.1%*	*29.9%*	*DHS 2014*
Age-specific fertility rate (15 – 19 years)	*53*	*100*	*76*	*DHS 2014*
Total Fertility Rate 15-49 (Children per woman)	*3.4*	*5.1*	*4.2*	*DHS 2014*
Neonatal Mortality Rate	*33*	*29*	*29*	*DHS2014*
Infant Mortality Rate (per 1,000 live births)	*49*	*46*	*41*	*DHS 2014*
Under-5 Mortality Rate (per 1,000 live births)	*64*	*75*	*60*	*DHS 2014*
Exclusive breastfeeding rate 0-5 months:	*52.3%*			*DHS 2014*

[1] Data Production Unit, Ghana Statistical Service, 16th September 2016

1.2: Organisation of the Health System

Health care in Ghana is provided by public (Ghana Health Service, Quasi-Government); faith-based organisations such as the Christian Health Association of Ghana, and the private-for-profit sector. The health care delivery system is decentralised, but with the Ministry of Health being responsible for stewardship of the entire health sector and ensuring equity and efficiency. This function is exercised through provision of overall policy directions, coordination of planning, resource mobilization, budget execution, human resource development as well as the overall monitoring and evaluation of health sector performance. It includes alignment of policies and programs of agencies, partners and stakeholders involved in health service delivery to ensure performance and accountability within the sector.

As illustrated in Figure1, the health care delivery system is pyramidal in shape comprising of primary, secondary and tertiary care levels[2]. The base of the pyramid provides the primary care services, through various health facilities. At the community level is the Community-based Health Planning and Services (CHPS); at the sub-district level are the health centres, clinics and maternity homes; and at the district level are the polyclinics, district hospitals and other hospitals. Secondary care is provided at the Regional Hospitals and tertiary care is provided at Teaching Hospitals and other Specialised Hospitals. Referral networks connect the primary levels to the secondary and tertiary levels. The Government introduced the National Health Insurance Scheme (NHIS) in 2003 as a social protection policy towards improvement in access to quality basic health services by all residents in the country.

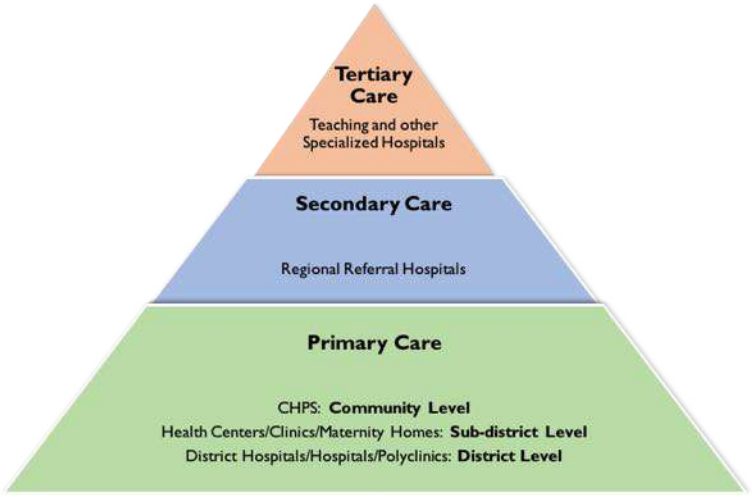

Figure 1: Service Delivery Levels of the Health Sector

1.3: Context of the Child Health Policy

A child is defined as a person of age from birth to 18 years old (Convention on the Right of the Child). However, this Policy framework shall not include children between the ages of 10 and 18 years because issues pertaining to that category have been adequately covered under the *Ghana Adolescent Health Service Policy and Strategy (2016 – 2020).*

[2] Ministry of Health (2016). Primary Care in Ghana: Package of Health Services

This is the third Child Health Policy and Strategy, building on the second Policy that spanned the period 2007 – 2015. The first Policy that was developed in 1999. Ghana's Child Health Policy complements the Health Sector Programme of Work and provides the framework for planning and implementation of programmes for improving child survival and well-being. The Child Health Policy and Strategy (2017 – 2025) is organised along the continuum of care for the mother and child. This begins at pre-pregnancy through pregnancy, birth, newborn periods, to infancy and childhood. Whereas the previous Child Health Policy had an accompanying Strategic document, both policy and strategy have been combined in this document. More specifically, the scope of this document includes:

i. Pre-pregnancy and Pregnancy period;
ii. Perinatal and neonatal period from age 0 to 28 days;
iii. Post-neonatal period from 1 to 11 months of age (infancy or first year of life);
iv. Young child from age 12 to 59 months;
v. Older school age child from the age of 5 to 9 years.

Interventions to improve child health cut across different technical areas and hence may be delivered by different programmes, many of which have specific policy and strategic documents in place. Consequently, in most situations this document has referred to the other existing policies rather than repeat the content in detail. The policy framework utilised here is based on a ***"child-centred"*** approach rather than a "programme-centred" approach. The different programme areas by default should collaborate and link activities more effectively to attain improved child survival. The aim is to develop a single integrated child health plan that is regularly reviewed and funded by all stakeholders.

The Policy is informed by all the Conventions and Treaties for protection of children, to which Ghana is a signatory. Examples include:

- The UN Convention for the Rights of the Child (1989) 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);
- The Millennium Declaration (2000)
- International Labour Organisation (ILO) Convention 182 and related Policies
- 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 on Children
- The United Nations Commission on Life-Saving Commodities for Women and Children
- Sustainable Development Goals (SDGs)

1.4: Guiding Principles

The Child Health Policy and Strategy (2017 – 2025) shall be guided by the following principles.

- ***Continuum of Care:*** Survival of the mother and child are intricately linked, which implies interventions that improve maternal health and survival will have a corresponding positive impact on child survival. The continuum of care defined using the life cycle approach seeks interventions throughout the cycle of adolescence, pregnancy, childbirth, postnatal, newborn period and into childhood. Interventions will have a synergistic effect that enable the country to harness resources for significant short-term and long-term impact on maternal, neonatal and child survival.

- ***Quality:*** Emphasis will be on the provision of quality services with focus on wide scale implementation of continuous quality improvement strategies for maternal, newborn and child health.

- ***Equity and Accessibility:*** Emphasis shall be on the provision of equitable services. Targets have been set to reduce gaps in coverage of maternal, newborn and child health interventions, as well as mortality rates between the rich and poor. Mechanisms are in place to ensure services reach the poor, marginalized and hard to reach areas. Evaluation frameworks will include measurement of wealth quintiles to ascertain access to services and the impact of interventions across the socio-economic groups in the country.

- ***Integration:*** The interventions shall be delivered in an integrated manner to avoid duplication, improve efficiency and increase coverage levels in order to achieve the intended results. Services targeting maternal and neonatal conditions and the high-impact, low cost interventions producing the optimum results will be integrated at each service delivery levels including the household and community.

- ***Multi-sectoral Approach:*** Maternal, newborn and child health is linked to various sectors such as education, social welfare, agriculture, judicial/legal, local government and the private sector, civil society, faith based organizations, NGOs and economic development. The Policy and Strategy focus on sustained multi-sectoral collaboration for the benefit of the mother and child. The multi-sectoral approach will develop new partnerships and strengthen existing ones in order to fully integrate maternal, newborn and child health interventions at the national, regional, district, sub-district and community levels in a sustainable way.

- ***Leadership and Political will:*** The Government shall demonstrate stewardship, accountability and transparency for enhanced sustainability in maternal newborn and child health interventions. The demonstration of political support from the highest level

will galvanise action and ensure that this is maintained as a priority in government's agenda.

- ***Partnership:*** Coordination and joint programming shall involve all stakeholders including international and regional organisations; central and local government structures, private and faith-based organisations, academia, professional organizations, civil society institutions, as well as communities. Focus will be on improving collaboration and maximizing use of the limited resources by avoiding duplication of effort and promoting synergy.

- ***Human Rights and Gender in Health:*** The right to life is a basic human right and hence mainstreaming of gender throughout the programmes and adoption of a human rights approach shall be the basis of planning and implementation under this Policy and Strategy. More specifically, women and children's rights are important human rights to be respected at all times, in order to uphold the dignity that facilitates women and child development and participation.

2. SITUATION ANALYSIS

2.1: Child Mortality in Ghana

The greatest threat to child survival is experienced during the period from 0 to 5 years of age. It is also the period that is associated with the greatest proportion of deaths and hence the prioritisation of this age group of the under-five children.

2.1.1: Trend in the Under Five Mortality

The neonatal mortality rate (NMR), post-neonatal mortality rate (PNMR), infant mortality rate (IMR) and under-five mortality rate (U5MR) across the three successive five-year periods preceding the demographic and health surveys are presented graphically in Figure 2. The U5MR was 111 deaths per 1,000 live births in 2003 and has declined consistently to 60 deaths per 1,000 live births in 2014. The IMR rate also followed a similar pattern of consistent decline from 64 in 2003 to 41 per 1,000 live births in 2014. However, the decline was not sufficient for the country to attain targets set for the Millennium Development Goals in 2015.

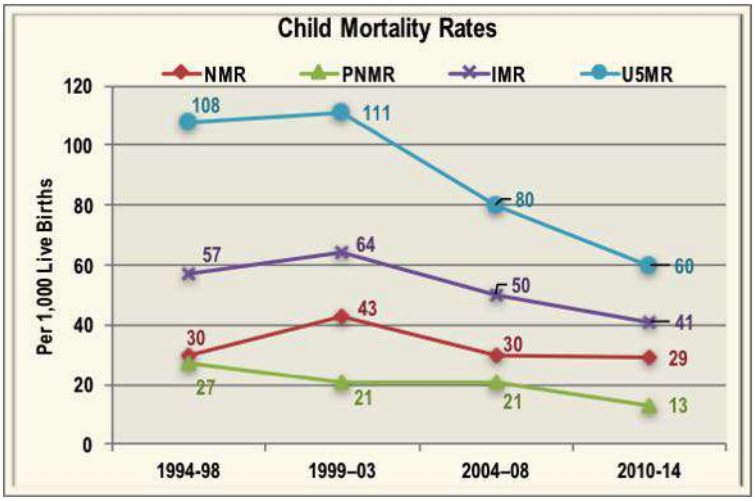

Figure 2: Trend in the Childhood Mortality Rates in Ghana
Source: Ghana DHS 2014

Closer analysis revealed that the decline in IMR between 2003 and 2008 was mainly due to decreased deaths among neonates as reflected in the decline in NMR from 43 to 30 while the PNMR remained stagnant at 21 per 1,000 live births. The decline during the period between 2008 and 2014 was mainly due to decreased deaths in the post-neonatal period as reflected by the decline in PNMR from 21 to 13, while the NMR only declined minimally from 30 to 29 deaths per 1,000 live births.

The minimal decline in the Neonatal Mortality Rate between 2008 and 2014 highlighted the need to focus on this age-group as a key strategy towards further reduction in the Infant Mortality Rates.

2.1.2: Age Distribution of Under Five Deaths

Trends in Child Mortality Report 2014 indicates that 38% of deaths occurred among the children of age 0 – 28 days, followed by 29% among those aged 1 – 11 months, leaving the

remaining one-third among those aged 1 – 4 years, as illustrated in Figure 3. In other words, infants alone accounted for 67 percent of all deaths among the under-five children in Ghana. The same report revealed that more than half of neonatal deaths (56%) occurred within first two days after birth and over 90% occurred within the first seven days after birth[3]. The Ghana DHS 2014 reported a slightly higher mortality rate among the males (35 per 1,000 live births) when compared to females (27 per 1,000 live births). These findings highlight the importance of addressing deaths in the neonatal and post-neonatal periods as a key strategy towards reducing the Under-five Mortality Rate in the country. To this end, a Newborn Health Strategy (2014 – 2018) was developed.

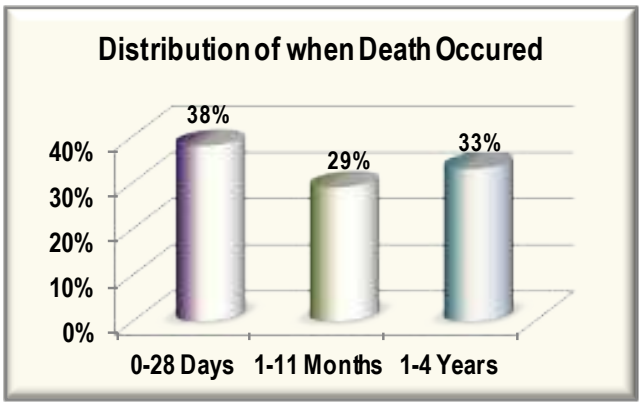

Figure 3: Contribution to Under-five Deaths by Age Group. *Source: UNICEF, 2014*

2.1.3: Regional Variation in Under Five Mortality

In terms of geographical variation and settings, Neonatal Mortality Rate was relatively higher among the urban residents (33 deaths per 1,000 live births) when compared to the rural residents (29 deaths per 1,000 live births). The lowest NMR was recorded in Northern region (24 deaths per 1,000 live births) and the highest of 42 deaths per 1,000 live births in Ashanti region. As illustrated in Figure 4, regional distribution of neonatal mortality rates revealed figures higher than the national average in Volta, Eastern, Central, Upper West and Ashanti regions.

