SIERRA LEONE NATIONAL RMNCAH STRATEGY 2017 TO 2021

Final Draft Version

MINISTRY OF HEALTH SIERRA LEONE 2017

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Abbreviations

ACT	Artemisinin-based Combination Therapy
ADB	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ARI	Acute Respiratory Infection
ART	Antiretroviral Therapy
BEmONC	Basic Emergency Obstetric and Neonatal Care
BPEHS	Basic Package of Essential Health Services
CHA	Community Health Assistant
CEmONC	Comprehensive Emergency and Obstetric Care
CDC	Centre for Disease Control
CHC	Community Health Centre
CHO	Community Health Officer
CHP	Community Health Post
CHW	Community Health Worker
CIP	Costed Implementation Plan
COPE	Client Oriented Provider Efficient
CSOs	Civil Society Organisations
DFID	Department for International Development
EBF	Exclusive Breast Feeding
EID	Early Infant Diagnosis
ECD	Early Childhood Development
EmONC	Emergency Obstetric and Newborn Care
ENC	Essential Newborn Care
EPI	Expanded Programme on Immunization
ETAT	Emergency Triage Assessment and Treatment
EU	European Union
FANC	Focused Antenatal Care
EVD	Ebola Virus Diseases
FGM	Female Genital Mutilation
FHCI	Free Health Care Initiative
FIT	Facility Improvement Team
FP	Family Planning
GAVI	Global Vaccine Initiative
GBV	Gender Based Violence
GoSL	Government of Sierra Leone
HII	High Impact Interventions
HINI	High Impact Nutrition Interventions
HIS	Health Information System
HRH	Human Resources for Health
iCCM	Integrated Management of Childhood Illnesses

IMNCI	Integrated Management of Newborn and Childhood Illnesses
IMAM	Integrated Management of Acute Malnutrition
IYCN	Infant and Young Child Nutrition
JICA	Japan International Co-operation Agency
LiST	Lives Saved Tool
MCHA	Maternal and Child Health Aides
MCHP	Maternal Child Health Posts
MDSR	Maternal Death Surveillance and Response
MPDSR	Maternal Perinatal Death Surveillance and Response
NCDs	Non Communicable Diseases
NNT	Neonatal Tetanus
NPPU	National Pharmaceutical Procurement Unit
ORT	Oral Rehydration Therapy
PAC	Post Abortion Care
PIA	Prioritized Intervention Area
PITC	Provider Initiated Testing Counselling
PHUs	Peripheral Health Unit
RED	Reach Every District
QI	Quality Improvement
RMNCAH	Reproductive Maternal Newborn and Child
SBA	Skilled Birth Attendance
SDGs	Sustainable Development Goals
SECHNS	State Enrolled Community Health Nurses
SOPs	Standard Operating Procedures
SLDHS	Sierra Leone Demographic Health Survey
STIs	Sexually Transmitted Infections
ToC	Theory of Change
TT	Tetanus Toxoid
UHS	Universal Health Coverage
UNAIDS	The Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WCA	Women's, Children's and Adolescent's
WHO	World Health Organization

Foreword

Sierra Leone has made some progress in the achievement of the Millennium Development Goals (MDG) 4 and 5 for child and maternal health. However, there still remains a huge unfinished business as we usher in the Sustainable Development Goals (SDGs). Reproductive, maternal, newborn, Child and adolescent health (RMNCAH) is a priority for the Government of Sierra Leone. Both the Basic Package for Essential Services (BPEHS) and the Free Health Care Initiative (FHCI) highly prioritize RMNCAH response. The Presidential Recovery Plan identifies RMNCAH as one of the priority investment areas. With maternal mortality ratio of 1165 per 100000 live births, Sierra Leone remains the country with one of the highest maternal mortality globally. The child health indicators remain equally poor at 156 and 39 per 1000 live births for under-five and neonatal mortality rates respectively. With such a situation, the country requires a thoroughly focused and prioritized set of high impact interventions for accelerating reduction of maternal, newborn, child and adolescent deaths.

This RMNCAH strategy comes at an opportune time. A time when we know what works in saving lives of women, newborns and children and adolescents and at a time when there is renewed energy and focus on RMNCAH both globally and in Sierra Leone. The strategy is aligned to national documents such as the health sector recovery plan as well as global commitments including the SDGs and the New Global Strategy for Women's, Children's and Adolescents' Health 2016-2030, which His Excellency President Ernest Bai Koroma made commitments to at the 2015 UN General Assembly. This strategy comes just two years post the worst epidemic to hit Sierra Leone, that of the Ebola Virus Disease (EVD). While the EVD epidemic had devastating impact on the health systems especially the human resources for health, the response came with a number of lessons which as a country we will apply in accelerating reduction of the extremely poor maternal, neonatal, child and adolescent health indicators. The community responsiveness during Ebola response, the effective coordination and leadership, reporting and use of data for decision making among others are some key lessons that came with Ebola which we are taking forward in the implementation of this strategy.

As a country we do recognize that resources are never adequate and that vertical programming results in inefficiencies. As such, this strategy presents carefully selected prioritized set of high impact RMNCAH intervention areas that will be delivered through an integrated approach. The strategy will focus on eight priority areas of: Focused Antenatal Care (FANC), Emergency Obstetric and Newborn Care (EmONC) including promotion of skilled birth attendance and essential newborn care, Integrated Management of Newborn and Childhood Illness (IMNCI) and integrated Community Case Management (iCCM), Immunization, Nutrition, Family planning (FP), and Prevention of Teenage Pregnancy and Water Hygiene and Sanitation (WASH).

To ensure the 8 priority interventions are delivered the strategy will further prioritise health systems strengthening, improving quality in the delivery RMNCAH services, strengthening community engagement and involvement improving health information systems, research, monitoring and evaluation.
In ensuring no one is left behind and emphasizing the continuum of care, in addition to focusing on women and children, this strategy prioritizes adolescents who are the SDG generation and newborns.

This strategy by implementing interventions such as nutrition and early child development and addressing other sectors determinants to health focuses not only on survival but also on thrive and transform. Through this strategy we are ensuring that our women, newborns, children and adolescents not only survive but also thrive. This RMNCAH five-year RMNCAH prioritized strategic framework provides strategic direction to health and relevant non health stakeholders towards ending preventable deaths of women, newborns, children and adolescents and ensuring their health and wellbeing.

I do believe just as we were able to get to zero with Ebola, we can get to zero preventable maternal, newborn, child and adolescents deaths, well as ensuring each of them live to their full potential. To achieve this vision, I call upon all development partners, civil society organizations, private sector and communities to align and rally behind this strategy. The strategy is just a step, what will the difference is our implementation of the strategy. As Ministry of Health and Sanitation, we commit to the stewardship, the leadership and to providing an enabling environment for the successful implementation of this RMNCAH strategy.

Ministry of Health and Sanitation

Acknowledgements

This RMNCAH strategy was developed through a highly consultative process. Different organizations and people were involved in different ways in the development of the strategy. The list of organizations and persons involved are provided in the annex of the strategy. Their efforts and dedication to this process are highly appreciated.

The Ministry of Health and Sanitation appreciates the technical and financial support from WHO and the other UN H6 members - UNAIDS, UNFPA, UNICEF, UN Women and the World Bank; and also the UK Government which provided supported financially the development of the strategy.

The entire process for the development of this strategy was ably coordinated by a technical committee with leadership of Dr. Santigie Sesay, the Director, Reproductive and Child Health Directorate. The Ministry of Health and Sanitation applauds the role of this committee.

To all the people who in one way or another participated in the development of this strategy, you made your contribution in saving lives of mothers, newborns, children and adolescents in Sierra Leone, to this end we say, thank you.

Executive Summary

Introduction

At a maternal mortality ratio of 1165 per 10000 live births, neonatal and under-five mortality rate of 39 and 156 per 1000 live births respectively and an adolescent birth rate of 125.1, Sierra Leone is one of the countries with the highest maternal, newborn, and child mortality rates, as well as adolescent fertility rate globally. This is worsened by the recent Ebola epidemic outbreak which had devastating impact on the health care systems. The government of Sierra Leone is committed to ending preventable maternal, newborn, child and adolescent deaths as well as improving their wellbeing. In addition to being a signatory to various relevant reproductive, maternal, newborn, child and adolescent health global commitments including the global strategy for women's, children's and adolescents' health 2016-2030. The Government as part of the Post-Ebola recovery response has developed new national policy guidance including the health sector recovery plan, the basic package for essential health care services and the President's Recovery Plan that demonstrate this commitment. This RMNCAH strategy 2017 to 2021 is a further demonstration of the country's commitment to the health of women, newborns, children and adolescents.

Bottlenecks to access and utilisation of reproductive, maternal, newborn, child and adolescent health services

Both demand and supply side barriers were identified as impacting on access to and utilisation of high impact RMNCAH interventions. Demand side barriers include socio-cultural practices, geographical and financial barriers. Supply side barriers were mainly health systems related bottlenecks include: inadequate (numbers and skills), demotivated and mal-distributed human resources for health, unstable commodities and supplies, weak infrastructure, weak referral systems, community systems and health information systems, as well a poor governance and coordination of the sector.

Prioritised Package of interventions

In response to the main causes of death for women, newborns, children and adolescents, eight package intervention areas are prioritized. These are: Family planning; focused antenatal care; emergency obstetric and neonatal care including skilled birth attendance and essential newborn care; integrated management of newborn and childhood infections (IMCI) and integrated community case management of childhood illnesses (ICCM); immunization; nutrition; prevention of teenage pregnancy; and water, hygiene and sanitation (WASH). Using LiST tool, specific high impact interventions under each of these intervention areas have been defined.

The RMNCAH Strategy

Goal: Accelerating reduction of preventable deaths of women, children and adolescents and ensuring their health and wellbeing.

Goal targets

a. Reduce maternal mortality ratio from 1165 per 100000 live births to 650 per 100000 live births by 2021
b. Reduce neonatal mortality rate from 39 per 1000 live births to 23 per 1000 live births by 2021
c. Reduce under-five mortality rate from 156 deaths per 1000 live births to 71 live births by 2021
d. Reduce Still birth rate from 24 per 1000 live births to 18 per 1000 live births by 2021
e. Reduce adolescent birth rate from 125.1 to 74 per 1000 women aged 15-19 years by 2021

Overall objective: Increase access to and utilisation of quality evidence based RMNCAH high impact interventions

Strategic objectives

To address identified bottlenecks to access and utilisation of high impact interventions, four interlinked strategic objectives will be implemented. These strategic objectives and key strategies are as outlined below.

Strategic Objective	Strategies
So 1: Strengthened health systems for effective provision of RMNCAH services	Adequate skilled and motivated HRH
	Strengthened leadership and governance to ensure delivery of RMNCAH services
	Availability of essential RMNCAH drugs, equipment and supplies
	Infrastructure development in targeted health facilities
	Functioning and emergency referral systems
	Ensure availability of safe blood at all CEmONC sites
So 2: Improved quality of RMNCAH services at all levels of service delivery	Develop and support implementation of national RMNCAH quality improvement program
	Support implementation of proven systematic procedures, approaches and practices
So 3: Strengthened community systems for effective delivery of RMNCAH services	Address socio-cultural, geographic and financial barriers to access and utilisation of high impact RMNCAH interventions
	Implement iCCM plus as per the CHW scope of practice
	Promote implementation of RMNCAH interventions at community level including social accountability
	Address other sector determinants to access and utilisation of RMNCAH services
So 4: Enhanced research, monitoring and evaluation for effective delivery of RMNCAH services	Strengthen national HIS to ensure responsiveness to RMNCAH information needs
	Strengthen innovation and use of research to improve delivery of RMNCAH interventions
	Strengthen CRVS for delivery of RMNCAH interventions

Operationalising implementation of the strategy

Community, school, outreach and facility (peripheral health units and referral facilities) platforms will be used to deliver the prioritized intervention packages. To ensure no missed opportunities, reduce inefficiencies and increase impact, this strategy will promote integrated service delivery approach, multisector response and engagement with the private sector. For the governance and management, the strategy will be coordinated from the highest Ministry of Health and Sanitation coordination structure. The health sector coordinating committee chaired by the Minister of Health and Sanitation will have the

overall responsibility for ensuring the implementation of this strategy. The strategy implementation will adopt a three phased approach as part of prioritization and to ensure learning from the implementation.

- Phase I will focus on making selected 26 BEmONC and 13 CEmONC sites fully functional, implementing quality improvement interventions across all target regions and equity based interventions such as iCCM in few disadvantaged districts mainly in the Northern region;
- Phase II, which is the intensive phase all the strategy will involve implementation of all the strategy proposed interventions in all sites and implementation of the centre of excellence concept
- Phase III will involve implementation of all interventions in phase 11, taking stock and planning for the next strategic period.

Financing the Strategy

The total cost for implementing this RMNCAH strategy for the five years is 544.9 Million USD. With the total resource commitments for the country for the five years being 535.1 million USD, of which 209.2 Million USD were for RMNCAH and a further 288.7 Million categorized as cross cutting resources i.e. including but not limited to RMNCAH. The RCH directorate will carry out more analysis on the resource mapping to clearly identify the quantity of resources available particularly those that have the potential to be reprogrammed for the strategy.

Monitoring and evaluation

Monitoring and evaluation of this RMNCAH strategy will be at two levels: -

a. Monitoring and evaluation of the implementation of the strategy and,
b. Monitoring and evaluation of the impact of the strategy in achieving the set impact and coverage target

A monitoring and evaluation framework has been developed as part of this strategy detailing the indicators at different levels, targets and sources of data. Existing monitoring and evaluation structures and systems will be used to the extent possible. To ensure implementation of the strategy, monitoring and evaluation of the strategy implementation will be done as part of the governance and management function. An independent midterm and end term evaluation of the strategy will be conducted.

1.0.Introduction

1.1.Country Profile

Situated on the West Coast of Africa, Sierra Leone borders Guinea and Liberia and has an estimated total population of 7,092,113 million people[1]. Of these, an estimated 4,187,016 (59%) and 2,905,097 (40 %) reside in rural and urban areas respectively. The 2015 Population and Housing Census (PHC) results reflect the demographic profile of a young population where 40.9 % of the total population is under 15 years. The country has four administrative regions of: Northern, Southern, Eastern and Western. The four regions are further sub-divided into 14 districts and 149 chiefdoms. Districts are governed by a council consisting of a district chairman, administrators and councillors; while chiefdoms are governed by locally elected paramount chiefs. Like many other sub-Saharan Africa countries, Sierra Leone has high out of pocket expenditure for health. Out of the total health expenditure of approximately $95 per capita, 13% is from donors, 16% from government, and the rest 71% from private out-of-pocket household contributions[2]. In terms Government expenditure for health, Sierra Leone has not achieved the 15 % Abuja declaration. The Country's expenditure on health as % of the total government expenditure is currently at 12.3%.

Figure 1: Map of Sierra Leone

Main health development partners include The Global Fund to Fight AIDS, TB and Malaria, the United Kingdom Agency for International Development (UKAid), European Union (EU), African Development Bank (ADB), the UN agencies including The World Bank, Irish Aid, Japan International Cooperation Agency (JICA), USAID, US CDC and the Global Vaccine Initiative (GAVI).

[1] Population and Housing Census 2015

[2] Basic Package for Essential Health Services 2015. Government of Sierra Leone.

Table 1: Sierra Leone at Snapshot[3]

Total population (PHC 2015)	7,092,113
Total under-five population (PHC 2015)	938453
Total population of WRA (PHC 2015)	1835328
Total births (2015)	229,000
Life time risk of maternal death (2015)	21
Maternal mortality ratio (SLDHS 2013)	1165
Neonatal mortality rate (SLDHS 2013)	39
Infant mortality rate (SLDHS 2013)	92
Under five mortality rate (SLDHS 2013)	156
Birth Registration among 0-4 years (PHC 2015)	65.1%
Total Fertility Rate (PHC 2015)	5.2
Adolescent birth rate (SLDHS 2013)	125.1
Still birth rate (The Lancet 2015)[4]	24.4
Per capita total expenditure on health in USD (Countdown 2015)	228
General Government expenditure on health as % of total government expenditure (BPEHS 2015)	12.3 %
Out of pocket expenditure as part of total expenditure by source (BPEHS 2015)	71%

1.2.Country Health System

The Sierra Leone health care system is organized into two tiers of care namely: Peripheral Health Care Units (PHU) with an extended community health program, and secondary care which includes district and the referral Hospitals. The community health program is implemented by community health workers who provide preventive, promotive and treatment services as per the community health policy. The PHUs are further subdivided into maternal and child health posts (MCHP), Community Health Posts (CHP) and Community Health Centres (CHCs). The country has a total of 1278 health facilities consisting of 632 MCHPs, 319 CHPs, 231 CHCs, 24 government hospitals, 45 private clinics and 27 private hospitals[5]. Figure 2 below presents the Sierra Leone health service delivery structure.

[3]Data from SLDHS 2013 or Sierra Leone Countdown to 2015 at http://www.countdown2015mnch.org/documents/2015Report/Sierra_Leone_2015.pdf

[4]National, regional, and worldwide estimates of stillbirth rates in 2015, with trends from 2000: a systematic analysis

[5]The Basic Package of Essential Health Services 2015.

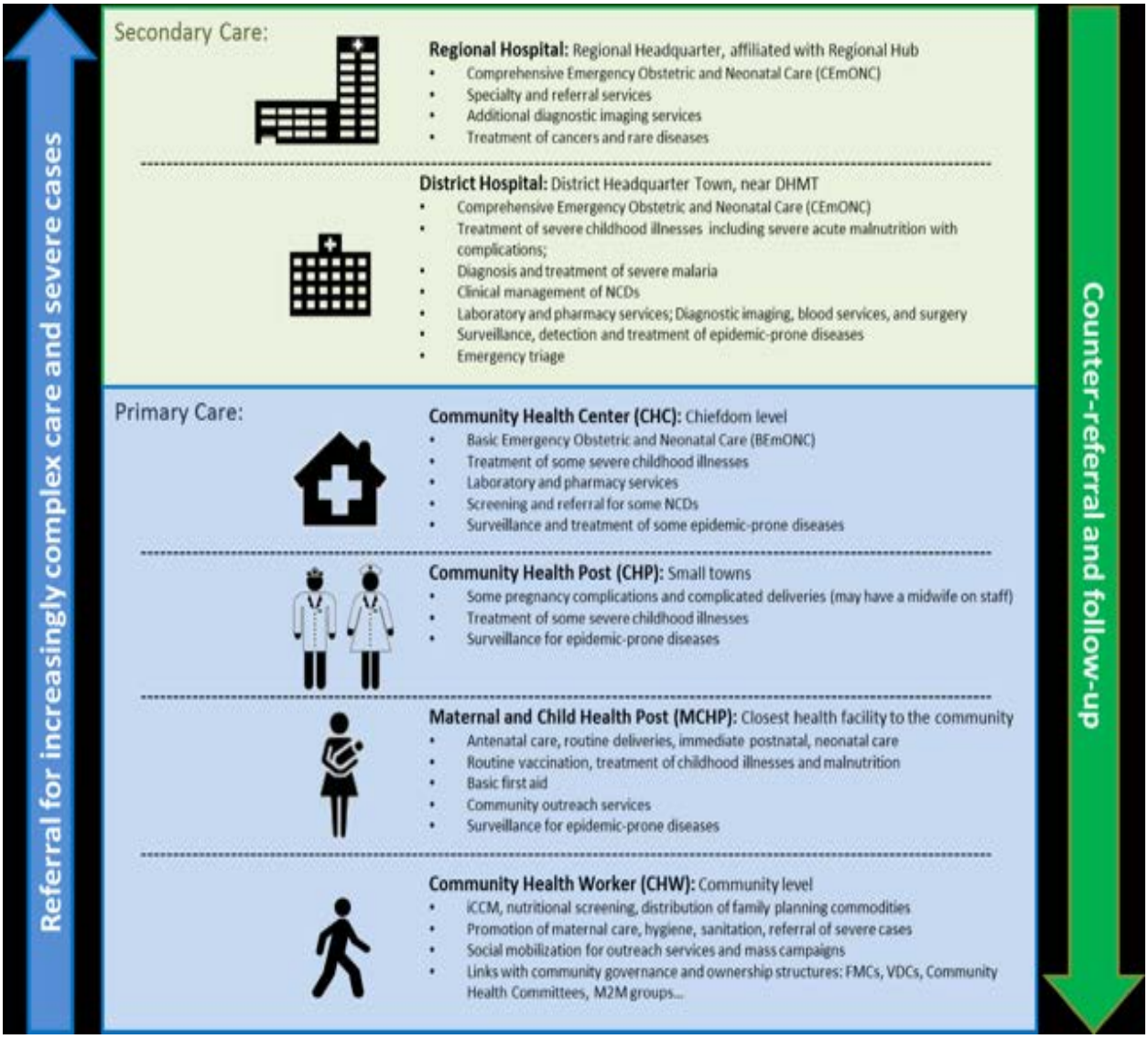

Figure 2: Sierra Leone Health Service Delivery Structure

1.3.Policy Environment

Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH) is a priority for the Government of Sierra Leone. This is underscored by the various policies, strategic documents and international commitments that the country has signed into. The country has the necessary policy environment for the RMNCAH strategy. The National Health Sector Recovery Plan (HSRP) provides the necessary policy foundation for the RMNCAH strategy. The recovery plan prioritizes restoring key RMNCAH interventions including restoring malaria, expanded programs for immunization (EPI), child and maternal health services to pre- Ebola outbreak levels in the transition phase, strengthening child health through Integrated Management of Newborn and Childhood Illness (IMNCI) and Reaching Every District (RED) approach and maternal and adolescent health with special emphasis on neonatal health and teenage pregnancy prevention.

Additionally, Sierra Leone is a signatory to various global commitments to ending maternal, newborn,

child and adolescent deaths as well as improving their health and wellbeing including the UN Sustainable Development Goals (SDGs) 2030, The Family Planning 2020, Africa Health Strategy, The global strategy for women's, children's and adolescents' health (2016-2030), The Child Survival Call/A Promise Renewed, Campaign on Accelerated Reduction of Maternal Mortality in Africa and the Maputo call to Action among others. Nationally, this RMNCAH strategy aligns to the Agenda for Prosperity 2013-2018, the Health Sector Recovery Plan, the Basic Package of Essential Health Services 2015, the Free Health Care Initiative and the National Health Compact. The strategy will further align with specific thematic policies and guidelines that are relevant to addressing the health and wellbeing of women, children and adolescents including national plans and strategies on malaria, HIV/PMTCT, nutrition, adolescent health among others. At the development of this RMNCAH strategy, other relevant strategic documents were in development including the Human Resources for Health (HRH) policy and strategy, the Community Health Policy and strategy, the Family Planning Costed Implementation Plan (CIP) 2020, the National Health Information Systems (HIS) strategy and the nursing and midwifery policy. Discussions were also ongoing on National Pharmaceutical Procurement Unit (NPPU) reforms. In addition to being guided by the existing policy and strategic documents, The RMNCAH strategy responds to and aligns with these draft strategic documents and initiatives. Table 2 outlines some selected strategic documents which this strategy aligns to.

Table 2: Selected National Policy and Strategic Documents

Strategic and Policy Documents	Relevance to RMNCAH strategy
Agenda for Prosperity 2013-2018	The poverty reduction strategy paper prioritizes investing in health of citizens particularly women and children as necessary for economic and social development. The paper prioritizes strengthening health programs, provision of free preventive health services at points of delivery, universal access to family planning and free health care for vulnerable groups
The Health Sector Recovery Plan 2015-2020	The plan has five areas of focus: Patient and Health worker safety, Health Workforce, Essential Health services, Surveillance and information and community ownership. Maternal and child life saving interventions, teenage pregnancy prevention are identified as priority intervention areas. RMNCAH relevant health systems strengthening interventions such as improving referrals including revitalization of national ambulance system, health workforce and HIS also prioritized.
Sierra Leone Basic Package of Essential Health Services 2015-2020. July 2015	The framework represents a commitment from the Government of Sierra Leone (GoSL) through the Ministry of Health and Sanitation (MoHS) to ensure that a basic level of essential health care service delivery is available to its people. Key pillars of the BPEHS are: Patient and Health worker safety, Health Workforce, Essential Health services, Surveillance and information and community ownership. RMNCAH services are prioritized as part of the essential health services
The Free Health Initiative 2010	A government initiative to ensure universal health coverage by providing free preventive and curative health services for pregnant women, lactating mothers and children under-five years in any public health facility.

1.4.Ebola Virus Disease (EVD) and RMNCAH Service Delivery in Sierra Leone

The Ebola Virus Disease (EVD) which hit Sierra Leone in 2014 had devastating impact on health including access to and utilization of RMNCAH services. Review of country reports indicate that the EVD weakened the health systems and negatively impacted on health seeking behaviour for RMNCAH services. At the end of Ebola epidemic in 2015, the country developed a Health Sector Recovery Plan to address the negative impacts of Ebola and although no assessment has been made, some progress is likely to have been made in addressing its negative impacts on health systems. Overall, there was a decline on coverage indicators during the Ebola period. Figure 3 below shows coverage projection levels for the Post Ebola 2015 level[6].

[6]Sierra Leone Health Facility Assessment 2015: Impact of the EVD Outbreak on Sierra Leone's Primary Health Care System. Ministry of Health and UNICEF Sierra Leone

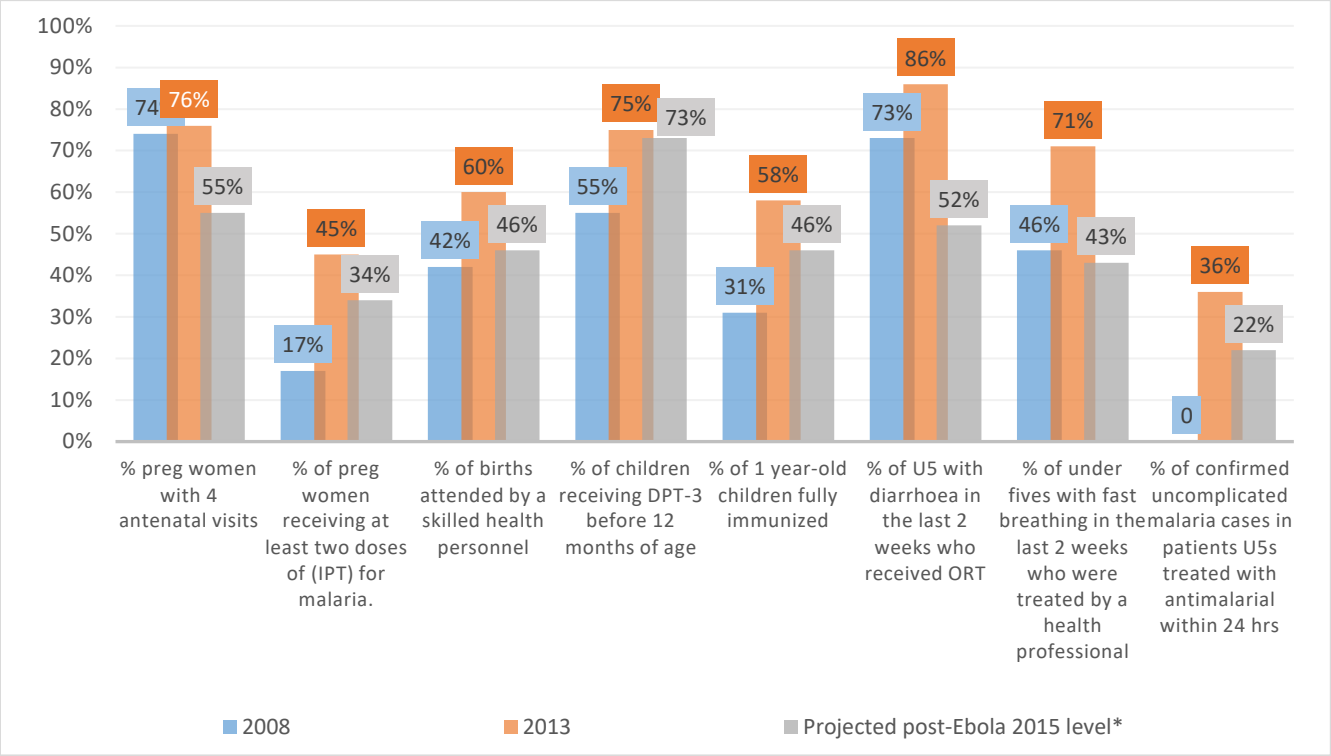

Figure 3: Ebola projected coverage indicators

The most impacted health systems blocks were human resources for health and the service delivery.