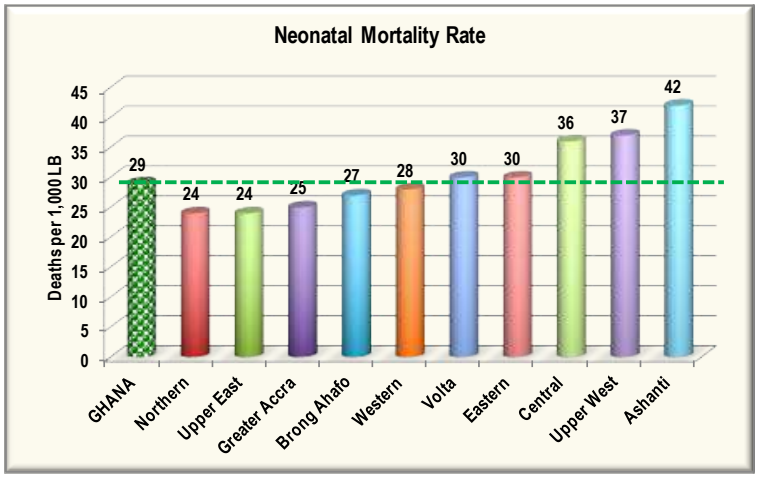

Figure 4: Regional Variation in Neonatal Mortality Rates
Source: Ghana DHS 2014

The Under-five Mortality Rate was higher in the rural area (75 deaths per 1,000 live births) when compared to the urban area (64 deaths per 1,000 live births. As illustrated in Figure 5, the lowest U5MR was registered in Greater Accra region (47 deaths per 1,000 live births) whilst the highest was in Northern region (111 deaths per 1,000 live births).

[3] UNICEF et al (2014). Trends in Child Mortality Report 2014.

The regions that had higher than the national average U5MR included: Volta, Eastern, Central, Upper East, Ashanti, Upper West and Northern. The regional variation in magnitude of the Neonatal, Infant and Under-five Mortality Rates highlight the importance of addressing and responding to the peculiar factors within the regions that may be influencing morbidity and mortality among the under-five children.

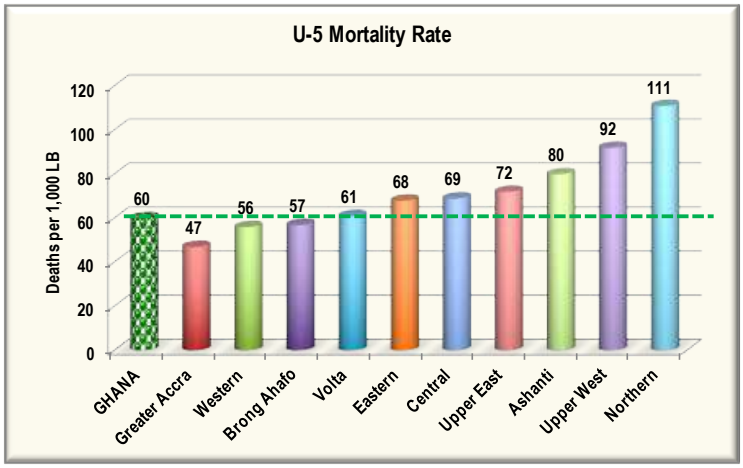

Figure 5: Regional Variation in Under-5 Mortality Rates
Source: Ghana DHS 2014

2.1.4: Main Causes of Neonatal and Post-Neonatal Mortality

The report published by Child Health Epidemiology Reference Group of the World Health Organisation (WHO/CHERG) in 2014 highlighted the main causes of neonatal deaths in Ghana. As illustrated in Figure 6, approximately 60% of neonatal deaths were due to prematurity and birth asphyxia and/or trauma, followed by sepsis and other infections at 19%. Congenital anomalies accounted for 9% and pneumonia 6%.

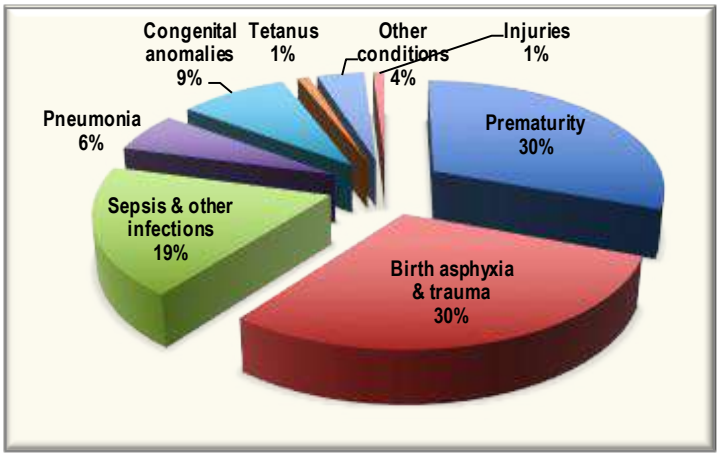

Figure 6: Main Causes of Neonatal Death in Ghana
Source: CHERG/WHO/UNICEF; 2014

The WHO/CHERG 2014 report on the main causes of post-neonatal deaths among children in Ghana has been summarised in Figure 7. About one-third (32%) of the deaths were due to malaria, followed by pneumonia that accounted for 18% and diarrhoea (12%). HIV and AIDS accounted for only 1% of deaths among the under-five children. Non-communicable diseases were responsible for 9% of deaths and 7% were due to injuries. Morbidity and mortality data was not available for

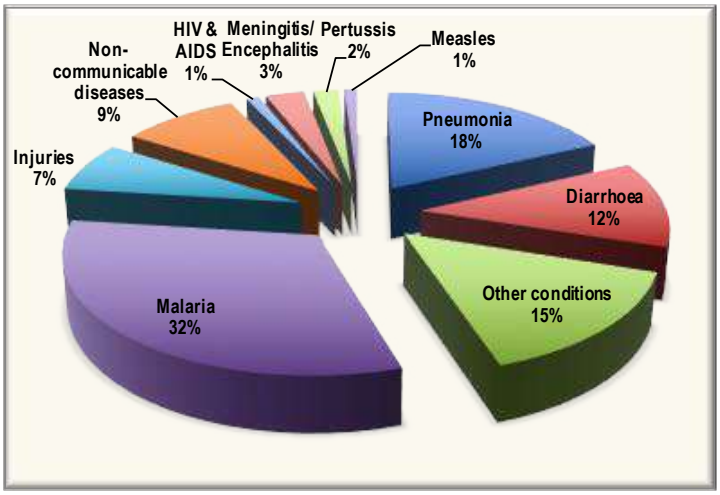

Figure 7: Main Causes of Post-Neonatal Death in Ghana
Source: CHERG/WHO/UNICEF; 2014

the children aged 5 to 9 years.

2.2: Coverage of High Impact Child Health Interventions

2.2.1: *Focussed Antenatal Care*

The proportion of women who received antenatal care (ANC) from a skilled provider in their most recent birth increased from 92% in 2003 to 95% in 2008 and 97% in 2014. (Ghana DHS 2014). Antenatal care from a skilled provider was comparatively higher among women in the urban area (98.6%) than those from the rural area (96.2%). The geographical variation has been summarised and presented in Figure 8, which shows that Northern, Volta and Eastern Regions had comparatively lower proportion of women. The national guidelines recommend early attendance within the first trimester for antenatal care and the Ghana DHS 2014 reported 64% of the women had made the first visit before four months of gestation. A minimum of four ANC visits for the most recent birth was reported by 87% of the women, which reflected an increase from 78% reported in 2008.

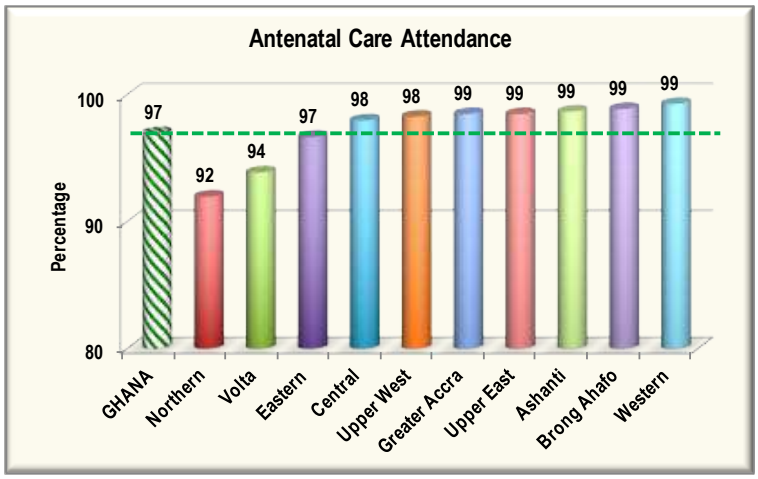

Figure 8: Regional Variation in Antenatal Care Attendance
Source: Ghana DHS 2014

Prevention of the most common causes of maternal mortality involves basic activities such as checking of the blood sample for anaemia, monitoring the blood pressure and examination of urine for proteins. The Ghana DHS 2014 reported out of all the women who attended ANC, 98.1% had blood sample taken, 98.8% had their blood pressure measured, and 97.3% had the urine sample taken for examination. Out of all the women who had a live birth, 91.9% took iron tablets or syrup, while only 39.4% took medicines for treatment of intestinal parasites. Vaccination of the mother against tetanus is an intervention that aims to prevent neonatal death from tetanus. At the national level 78% of the last births were protected against neonatal tetanus, slightly higher for urban residents (80%) than those in rural areas (76%). In terms of geographical distribution, the highest proportions were registered in Central (84%) and Brong Ahafo (83.7%) whilst the lowest were Upper East (68%) and Eastern (68.8%).

2.2.2: *Prevention of Malaria in Pregnancy*

Pregnancy is associated with suppression of the immune system, which could be linked to the higher risk of malaria infection, especially the women in their first pregnancy. The risk of malaria in pregnancy and the associated complications can be reduced by sleeping under

insecticide-treated mosquito nets and intermittent preventive treatment (IPT) during pregnancy. Figure 9 shows that 50% of the women either slept under ITN or within a dwelling that had indoor residual spraying (IRS) for malaria. Western, Central and Eastern were the high malaria prevalent regions with comparatively low coverage.

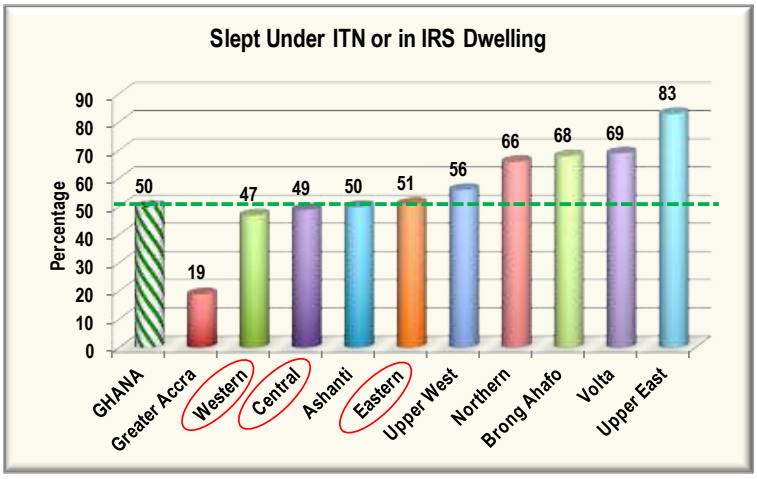

Figure 9: Regional Variation in ITN use and IRS during Pregnancy *Source: Ghana DHS 2014*

As a national policy, Intermittent preventive treatment is provided as part of the antenatal care package and the medicine administered as directly observed therapy. The Ghana DHS 2014 revealed that two or more doses of IPT in pregnancy increased from 44% in 2008 to 68% in 2014. High coverage was recorded in Brong Ahafo, Upper West and Ashanti regions. The regions with high prevalence of malaria but comparatively low coverage of IPT included Northern, Eastern and Western.

2.2.3: Delivery under Skilled Providers and Postnatal Care

The presence of skilled attendants at the time of birth is necessary to provide appropriate care to both the mother and the newborn baby. The Ghana DHS 2014 reported consistent increase in proportion of births attended by a skilled provider from 47% in 2003 to 59% in 2008 and 74% in 2014. As illustrated in Figure 10, Greater Accra region registered the highest proportion (92%) while Northern region had the lowest (36%). Upper West, Volta, Eastern and Central regions also recorded lower than the national average. Traditional birth attendants were responsible for 41% of births in Northern region, 29% in Upper West and 20% each in Central and Eastern regions.

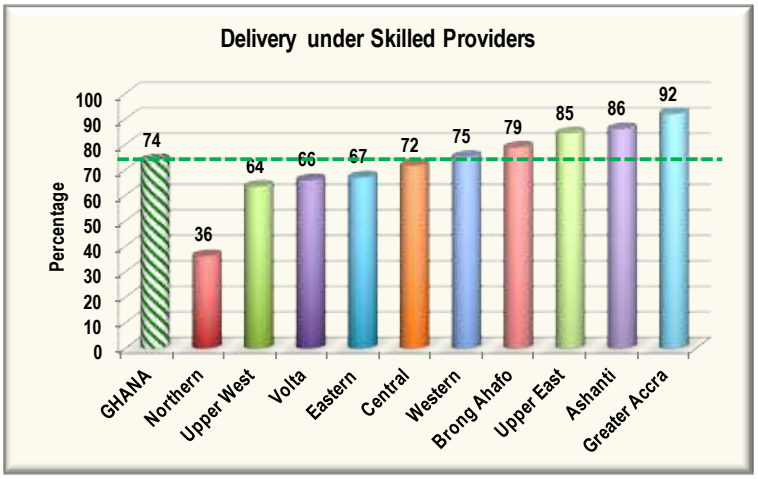

Figure 10: Regional Variation in Delivery by Skilled Providers. *Source: Ghana DHS 2014*

Caesarean sections can reduce maternal and neonatal mortality and the complications of childbirth such as obstetric fistulae. Nevertheless, its use without medical indication can put women at risk of some complications and the World Health Organisation recommends that caesarean sections be done only when medically necessary. Research by WHO found that increases in countries' caesarean section rates up to 10% was

associated with a decline in maternal and neonatal mortality but increases beyond 10% was not associated with further reductions. However, for caesarean section to be performed on the pregnant women who need it, there must be the infrastructure, equipment, medicines and other supplies, a reliable power source and water supply, as well as the human resources. Where the caesarean delivery rates fall below the 5% level, the lack of one or more of these prerequisites would be contributory. As illustrated in Figure 11, the national average of reported deliveries by caesarean section was about 13%, with a range from 3% in Northern to 23% in Greater Accra.

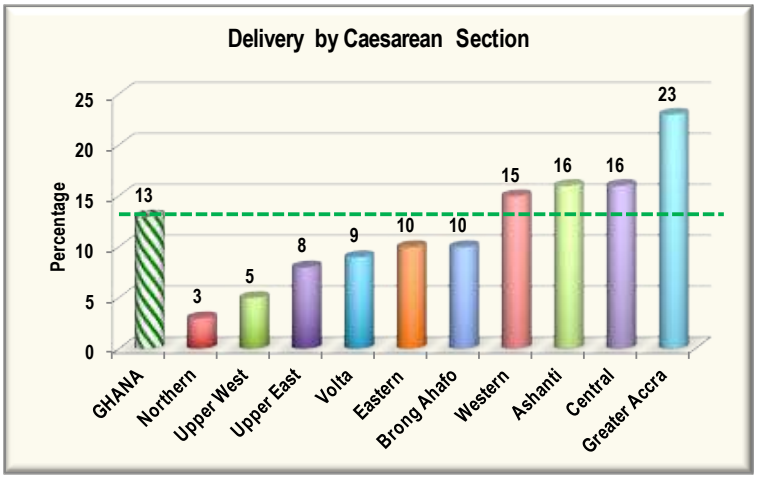

Figure 11: Regional Variation in Delivery by Caesarean Section. *Source: Ghana DHS 2014*

The National Safe Motherhood Protocol defines the schedule of 3 postnatal visits for the mother and baby: within 48 hours after delivery, on the 6th or 7th day after delivery and at 6 weeks after delivery. As illustrated in Figure 12, at national level 81% of mothers received postnatal care within 2 days after their last birth. At regional level, Northern Volta, Eastern, Upper West and Central had comparatively lower proportions of women who received postnatal care. It is noteworthy that about 36% of women in Northern, 23% in Volta and 21% each in Upper West and Eastern regions, did not receive any postnatal check-up.

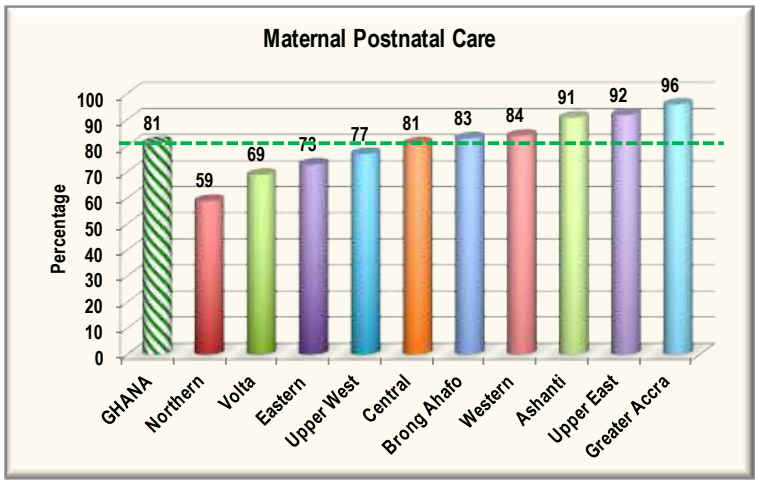

Figure 12: Regional Variation in Maternal Postnatal Care
Source: Ghana DHS 2014

2.2.4: Postnatal Care for the Newborn

According to the national Safe Motherhood Protocol, the postnatal care services for the newborn should start as soon as possible after birth, with timing similar to the mother, within 48 hours, on day 6 or 7, and at 6 weeks. The Ghana DHS 2014 reported only 23% of neonates received postnatal care within 2 days after birth, with no marked difference in residence: 23% for the urban and 22% for the rural.

In terms of geographical variation, Western region recorded the lowest (7%) while Upper East with 60% had the highest proportion of babies who received postnatal care (see Figure 13). The regions with lower coverage than the national average include: Western, Eastern, Brong Ahafo, Ashanti, Volta and Northern. It worth noting that 90% of babies in Northern, 85% in Eastern, 82% in Brong Ahafo and 77% in Ashanti did not receive any postnatal check-up at all.

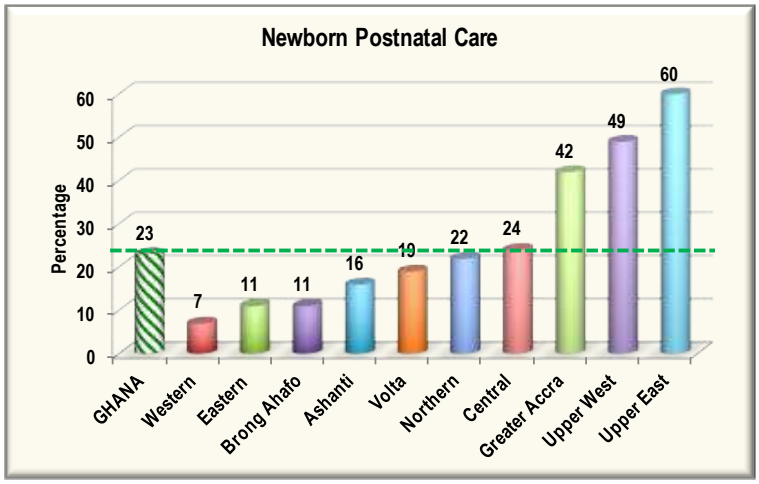

Figure 13: Regional Variation in Newborn Postnatal Care
Source: Ghana DHS 2014

2.2.5: Breastfeeding, Infant and Young Child Feeding

The Ghana DHS 2014 reported 98% of children were breastfed at some point their life. The World Health Organisation and UNICEF recommend initiation of breastfeeding within one hour of the baby's birth. As illustrated in Figure 14, at national level 56% of babies were initiated to breastfeeding within the first hour after birth, which reflected an increase from 52% reported in the 2008 Ghana DHS. The lowest proportion of 41% was recorded in Upper West and highest of 65% each in Northern and Upper East regions. The other regions with comparatively lower coverage include Volta, Ashanti, Eastern and Greater Accra.

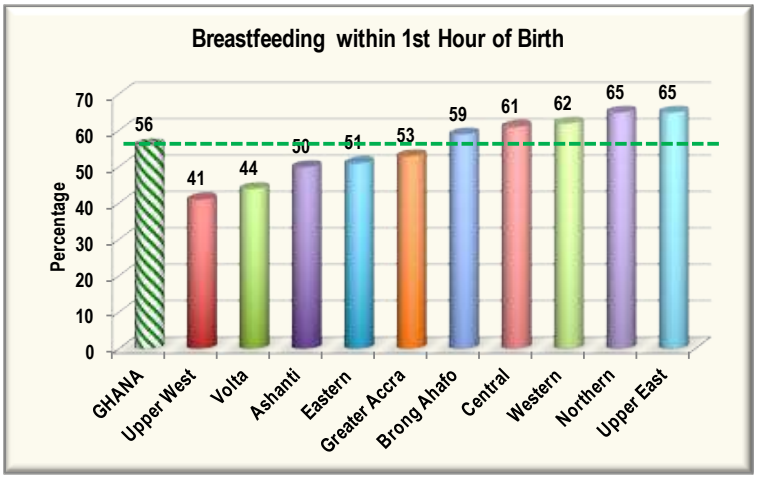

Figure 14: Regional Variation in Newborn Postnatal Care
Source: Ghana DHS 2014

Provision of pre-lacteal feed is not a recommended infant feeding practice and Ghana DHS 2014 reported at the national level, 15% of babies had received pre-lacteal feeds. It nevertheless reflected a decline from 18% reported in 2008. The practice was more prevalent in Greater Accra (19%), and Central, Ashanti, Northern, Western, Eastern regions (each 17%). Exclusive breastfeeding is recommended for the child's first six months of life and only approximately half of children in the country (52%) had been exclusively breastfed. It reflected a decline from 67% reported in the 2008 Ghana DHS. Approximately 16% of the babies less than age 6 months were fed using a feeding-bottle with a nipple, and the proportion increased to 28% by age of

6 to 9 months.

In relation to complementary feeding, introduction of solid, semi-solid or soft foods at age 6 to 8 months was reported for 73% of the children. Slightly over one-quarter of the children age 6 to 23 months (28%) received the recommended minimum dietary diversity, 43% received the minimum meal frequency and 13% had the minimum acceptable diet.

2.2.6: Immunisation

Immunisation of children against the vaccine preventable diseases is among the high impact interventions to prevent child morbidity and mortality. The recommended immunisations are against the following conditions: tuberculosis, diphtheria, pertussis, tetanus, polio, measles, rubella, hepatitis B, haemophilus influenzae type b, pneumonia, meningitis, yellow fever, and rotavirus. As illustrated in Figure 15, at national level 77% of children age 12 – 23 months had received all the basic immunisations, which reflected a decline from 79% reported in 2008. The coverage was comparatively lower in Northern, Western and Central regions.

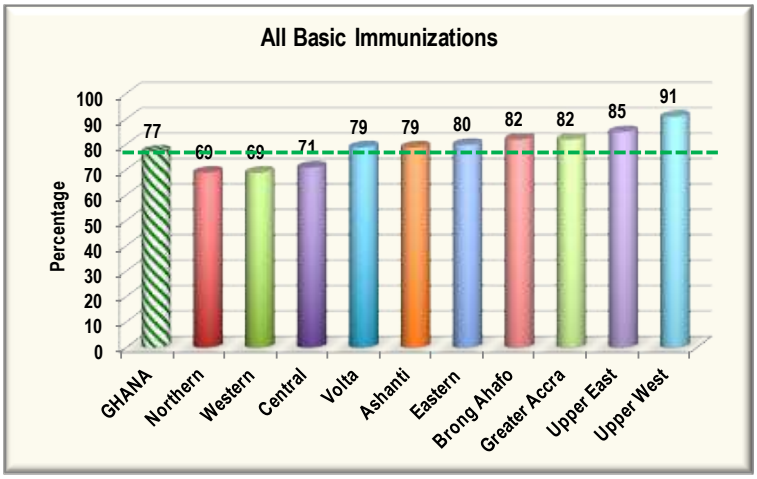

Figure 15: Regional Variation in Basic Immunisation among Children 12 – 23 Months. *Source: Ghana DHS 2014*

2.2.7: Integrated Management of Childhood Illness

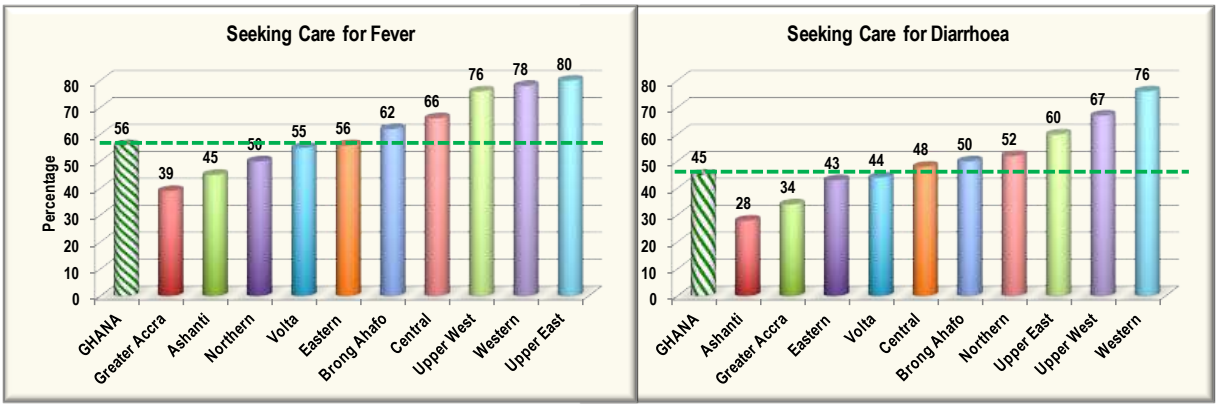

Figure 16: Regional Variation in Care Seeking Behaviour for Children with Fever and Diarrhoea. *Source: Ghana DHS 2014*

The Ghana DHS 2014 reported about 14% of children had fever within 2 weeks preceding the survey. As illustrated in Figure 16, consultation with health workers or at health facilities was made for 56% of the children with fever, with lowest proportion in Accra (39%) and highest of 80% in Upper East regions. Other regions with comparatively lower

levels of consultation include Ashanti, Northern, Volta and Eastern.

Overall about 12% of children had diarrhoeal diseases within 2 weeks preceding the survey. As illustrated in Figure 16, consultations with health workers or at health facilities was made for 45% of these children with regional variation from 28% in Ashanti to 76% in Western. Other regions with lower consultation include Greater Accra, Eastern and Volta.

2.2.8: Prevention of Malaria

Malaria is among the major causes of under-five morbidity and mortality in the country. The Ghana DHS 2014 reported national prevalence among under-five children based on the Rapid Diagnostic Test of 36%, with a range from 12% in Greater Accra to 62% in Upper West regions (see Figure 17).