- Human resources: The HRH building block was the worst hit by the Ebola crisis. Reports indicate that by January 2015, a total of 296 health care workers had been infected with EVD with 221 deaths, including 11 specialized physicians. This loss of human resources is critical given that the country already has a big human resources gap. A World Bank report notes that without any intervention, the impact of Ebola on health workers could increase the maternal mortality by 74%[7]. In line with the Health Sector Recovery Plan and the HRH 2017-2021, this strategy will support human resources development both in short and long term especially RMNCAH critical cadres including midwives and senior nurses[8].

- Health Service delivery: The Ebola crisis resulted in disruption of health services with some health facilities (4%) being closed. Despite the fact that most PHUs (96%) remained operational, there was a marked drop in key RMNCAH service coverage indicators as shown in figure 3 above. Family planning showed a significant drop with Freetown alone showing a marked drop of 90%[9].

[7]The next wave of deaths from Ebola. The impact of health care worker mortality. World Bank policy research paper. July 2015

[8]National Health Sector Recovery Plan 2015 to 2020.

[9]Government-of-Sierra-Leone (2014). The economic and social impacts of Ebola Virus Disease in Sierra Leone: joint preliminary assessment report

The decline in in service utilization is attributable to a number of factors including: the absence of trusted health staff; lack of trust and loss of confidence by communities in the health system; and safety-related reasons. Uptake of immunization services is an example service delivery intervention hard hit by the EVD outbreak. Nationally between May and September 2014, the number of children who received pentavalent vaccine dropped national by 21%, with Kambia and Bonthe reporting the highest reductions in immunization rates (in the range of 40 % to 49 %). Cases of measles outbreak have been reported[10]

The Ebola epidemic response had useful lessons as well as benefits that are useful in accelerating reduction of maternal, newborn, children and adolescent deaths and ensuring their health and wellbeing. With the Ebola outbreak, the country benefitted from increased infrastructure, medical supplies and equipment. As part of the Ebola response, with support from DFID, eleven (11) new hospitals were constructed with a combined total of over seven hundred (700) additional treatment beds and four (4) new reference laboratories established. These infrastructural developments are key in addressing the causes of maternal, newborn, child and adolescent deaths during the post Ebola period. The EVD epidemic also saw a renewed leadership in responding to a public health crisis. This renewed leadership should be harnessed for accelerating reduction of the poor RMNCAH indicators in the country. Additionally, the Ebola crisis exposed the inefficiencies in the overall health systems presenting an opportunity for the country to work towards a more resilient and sustainable health system. The increased investment in health information systems during the Ebola crisis including mobilization of communities to undertake disease surveillance and reporting of deaths is an opportunity for strengthening notification of births and maternal and neonatal deaths at community level. The clear gains towards a resilient zero has created momentum and optimism for possibility of zero preventable deaths, in particular *'zero maternal deaths'*

[10]Sierra Leone Health Facility Assessment 2015: Impact of the EVD Outbreak on Sierra Leone's Primary Health Care System. Ministry of Health and UNICEF Sierra Leone

2.0. Sierra Leone RMNCAH Situation

Although Sierra Leone has poor RMNCAH indicators, prior to Ebola outbreak in 2014, the Country had made some progress towards attainment of some MDG targets in health and nutrition. Some notable gains included increased coverage in modern contraception (7% to 16%), skilled birth attendance (42% to 62%), malaria bed net utilization (26% to 49%), malaria treatment (6% to 77%), diarrhoea management (68% to 88%) and basic immunization (DPT3 54% to 78%)[11]. A recent nutrition survey also demonstrated improvement in addressing malnutrition. Levels of stunting among children under five have been reduced from 34% to 29%, and wasting from 7% to 5%[12]. Despite these gains, the RMNCAH situation in the country remains poor especially so after the Ebola outbreak. This section of the RMNCAH strategy presents an analysis of the RMNCAH situation in the country.

2.1. Maternal Health Situation

Globally, at the closure of the MDG era in 2015, maternal mortality ratio (MMR) was estimated at 216 per 100,000 live births[13]. Most of these deaths occurred in low-resource settings like Sierra Leone and could have been prevented by use of the already known evidence based high impact interventions. The Sierra Leone Demographic Health Survey (SLDHS) 2013 estimated the country's MMR as being 1165 (1360 for 2015 UN estimates) per 100,000 live births making it the highest in the world and more than six times the global average. Additionally, the country at a maternal life time risk of 1 in 17, together with Chad republic represents the top two countries with the highest maternal life time risk globally[14]. Maternal deaths account for 36 % of all deaths of women aged 15-49 years in Sierra Leone. At the current mortality rate 6 % of women in Sierra Leone will die from maternal causes during their reproductive life[15]. Available data estimates the country's stillbirth rate at a high of 24.4.per 1,000 live births[16]. Figure 4 below presents maternal mortality trends from 1990 to the end of the MDG era (2015)[17].

[11]Sierra Leone Demographic Health Survey 2008 and 2013.
[12]Ministry of Health, Unicef and Irish Aid. National nutrition survey 2014
[13]World Health Statistics 2016. Monitoring Health for the SDGs. WHO
[14]Trends in Maternal Mortality 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.
[15]Sierra Leone Demographic Health Survey 2013.
[16]National, regional, and worldwide estimates of stillbirth rates in 2015 with trends from 2000: A systematic analysis.

[17]Trends in Maternal Mortality 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division.

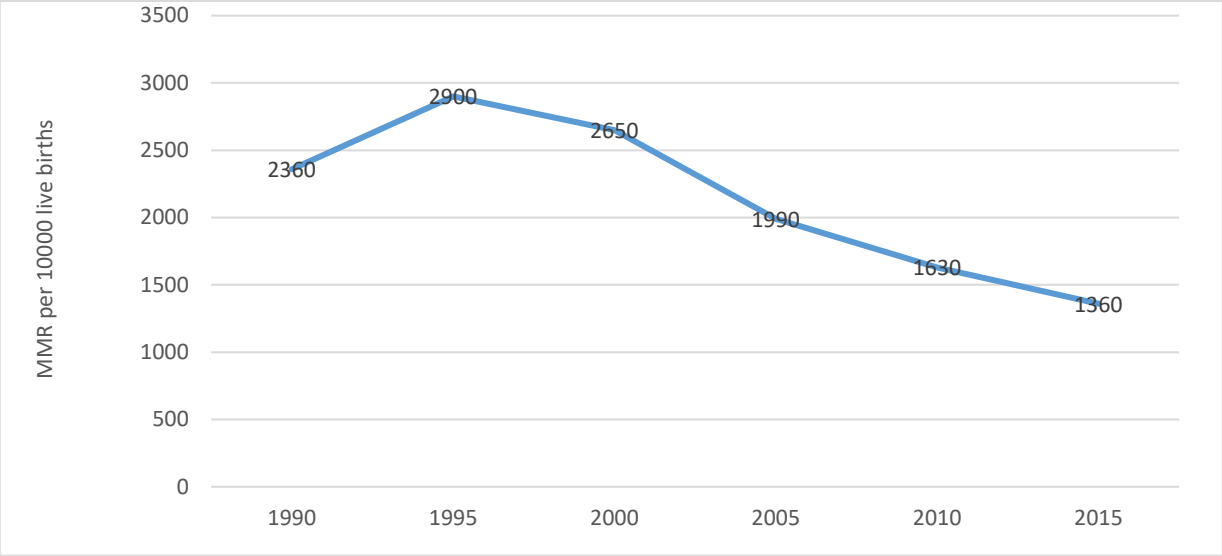

Figure 4: Trends in Maternal Mortality Ratio

2.1.1. Causes of maternal deaths

The leading direct causes of maternal mortality in Sierra Leone are: obstetric haemorrhage (46%), hypertension (22%), obstructed labour (21%) and sepsis (11%)[18]. These causes are largely preventable and once detected early can be easily managed. A significant proportion of maternal deaths in the country are also attributable to indirect causes including malaria and anaemia. Figure 5 below presents the leading direct causes of maternal mortality in Sierra Leone.

[18]Draft review report. Reproductive, Newborn and Child Health Strategic Plan 2011-2015.

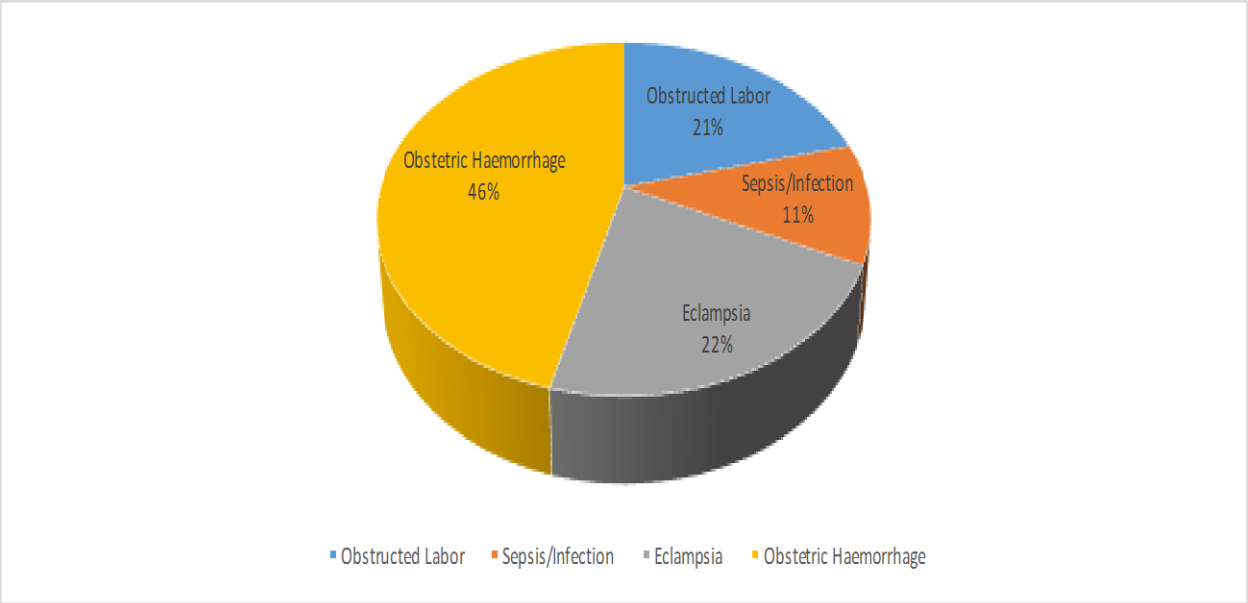

Figure 5: Leading causes of maternal deaths in Sierra Leone

2.1.2. Understanding where women die

Out of the total number of reported maternal deaths, maternal death review and surveillance (MDSR) reports indicate that most women die at health facility (80.3 %) while 5.2% die at community level while 5.2 % of occur on transit[19]. With the high low maternal reporting rate (especially at community level) estimated at 76% for 2016, this data does not conclusively give where most maternal deaths occur. The three delays model provides a valid explanation for maternal deaths at the various levels. Death at community level could be attributed to delay 1 and 2 including failure to identify danger signs, challenges related to transport as well preference for delivery with traditional birth attendants. Death at hospital could be an indication of supply side challenges (delay 3) resulting from inadequate health workers, low skills among health workers, inadequate equipment and other necessary supplies such as blood for caesarean section. Additionally, the high maternal mortality at the hospital could indicate delays in referrals from the lower level facilities and communities. Figure 6 below presents % deaths by level of health facility

[19]Maternal and Perinatal Death Surveillance and Response. Annual Report 2016

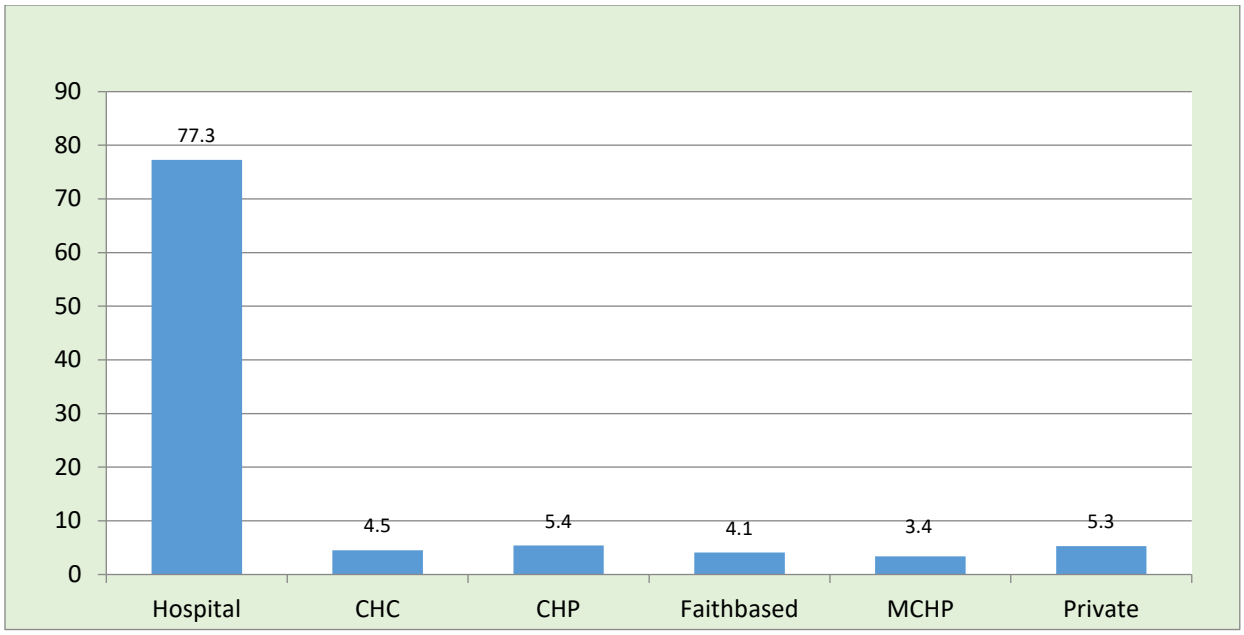

Figure 6: Percent Distribution of Facility based Maternal Deaths by Place of Death: Jan to Dec 2016[20].

2.1.3. Maternal Health Coverage Indicators

Sierra Leone has shown good progress in the improvement coverage indicators for maternal health during the period 2008 to 2013, although this has not translated into seeing concomitant improvements at the level of the impact indicators. According to the Sierra Leone demographic health survey (SLDHS 2013), the prevalence of modern contraceptive use among married women doubled from 7 % in 2008 to 16 % in 2014. Public sector remains the leading avenue in the provision of family planning methods. Over 68 % of current users of modern contraceptive methods obtain their methods from the public sector. Twenty-five percent (25 %) of currently married women have an unmet need for family planning; 17 percent for spacing and 8 percent for limiting births (SLDHS 2013). Almost all women (97%) make at least one ANC visit, and in totality about % (76 %) making at least 4 visits. [21]. Late ANC visits coupled with lack of essential supplies at service delivery points create a bottleneck in the provision of quality and comprehensive ANC package. An estimated 44% of pregnant women make first ANC when their pregnancy is well advanced at 4-5 months reducing the benefits that could accrued from ANC including the provision of PMTCT services such as HIV testing and counselling during pregnancy. The SLDHS 2013 reported that 42.9% of women were tested for HIV at ANC and received test results. This is low given the high near universal coverage for ANC 1 indicating weak integration of services as well the possible quality of ANC services received. Anaemia among women of reproductive age and more specifically among pregnant women is a risk factor for both maternal and neonatal death. Generally, 45 % of women of reproductive age are anaemic.

[20]Maternal Death Surveillance and Response. Annual Report 2016
[21]World Health Statistics 2016. Monitoring for SDGs. WHO

An estimated 54% and 49 % of pregnant and lactating women respectively are anaemic[22]. During the period 2008 to 2013, institutional delivery increased by more than half from 25 % in 2008 to 55 % in 2013. Skilled birth attendance witnessed a significant increase from 42 % to 60 % during the same period. By cadre of service provider, most women were delivered by nurse/midwife (44 %) or MCH Aide (14 %) and in 2 % of cases by a doctor[23]. While postnatal care (PNC) for the mother showed an increase from 55 % to 73 %, PNC newborn is still low at 39%. Postnatal care for newborns is critical for ensuring access to essential newborn care interventions for improving the survival during the newborn period, the period responsible for most under-five deaths. Together with Malaria, HIV and AIDS remains an important indirect cause of death among women. According to UNAIDS estimates in 2015, the % of HIV positive women who received ART to reduce risk of mother to child transmission of HIV was reported to have decreased from 78.8% in 2013 to 67.9% by end of 2014 [24]. This reduction in ART coverage was attributed to the impact of Ebola viral Disease (EVD).

2.2. Sierra Leone Child Health Situation

Globally an estimated 5.9 million children under 5 years died in 2015. The global under-five mortality rate is reported at 42.5 per 1000 live births. Child mortality is highest in sub-Saharan Africa, where 1 child in 12 dies before their fifth birthday[25]. With an under-five mortality rate of 156 per 1000 live births[26] , Sierra Leone represents one of the 24 countries having rates that are three times higher than the SDG target of 25 under-five deaths per 1000 live births by 2030. Neonatal mortality in Sierra Leone just like in many other developing countries has continued to show no significant improvement.

The SLDHS 2013 reports neonatal mortality as at 39 per 1000 live births from 36 per 1000 live births in 2008. The figure below shows Sierra Leone trends in child mortality rates from 1990 to 2015[27].

[22]Sierra Leone Demographic Health Survey 2013.
[23]Sierra Leone Demographic Health Survey 2013.
[24]Sierra Leone National AIDS response progress report 2015.
[25]World Health Statistics 2016. Monitoring Health for the SDGs. WHO
[26]Sierra Leone Demographic Health Survey 2013.
[27]https://data.unicef.org/topic/child-survival/under-five-mortality/

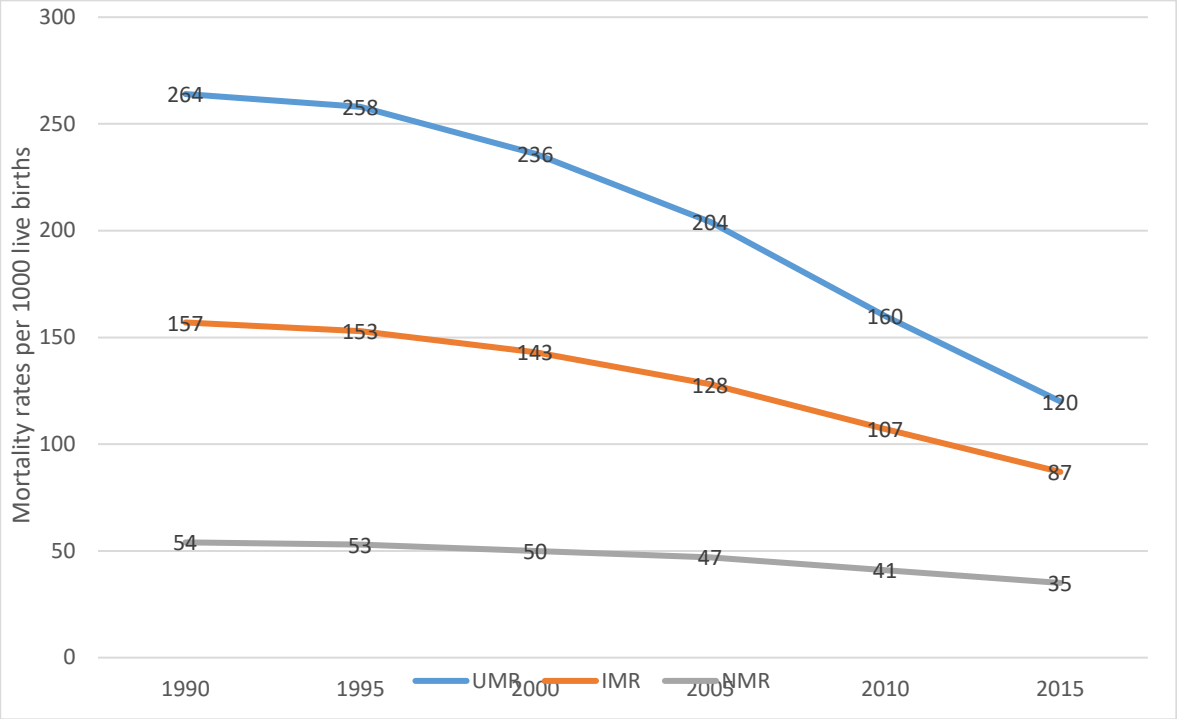

Figure 7: Trends in Under-five mortality rates

2.2.1. Causes of Under-five deaths

Causes of under-five deaths in Sierra Leone include: Neonatal (29%), Malaria (20%), Pneumonia (12%), Diarrhoea (10%), injuries (5%) and others at (24%). Leading causes of neonatal deaths are identified as: Preterm 30%, Asphyxia 27%, Sepsis (23%), Pneumonia (7%), Congenital (7%) and others (7%)[28]. The Figure below summarises the causes of under-five deaths.

[28]WHO/MCEE provisional estimates 2015 in Countdown Sierra Leone 2015 Profile

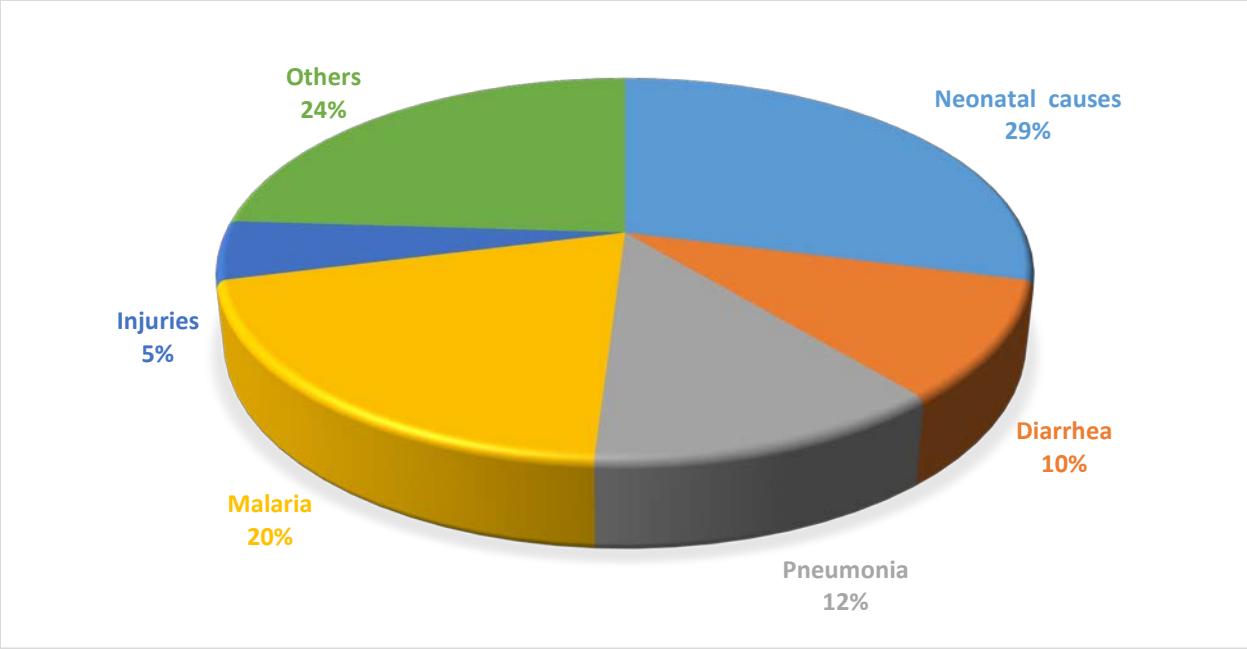

Figure 8: Causes of under-five deaths

2.2.2. Progress in Child Health Coverage Indicators

During the period 2008 to 2013, the country showed marked improvement in child health coverage indicators. In terms of Malaria prevention, the percentage of children under 5 who slept under an insecticide-treated net rose from 26% to 49%. During the same period, malaria treatment rose from 6% to 77%. Despite the improvement in Malaria indicators, it continues to the leading cause of morbidity among children. It is estimated that 2,240,000 outpatient visits are due to malaria, of which about 1,000,000 patients are under five years. A malaria indicator survey in 2016 revealed 1 in 4 (25%) of children under age 5 had fever during the two weeks preceding the survey. When tested for malaria, 40 % of the children age 6-59 months were positive based on microscopy[29]. Diarrhoea management through oral rehydration therapy (ORT) rose from 68% to 90% and basic immunization coverage from 31% to 58%. According to SLDHS, 71.7 % of children with acute respiratory infections (ARI) sought treatment from a health facility provider and 45 % of them received antibiotics. For the thrive indicators, a recent nutrition survey demonstrated that the country has shown progress in reduction of under-nutrition[30]. Between 2008 and 2014, levels of stunting among children under five reduced from 37% to 29%, and wasting from 10% to 5%. The median duration for breastfeeding is at 19.8 months while that for exclusive breastfeeding is low at 0.6 months.

Prevalence of anaemia among children under-five in the country is high at 79.9 % and only half of children regularly consume foods rich in Vitamin A[31]. HIV and AIDS represent another indirect cause of under-five mortality. Despite this, coverage for PMTCT interventions in the country is low. The percentage of infants born to HIV positive women receiving virological testing for HIV within 2 months after birth decreased

[29]Sierra Leone Malaria Indicator Survey. Sierra Leone Malaria Control Program 2016.
[30]National Nutrition Survey UNICEF MoH 2014
[31]National nutrition survey UNICEF MoH 2014

from 14.4% in 2013 to 12.7% by end of 2014[32]. For those that are eligible, the ART coverage among children is low at 35%[33].

Figure 9 below shows trends in coverage selected for maternal, newborn and child health indicators for the period 2008 to 2013 as per the SLDHS 2013.

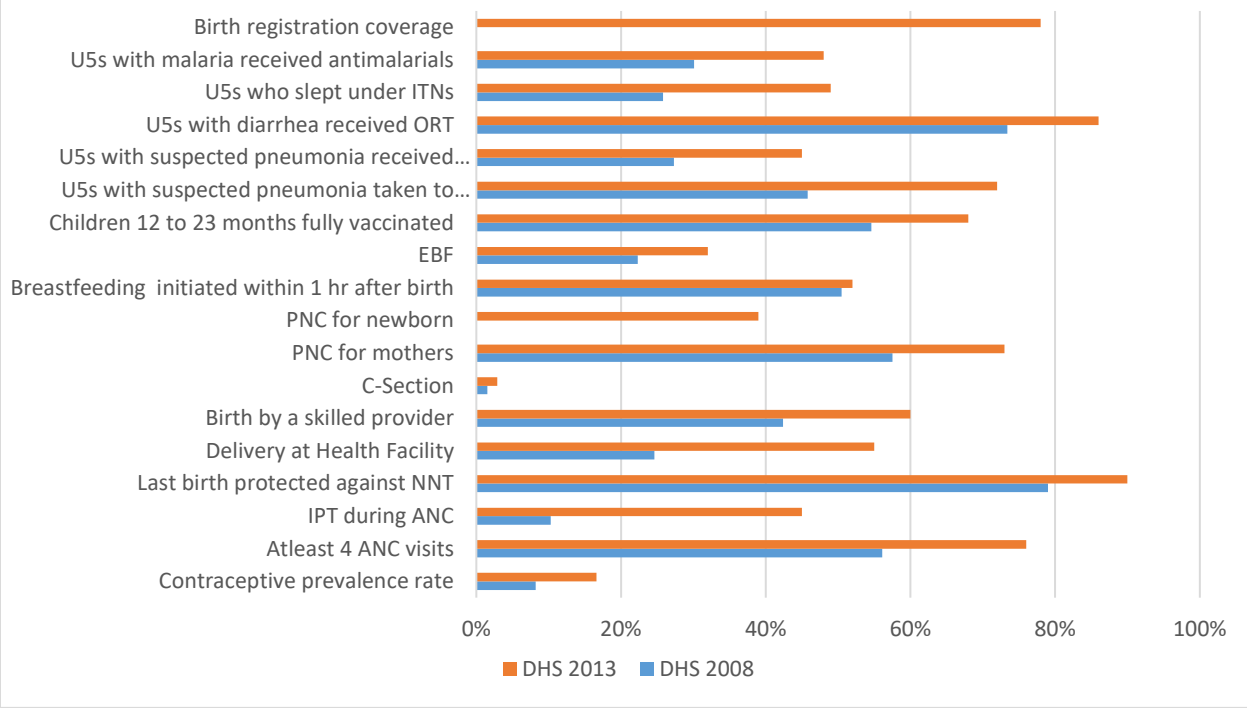

Figure 9: Trends in coverage of selected indicators

2.2. Adolescent Health Situation

While some progress has been made, Sierra Leone still has poor adolescent health indicators. At 125.1 births per 1000 women aged 15-19 years (SLDHS 2013), the country compares poorly with global average of 44 per 1000 live births as well with neighbouring countries like Liberia at 114 births per 1000 women aged 15-19 years[34]. Review of the 2008 to 2015 RNCH strategy and a more recent identified main drivers of teenage pregnancy as being poor SRH knowledge, negative attitudes and poor access to contraceptives, poverty (including food insecurity and the need for school fee payments) and cultural factors such as child marriage[35]. The SLDHS 2013 estimates that adolescents contribute 25 % of the total maternal deaths in the country, making them a priority target group if any meaningful reduction in maternal mortality rate is to be achieved. According to SLDHS 2013, on overall, 28 percent of adolescents aged 15-19 had begun child bearing while 6 percent were pregnant with their first child as at the time of the survey. Although the % of women age 15-19 who married by age 15 declined from 10 % in 2008 to 6

[32]Sierra Leone National AIDS response progress report 2015.
[33] National Strategic Plan for HIV and AIDS. 2016-2020
[34]http://data.worldbank.org/indicator/SP.ADO.TFRT
[35] Teenage Pregnancy in Sierra Leone. Assessment and Program Recommendations, Draft report. Government of Sierra Leone 2016.