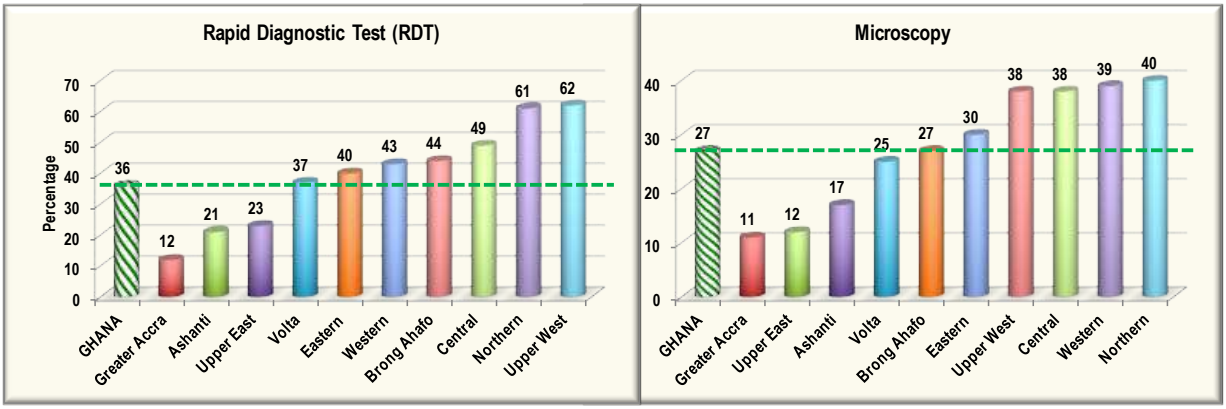

Figure 17: Regional Variation in the Prevalence of Malaria among U5s by RDT and Microscopy. *Source: Ghana DHS 2014*

Other regions with relatively high prevalence include Northern, Central, Brong Ahafo and Western. On basis of microscopy, the national prevalence 27%, lowest in Greater Accra (11%) and highest in Northern (40%). The high prevalent regions include Western, Central, Upper West and Eastern.

Sleeping under an insecticide-treated nets (ITN) and/or staying in house that had undergone indoor residual spraying (IRS) are among the recommended practices for prevention of malaria for under-five children. The Ghana DHS 2014 reported increased use of ITN by children below five years from 39% in 2008 to 47% in 2014. As illustrated in Figure 18, at national level 54% of under-five children

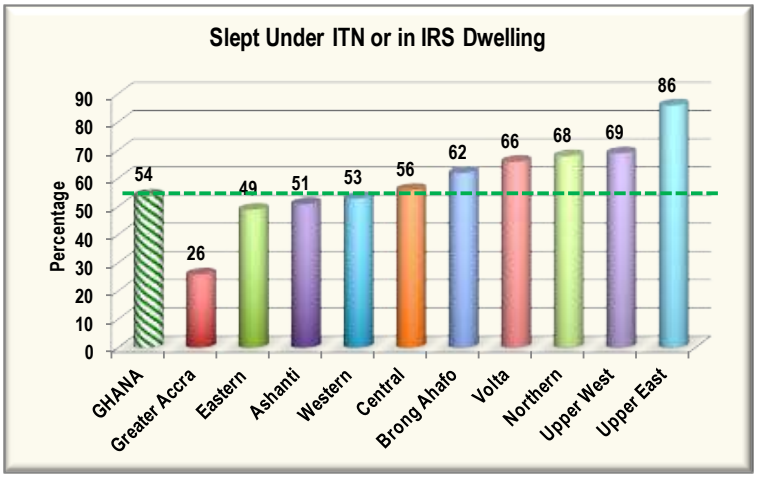

Figure 18: Regional Variation in ITN Use and IRS by U5 Children. *Source: Ghana DHS 2014*

slept under ITN or in a dwelling that had been sprayed, with a range from 28% in Greater Accra to 86% in Upper East regions. Eastern and Western regions have high prevalence of malaria but registered comparatively lower coverage of ITN use and IRS of dwellings for children under age of five years.

2.3: Cross-cutting Child Health Systems Strengthening

Interviews and consultations were made involving managers at the national and regional levels, health care providers at different levels of service delivery, caregivers as beneficiaries of the programme and community volunteers. Findings are summarised in the subsequent sections.

2.3.1: Findings from Managers

The main positive observations made by managers in relation to the Policy were as follows:

- The Child Health Policy and Strategy (2007 – 2015) documents were comprehensive and based on the continuum of care;
- It put the focus and increased advocacy for under-five children, which led to pooling of resources for implementation;
- There was leadership capacity on child health at the national level for technical support to the regions and districts;
- Health partners supported and aligned funds to gaps in child health interventions based on the Policy;
- Decline in child morbidity and mortality was linked to the Policy operationalisation, including the introduction of new strategies and interventions;
- Policy created opportunity for professional cadres in the country such as paediatric nurses and neonatologists;
- Policy provided framework for prioritisation of essential commodities for child health;
- Policy facilitated the capture of child health data and regular review of the child health program;
- Advocacy, communication and social mobilisation activities were implemented at community level.

Negative observations from the managers include the following:

- The Policy adequately covered the under-five children but did not explicitly address the age group of 5 – 9 years;
- There was inadequate dissemination at regional, district and sub-district levels, with late distribution of limited copies;
- Delayed reimbursements and co-payments hindered delivery and uptake of services;

- Irregular and inadequate funding from government resulted in declined uptake of services through the outreaches;
- Mal-distribution of professional cadres and high turnover of staff had a negative effect on delivery of child health services;
- Inadequacy of basic equipment and supplies at the CHPS level affected quality of child health services;
- Excessive compartmentalisation of data with vertical reporting to different programs affected quality of available child health data;
- Information, education and communication materials on child health were not adequately available at the community level.

2.3.2: Findings from Health Workers

The following were among the key positive observations reported:

- Regular, formal on-the-job and in-service training was being conducted about twice a year, with additional refresher courses where the need arose;
- High ANC coverage and reduction in malaria incidence among pregnant women;
- Positive outcomes include improvement in pre-term survival and increase in immunization coverages, vitamin A and exclusive breastfeeding rates;
- Reduction in childhood illnesses such as cases of diarrhoea, malnutrition, paediatric HIV and the vaccine preventable diseases;
- Community being more appreciative of the Child Welfare Clinics (CWC) as evidenced by increase in attendance
- Outreach services have improved access by facilitating identification of sick children in the community

Negative observations and weaknesses included the following:

- Occasional shortages of some commodities such as BCG and Yellow Fever vaccines;
- Human resource challenges: Inadequate midwives, elderly midwives about to retire, young midwives who are mothers and want flexible working hours;
- Inadequate skills in use of resuscitation equipment for neonates;
- Not being able to provide 24 hr services because of lack of accommodation for midwife and CHO in the community;
- Inadequate transportation for CHNs to conduct outreach services;
- Shortage of child and maternal health record books;

- CHNs when overwhelmed at CWC, completed the child health record but tallying the number of immunized children was often incomplete and resulted in low coverage;
- Community challenges: the voluntarism did not work because they wanted to be paid; and the Community Health Councils did not function because people were too busy and also wanted to be paid;
- Inadequate supervision and monitoring.

2.3.3: Findings from Community Volunteers

The following were among the key positive observations reported:

- Community members have been involved in child health activities such as putting up the structures used for outreach services; mobilization of households for child health services; and support in community health planning based on the CHPS concept;
- Services being provided has contributed to reduction in the childhood disease burden;
- Child health services had resulted in healthy children within the community;
- Noted less cases of diarrhoea, pneumonia and no cases at all of polio, because of the child health services.

Negative observations and weaknesses included the following:

- Non-cooperation from community members;
- Difficulty in accessing hard to reach areas;
- Diminishing volunteerism in the community;
- Lack of logistics such as bicycles, Integrated Community Case Management boxes, raincoats etc.;
- Failure of the community to support the volunteers in their farm work;
- Volunteerism fatigue

2.3.4: Findings from Caregivers

The following were among the key positive observations reported:

- The childhood vaccines were very effective;
- The maternal and child health services were free and hence they could be able to afford;
- The mothers specifically appreciated the IPT, counselling, laboratory services and treatment;

- When clients were not many at the CWC, access to services was quick service and staff friendly;

Negative observations and weaknesses included the following:

- Too many vaccines being administered to the child;
- There were not enough medicines covered by NHIS at the lower levels;
- NHIS not covering the baby after two months and lack of funds to take care of transportation to access care
- Poor attitude and communication of some midwives who were rude. If you didn't understand something, it was difficult to ask for clarification;
- Long waiting times at the health facility: mixing of cards, fragmented ANC –go to one room for BP check, then you wait for your abdomen to be examined in another room;
- No shelter, the mothers had to sit under the sun;
- Toilet facilities not free and mothers had to pay 20p for using wash rooms;
- Sometimes when you go to deliver and your abdomen is small, the midwives send you away saying you are not in labour.

2.4: Summary of Priority Gaps and Key Issues

2.4.1: Mortality, Coverage and Uptake of Child Health Services

- The decline in Infant Mortality Rate between 2008 and 2014 was mainly attributed to the Post-Neonatal Mortality Rate that decreased from 21 to 13 per 1,000 live birth. During this period, the Neonatal Mortality Rate only decreased minimally from 30 to 29 deaths per 1,000 live births.
- Death among the under-five children was greatest in the neonates, which accounted for 38% of the total. Children below the age of one year (infants) accounted for two-thirds (67%) of all the deaths among under-five children.
- More than half of neonatal deaths (56%) occurred within first two days after birth, and the greatest proportion of more than 90% occurred within 7 days after birth. The commonest causes of death were:
  - Neonatal period (0 – 28 days' age): Prematurity, birth asphyxia and trauma; sepsis and other infections;
  - Post-neonatal period (1 – 59 months' age): Malaria, Pneumonia, diarrhoeal disease and non-communicable diseases.
- In terms of regional variation, the Neonatal Mortality Rate was highest in Ashanti, Upper West, Central, Volta and Eastern regions. The Under-five Mortality Rate was highest in Northern, Upper West, Ashanti, Upper East, Central and Eastern regions.

- Generally, there was very high coverage of at least one antenatal care visit in the country. Four or more visits was reported by 87% of the mothers, and 64% made the first antenatal visit before the 4th month of gestation.
- Use of Insecticide-Treated Nets for prevention of malaria in pregnancy was comparatively lower in Western, Central and Eastern regions. The Intermittent Preventive Treatment of malaria during pregnancy was comparatively lower in Northern, Eastern and Western regions.
- Overall, 74% of the births were attended by skilled service providers. Non-skilled delivery was higher in Northern, Upper West, Volta and Eastern regions.
- Only 23% of the neonates were provided postnatal care within 2 days after birth. The postnatal care was comparatively lower in Western, Eastern, Brong Ahafo, Ashanti, Volta and Northern regions.
- Overall 56% of babies were initiated to breastfeeding within the first hour after birth. The proportion was comparatively lower in Upper West, Volta, Ashanti, Eastern and Greater Accra regions. The use of pre-lacteal feeds was more prevalent in Greater Accra, Eastern, Western, Northern, Ashanti and Central regions.
- Introduction of solid, semi-solid or soft foods at the babies' age of 6 – 8 months was reported by 73% of the mothers. The recommended Minimum Dietary Diversity was reported for 28%; recommended Minimum Meal Frequency for 43% and the Minimum Acceptable Diet for 13% of the children.
- All the basic immunisation was delivered to 77% of children age 12 – 23 months in the country. The coverage was comparatively lower in Northern, Western and Central regions.
- In relation to care-seeking behaviour, consultation was made to health workers or health facility for 56% of all children with diarrhoea in the country. The consultations were comparatively lower in Greater Accra, Ashanti, Northern, Volta and Eastern regions. Consultations was made for 45% of all children with fever, comparatively lower in Greater Accra, Ashanti, Northern, Volta and Eastern regions.
- On basis of microscopy, prevalence of malaria among children under five years was 27% in the country. It was comparatively higher in Northern, Western, Central, Upper West and Eastern regions. In terms of prevention of malaria among under five children, comparatively low use of Insecticide Treated Nets or In-door Residual Spraying was reported in Eastern and Western regions.

2.4.2: Child Health Systems Gaps and Issues

Key issues raised from the interviews include:

- Inadequate dissemination of the Policy at regional, district and sub-district levels. The hard copies were few and had only recently been made available (very late in the period of implementation)

- The technical language utilised in the Policy document was not easily understood at lower levels, which are more relevant for its operationalisation
- The Policy contributed towards inadequate integration through reinforcement of the ”silos” approach
- The Policy has been inadequately funded, which affected services delivery such as through the outreaches
- Human resources for health was severely affected by high turnover of staff and mal-distribution, with Greater Accra Region being relatively over-endowed compared to the Upper West and Upper East regions.
- Implementation of the Policy was affected by lack of basic equipment and logistics at CHPS level such as weighing scales, MUAC tapes, tape measures and logistics
- The Health Information System affected by weak documentation, incomplete and inaccurate data
- There were inadequate IEC materials for education and social mobilisation at the community level.

3. CHILD HEALTH POLICY FRAMEWORK

3.1: Policy Goal

- The goal of the Child Health Policy is to provide the framework for promoting the survival, growth and development of all children in Ghana.

Scope of the Policy

i. **Pre-pregnancy and Pregnancy period** up to birth of the child;
ii. **Perinatal and Neonatal period** from child's age of 0 to 28 days;
iii. **Post-neonatal period** from age of 1 to 11 months (infancy or first year of life);
iv. **Young child** from the age of 12 to 59 months; and
v. **Older school age child** from the age of 5 to 9 years.

3.2: Technical Interventions along the Care Continuum

3.2.1: Pre-Pregnancy and Pregnancy Period

A. Pre-pregnancy

Optimal health shall be maintained in the pre-pregnancy period through:

a) Promotion of adolescent health using strategies outlined in the National Adolescent Health Service Policy and Strategy;
b) Pre-conception care.

Pre-conception care is the counselling and care given to women planning to become pregnant. It involves detecting and managing health problems that might affect the woman and her baby later. It also ensures that women with medical illnesses such as diabetes and hypertension have their conditions controlled before becoming pregnant. Steps are taken to reduce the risk of birth defects and other problems; for example, folic acid supplements given to women to prevent neural tube defects. The components include the following:

- ***Education on nutrition;***
- ***Iron and folic acid supplementation;***
- ***Counselling on reproductive health goals, including HIV and STI prevention;***
- ***Up-to date vaccination;***
- ***Screening for chronic medical conditions*** e.g. diabetes, hypertension;
- ***Genetic counselling.***

B. Pregnancy

Interventions during the pregnancy period shall be delivered through:

a) Focused Antenatal care (FANC);

b) Nutrition counselling clinic;

c) Promotion of key household and community practices.