% in 2013, the rate still remains unacceptably high[36]. Female genital mutilation (FGM) is common in Sierra Leone with 74.3% of women aged 15-19 years reporting to have undergone FGM[37]. Women in rural areas, with less education, in the lower wealth quintiles and residing in the Northern region which is populated by the Muslims are more likely to undergo the cut. On HIV prevention, only 21% of adolescents have ever tested and received their test results. The HIV prevalence among adolescents slightly increased from 1.3 % in 2008 to 1.5 % in 2013 showing the need to accelerate HIV prevention among adolescents[38].

School enrolment especially for girls is a key determinant for adolescent health. Studies have shown that keeping girls in school alone can prevent teenage pregnancies. Schools also present an important setting for delivering adolescent sexual and reproductive health services, information and products. Sierra Leone has poor school enrolment and this is even worse for girls. The 2015 PHC reveals that out of the 6,589,838 people aged 3 years and above, 55.4 % have attended school and 44.2 % have never attended school. The % of males currently in school (39.1%) and those ever attended school (60 %) are more than their female counterparts (35.3% and 50.9% respectively)[39].

2.3. Water, Sanitation and Hygiene (WASH)

Water, sanitation and hygiene (WASH) is a critical intervention for addressing diarrhoea and other top killers of newborns and children under-five. Additionally, availability of WASH facilities in health facilities is critical as part of ensuring delivery of quality services. On WASH indicators, only 13 % of the population has access to improved sanitation, 34 % of the rural population practices open defecation and 63 % have access to improved water supplies. This is slightly lower than Liberia where 17 % of the population has access to improved sanitation and 76 per cent of the population has access to improved water supplies[40]. According to WASH survey in Peripheral Health Units, an estimated 29 % of all PHUs have no WASH facilities while 50 % of them require rehabilitation of existing WASH facilities. The same survey identified that an estimated 94 % of all PHUs do not meet the minimum national Standards for water supply[41].

2.4. Equity Issues in RMNCAH; Leaving No One Behind

In line with the SDG 3 which calls for healthy lives for all at all ages and in agreement with the move towards Universal Health Coverage (UHC), equity is a key consideration for the Sierra Leone RMNCAH strategy. Although the country generally has poor impact indicators across all districts, inequities in the coverage of RMNCAH services based on age, gender, education, residence (urban versus rural), regions

[36]Sierra Leone Demographic Survey 2013
[37]Sierra Leone demographic health survey 2013.
[38]Sierra Leone demographic health survey 2013.
[39]Population and Housing Census 2015

[40] WHO & UNICEF (2015) 'Progress on Sanitation and Drinking Water – Joint Monitoring Programme for Water and Sanitation – 2015 update and MDG Assessment', http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf

[41] WASH in PHUs survey. 2015

(across the 4 regions and districts), and wealth quintiles do exist. Both neonatal and under-five mortality represent wide inequities based on where a child is born. A child born in Kenama district has three time's higher chance of dying before their fifth day compared to a child born in Bonthe district. Similarly, a child born in Western Area rural has almost three times chance of dying during the neonatal period compared to that from Kambia district. Based on review of equity data from the 2013 SDHS, the northern region district districts appear to be worse off in all indicators. The table below provides a summary of equity issues around the selected RMNCAH indicators.

Table 3: Inequities on selected RMNCAH indicators

Equity Variable	Selected RMNCAH indicators									
	NNMR	UMR	FP modern methods	Facility Delivery	SBA	PNC Newborn within 2 days	PNC mother within 2 days	Teen pregancy	% fully immunized	ITN U5
Residence										
Urban	57	158	24.7	68.1	68	47	78	34	68.9	40.4
Rural	71	181	12.3	49.7	50	35.9	70.9	19	65.9	52.5
Regions										
Eastern	44	200	16.6	72.8	77	40.7	80.3	30.3	77.8	48.6
Nothern	36	165	11.4	37.1	42	33	67	29.4	62	47.7
Southern	45	175	16.3	60.4	64	42.1	74.2	33.2	75.3	62.6
Western	56	157	25	60.7	74	47.5	74.8	17.7		26.5
Districts										
Best performing district	22	24	25.5	61.6	86	73.3	90.7	16	84.7	55.2
Worst performing district	66	224	24	32.7	33	18.2	48.6	48	51.7	21.4
Wealth Quantiles										
Lowest	42	186	11.5	48.4	51	32.7	67.7	28.1	73.1	44
2nd	40	177	11.5	49.8	52	37.1	70.9	29	66.3	45
Middle	42	189	12.1	49.2	53	35.6	72.2	27.4	66.8	47.1
Fourth	38	168	19.2	60	67	41.9	78.1	22.3	69.4	44.1
Highest	52	144	26.6	70.1	84	51.8	76.8	12	62.3	28.6
National	39	156	16.6	54.4	60	38.7	72.7	27.9	68	48.9

2.5. Gaps and bottlenecks to access and utilization of RMNCAH services

Understanding and addressing the priority gaps and bottlenecks is key to ensuring access to and utilisation of high impact interventions for RMNCAH by women, newborns, children and adolescents. Barriers and bottlenecks were identified through review of the previous Reproductive Newborn and Child Health (RNCH) Strategy 2011-2015, country consultations and validation meetings with stakeholders. The strategies and key actions proposed later in this strategy seek to address identified gaps and bottlenecks to ensure women, newborns, children and adolescents have to access and utilize high impact and quality RMNCAH interventions. Below is a description of key bottlenecks.

- Demand side barriers to access of high impact interventions: Demand side barriers included financial, geographical and sociocultural challenges. Despite the existence of the free health care initiative, review of literature and discussions with beneficiaries identified "*under the table payments"* for provision of services limiting access especially by the most vulnerable[42]. Adolescents do not have financial protection under the free health care initiative unless they are pregnant or lactating limiting their access to essential services. Other financial barriers include lack of money to pay for transport to the health facilities resulting in delay to accessing services. Some districts have inaccessible roads networks while others are in islands creating geographical barriers to access. According to SLDHS 2013, out of the 76 % of women who reported having had a barrier accessing care, a leading number of them (67%) reported getting money to access treatment at health facility as the biggest barrier. Other barriers reported included distance to health facilities (39%), getting permission to go to health facilities (18%) and not wanting to go alone (17%). Lack of knowledge among women of reproductive age to recognize danger signs in pregnancy as well for sick children and newborns results in delay 1 to access of RMNCAH services. Additionally, low male involved is also reported to result in poor access and utilization of services.

- Human resources for health challenges: Sierra Leone HRH challenges range from inadequate numbers of critical cadres, inadequate skills for provision of high impact interventions to women, newborns, children and adolescents, mal-distribution and low motivation. Health workers are distributed inequitably with majority higher grade health workers being concentrated in the Western Area, especially Freetown, while the rural districts remain seriously underserved. For instance, Freetown has 40% of all the country's midwives, or 1 midwife per a population of 9,200 compared with Tonkolili district which has 1 midwife for a population of 53,000. Sierra Leone (2 skilled healthcare workers per 10000) is far below the WHO recommended minimum of 23:10,000[43]. Additionally, the country has high numbers work as volunteers resulting in poor motivation. Other causes of staff demotivation are poor pay and lack of staff housing in health facilities especially those in remote areas.

- Unstable commodities and supplies: A FIT assessment carried out in the first half of 2016, identified some facilities as lacking all the 16 tracer commodities for RMNCAH[44]. Other gaps to commodity security include challenges with last mile distribution, inadequate skills among health workers in quantification, forecasting and management of health commodities. Other commodity related challenges include poor storage and inventory management as well as weak information management and reporting. Stock outs at national level are also identified as a challenge. Lack of availability of safe blood in CEmONC sites was identified a big challenge to delay 3 in accessing lifesaving interventions such as C-section. Root causes to blood stock outs include weak

[42]The Sierra Leone Free Health Care Initiative (FHCI): process and effectiveness review. Heart, 2016

[43]Directorate of nursing/UNFPA, 2014, *Sierra Leone Midwifery Mapping, validation report*, Freetown, Sierra Leone

[44] Facility Improvement Team Assessment report 2016.

infrastructure including poor laboratory systems as well as lack of adequate and reliable blood donors.

- Weak infrastructure: Adequate infrastructure including water, source of power and necessary equipment is critical to provision of quality RMNCAH services especially 24/7 EmONC services. Facility Improvement Team (FIT) assessment report identified that most facilities lack piped water connections to key RMNCAH service delivery points including in labour wards, theatre and postnatal wards. Some facilities lacked any source of power[45]. Inadequate availability of critical equipment including blood pressure machines, delivery beds and neonatal equipment is identified as a bottleneck to availability of life saving interventions.

- Weak referral systems: Effective referrals are a component of many factors, key of these include good communication network, roads and availability of effective means of transport. Existence of a referral plan/strategy and ensuring adherence to this is therefore key. Availability of qualified staff to accompany the woman on referral is critical. Gaps within the referral system include the lack of a referral policy/strategy, late recognition of need for referrals, inadequate ambulances, challenges with availability of fuel, as well as inadequate staff to accompany women on referral. Financial barriers also play a key role in causing delay to accessing care resulting from inability to hire emergency transport services from community to the nearest health facility.

- Weak community health systems for RMNCAH service provision: The community health systems have been largely uncoordinated and mainly supported by the non-governmental organisations with low involvement of the Ministry of Health and Sanitation. Recently, the government has developed a CHWs strategy which will help to coordinate the community health response.

- Weak Health Information Systems: Discussions with RMNCAH players identify challenges with data quality, completeness and timeliness in reporting. The inadequate health workers in health facilities identify workload as a challenge to ensuring data quality, completeness and timeliness. A recent study further confirmed those challenges and also identified poor use of data for decision making at all levels of health care system from national level, through district to facility level[46]. With the drive to ensure equity, there is need for the data collection tools including DHIS to have the capacity to provide disaggregated data especially for adolescent health issues.

Table 4 provides a summary of bottlenecks by health systems blocks to access and utilisation of high impact RMNCAH interventions.

[45]Facility Improvement Team (FIT) assessment report 2016. Ministry of Health and Sanitation Sierra Leone

[46] Options (2015) Data Quality Assessment of HMIS and Improving Reproductive, Maternal and Newborn Health (IRMNH) Programme, Sierra Leone, Monitoring and Evaluation Data

Table 4 Bottlenecks to access and utilisation of high impact RMNCAH interventions

Health Systems building block	Key bottlenecks
Leadership and governance	• Lack of, outdated, poorly disseminated and low utilization of guidelines, protocols, SOPs and job aids • Low levels of implementation of existing protocols and guidelines • Weak management coordination structures, including for a multisectoral response for RMNCAH at national and district levels; with high levels of centralization • Strong political good will at national level not translated to district, chiefdoms and community • Lack of a champion for RMNCAH at national and district level
Health care financing	• Low government allocation to RMNCAH interventions • No health care financing strategy for the country • Inadequate demand side financing strategies to address financial barriers to accessing RMNCAH services • Out of pocket payments despite existence of the FHCI • FHCI does not cover adolescent health services except in cases of pregnancy • Weak development partner coordination into one prioritized strategy leading to inefficiencies - • Low coverage and implementation challenges with Performance Based Financing (PBF)
Health Workforce	• Shortage of and mal-distribution of critical cadre especially midwives and higher cadre nurses • Inadequate skills among health workers for provision HII for women, newborns, children and adolescents • Low motivation due to poor remuneration, career progression, lack of remote district allowance and lack of staff housing • High numbers of unsalaried health workers, nearly half of health workforce not salaried • Weak professional regulation of health workers- over 30 % of health workers not licensed • Weak infrastructure for health worker training • Weak human resources information management systems
Essential Medical Products and technologies	• Stock outs of lifesaving and essential RMNCAH commodities reported at health facilities • Underlying problems for stock outs: Inaccurate

	data for forecasting, lack of skills in quantification and forecasting among health facility staff, challenges with last mile distribution, lack of budget from the councils to ensure last mile distribution, stock out at national level • Mal-distribution reported, over-stocking in some facilities, understocking in others, commodities at wrong levels of service delivery • Adolescents not covered through the FHCI drugs • LMIS a challenge, paper work at facility, ordered electronically at district level • Challenges with blood availability and ensuring its safety • Storage challenges for some commodities for example Oxytocin due to lack of refrigeration • Inadequate and unregulated medical equipment, poor maintenance
Service Delivery	• Inadequate pre-service preparation of health workers • Poor quality of services due to absence of standards, guidelines and job aids • Poor quality if service due to poor dissemination of standards, guidelines and job aids • Absence of/or weak supervision, mentorship and monitoring systems in health facilities • Absence of quality improvement mechanisms including audits and regular reviews of performance in health facilities • MDSR, weak on response and the "P" component missing • Weak referral systems and linkages between different levels • Inadequate infrastructure/space water/electricity for provision of RMNCAH services especially EmONC
Health information system	• Data use for decision making is weak at all levels-national, district and facility level • Challenges with data quality, timeliness and completeness • Data generally not valued by health workers • Poor disaggregation of data especially on adolescent health; analysis and reporting for adolescent age bracket is not a norm

3.0. Rationale for the RMNCAH Strategy

In order to strengthen RMNCAH response, The Government of Sierra Leone (GoSL) in 2011 developed the Reproductive, Newborn and Child Health (RNCH) policy and strategy 2011-2015 to sharpen its response to the MDG 2015 targets, the National Health Sector Strategic Plan, the Basic Package of Essential Health Services (BPEHS), the Free Health Care Initiative and the UN Secretary General Every Woman Every Child Strategy 2010-2015. A recent review the RNCH strategy 2011-2015 identified that that although the country had made progress in the achievement of the MDGs, a lot still remain to be done. Sierra Leone the highest maternal mortality ratios (1165 per 100000 live births) and under-five mortality rate (156 per 1000 live births) globally. The country is recovering from the worst Ebola Virus Disease (EVD) outbreak of May 2014. The EVD resulted in health systems weakening and poor uptake of services, greatly eroding the gains made in RMNCAH.

In response to the EVD outbreak, the BPEHS was revised and the National Health Sector Recovery Plan 2015-2020 developed with the aim of t re-establishing the health services and also to ensure long term development of a strengthened health system. Currently GoSL is implementing the second phase of the President's Recovery Plan which has twin *goals of accelerated reduction of maternal and child health mortality by 10% annually in 2016 & 2017 and the development of the resilient health system.* This RMNCAH strategy seeks to align to BPEHS 2015 as well as the Health Sector Recovery Strategic Plan. As we usher in the sustainable development goals (SDGs), this strategy will help the country to align to the relevant SDGs as well as help to actualise the Global Strategy for Women's, Children's and Adolescents Health 2016-2030 at country level. Through prioritising health systems strengthening, this strategy helps address the post Ebola health systems bottlenecks. In the last 6 years since the development of the previous RCN strategy (2011-2015), evidence based and innovative approaches to implement high impact RMNCAH interventions have been developed. This strategy seeks to incorporate and utilise these approaches to ensure that women, newborns, children and adolescents not only survive but also thrive.

Given increased coverage but with no equivalent improvement in impact indicators, this RMNCAH strategy introduces a new and strong component on quality improvement and strengthening monitoring, research and documenting and utilizing lessons as they emerge. The 2017-2021 RMNCAH strategy brings in the recognition that reproductive, maternal, newborn and child health issues cannot be addressed in isolation, that they are a continuum and intrinsically linked.

The strategy therefore emphasizes the continuum of care approach and for the first time brings together women, newborns, children and adolescents in one policy document. The strategy document will help align partners to one document and also support resource mobilization for RMNCAH.

From an economic point of view, investing in women, children and adolescent health makes economic sense. The global strategy for women's, children's and adolescents' health 2016-2030 documents that for every additional US$1 invested in women and children health, a US$9 economic and social benefit is realized. By investing in adolescent health, with the high and increasing population of young people where 49%[47] are aged below 15 years, Sierra Leone stands to reap from the demographic dividend.

[47]National Population and Housing Census. Sierra Leone 2015

The strategy presents prioritized and phased high impact interventions to accelerate reduction of preventable deaths of women, newborns, children and adolescents as well as improve their wellbeing. The strategy provides guidance to RMNCAH players including the Ministry of Public Health and Sanitation at national and district levels, development partners, the civil society organisations, non-health actors that have impact on health of women, newborns, children and adolescents as well as the private sector.

4. Guiding Principles

The following guiding principles were considered in the development of this strategy and will be followed through its implementation.

a. *Implementing evidence based interventions:* High impact interventions for ending preventable deaths of women, newborns, children and adolescents and ensuring their wellbeing are known. This strategy will implement proven high impact RMNCAH interventions.
b. *Continuum of care approach:* Recognizing that the different stages of life ranging from pre-pregnancy and adolescence to infancy and childhood are interlinked and what happens in one stage has impact on the next stage, this strategy will utilize the life course approach as well implement appropriate interventions for each level of service delivery from the household/community level to the referral facilities.
c. Prioritization and phased approach: The strategy recognizes the need to drastically improve the poor RMNCAH indicators but in a context of limited resources. As such the strategy will prioritise interventions that have the biggest impact in ending preventable deaths of women, newborns, children and adolescents. A phased approach will be used to ensure equity as well promoting learning by doing.
d. Gender responsive and rights based approach. Gender has impact in access to and utilization of RMNCAH services. Access to quality RMNCAH services is a right. The strategy will identify and address gender related barriers to access and utilization of services.
e. *Equity* focused: The strategy will ensure no one is left behind by prioritizing the disadvantaged, the marginalized and the most vulnerable.
f. Centred on *health systems strengthening*: Recognizing the impact EVD had on weakening the health systems, the strategy will ensure health systems strengthening for effective delivery of RMNCAH services; and build on and reinforce existing health systems strengthening efforts for improved RMNCAH outcomes
g. *Partnerships coordination and ensuring efficiency:* Through engaging in strategic partnerships including with Civil Society Organisations (CSOs) and the private sector and strengthening coordination of RMNCAH players to ensure accountability and efficiency.
h. *Multisectoral approach*: Involvement of critical sectors outside the domain of health but with significant impact on health of women, newborns, children and adolescents such as Finance, education, food security and water, sanitation and hygiene.

5. The Prioritized Intervention Areas

The RMNCAH strategy prioritization focuses on the "*missed opportunities*" while maintaining coverage and improving quality of care especially for indicators showing good progress. The Prioritized Intervention Areas (PIA) are those that the country will put extra investments to significantly bring down the high maternal, neonatal and child mortality rates and also ensure health and wellbeing of adolescents. Through health systems strengthening and ensuring quality improvement, the country will continue implementing the other high impact interventions for RMNCAH across the life course as per the country's basic package for essential health services. The following key considerations were used in identifying the Prioritized Intervention Areas (PIAs).

- Current baseline coverage: High interventions with lowest baseline coverage are more likely to change and therefore create the desired impact. Most of the selected priority intervention areas are those are currently showing low coverage rates.
- Interventions addressing the leading causes of morbidity and mortality for women, newborns, children and adolescents: The main killers of women, newborns and children and the high impact interventions needed to prevent them are known. Interventions prioritized in this strategy are those that address the main killers of women, newborns and children as described earlier in this strategy. Selected adolescent health high impact interventions are also prioritized.
- Life course period where most deaths occur: From the review of the country data including the maternal death surveillance reports, most maternal and neonatal deaths occur during labour, birth and the first 48 hours postpartum. Adolescents contribute 25 % of the total number of maternal deaths in Sierra Leone. All interventions for the period around labour, birth and delivery are identified as Prioritized Intervention Areas (PIA) for this strategy.
- Impact of interventions as per the LiST impact modelling: The known evidence based high impact interventions were modelled through use of LiST tool, those averting more deaths were prioritized. Family Planning ImpactNow tool was used to model the impact of family planning in averting women and children deaths. Results from the LiST modelling tool are annexed to this strategy.
- Alignment with other initiatives and existing country priorities: As part of the Health Sector Recovery Plan, Sierra Leone President's Recovery Plan (PRP). The PRP a subset of the HSRP identifies prevention of teenage pregnancy, EmONC and other RMNCAH interventions priority areas. These are included in this strategy as PIAs. Additionally, the country has developed a community health policy and strategy and prioritized scale up of integrated Community Case Management *"iCCM plus"* as a platform for delivery community based interventions for addressing the main killers of children under-five.

5.1. Prioritized Intervention Areas by Life Course

This section presents prioritized interventions areas/packages by life course that this strategy will invest in. The details of the "how" these intervention areas/packages will be delivered including the health systems actions required to deliver them are described under the strategies and key actions

section of this strategy. Annex 10.3 further provides more details on the specific high impact interventions by life course.

5.1.1. Pre-pregnancy and Adolescence period

Care for pre-pregnant women including adolescent girls, and care between pregnancies is a critical component and forms the beginning of the continuum of care for maternal, newborn, child and adolescent health. For this life course period, two intervention packages are prioritised as described below.

Family Planning

Family planning is a critical intervention for preventing teenage pregnancies and averting unwanted pregnancies and unsafe abortions among women and adolescents. Interventions prioritised under this package include postpartum family planning, promoting use of long acting FP methods, post abortion FP, scaling up public outreach and engaging with the private sector, reducing stockouts, and ensuring provision of FP services among adolescent girls as part of teenage pregnancy prevention.

Adolescent Health

Prioritised interventions around adolescent health package will include teenage pregnancy prevention, ending early child marriages, female genital mutilation and gender based violence. In alignment with the global strategy for women's, children's and adolescent's health, this strategy will strengthen establishment and functioning of adolescent responsive health services across all primary health care units (PHUs) and at district and referral hospitals, strengthen school health programs including comprehensive sexuality education and develop programs for reaching out of school youth. Using quality of care checklists, the strategy will ensure all service delivery points are providing quality, integrated and comprehensive package of adolescent health care services

5.1.2. Pregnancy Period

Under this life course, integrated quality antenatal care is prioritised.

Integrated Quality Antenatal Care

Sierra Leone has an almost universal coverage (96%) for at least 1 ANC visit with an equally good ANC 4 coverage at 75 %. With improved quality of care focused on ensuring that all women who make a visit at ANC receive a comprehensive ANC care package as per the Sierra Leone BPEHS, access to all high impact interventions during this period would be achieved. Antenatal care is an entry point for most lifesaving interventions for both the mother and the newborn. For this strategy integrated and focused quality antenatal care is the prioritized intervention area for this life course.

Intervention packages prioritised under integrated quality antenatal care are aligned to the 2016 WHO ANC model that recommends a minimum of 8 ANC contacts, with an overarching aim of providing pregnant women with respectful, individualized, person-centred care at every contact[48]. Interventions to be delivered under the integrated quality antenatal care under the different levels of service delivery are as outlined in table 5.

Table 5: Package of ANC interventions as per the BPEHS 2015

Community	MCHP	CHP	CHC	District Hospita Referral Hospital
Screening services for danger signs around pregnancy	Same as community and in addition to the following: Diagnose pregnancy (Clinical	Same as MCHP	Same as MCHP and CHP plus: Clinical diagnosis of	Diagnose and treat severe anemia and moderate anemia
Counseling for early ANC	Screening, diagnosis and treatment for STIs		Hemoglobin testing	Screening, diagnosis and treatment for STIs
Identify and refer suspected moderate and severe anemia	Voluntary Counseling and testing for HIV (PITC)		Microscopy	Voluntary Counseling and testing for HIV (PITC)
Malaria prevention and education (give IPTp, promotion of use of LLINs)	Treatment with ARV therapy for pregnant women living with HIV		Urinalysis	Treatment with ARV therapy for pregnant women living with HIV and provision of
Counseling on Maternal and Infant Nutrition	Check tetanus toxoid (TT) immunization status and give tetanus toxoid if needed			
Support for development of birth plan, including	De-worming in the 2nd & 3rd Trimester			
	Provision of prophylactic iron, folic acid, and multivitamins			
	Treatment of malaria in pregnant women			
	Screen for malnutrition			

5.1.3. Child birth and Postnatal care for Mother

Under this life course, this strategy prioritizes a skilled birth attendance and essential newborn care all packaged under emergency obstetric and newborn care (EmONC). This is as described below

EmONC and Skilled Birth Attendance

Prioritized interventions for under EmONC and Skilled Birth Attendance address the main causes of maternal deaths in Sierra Leone. Prioritized intervention interventions under this package include: Skilled birth attendance with quality labour and delivery management, clean delivery practices for management of maternal sepsis, safe abortion to the extent allowed by law and quality post abortion case management, early detection of life threating conditions and proper management including use of oxytocin to manage severe bleeding, use of magnesium sulphate for pre/eclampsia. Postpartum FP together with prevention of mother to child transmission of HIV (PMTCT) will be integrated in this intervention package.

[48]WHO Recommendations on antenatal care for positive experience in pregnancy. WHO 2016

EmONC and Essential Newborn Care

The newborn period is the time when most under-five deaths occur. Prioritized high impact interventions under this package aligned to the main killers of newborns and include: neonatal resuscitation, kangaroo mother care, clean delivery practices and immediate essential newborn care, and treatment of neonatal infections/newborn sepsis. Figure 10 below presents the prioritized interventions for the newborn period.