Pregnancy Interventions

- ***Tetanus-Diphtheria (TD) prevention***;
- ***Nutrition counselling;***
- ***Malaria prevention and management;***
- ***Prevention of Mother-to-Child Transmission of HIV;***
- ***Screening and linkage for TB management***
- ***Detection and treatment of pregnancy complications*** e.g. hypertensive disorders, bleeding, mal-presentations, multiple pregnancy, anaemia, etc.

I. Birth and post-birth preparedness: Throughout pregnancy, all women should have at least 8 (eight) contacts with a health provider at either health facilities or community outreach services. The first contact should be in first trimester, up to 13 weeks; two should be in the second trimester up to 26 weeks; and the remaining five in the third trimester between 30 and 40 weeks[4].

II. The primary providers of ANC shall be midwives, CHOs, registered nurses, medical assistants, doctors and any other accredited health care providers.

III. Community-Based Agents (CBAs) may provide Long Lasting Insecticide-treated Nets (LLINs) and net re-treatment.

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

a) Development of a birth preparedness plan that includes identification of birth attendant, home support, funds, availability and means of transport;

b) Development of a complication readiness plan;

c) Recognition of complications of pregnancy;

d) What to do if early referral is needed;

e) Post-birth preparedness including post-natal care;

f) How to secure male partner involvement;

[4] World Health Organization (2016). WHO Recommendations on Antenatal Care for a Positive Pregnancy Experience.

g) Nutrition counselling;

h) Importance of Tetanus-Diphtheria (TD) vaccination, iron, folate and malaria prevention;

i) Importance of HIV testing and prevention of mother-to-child transmission of HIV in line with National PMTCT Guidelines;

j) Importance of screening for tuberculosis (TB) in line with national TB Policies;

k) Importance and components of post-natal care (including infant feeding);

l) Importance of birth spacing and family planning.

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

VI. Five doses of Sulphadoxine-Pyrimethamine (SP) shall be given at the scheduled ANC visits, with the first dose at 16 weeks of gestation or at quickening (first noted movement of the foetus) and thereafter at least one monthly intervals. The delivery of Intermittent Preventive Treatment in pregnancy (IPTp) will be as directly observed treatment (DOT), either on an empty stomach or with food[5].

VII. Long Lasting Insecticide-treated Nets (LLINs) shall be used at night by pregnant women. It will be provided and distributed at a highly-subsidized rate, as early as possible in pregnancy.

VIII. Provider-initiated HIV counselling and testing shall be offered to all pregnant women at the first antenatal visit and at subsequent visits if necessary, unless they opt-out of testing. All pregnant women who are found to be HIV positive shall receive a course of the currently recommended anti-retroviral therapy (ART) in accordance with National AIDS/STI Control Programme guidelines. All pregnant women tested negative for HIV shall be re-tested at 34 weeks of pregnancy. All pregnant women who miss these testing opportunities during ANC period must be offered HIV testing during labour and in the postnatal period, and provided the necessary care in accordance with the National PMTCT guidelines.

IX. Improve access to ANC and quality of ANC:

a) Pregnant women shall continue to benefit from free maternal health services;

b) Health facilities shall not impose additional fees on pregnant women

[5] Ministry of Health (May 2014). Guidelines for Case Management of Malaria in Ghana. 3rd Edition.

X. ANC providers shall adhere to guidelines outlined in the *Reproductive Health Service Policy and Standards, 2014*, and the National Safe Motherhood Protocols[6].

3.2.2: Perinatal and Neonatal Period

A. Delivery of the Child

This period includes the interventions for delivery of the baby and immediate post-delivery period, which shall be delivered through:

a) Skilled birth care
b) Kangaroo Mother Care for low birth weight
c) Emergency obstetric and newborn care (EmONC)
d) Essential newborn care.

Delivery Interventions

- ***Monitoring:*** Progress of labour, maternal and foetal well-being with partograph, Doppler and Ultrasound scan;
- ***Detection and management of problems and complications:*** E.g. mal-presentations, prolonged/ obstructed labour, hypertension, bleeding, infection);
- ***Emergency obstetric and neonatal care:*** for identified complications;
- ***Offer HIV testing to mothers of unknown status*** and provide the necessary urgent care if found to be positive as part of PMTCT;
- ***Immediate newborn care:*** Resuscitation if required, thermal care, early initiation of breastfeeding;
- ***Strict adherence to Standard Infection Prevention and Control (IPC)*** practices***;***

I. 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 worker 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 care.

II. The long-term national goal is for all deliveries to be attended by a skilled birth attendant. A skilled birth 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 newborn babies.

[6] Ministry of Health (December 2014). National Reproductive Health Service Policy and Standards. Third Edition.

a. Obstetricians or adequately trained general doctors provide Emergency Obstetric and Newborn Care (EmONC).

b. Community Health Officers (CHOs) who are midwives are classified as skilled attendants.

c. CHOs who are not midwives, can manage deliveries when they arrive in the second stage of labour or later.

III. Current policy states that Traditional Birth Attendants (TBAs) should not be encouraged to perform deliveries. However, in settings where they are the only available providers, they should receive up-to-date training on birth planning, basic management of normal deliveries, newborn resuscitation, management of the mother and newborn in the immediate post-delivery period, and when to refer. All women who deliver with TBAs shall be referred within 48 hours to a health facility. All efforts must be made in such situations to deploy skilled personnel to provide services (refer to National Reproductive Health Service Policy and Standards, 2014).

IV. 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 newborn babies.

V. 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 regularly provided. Single-use bulb syringes, other suction devices and newborn ventilation bags are considered the minimum standard equipment for providing safe and effective resuscitation at health facilities.

VI. Essential newborn care tasks in the immediate post-delivery period include ensuring the newborn is breathing well, thermal care, early initiation and exclusive breastfeeding, cord care, eye care, vitamin K, examination, weight and recognition of when to refer.

a. Low birth weight babies (LBW) shall be managed as per protocol;

b. All personnel who have contact in the immediate post-delivery period shall be trained in key tasks;

c. Pre-delivery education of mothers and other family members will cover the 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;

d. Community health education should emphasize key post-delivery practices.

VII. Providers shall adhere to guidelines on the content of delivery and immediate post-delivery care, as outlined in the *Reproductive Health Service Policy and Standards, 2014*; the National Safe Motherhood Protocol; *Ghana National Newborn Health Strategy and Action Plan 2014 – 2018*; and other relevant protocols.

B. The Newborn Child

The neonatal period is defined as the period between birth and 28 days of life. Interventions for this period shall be delivered through:

a) Postnatal care (PNC)

b) Kangaroo Mother Care for low birth weight

c) IMNCI - management of sick newborn

d) Promotion of key household and community practices.

Neonatal Interventions

- ***Early Initiation and Exclusive breastfeeding;***
- ***Thermal care*** (including skin-to-skin);
- ***Eye care***
- ***Hygienic cord care;***
- ***Vitamin K;***
- ***Examination;***
- ***Weight, length and head circumference measurements;***
- ***Temperature monitoring;***
- ***Identification of danger signs and prompt care-seeking for illness;***
- ***Kangaroo Mother Care*** for low birth weight;
- ***Management of the sick newborn*** (including sepsis, asphyxia, and prematurity);
- ***Management of jaundice*** (Phototherapy, bilirubinometer)
- ***Provision of ARV prophylaxis and Early Infant Diagnosis (EID) to HIV Exposed Infants*** as part of PMTCT
- ***Immunizations***
- ***Screening for sickle cell anaemia***

I. Postnatal schedule as follows: **1st** postnatal: first 48 hours; **2nd** postnatal: 6 – 7 days; **3rd** postnatal visit: 6 weeks.

II. PNC shall be conducted during home-visits, or at outpatient care. The first or second PNC review may be done before discharge if the delivery has been conducted at a health facility.

III. PNC shall be provided by skilled and trained providers.

a. Skilled providers include: midwives, CHOs, medical assistants, registered nurses, doctors (including obstetricians and paediatricians) and any other cadre accredited to provide delivery services;

b. Community-based providers may include TBAs and community volunteers. Refer to National Reproductive Health Service Policy and Standards, 2014.

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

- Early skin-to-skin contact for 1 hour immediately after delivery;
- Initiation of breastfeeding within 30 minutes after delivery and exclusive breastfeeding. No pre-lacteal feeds;
- No early bathing (bathing in the first 6 hours after birth for normal weight newborn babies, bathing in at least 12 – 24 hours for LBW/ preterm newborn babies)
- Thermal care;
- Kangaroo Mother Care (KMC) for low birth weight babies;
- Early identification of sick neonates, and early referral;
- Appropriate cord care;
- Give immunizations: BCG and OPV;
- Screen for sickle-cell disease;
- Thorough general examination of the newborn before discharge (jaundice, congenital malfunctions, etc.).

V. Neonates born to mothers known to be HIV positive, shall receive anti-retroviral drugs according to national HIV treatment guidelines[7]. Infant feeding choices for these babies will be reviewed and discussed with the mother according to current PMTCT guidelines.

VI. Standard guidelines for the management of neonatal illness at first level (CHPS and Health Centres) will be the Integrated Management of Neonatal and Childhood Illness (IMNCI). All first-level providers caring for sick neonates should receive IMNCI training using materials that have been adapted to include management of the sick neonate.

VII. Standard guidelines for the management of neonatal illness and neonatal care at referral level health facilities will be the Ghana adapted WHO Pocketbook of

[7] Ministry of Health and Ghana Health Service (September 2016). Guidelines for Antiretroviral Therapy in Ghana.

Hospital Care for Children and Essential Newborn Care (ENC). All referral level providers caring for sick neonates should receive training in management of the sick newborn and ENC using materials that have been adopted by Ghana.

VIII. 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, and communities shall be responsible for ensuring availability of timely transportation. Child health programmes at the district and sub-district level will work with communities to develop local approaches to referral.

IX. Improved community awareness of the importance of the neonatal period, and of appropriate practices during this period, is critical to changing behaviour. Therefore, the programme will emphasize social and behaviour change communication (SBCC) on neonatal care, and will ensure that CHOs and other community-based providers (TBAs, community volunteers, mother-to-mother support groups, community champions) provide counselling and support. Methods for improving demand for newborn care shall include:

a. Counselling as part of the client-provider interaction during ANC and at any other contacts;
b. Education of community on KMC;
c. Education on breastfeeding;
d. Provision of PNC as a part of outreach services;
e. Encouraging pregnant women to register with the NHIS;
f. Education of community leaders, traditional healers, women's groups, religious organizations, husbands and other significant individuals.

X. Standard guidelines on the content of PNC, for skilled and unskilled providers, are described in detail in the *Reproductive Health Service Policy and Standards, 2014* and the *Ghana National Newborn Health Strategy and Action Plan 2014 - 2018.*

XI. Standard guidelines on the content and practice of KMC;

XII. Guidelines for newborn screening for sickle-cell disease shall be followed by all health care providers.

3.2.3: Post-neonatal Period (Infancy)

This period covers children from age of 1 to 11 months and the interventions shall be delivered through:

a) Child Welfare Services
b) Postnatal Care Services
c) Special Campaigns e.g. Child Health Promotion Weeks (CHPW), National Immunisation Days (NIDs)
d) Home visits
e) Outreach services

Post-neonatal Period Interventions

- ***Exclusive BF to 6 months;***
- ***Age appropriate complementary feeding from 6 months;***
- ***Use of Insecticide Treated Nets;***
- ***Immunisation:*** Complete vaccination by 23 months of age as per EPI policy)
- ***Vitamin A supplementation;***
- ***Anti-malarial drugs for malaria;***
- ***ORT and zinc for diarrhoea;***
- ***Antibiotics, ORT and zinc for dysentery;***
- ***Antibiotics for pneumonia;***
- ***Management of malnutrition;***
- ***Management of HIV exposed and infected children*** as part of PMTCT interventions***;***
- ***Screening for sickle cell anaemia;***
- ***Access to clean water, sanitation and promotion of hygiene.***

I. Maternal and Child Health Record Book will be made available to all mothers/ children, for use at every well baby clinic; and used as reference during care of the sick child.

II. Exclusive breastfeeding will be promoted from birth up to 6 months. 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).

   a. This policy is in line with the National Breastfeeding Policy and recognizes both the *'International Code of Marketing of Breast Milk Substitutes'* and *Ghana Breastfeeding Promotion Regulations, Legislative Instrument 1667, 2000*.

b. 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.

c. The Ghana Health Service (Family Health Division) will collaborate with the Food and Drugs Authority to monitor the implementation of this legislation.

III. All health facilities with maternity services will be supported to be accredited as 'Baby Friendly' and monitored to sustain and improve quality of care for mother and baby.

IV. All mothers shall be supported to provide appropriate feeding for their infants. Complementary feeding shall begin at 6 months of age. The 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.

V. Caregivers shall be supported to provide age-appropriate complementary feeding to their infants in line with the *Ghana Infant and Young Child Feeding Strategy, 2007* and the *Essential Nutrition Actions Framework, 2016*.

VI. Mothers living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer while being fully supported for ART adherence[8].

VII. Infants with special feeding need will be supported in line with the WHO Guidelines[8], the *Ghana Infant and Young Child Feeding Strategy, 2007* and the *Essential Nutrition Actions Framework, 2016.*

VIII. Vaccination status of all children will be checked at every child health contact with facilities and outreach sites, both preventive and curative. All children shall receive vaccinations as per the EPI schedule. ***Before their first birthday, the following antigens should be given***:

a. One dose of BCG, Measles-Rubella, and Yellow Fever vaccine;

b. Two doses of rotavirus vaccine;

c. Three doses each of pentavalent (Diphtheria, Pertussis Tetanus, Hepatitis B and Haemophilus influenzae B); pneumococcal vaccines;

d. Four doses of polio vaccine.

[8] World Health Organization (2016). Guideline: Updates on HIV and Infant Feeding – The duration of breastfeeding and support from health services to improve feeding practices among mothers living with HIV

IX. All children 6 – 11 months of age shall receive one dose of vitamin A (100,000 I.U). High dose Vitamin A (100,000 IU) shall be administered on day 1, day 2 and 1 month later to all cases of measles; and day 1, day 2 and day 14 for severe malnutrition in the presence of eye signs of vitamin deficiency.

X. Promote awareness of childhood NCDs e.g. sickle cell disease, allergies and cancers.

3.2.4: Young Child Period

This period covers children from age of 12 to 59 months and the interventions shall be delivered through:

a) Expanded Programme on Immunisation
b) Child Welfare Services
c) Integrated Management of Neonatal and Childhood Illnesses (IMNCI)
d) ETAT and referral management of the severely ill child
e) Prevention of Mother-to-Child Transmission of HIV
f) Community-based Management of Acute Malnutrition (CMAM)
g) Promotion of key healthy household and community practices

Young Child Period Interventions

- ***Continued breastfeeding:*** to 2 years and beyond;
- ***Continued age appropriate complementary feeding*** from 12 months;
- ***Use of Long Lasting Insecticide-treated Nets;***
- ***Immunisations:*** Complete vaccination by 18 months of age as per EPI policy)
- ***Growth Monitoring and Promotion;***
- ***Early Childhood Development***
- ***Vitamin A supplementation*** every 6 months till 5 years of age***;***
- ***Anti-malarial drugs for malaria;***
- ***Prevention and management of anaemia***
- ***ORT and zinc for diarrhoea;***
- ***Antibiotics, ORT and zinc for dysentery;***
- ***Antibiotics for pneumonia;***
- ***Management of malnutrition;***
- ***Consumption of iodised salt;***
- ***Management of HIV exposed and infected children;***
- ***Access to clean water, sanitation and promotion of hygiene.***

I. '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. To maintain standards of practice, accredited facilities shall be re-assessed every 3 years.

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

III. New vaccines shall be included on the schedule as determined by the EPI programme. A fully immunised child by age two years shall have received all the doses listed by their first birthday, and in addition:

a. Second dose of measles-rubella vaccine at 18 months of age;

b. Single dose of meningitis A vaccine at 18 months of age.

Immunisation Schedule[9]

At birth	BCG, OPV0
6 weeks	OPV1, Rota 1, Pneumo 1, DPT/HepB/Hib 1
10 weeks	OPV2, Rota 2, Pneumo 2, DPT/HepB/Hib 2
14 weeks	OPV3, IPV, Pneumo 3, DPT/HepB/Hib 3
9 months	Measles-Rubella 1, Yellow Fever
18 months	Measles-Rubella 2, Meningitis A

IV. 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 (200,000 IU) shall be administered on day 1, day 2 and 1 month later to all cases of measles and day 1, day 2 and day 14 for severe malnutrition if there are eye signs of vitamin A deficiency.

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

VI. Artemisinin-based Combination Therapy (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, use of an alternative ACTs is recommended. If for any reason ACTs cannot be administered, then oral Quinine can be used. Medicine policy will be based on regular monitoring of anti-malarial resistance patterns of parasites in different areas of the country.

[9] Ministry of Health (2016). National Policy Guidelines on Immunisations in Ghana 2016.

a. IV Artesunate shall be the drug of choice for treating severe and complicated malaria. Parenteral treatment should continue until the patient is well enough to swallow, but for at least 24 hours even if the patient is well enough to swallow before 24 hours. Treatment shall be completed by giving a full 3-day course of oral ACT.

b. Early provision of effective anti-malarial drugs 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.

c. 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.

VII. 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-malarial drugs to treat malaria.

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

IX. 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 osmolality ORS shall be used for the management of acute and persistent diarrhoea including cholera.

a. ORS will be packaged in sachets for preparation of 600ml solution.

b. 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.

c. Recommended home fluids for the home-based management of diarrhoea include: porridges, coconut juice, plain rice water, and mashed kenkey.

d. ORT corners will be established in all facilities for the management of diarrhoea, and demonstrations to caregivers.

e. Severely malnourished children with diarrhoea shall be given Resomal instead of standard formulation ORS.

X. 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).

a. 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;

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

c. Community-based management of diarrhoea shall be encouraged. Community-based workers who have received training in standard case-management of diarrhoea can give ORT and zinc to treat diarrhoea.

XI. Treatment of dysentery (bloody diarrhoea) shall be according to the IMNCI/ Standard Treatment Guidelines.

a. Zinc will be given with antimicrobials for the management of dysentery (see above);

b. Drug policy will be based on regular monitoring of anti-microbial resistance patterns of *Shigella* species in different areas of the country.

XII. Pneumonia should be suspected in any child who is reported to have a cough, is breathing faster than usual with short, quick breaths or is having difficulty breathing (excludes children with a blocked nose). Management shall be in accordance with the IMNCI/ Standard Treatment Guidelines.

a. 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.

b. Intravenous (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.

c. 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.

d. 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.

XIII. Community-based management of pneumonia shall be provided through the home-based care program. Community-based workers who have received training in standard case-management of pneumonia can give appropriate oral antibiotics to treat pneumonia.

XIV. The consumption of iodised salt shall be promoted at health education contacts and to the general public. The Child Health programme and Nutrition Department will work with the Food and Drugs Authority to ensure that salt producers adequately iodise salt.

XV. Feeding of low birth weight children, abandoned children, orphans, refugees will be managed according to the Infant and Young Child Feeding Strategy (IYCFS). The WHO guidelines on the rehabilitation of severely malnourished children shall also be followed. Hospital staff and outpatient staff at nutrition rehabilitation centres shall be trained. Community-based management of severely malnourished children without complications will be encouraged, and Ready-to-Use Therapeutic Foods (RUTF) will be used.

XVI. The revised WHO Growth Standard shall be used for monitoring weight for age and length-for-age for all children between birth and 5 years. Training and provision of logistics for measuring weight and length/ height at all levels will be ensured.

XVII. Growth monitoring and promotion shall be conducted at static facilities and in communities through outreach services and community-based growth promotion (CBGP). The frequency of contacts shall be ***monthly in the first year; 3-monthly in the second year***; ***half-yearly from 3 - 5 years***. Growth monitoring and promotion will include at a minimum:

a. Identification of children with low weight for age and/or low-length/height-for-age; or who are falling off growth curves;
b. Counselling and demonstrations on how to improve feeding practices;
c. Regular follow-up; and
d. Vitamin A supplementation.

XVIII. 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:

a. Updated malaria treatment guidelines;
b. Growth Standards;
c. The management of the sick newborn and HIV.

XIX. Clinical IMNCI guidelines will be adapted for use by community-based providers of care to sick children.

XX. 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.

XXI. Emergency Triage Assessment and Treatment (ETAT) shall be the primary clinical approach for the management of severely ill children coming to referral facilities. In-patient management of sick children will be based on Ghana-adapted WHO guidelines.

XXII. Eighteen key family practices will be promoted for the prevention and management of child illness *(see Appendix)*. Various communication, health education and community mobilization methods may be employed to improve key practices.

XXIII. On basis of the National Environmental Policy on Water Sanitation and Hygiene, the Child Health Programme will advocate for:

a. Adequate access to reliable supply of safe water for all health facilities, communities, households and schools;

b. Storage and use of water under hygienic conditions;

c. Access to sanitary facilities for human excreta disposal in the health facilities and the homes;

d. Safe disposal of all solid and liquid wastes for communities, households and schools.

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

XXV. 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 and anaemia are described in detail in the *National Nutrition Policy.*

XXVI. 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 Policy Guidelines on Immunisations in Ghana 2016*.

XXVII. Standards and guidelines for malaria control, including roles and responsibilities of staff, treatment protocols, and monitoring and evaluation are described in detail in the *Guidelines for Case Management of Malaria in Ghana.*

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

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

XXX. Children who have been exposed to or infected with HIV will be managed according to the national *Guidelines for Antiretroviral Therapy in Ghana*.

3.2.5: Older School Age Child

This period covers the children of age 5 to 9 years and the interventions shall be delivered through:

a) The School Health Programme

b) HIV screening and care among children

c) Promotion of key household and community practices

d) CHPS – home visits

I. In the absence of objectively verifiable data on the needs of children of age 5 – 9 years, a needs assessment/ situation analysis shall be conducted to document their health needs, including:

   a. The gaps in service provision and utilisation;

   b. Evidence-based interventions for integration into the existing child health programme.

II. In the interim, the following services shall be provided for this age-group. In line with the School Health Policy, the child shall be assessed at the time of school initiation to ensure that:

   a. Child has got a completed Child Health Record with all scheduled immunisations covered;

   b. Screening is done for NCDs e.g. sickle cell disease, communicable diseases, nutritional status, as well as for any visual, speech and auditory impairments;

III. Information and services shall be provided that meet the essential needs of the school age children, for example:

   a. Age specific information on sexual and reproductive health;

   b. Child protection, violence and sexual abuse

   c. Promotion of physical activities.

IV. Nutrition interventions shall be provided to ensure good nutritional status for enhanced performance and development;

V. An injury-free, supportive and protective environment shall be promoted for optimal physical, mental, psycho-social, intellectual and spiritual development of children.

3.3: Cross-cutting Child Health Issues

3.3.1: Violence and abuse against children

I. Health staff will be trained to understand the principles of how to approach children who have been victims of violence.

II. The approach to the management of violence against children will be based on principles outlined in the Children's Act. Health staff shall be trained to recognize and manage cases of violence or abuse in line with the Child Protection Guidelines for Health Workers.

III. Health education and promotion messages and materials on the recognition or management of violence against children will be developed.

a. 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.

b. Issues on violence and abuse shall be included in the curricula of health training institutions.

3.3.2: Injuries in Children

I. 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.

II. Currently injury prevention programmes are limited. 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.

3.3.3: Physical and Mental Disabilities in Children

I. 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.

II. Several interventions or strategies that are currently a part of the child health programme will prevent some childhood disabilities, including:

a. Pregnancy interventions such as folate to prevent neural tube defects;

b. Polio vaccination for prevention of musculo-skeletal disabilities;

c. Measles vaccination for the prevention of measles encephalitis;

d. Haemophilus influenzae Type b (Hib) vaccination for the prevention of hearing loss and other complications of meningitis;

e. Improvement of the nutritional status of children, including micronutrients such as iodine, may improve long term cognitive status;

f. 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.

III. 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 their management.

3.3.4: Private Sector Partnerships

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

II. Private sector providers shall use national standards and guidelines for all aspects of clinical care.

   a. The Child Health programme shall ensure that private providers are facilitated with updated protocols and materials.

   b. Private providers shall be included, where possible, in regular in-service training, and shall receive supervisory visits to monitor progress and solve problems.

   c. Private facilities shall use standard referral forms.

III. Private health facilities shall report routine morbidity and mortality data using the standard reporting formats.

IV. 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.

V. 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.

3.4: Other Policies Impacting Child Health

- National Health Policy, 2007.
- National CHPS Policy, 2016.
- National Reproductive Health Service Policy and Standard, 2003.
- Ghana National Newborn Health Strategy and Action Plan (2014 – 2018), 2014.
- Adolescent Health Service Policy and Strategy (2016 – 2020), 2016.
- National EPI Policy, 2010.
- National Nutrition Policy, 2016.
- National Infant and Young Child Feeding (IYCF) Strategy, 20XX.

- Guidelines on Micronutrient Supplementation in Ghana, 20XX.
- National HIV and AIDS, STI Policy, 2013.
- Guidelines for Antiretroviral Therapy in Ghana, 20XX.
- National Guideline for Prevention of Mother to Child Transmission Guideline, 2014.
- National TB control guidelines.
- National Malaria control guidelines.
- National Policy for the Prevention and Control of Chronic Non-Communicable Diseases, 20XX.
- Health Promotion Policy, 2010.
- School Health Education Policy. 20XX;/ School Health Guidelines. 20XX.
- Water and Sanitation Hygiene Policy, 20XX.
- National Quality Strategy, 20XX.
- National Policy for Human Resources for Health, 2013.
- Child and Family Welfare Policy, 2014.
- Justice for Children Policy, 2015.
- National School Feeding Policy, 2016.
- Ghana National Social Protection Policy, 2016.
- Child and Family Welfare Policy, 2014.

3.5: Financing

I. ***Improving the Availability and Effective Use 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 through:

a. Providing planned and sustainable financial resources for provision, monitoring and evaluation, and research of child health services by the Government;

b. Promoting the enrolment of all caretakers and their children in the national health insurance scheme. NHIS should be designed to secure access to health care for all pregnant women, neonates and children. Effective health financing in the next period will depend on sustained uptake of the national health insurance scheme to support an increasing proportion of costs;

c. Better coordinating external resources for child health by effectively utilising the National Child Health Coordinating Body. This aims to ensure that available resources are used most effectively and efficiently;

d. Adopting cost-effective interventions in the child health service;

e. 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 health units, divisions and partners.

3.6: Monitoring, Evaluation and Research

3.6.1: Health Management Information System (HMIS)

I. 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;

II. Child health data on morbidity and mortality, immunizations, ANC, deliveries and PNC, and outreach services shall be collected monthly from health facilities and compiled at district, regional and national levels;

III. 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 to determine and take appropriate action if:

   a. Denominators are being underestimated;

   b. Numerators are being over-estimated (or double-counted);

   c. The quality of data collection and tabulation is flawed.

IV. Data validation shall be strengthened at district level to improve on the data quality;

V. Data on neonatal mortality and morbidity shall be collected and reported as a separate category by facility-based sites;

VI. Routine data shall be reviewed and used for problem solving. District managers shall be trained in the use of data for decision making;

VII. Hospital-based data on neonatal deaths, causes of death and on referrals and outcomes of severely ill children shall be routinely reported.

3.6.2: Monitoring of Program Activities

I. Monitoring is the continuous collection of programme data to determine whether programme activities are effectively reaching the mothers and children. Implementation of activities shall be tracked by measuring programme outputs such as ANC coverage, Supervised Delivery coverage, Immunisation coverage, in-service training coverage, CHPS coverage, IEC coverage, supervisory coverage, availability of essential drugs, equipment and supplies.