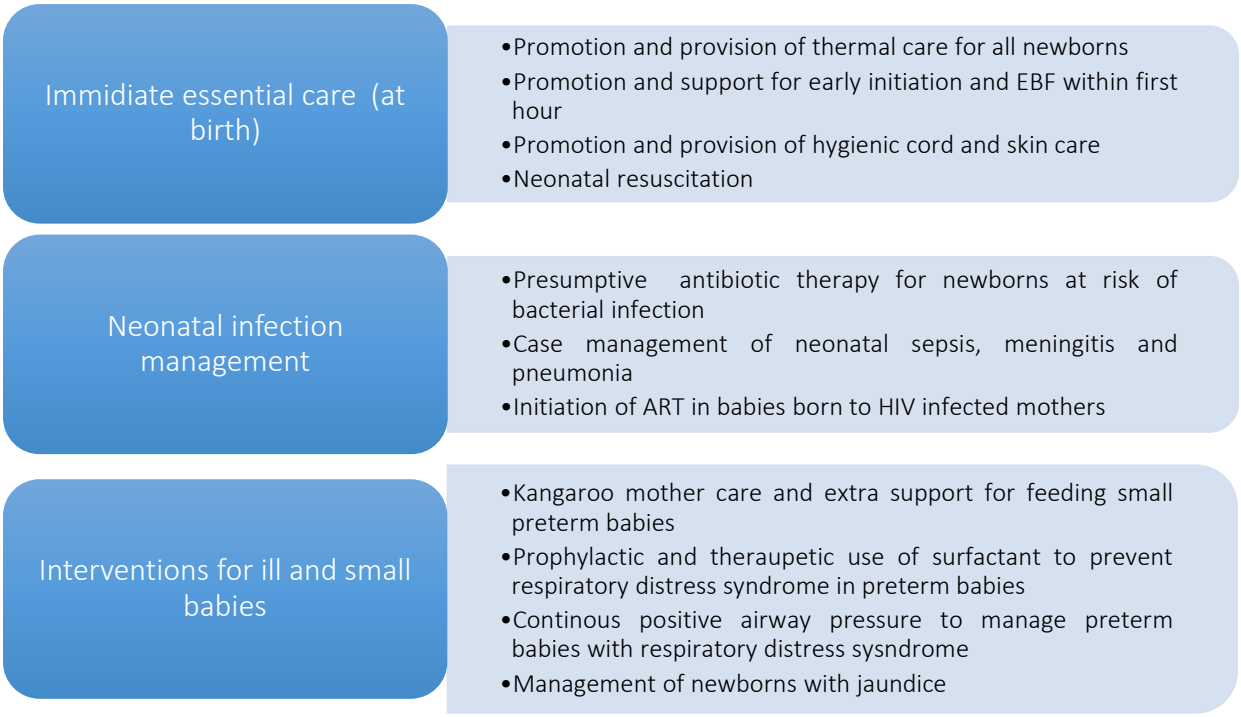

Figure 10: High impact interventions for the newborn period[49]

5.1.4. Infancy and Childhood period

Prioritized intervention areas for the infancy and childhood period will focus on addressing the leading direct and indirect killers of children of malaria, pneumonia, diarrhoea and malnutrition. The following intervention areas are prioritised.

IMNCI and iCCM

Integrated management of childhood illnesses is proven as an effective intervention package for addressing the main killers of children. This strategy prioritises this intervention package both at community and facility level. Key intervention prioritised under this package will include: Oral rehydration salts and zinc for diarrhoea treatment; amoxicillin for childhood pneumonia and treated bed nets and use of ACTs treatment of malaria.

[49]Adopted from:
http://www.who.int/pmnch/topics/part_publications/essential_interventions_wallchart_en.pdf?ua=1

Immunization Services

Immunization services were some of the interventions worst hit by the EVD outbreak. This RMNCAH strategy will prioritize routine immunization interventions as part of infancy and childhood interventions. Paediatric HIV including prevention of mother to child transmission will be integrated during delivery of all infancy and childhood interventions.

Nutrition

Prioritised package of interventions under child health nutrition will include

- Exclusive breastfeeding for 6 months and continued breastfeeding and complementary feeding for 6 months
- Dietary counselling for prevention of undernutrition, overweight and obesity
- Periodic vitamin A supplementation where appropriate
- Iron supplementation where appropriate
- Case management of severe acute malnutrition and treatment for wasting
- Management of moderate acute malnutrition (appropriate breastfeeding, complementary feeding; and supplementary feeding where necessary)

Integrated intervention areas

This RMNCAH strategy will support interventions that cross cut various life course period. Prioritised integrated intervention areas will include prevention and management of cervical and other reproductive health cancers and prevention and treatment of HIV and AIDS especially prevention of mother to child transmission of HIV. These prioritised integrated interventions will be integrated with the other prioritised interventions across the life course. Water, hygiene and sanitation (WASH) is prioritised as an integrated intervention area. Interventions prioritised under WASH include promoting access to safe water and improved sanitation through community health platform and ensuring availability of adequate water at RMNCAH service delivery points especially in EmONC facilities.

6. Strategy Goal, Targets and Objectives

6.1. Strategy Goal

The Sierra Leone RMNCAH Strategy goal of "***Accelerating reduction of preventable deaths of women, children and adolescents and ensuring their health and wellbeing"*** *is aligned to the Global Strategy for women's, children's and adolescents' health and the National Health Sector Recovery Plan*. The goal level targets are aligned to the five impact level targets of the global WCA health strategy of: Reducing maternal mortality ratio, neonatal and under-five mortality rate, still birth rate and adolescent birth rate. The goal level targets for Sierra Leone RMNCAH Strategy are as per the text box below.

Goal Level Targets

a. Reduce maternal mortality ratio from 1165 per 100000 live births to 650 per 100000 live births by 2021
b. Reduce neonatal mortality rate from 39 per 1000 live births to 23 per 1000 live births by 2021
c. Reduce under-five mortality rate from 156 deaths per 1000 live births to 71 live births by 2021
d. Reduce Still birth rate from 24 per 1000 live births to 18 per 1000 live births by 2021
e. Reduce adolescent birth rate from 125.1 to 74 per 1000 women aged 15-19 years by 2021

6.2. Overall Objective and Coverage Targets

The overall objective of the RMNCAH strategy is ***to increase access to and utilization of quality evidence based RMNCAH high impact interventions at all levels of service delivery***. The objective focus is on ensuring that all the levels of health service delivery including community, maternal and child health posts, community health posts, community health centres, district and referral hospitals are able to provide quality RMNCAH services for their level. Once these evidence based services are available, the objective also seeks to ensure barriers to uptake and utilization of the services are addressed.

To achieve the impact targets for the RMNCAH strategy goal, the LiST tool was used to establish the coverage targets for the five-year strategy period. These targets were further reviewed by country RMNCAH experts. Table 10 below highlights the priority coverage indicator targets for the five-year strategy period. The full list of coverage and input indicators and their targets are outlined in the monitoring and evaluation framework which is annexed to this strategy.

Table 6: RMNCAH Coverage Targets

Coverage Indicators	Baseline[50]	2017	2018	2019	2020	2021
Contraceptive prevalence rate	21%	23%	25%	27%	29%	32%
At least 4 ANC visits	55%	70%	77%	84%	91%	91%
IPT during ANC	34%	47%	53%	59%	65%	72%
Last birth protected against NNT	92%	92%	92%	92%	92%	92%
Delivery at Health Facility	67%	79%	85%	91%	91%	91%
Birth by a skilled provider	46%	57%	62%	67%	73%	78%
C-Section	3%	4%	4%	4%	4%	5%
PNC for mothers	79%	85%	88%	91%	91%	91%
PNC for newborn	55%	70%	78%	86%	94%	94%
Breastfeeding initiated within 1 hr after birth	52%	53%	53%	53%	53%	54%
Exclusive breastfeeding for 6 months	36%	40%	42%	44%	46%	48%
Children 12 to 23 months fully vaccinated	46%	60%	66%	73%	80%	87%
U5s with suspected pneumonia taken to health facility	82%	93%	93%	93%	93%	93%
U5s with suspected pneumonia received antibiotics	43%	48%	50%	52%	55 %	57%
U5s with diarrhoea received ORT	52%	72%	81%	91%	91%	91%
U5s who slept under ITNs	58%	67%	72%	77%	81%	86%
U5s with malaria received antimalarial	22%	39%	47%	55%	64%	72%
Birth registration coverage	74%	74%	74%	74%	74%	74%

6.3. RMNCAH Theory of Change

Stakeholder consultations and review of the RMNCAH delivery environment in the country identified bottlenecks to access and utilization of high impact interventions as including health systems related barriers, demand side barriers, poor quality of care in the delivery of services and weak monitoring and evaluation of RMNCAH interventions. Health systems bottlenecks include inadequate, demotivated and lowly skilled health workforce, weak health information systems, unstable supply of commodities and supplies, weak infrastructure and referrals for delivery of high impact interventions, inadequate financing and weak leadership and governance for delivery of RMNCAH interventions.

[50]Sierra Leone Health Facility Assessment 2015: Impact of the EVD Outbreak on Sierra Leone's Primary Health Care System. Ministry of Health and UNICEF Sierra Leone and Sierra Leone Demographic Health Survey 2015

Strengthened health systems, improved quality of care, strengthened community systems and improved health information systems, monitoring and evaluation are expected to address the ***identified bottlenecks*** and hence increased access and utilization of ***prioritized interventions areas/packages***: Focused Antenatal Care, EmONC including skilled birth attendance and essential newborn care, IMNCI and iCCM, FP, Nutrition, Immunization, prevention of teenage pregnancy and WASH. Through integrated approach, this strategy will integrate other interventions including HIV prevention, care and treatment, cervical cancer screening, early child development and prevention and management of gender based violence among others. Access and utilization of these interventions in the right quality is expected to lead to reduction in preventable maternal deaths and promoting health and wellbeing of women, newborns, children and adolescents. Key enablers to achieving the RMNCAH strategy objective and the overall goal include: Adequate financing of the RMNCAH strategy, better coordination of the response, supportive national policies and effective multisectoral coordination with other sectors. Figure 11 below shows the Sierra Leone RMNCAH strategy Theory of Change (ToC).

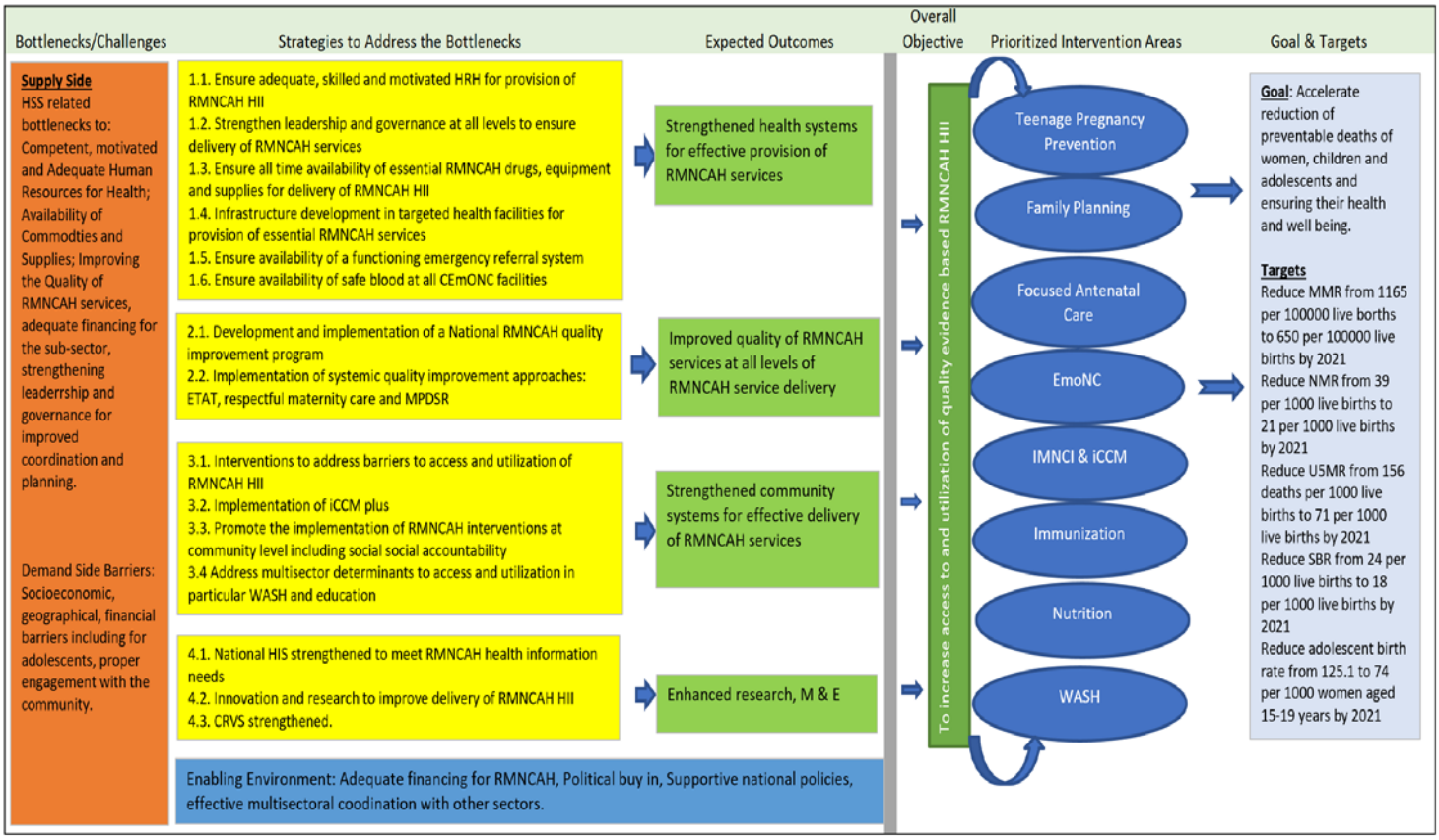

Figure 11: RMNCAH Strategy Theory of Change

6.4. Strategic Objectives

To increase access to and utilization of the high impact interventions this RMNCAH strategy will implement four interlinked strategic objectives as outlined in figure 15 below. The objectives address both supply and demand side barriers to ensure effective access to and uptake of high impact interventions by women, newborns, children and adolescents. These high impact interventions are packaged under eight (8) priority areas: Focused Antenatal Care (FANC), Emergency Obstetric and Newborn Care (EmONC) including skilled birth attendance and essential newborn care, Integrated Management of Newborn and Child hood Illness (IMNCI) and integrated Community Case Management (iCCM), Immunization, Nutrition, Family planning (FP), and Prevention of Teenage Pregnancy and Water, Hygiene and Sanitation (WASH).