II. 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.

III. Emphasis shall be placed on collecting community-based data.

IV. 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. A t least 1 supervisory visit every 6 months is recommended.

V. IMNCI trained staff shall be followed up at their facilities within 6 weeks of completing training.

VI. Maternal and neonatal death audits shall be instituted at health facilities in order to identify clinical and system reasons for deaths, and to take concrete recommended actions to address problem areas.

VII. Monitoring and supervision should be conducted at all levels. Strengthening facility and district-level facilitative supervision should be emphasised with engagement and support from regional and national level.

VIII. Involvement of private and educational facilities should be started from the planning stage through monitoring and supervision.

3.6.3: Evaluation

I. The periodic and systematic assessment of progress toward programme goals and objectives will be done. 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 included in the evaluation surveys, in order to understand practices in these areas better.

II. Small-sample (30-cluster) household surveys of intervention coverage and knowledge and practices that are important for improving performance will be conducted every

2-3 years, where possible, at district level. These surveys will provide data for local planning.

III. Facility-based surveys (HFS) 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 the barriers to improved care, and for planning activities.

3.6.4: Research

I. 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. There shall be close collaboration between the Child Health Programme and the HRD.

II. A national research agenda outlining child health policy, program and service needs, will be developed, budgeted 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.

III. Findings from research shall be regularly disseminated through e-mail, small meetings and an annual research conference/performance review and utilised for policy and program development.

IV. Regional and District performance reviews shall include dissemination of research findings. 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.

4. CHILD HEALTH STRATEGIC FRAMEWORK

4.1: Strategic Vision and Goal

Strategic Vision

- Ghana where pregnancy and childbirth do not pose a threat to the lives of mothers and newborn babies; where children are healthy, free of the preventable common childhood illnesses and are able to survive, grow and develop to their full potential

Goal

The overall goal of the Child Health Strategy is by 2025, to achieve 50% reduction[10] in the childhood mortality rates from the baseline of 2014:

1) Under-five Mortality Rate from 60 to **30 per 1,000** live births;
2) Infant Mortality Rate from 41 to **21 per 1,000** live births;
3) Neonatal Mortality Rate from 29 to **15 per 1,000** live births.

4.2: Strategy Objectives

1. To create an enabling environment for provision and utilization of quality and equitable neonatal and child Health services;
2. To strengthen the capacity of health systems for planning and management of neonatal and child health programmes;
3. To increase the utilization of quality newborn and child health services.

4.3: Major Strategic Approaches

The strategic approaches are based on the current neonatal and child health situation analysis:

- ***Implementing the Primary Health Care (PHC)*** approach, a strategy that seeks to respond equitably, appropriately and effectively to basic health needs and to address the underlying social, economic and political causes of poor health, to provide accessible essential health services and to involve the participation of the communities.

[10] The target in the Global Strategy for Women's, Children's and Adolescents' Health (2016 – 2030) is newborn mortality of at least 12 per 1,000 live births; and under-five mortality of at least 25 per 1,000 live births by 2030.

- ***Strengthening of the health systems*** by building capacities at all levels of the health sector and increasing access to quality coverage with high impact cost effective interventions in an integrated manner. Building of the human resource capacity at different levels, is particularly critical.

- ***Empowering families and communities*** especially the poor, hard-to-reach and marginalized, which is essential to avoid disparities in access to services. Communities shall meaningfully participate in planning, implementation, monitoring and evaluation of interventions at family, community and population level.

- ***Advocacy at all levels,*** which is paramount in promoting scaling up of resource mobilization and allocation of these resources towards interventions that will lead to the intended reduction in newborn and child mortality.

- ***Phased planning, and implementation*** that involves implementation in clear phases with timelines and benchmarks to enable re-planning for better results. The priority will be on building and strengthening existing health infrastructures, effective use of data to inform policy, planning, implementation and practice; as well as prioritization of continuous quality of care improvement.

- ***Mobilization of resources*** from a variety of sources at local, district, regional, national and international level, utilizing data from monitoring and evaluation to provide the strong evidence to influence donors especially. Optimal utilisation of the National Health Insurance Scheme (NHIS) will be particularly promoted. While the Strategy recognizes the importance of resource mobilisation, it also spells out the need for efficiency while utilising those resources.

- ***Establishing operational partnerships*** to implement high impact interventions with government in the lead and donors, NGOs, the **private sector** and other stakeholders engaged in joint programming and co-funding of activities and technical reviews.

4.4: Logical Framework

Table 2 summarises and presents the logical framework for the neonatal and child health strategy. At the impact level is reduced mortality rate for newborn babies, infants and under-five children. This will be achieved through 3 main outcomes: an enabling environment for provision and utilisation of quality as well as equitable newborn and child health services; improved capacity of health systems for planning, management and delivery of neonatal and child health programmes; and the increased uptake as well as utilisation of quality newborn and child health services.

The environment will be enabled by policy leverage, leadership and governance, and through financing for neonatal and child health. Capacity of health systems will be improved through attention to services delivery, human resources for health, commodity security for newborn

and child health, health management information system and the community health systems. The uptake and utilisation of quality services will be increased through the delivery of a prioritised package of newborn and child health interventions.

Table 2: The Logical Framework for Neonatal and Child Health Strategy

Impact	Outcome	Strategies
1. Reduced Under-five Mortality Rate 2. Reduced Infant Mortality Rate 3. Reduced Neonatal Mortality Rate	1. Enabling environment for provision and utilization of quality and equitable newborn and child health services	1.1: Policy leverage
		1.2: Leadership and governance
		1.3: Financing for Neonatal and Child Health
	2. Improved capacity of health systems for planning, management and delivery of Neonatal and Child Health services	2.1: Services delivery
		2.2: Human resources for health
		2.3: Newborn and child health commodity security
		2.4: Health management information system
		2.5: Community systems for newborn and child health
	3. Increased utilization of quality newborn and child health services	3.1: Package of newborn and child health interventions

4.5: Continuum of Care Framework

Figure 19 illustrates the conceptual framework underpinning the Neonatal and Child Health Strategy, which is based on continuum of two types:

a) Continuum across the different level of service delivery from the community where services are provided through the CHPS compounds and Health Centres, via the basic care level comprising of Polyclinics and Hospitals, to the comprehensive level comprising of the Regional Referral, Specialised and Teaching Hospitals. The complexity and capacity to deal with complicated issues increases along the continuum;

b) The life cycle continuum of care that covers the periods from adolescence and before pregnancy, through pregnancy, labour and delivery, the postnatal for mother and baby, the under-five child and ends at the pre-adolescent child age 5 – 9 years.

In terms of linkages, there are 3 distinct programme areas namely: Adolescent Sexual and Reproductive Health (ASRH), Maternal and Neonatal Health (MNH), and Child Health (CH). The Family Planning programme cuts across the ASRH and MNH, while the Nutrition, HIV and AIDS programmes cut across all: ASRH, MNH and Child Health.

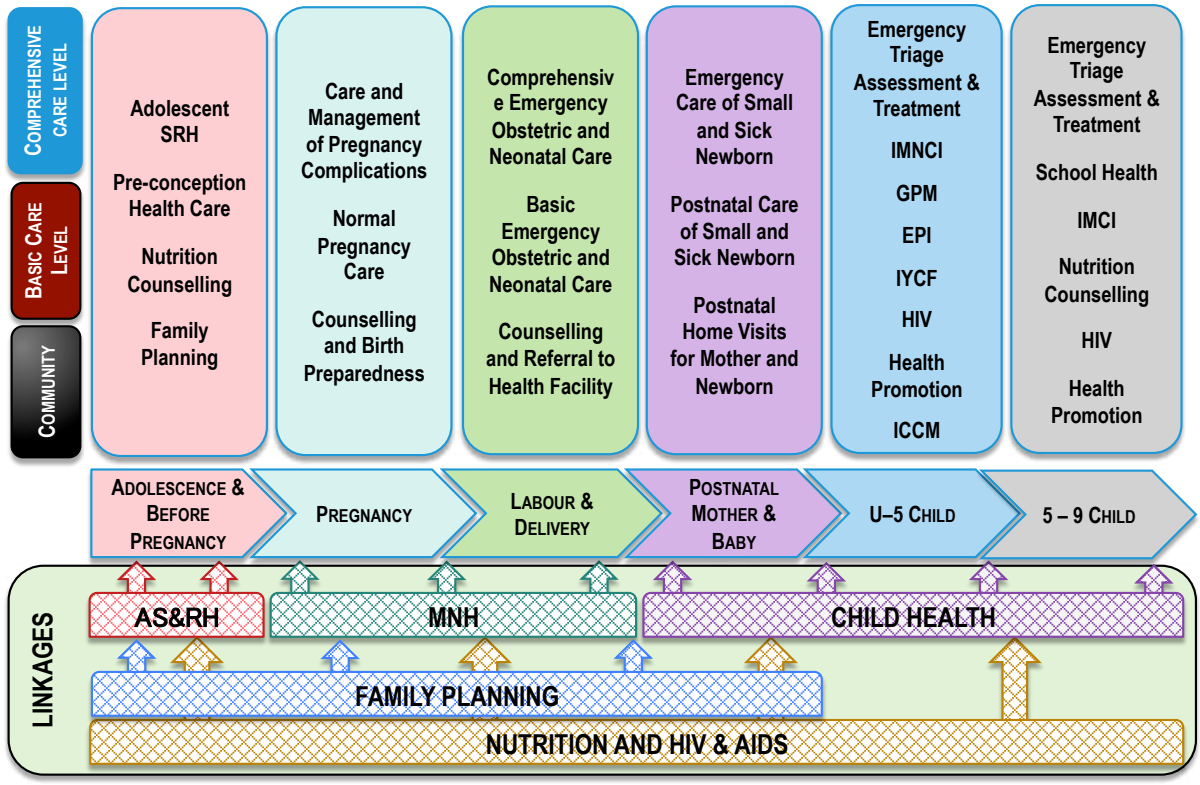

Figure 19: Programme Linkages across the Life Cycle Continuum of Care

4.6: Linkages to the Global and Regional Strategies

At the global level, the Neonatal and Child Health Strategy has been aligned to the following key strategies and plans:

- ***Sustainable Development Goals (SDGs)*** and the established targets, in particular 3.2 *"By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births".*

- ***Every Newborn: An Action Plan to End Preventable Deaths*** (June 2014), which sets out a clear vision of how to improve newborn health and prevent stillbirths by 2035.

- ***The Global Strategy for Women's, Children's and Adolescents' Health (2016 – 2030): Survive, Thrive, Transform***, which is the updated global strategy for the post-2015 era. Developed under the United Nations Secretary-General's "Every Woman Every Child" movement, it spans 15 years of the Sustainable Development Goals (SDGs)

and provides guidance to accelerate momentum for women's, children's and adolescents' health by 2030.

- ***Comprehensive Implementation Plan on Maternal, Infant and Young Child Nutrition*** (2014). Endorsed by the World Health Assembly, it aims to alleviate the double burden of malnutrition in children, starting from the earliest stages of development.
- ***Global Vaccine Action Plan 2011 – 2020***
- ***Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea by 2025***

5. PRIORITISED INTERVENTIONS

Prioritisation of interventions under the Child Health Strategy among other factors, took specific cognisance of the following:

- Neonates are the greatest contributors to deaths among the under-fives, followed by the infants;
- Main causes of death among neonates include prematurity, birth asphyxia and trauma, sepsis and other infections;
- Main causes of death among the infants include malaria, pneumonia, diarrhoea and non-communicable diseases;
- High impact, low-cost intervention packages are in place for children age 12 – 59 months;
- There is a geographical variation in the morbidity and mortality pattern among under-five children, which requires region-specific response to the peculiar influencing factors;
- There is inadequate data on older children of age 5 – 9 years but the category provides a golden opportunity for health promotion interventions.

5.1: Enabling Environment for Provision and Utilisation of Quality Services

The environment for provision and utilisation of quality neonatal and child health services will be enabled through improved policy implementation, leadership and governance as well as improved financing of the services.

5.1.1: Policy Leverage

- Develop clear dissemination plan for the Child Health Policy that includes:
    - Simplified guidelines, translation of the document and preparation of abridged version for the CHPS and community level;
    - Production of adequate copies for wide distribution at national, regional, district and sub-district levels;
    - Utilisation of the Ministry website for distribution of electronic versions of the Policy;
    - Involvement of the pre-service training institutions to disseminate and support implementation of the Policy.

- Update national guidelines, protocols and training packages to align to current recommendations e.g. ANC from minimum of 4 visits to 8 visits etc.
- Conduct assessment and objectively address issues pertaining to children in the age category of 5 – 9 years.

5.1.2: Leadership and Governance

- Advocate for revision of organisational structure for Ministry of Health to separate Neonatal and Child Health from Reproductive Health, thus harmonizing the coordination of interventions;
- Establish a Child Development Unit under the health sector;
- Conduct leadership development training for health workers at all levels, from the health facility, sub-district to district and regional levels;
- Conduct regular stakeholder meetings to strengthen coordination and implementation of integrated Neonatal and Child Health services at all levels, with particular emphasis on active involvement of the private sector.

5.1.3: Financing for Neonatal and Child Health Services

- Advocate for increased funding allocation from the central government for Neonatal and Child Health services, to ensure optimal and equitable delivery of the high-impact, low-cost interventions;
- Harmonise the packages and interventions reimbursed by NHIS at the primary care level to reduce preference by clients for hospitals over community-level facilities;
- Strengthen public-private partnerships in health financing with emphasis on mobilisation from the domestic resources;
- Introduce and implement performance-based funding system for newborn and child health that improves the quality of care.

5.2: Improved Capacity of Health Systems for Planning, Management and Services Delivery

The capacity will be improved through addressing issues related to services delivery, human resources for health, commodity security, the health management information system and community health system.

5.2.1: Services Delivery

- Improve the water and sanitation hygiene level at the health facilities, with particularly emphasis on maternal, newborn and child health service delivery points;

- Support full implementation of the CHPS policy in all regions of the country for improved delivery of newborn and child health services;
- Explore and exploit opportunities presented through Information Communication Technology (ICT) and telemedicine to enhance service delivery, referrals and provide technical support to lower levels e.g. CHPS and Health Centres;
- Harness findings from the "pilot" interventions and scale up the good practices to attain comprehensive coverage;
- Identify and implement special strategies for targeting the urban hard-to-reach population; plus, the gender-related and socio-cultural factors that influence delivery of neonatal and child health services;
- Conduct early screening and provide services for pre-term babies and children with disabilities;
- Strengthen the capacity of secondary and tertiary health facilities to provide specialist neonatal and child health services;
- Engage and actively involve the private sector providers to improve coverage and quality of neonatal and child health services;
- Implement the continuous quality of care improvement policy/ activities for neonatal and child health services at all levels.

5.2.2: Human Resources for Health

- Train and deploy critical health worker cadres to ensure adequate numbers and skills mix for delivery of quality neonatal and child health services e.g. paediatricians, paediatric nurses, neonatologists etc.; Review and implement the rural incentives scheme to improve retention and equitable staff distribution at all levels of the health care delivery system;
- Employ cost-effective approaches to training and in provision of specialist support for neonatal and child health services from the district level to Health Centres and CHPS;
- Conduct in-service and on-Job-training for service providers and include dissemination of the Policy at each level;
- Review of pre-service training curricular for the health workforce, in line with requirements for provision of high quality neonatal and child health services;
- Produce and distribute job-aides and related materials for service providers' capacity building;
- Address the work ethics, provide regular support, mentorship and technical supervision as well as mentorship to ensure quality implementation.

5.2.3: Commodity Security for Neonatal and Child Health

- Procure medicines, supplies and equipment for delivery of quality neonatal and child health services (includes vaccines and special paediatric formulations, etc.)
- Improve distribution of medicines, supplies and equipment for delivery of quality neonatal and child health services;
- Strengthen the Logistics Management Information System for delivery of quality medicines, supplies and equipment for neonatal and child health services;
- Improve coordination of the financing modalities for medicines, supplies and equipment for delivery of quality neonatal and child health services.

5.2.4: Health Management Information System

- Promote the use of ICT to improve the child health referral system and tracking for continuity of care "to reach every child";
- Expand the use of ICT for increased data utilisation at regional, district and lower levels, with assignment of Health Information Officers to regularly analyse data and provide timely feedback to managers;
- Harmonise and standardise registers and related tools to ensure collection of all the key indicators for neonatal and child health services, with improved communication between the central and regional levels when new tools are being deployed;
- Conduct regular neonatal and child health programme reviews at the regional, district and sub-district levels with focus on continuous improvement in the quality of care;
- Conduct regular data validation and quality assurance for the neonatal and child health data;
- Support operational research and generation of evidence on neonatal and child health;
- Convene regular coordination meetings with key stakeholders such as the Research Division, Births and Deaths Registry, etc.

5.2.5: Community Health System

- Support the provision of integrated outreach services to hard-to-reach communities;
- Engage stakeholders at the community level e.g. mother-to-mother support groups to mobilise for improved neonatal and child health services;
- Scale up the coverage of neonatal and child health services through the use of social media for community mobilisation and education;
- Incorporate lessons from successful community innovations and interventions in the Advocacy, Communication and Social Mobilisation (ACSM) activities;

- Build capacity of community-based organisations to conduct community dialogue on neonatal and child health;
- Produce and distribute appropriate information, education and communication materials;
- Provide supervision, mentorship and technical support to Community Volunteers for improved performance;
- Harmonise community-level registers and strengthen the community HIS component, including the use of ICT for data management.

5.3: Increased Utilisation of Quality Services

Uptake and utilisation of quality services will be increased through the delivery of a continuum of prioritised newborn and child health interventions at the various levels of care.

5.3.1: Package for the Newborn (0 – 28 days)

- Provide ***quality antenatal care*** that includes: Birth preparedness, health education and counselling to women on the prioritized topics (danger signs, nutrition, breastfeeding, family planning); Prophylaxis (TD), nutrition assessment, BP monitoring and supplements to prevent anaemia (iron+ folic acid); Haemoglobin, malaria, HIV, syphilis tests, urinalysis (protein) and treatment, including ARVs for all the positive women;
- Promote ***delivery under skilled providers*** that include: Appropriate monitoring of labour progress (partograph) under hygienic conditions to prevent infection; Detection of delivery complications and appropriate management (emergency obstetric care); Active management of third stage including injectable oxytocics for the fourth stage, etc.
- Provide ***basic essential newborn care*** comprising of: quality birthing practices, drying and thermal care, cord care, eye care, vitamin K administration, early initiation and exclusive breastfeeding, immunisation (polio and BCG), ARVs for PMTCT, etc.
- Manage the ***adverse intrapartum events***, including birth asphyxia through basic and advanced neonatal resuscitation depending upon the level of care facility;
- Provide ***care for the preterm, low-birth weight and growth-restricted baby*** including: antenatal corticosteroids for pre-term birth, specific thermal care, support for babies unable to suck adequately, identification and management of complications, Kangaroo Mother Care;
- Manage ***neonatal infections and the sick newborn*** depending upon the level of care: Administer first dose of antibiotics and refer in the primary care facilities; provide full treatment including parenteral fluids etc.

5.3.2: Package for the Infant (1 – 11 Months)

- Provide immunisation at health facilities and at outreaches for hard-to-reach communities, according to the national schedule; Conduct surveillance for adverse events following immunisation and document appropriately;
- Promote exclusive breastfeeding; Education, counsel and support mothers on the age-appropriate complementary feeding practices; Provide facility and community-based vitamin A supplementation according to national schedule;
- Conduct regular growth monitoring and promotion on basis of height, weight and MUAC; Identify and manage appropriately the children with acute malnutrition;
- Conduct Assessment, classification and treatment according to the IMNCI protocol for sick children (diarrhoea, ARI, malaria, malnutrition); implement Emergency Triage Assessment and Treatment (ETAT) of sick children at the secondary and tertiary care facilities;
- Promote prevention of malaria through the use of long lasting insecticide-treated nets (LLINs), and provide appropriate management for children suffering from malaria according to the national guidelines;
- Provide appropriate management for HIV exposed children in line with the PMTCT guidelines: co-trimoxazole (CTX) prophylaxis, collection of DBS samples and testing for EID, Initiation of ART for children who tested PCR positive and provision of ART to infected children; Isoniazid preventive therapy (IPT) to HIV positive children according to national guidelines
- Implement the baby friendly initiative at the health facilities and in the community;
- Identify the children with disability and make appropriate referral;
- Promote access to clean water, sanitation and hygiene.

5.3.3: Package for the Young Child (12 – 59 Months)

- Provide immunisation at health facilities and at outreaches for hard-to-reach communities, according to the national schedule; Conduct surveillance for adverse events following immunisation and document appropriately;
- Promote continued breastfeeding with age-appropriate complementary feeding practices; Provide facility and community-based vitamin A supplementation according to national schedule; consumption of iodised salt;
- Conduct regular growth monitoring and promotion on basis of height, weight and MUAC; Identify and manage appropriately the children with acute malnutrition;
- Conduct Assessment, classification and treatment according to the IMNCI protocol for sick children (diarrhoea, Acute Respiratory-tract Infections, malaria, malnutrition);

implement Emergency Triage Assessment and Treatment (ETAT) of sick children at the secondary and tertiary care facilities;

- Promote prevention of malaria through the use of long lasting insecticide-treated nets (LLINs), and provide appropriate management for children suffering from malaria according to the national guidelines;
- Provide appropriate management for HIV exposed children in line with the PMTCT guidelines: co-trimoxazole (CTX) prophylaxis, testing for HIV, Initiation and provision of ART for children who tested positive; Isoniazid preventive therapy (IPT) to HIV positive children according to national guidelines;
- Implement the baby friendly initiative at the health facilities and in the community;
- Identify the children with disability and make appropriate referral;
- Promote access to clean water, sanitation and hygiene.

5.3.4: Package for the Older Child (5 – 9 Years)

- Provide theoretical and practical health education through the school curriculum, including on age-appropriate sexual and reproductive health and life-skills;
- Provide opportunity for physical education to promote wellness, including the children with disabilities;
- Provide psycho-social support services at schools and referral for sexual and reproductive health services;
- Screen for common communicable and non-communicable diseases, mental health, oral health, malnutrition and developmental challenges;
- Provide nutrition services as an integral part of the broader School Feeding Programme.

6. MONITORING AND EVALUATION FRAMEWORK

6.1: Introduction

The Child Health Strategy will be the basis for development of detailed Annual Work Plans to guide implementation and provision of quality services all levels. It will be critical to continually track implementation of the annual plans using a standard integrated tool, in order to determine whether the results are aligned to the outcomes spelt out within this Strategy. Attainment of the results outlined in the monitoring framework will require the contributions and collaboration from various stakeholders from the public sector, development and implementing partners, the civil society and private sector. It will also require inputs from the different levels of health care delivery system from national, regional, district to the sub-district. An agreed upon monitoring and evaluation framework will serve as the basis for all stakeholders and partners to measure achievements, identify gaps and trigger the corrective actions as appropriately as possible.

The Monitoring and Evaluation Framework has been structured to include the core set of indicators for monitoring progress towards the global strategy targets. It includes process indicators to support monitoring the programme and situation-specific progress, which informs decision-making at the implementation level. Ghana Health Service will track indicators through the available HMIS/ DMHIS2 system from which quarterly reports will be generated for dissemination during scheduled meetings and other related fora.

The development of this Monitoring and Evaluation Framework was through a participatory process with stakeholder input in its design and during the prioritisation of operations research. The Framework was validated by stakeholders before finalisation.

6.2: Objectives of the M&E Framework

The main objectives of the Monitoring and Evaluation Framework for the Child Health Strategy are as follows:

1) To provide the basis for the development of the data and information flow mechanism, indicators of progress and tools for data collection;
2) To guide all stakeholders in measuring the progress on implementation of interventions under the Child Health Strategy; and
3) To guide the continuous tracking of Newborn and Child Health programmes in terms of inputs, outputs, outcomes and impact.

6.3: Core Indicators for the Monitoring Framework

The core indicators have been selected to measure the impact and outcomes at national and regional and district levels. Sources of data will include the routine Health Management Information System, and the special studies and surveys such as: Ghana Demographic Health Survey (DHS), Multiple Indicator Cluster Survey (MICS) Service availability and readiness Assessments (SARA) etc.

At the impact level, the indicators for this Child Health Strategy will be:

- Under-five mortality rate
- Infant mortality rate
- Neonatal mortality rate

The indicators for measuring outcomes are summarised and presented in Table 3:

Table 3: Selected Outcome Indicators for the MNH Strategy

INDICATOR	TARGETS		
	Baseline	2021	2025
Proportion of women who received the recommended package of antenatal care			
Proportion of mothers who delivered under the support of skilled service providers			
Proportion of mothers who received the recommended postnatal care package according to the national guidelines			
Proportion of HIV positive mothers who received ARVs for PMTCT according to the national guidelines			
Proportion of infants who were breastfed within the first hour of birth			
Proportion of newborn babies who received the recommended postnatal care package according to the national guidelines			
Proportion of infants <6 months who are fed exclusively with breast milk			
Percentage of children age 12 – 23 months who were fully immunized			
Proportion of HIV exposed neonates who received ARVs for PMTCT			
Percentage of children under 5 years using insecticide-treated nets (ITNs)			

6.4: The Evaluation Framework

The Neonatal and Child Health programmes will be evaluated based on an agreed set of indicators, both qualitative and quantitative. Under this evaluation framework, three main types of evaluations will be undertaken:

1. Mid-term evaluation of the Child Health Strategy at the end of 2021
2. Special evaluative studies of the Child Health Strategy
3. Final Evaluation of the Child Health Strategy at the end of 2025

The evaluative studies will be conducted by external and independent agencies such that the process is free from bias and ensures objective as well as credible results. The objectives of the evaluation studies will focus on: accountability, learning and taking stock of results achieved. The Strategy Steering Committee shall put in place to have the overall responsibility of commissioning the evaluative studies.

6.4.1: Mid-Term Evaluation of the Child Health Strategy

The primary purpose of the mid-term evaluation will be to assess the progress made in implementation of the interventions within the Child Health Strategy at the halfway period, against the set targets. This will provide the opportunity for recommending consolidation, modification or revision where needed, to the direction and focus of the interventions. It will also provide opportunity to re-visit the goal and objectives if the circumstances so dictate. The following are examples of questions that will guide the mid-term review, which can be adjusted based on the need.

- Are there signs of advances towards the outcomes?
- What challenges are causing delays?
- What has changed in the context?
- Are there new opportunities?
- How can the challenges be overcome?
- Is it feasible to complete with the remaining resources and within the existing context?

6.4.2: Special Evaluative Studies

The decision on the specific type of special evaluative study to be undertaken will be influenced by the presenting need at that time, and unanswered questions arising from amongst the implementers. Examples of special evaluative studies include:

1. Impact assessment studies

2. Process evaluations
3. Value for money evaluations

6.4.3: End of Term Evaluation of the Child Health Strategy

Evaluation generates knowledge about the magnitude and determinants of programme performances, provides information about what worked well and what did not, and why. It also provides information on whether underlying programming theories and approaches used were valid. The end of term evaluation of the Child Health Strategy will promote learning and accountability, which shall be enhanced through:

1) Measuring the effectiveness, relevance, efficiency, and sustainability of the Neonatal and Child Health programmes;
2) Wide dissemination of the information to stakeholders and holding discussions; and
3) Using the findings to guide the decision-makers in informed resource allocation and replication of successful strategies.

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8. APPENDICES

8.1: The 18 Key Family Practices for Child Health in Ghana

A. 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

B. Infant Feeding

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

C. 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

D. 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