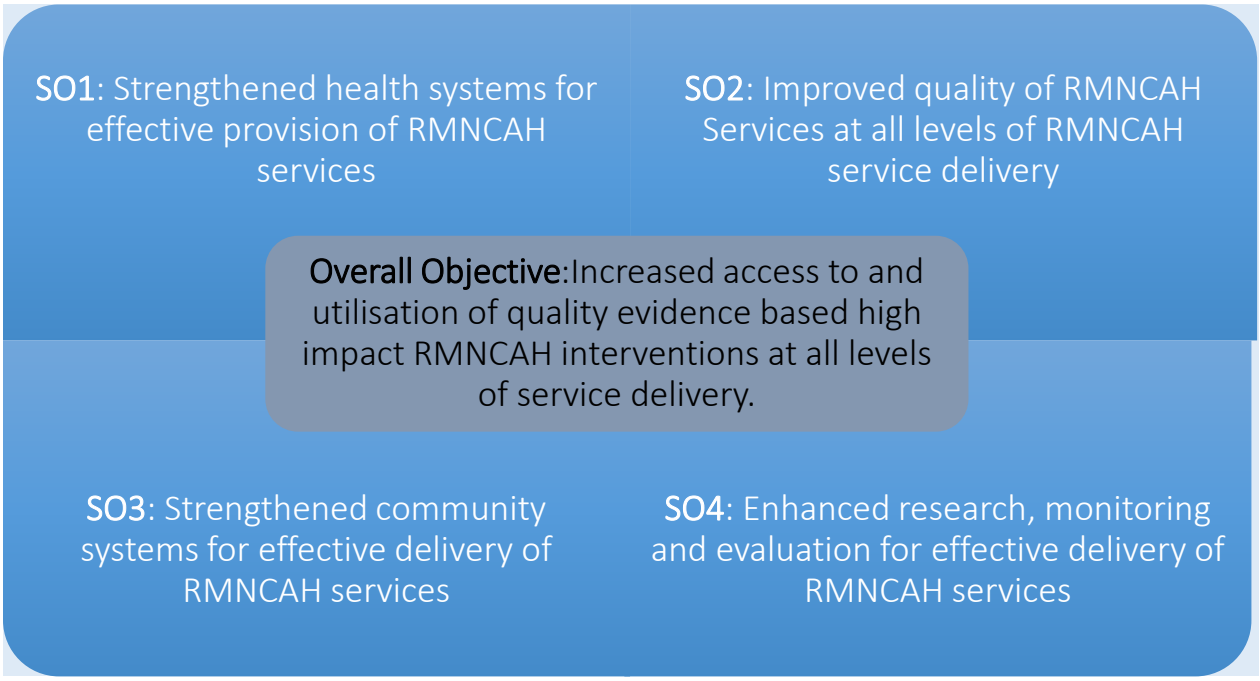

Figure 12: RMNCAH Strategic Objectives

6.5. Strategies and key actions by Strategic Objectives

The strategies presented in this section are organized by the four strategic objectives and respond to the bottlenecks and gaps in accessing and utilizing the prioritized intervention areas. Under each strategic objective, prioritized strategies and actions are outlined. Specific RMNCAH activities by strategy and key actions are detailed out in the activity work plan which is annexed to this strategy.

SO1. Strengthened health systems for effective provision of RMNCAH high impact interventions

Resilient and sustainable health systems including adequate, skilled and motivated Human Resources for Health, leadership and governance; medical products; vaccines and technology; health information; health financing; and service delivery are critical for ensuring availability of quality facility based RMNCAH services especially the prioritized intervention package areas of FANC, EmONC including skilled birth attendance and Essential Newborn Care, FP, IMNCI, Immunization, Nutrition, Prevention of Teenage pregnancy, IMNCI and the integrated RMNCAH services. In addition to articulating the high impact interventions, this strategy underscores the need for stronger health systems to deliver those interventions. These health systems strengthening interventions will be aligned with other broad strategies and initiatives including the National Pharmaceutical Procurement Unit (NPPU) reforms and the Health Information Systems (HIS) and Human Resources for Health (HRH) policies and strategies that are currently being developed. Under this strategic objective, the following strategies have been prioritized for implementation.

Strategy 1.1: Ensure adequate, skilled and motivated human resources for health for provision of RMNCAH high impact interventions.

At the time of the development of this strategy, country was finalizing the draft human resources for health policy and strategy. This RMNCAH strategy recognizes and aligns with this broad HRH policy and strategy. Interventions proposed under this strategy are those with direct and immediate impact to the delivery of RMNCAH interventions. The strategy will focus on addressing the HRH bottlenecks of poor retention especially in remote districts, low motivation and inadequate skills to provide high impact RMNCAH interventions. The strategy will promote active engagement with the HRH directorate to ensure placement of adequate RMNCAH critical cadres at all levels of health facilities as per the BPEHS 2015. For health workers upskilling, the strategy will support use of innovative pre-service as well in-service capacity building approaches including partnership with training institutions, mentorship, supportive supervision and use of the Centres of Excellence (CoE) concept for competency based training in high impact interventions. As part of implementing this strategy, the country will develop a training plan for RMNCAH high impact interventions to be implemented through the five-year strategic period.

Centres of Excellence (CoEs) for Provision of RMNCAH Services
Implements ALL evidence based MNH HIIs interventions as per this RMNCAH strategy
Has instututionalised mentorship/OJT and supportive supervision
Provides all integrated RMNCAH services including EMTCT, cervical cancer screening and GBV
Conducts regular MPDSR as per national standards
Has a functional facility committee in line with national standards
Is a certified privider of "Respectful Maternity Care" services
Has the required staff norm for provision of prioritized RMNCAH services as per the BPEHS
Implements MPDSR as per existing national standards.
Has adequate supplies and commodities to provide prioritised RMNCAH services as per the BPEHS
Has trained health workers who are able to facilitate skills acquisation and mentor other health workers on prioritized RMNCAH interventions
Meets all signal functions for a CEmONC facility as per national standards
Has all the infrastructural standards for provision of prioritized RMNCAH interventions as well as for provision of training services
Has a functional adolescent responsive centre as per national standards
Has all the time availability of RMNCAH life saving commodities-Zero stock outs
Has an existing and functional quality improvement committee and meets quality standards for provision of standardised RMNCAH services

The following key actions will be implemented.

Key actions

1.1.1. Develop and implement sustainable national mentorship program focused in health care worker skills building in prioritized RMNCAH interventions of long term family planning, FANC, EmONC including essential newborn care interventions and skilled birth care, IMNCI, immunization, adolescent health services and high impact nutrition interventions

(HINI) and integrated interventions including HIV and cervical cancer screening. (immediate)

1.1.2. Promote and institutionalize initiatives to increase retention and motivation schemes such as remote district allowance and provision of training opportunities RMNCAH critical cadres.(intermediate)

1.1.3. Develop national RMNCAH task shifting and task sharing program to increase access to life saving RMNCAH interventions especially EmONC, provision of long term FP methods and IMNCI among others. (immediate)

1.1.4. Establish Centre of Excellence (CoE) as training hubs on RMNCAH high impact interventions especially FANC, long term FP methods, EmONC including essential newborn care and skilled birth attendance, adolescent health services, Immunization, ETAT, high impact nutrition interventions and integrated RMNCAH services (immediate)

1.1.5. Partner with training institutions to integrate high impact RMNCAH interventions into pre-service training programs. (medium to long term)

Strategy 1.2: Strengthen leadership and governance at all levels to ensure delivery of RMNCAH services

Response on the just concluded Ebola response in Sierra Leone demonstrated the importance of effective leadership and governance in addressing an emergency health situation. With Sierra Leone having the highest maternal mortality in the world, RMNCAH responses deserves the highest political leadership and governance to ensure accelerated reduction maternal, neonatal, child and adolescent deaths. Coordination mechanisms at the different levels of service delivery are critical in ensuring an effective response. This strategy will review existing coordination mechanisms with view of strengthening them and ensuring their functionality. Other sectors outside health including education, civil vital registration and statistics, food security water and sanitation, social protection among others will be key in addressing barriers to access and utilization of high impact RMNCAH interventions. The strategy will support establishment and functionality of multisectoral coordination mechanisms and forums at national, district and chiefdom level. To ensure the RMNCAH strategy is implemented, a RMNCAH coalition will be established and strengthened to advocate for implementation as well as adequate financing for RMNCAH. The following key actions will be implemented under this strategy.

Key actions

1.2.1. Strengthen and ensure functionality of the existing coordination mechanisms for RMNCAH at national, district and local levels. (immediate)

1.2.2. Establish and strengthen coalitions to advocate for RMNCAH financing and RMNCAH strategy implementation at national and district and local levels. (intermediate)

1.2.3. Establish and where they exist strengthen multisectoral platforms for coordination and implementation of RMNCAH multisectoral interventions. (intermediate)

Strategy 1.3: Ensure all time availability of essential RMNCAH drugs, equipment and supplies for delivery of RMNCAH high impact interventions

At the time of the development of the RMNCAH strategy, the Ministry of Health and Sanitation was undertaking reforms on the National Pharmaceutical and Procurement Unit (NPPU). The strategy recognizes this process and will align to the reforms and the commodity security strategies to be developed as part of this process. Key actions outlined below respond to the immediate barriers to ensuring all time availability of essential commodities, equipment and supplies for delivery of RMNCAH high impact interventions especially the prioritized intervention packages of FANC, EmONC including skilled birth attendance and essential newborn care, IMNCI, immunization, nutrition, FP including for prevention of teenage pregnancy, IMNCI, immunization and nutrition. This strategy will support health worker capacity strengthening in forecasting, quantification, management and rational drug use through integrated supportive supervision and mentorship program.

In addition, to avoid national level stock out, procurement of essential RMNCAH commodities is prioritized under this strategy and reflected in the costing. The following key actions will be implemented.

Key actions

1.3.1. Strengthen capacity at different levels in RMNCAH commodity forecasting, quantification, management and rational drug use including inventory skills. (intermediate)

1.3.2. Support procurement and supply of essential RMNCAH commodities especially ensuring the last mile distribution (immediate)

1.3.3. Strengthen and scale up electronic logistics management information systems for RMNCAH commodities (intermediate)

1.3.4. Strengthen community involvement in tracking availability of essential RMNCAH commodities (especially those under FHCI) in public health facilities. (medium to long term)

1.3.5. Develop and implement national RMNCAH equipment maintenance and replacement strategy including for the vaccines cold chain system. (intermediate)

Strategy 1.4: Infrastructure development in targeted health facilities for provision of essential RMNCAH services

This strategy will focus on strengthening infrastructure in health facilities to ensure provision of RMNCAH high impact interventions especially the prioritized intervention packages of FANC, EmONC including skilled birth attendance and essential newborn care, IMNCI, Nutrition, Immunization, FP including prevention of teenage pregnancy and also the reproductive cancers. An assessment by UNFPA on availability of RMNCAH services identified infrastructure related challenges for provision of EmONC services ranging from lack of adequate space, inadequate water supply, lack of infrastructure for waste management as well as lack of power supply[51]. Although all health facilities providing RMNCAH services will be targeted, this strategy will, especially in the first two years prioritize infrastructure development in selected EmONC facilities.

[51]Rapid Assessment of Health facilities on availability of RMNCAH services in the context of Ebola Virus Disease. UNFPA 2015.

As part of the strategy implementation approach, district health management teams will be supported based on facility assessments and other criteria to identify a list of facilities to benefit from infrastructural support within the five year strategic period. Infrastructure development will include provision of adequate WASH facilities, power supply, adequate space for provision of services, and laboratory strengthening especially for provision of integrated FANC services. The following prioritized actions will be implemented.

Key actions

1.4.1. Support infrastructure development in health facilities providing RMNCAH services with special focus on selected BEmONC and CEmONC health facilities to ensure 24/7 provision of services. (immediate)

1.4.2. Support infrastructural development in selected health facilities to ensure provision of adolescent health services. (intermediate)

1.4.3. Support provision of Equipment for Cancer of the cervix screening and treatment facilities and capacities to create 4 regional centre of excellences. (medium to long term)

Strategy 1.5: Ensure availability of a functioning emergency referral system

A functional referral system from community to facility and from facility to facility is critical in saving lives of women, newborns, children and adolescents especially in emergency situations. The Ministry of Health and Sanitation is currently developing a national ambulance system. This RMNCAH strategy will align to this system once developed. Key actions under this strategy will focus both on developing and ensuring functionality of the referral system at all levels of health service delivery. The following key actions are prioritized for implementation.

Key actions

1.5.1. Development of responsive national and district referral strategies and plans. (immediate)

1.5.2. Support infrastructural development for provision of RMNCAH referral services. (immediate)

1.5.3. Strengthen capacity of districts and health facilities to provide referral services (intermediate)

1.5.4. Explore innovative referral systems/approaches especially in hard to reach areas (intermediate)

Strategy 1.6: Ensure all time availability of safe blood at all CEmONC facilities

Safe blood is an essential component for provision of CEmONC services. Availability of safe blood is a function of trained staff in blood handling, availability of blood bank, a functioning laboratory system to ensure safety and active and sustained blood donation drives to recruit networks of long-term volunteer donors. Consultations during the development of this strategy identified inadequate blood as a top bottleneck in the delivery of essential RMNCAH services especially CEmONC services. The following actions have been prioritized for ensuring adequate and safe blood especially at CEmONC sites.

Key actions

1.6.1 Support Infrastructure development for establishment of blood banks in all the CEmONC sites. (immediate)

1.6.2 Build capacity of health workers in management of blood banks. (immediate)

1.6.3 Develop and implement innovative national blood donation campaigns including incentives for blood donors. (immediate)

SO 2: Improved quality of RMNCAH services at all levels service delivery

Increased access to RMNCAH services that are of poor quality will not deliver desired RMNCAH outcomes. The concept of effective coverage to RMNCAH services emphasizes both increased coverage but also quality high impact interventions. With the country having high mortality rates despite a fairly good coverage rates of key interventions such as ANC and institutional delivery, discussions with the country RMNCAH players identify possible gaps as being around poor quality of care in service delivery as well as poor quality of data. This strategic objective will focus on institutionalization of quality improvement in the provision of RMNCAH services across all levels of service delivery. Additionally, quality improvement as a cross cutting issue will be integrated across the other three objectives. Data quality improvement will be implemented as part of the fourth strategic objective on health information systems strengthening. The following strategies and key actions will be implemented under this strategic objective.

Strategy 2.1: Develop and support implementation of a National RMNCAH Quality Improvement program

An institutionalized national quality improvement structures and system with clear standards is critical for sustained quality improvement interventions. This strategy outlines a process for ensuring such systems and structures are established and operationalized across all the levels of health service delivery from national, to district and facility levels. As part of this strategy, a quality improvement structure will be established within the Ministry of Health and Sanitation. WHO has recently developed quality improvement standards guidance for provision of maternal and newborn services and also adolescent services in health facilities[52], the country will domesticate and align to those standards.

Key actions

2.1.1. Develop National RMNCAH Quality Improvement model/approach and standards in line with the WHO standards and facilitate its implementation. (immediate)

2.1.2. Establish functional quality improvement structures at national, district and facility level. (intermediate)

2.1.3. Train health workers in provision of quality services and use RBF to pay for quality improvement indicators. (immediate)

[52] Standards for improving Quality of Maternal and Newborn Care in Health Facilities. WHO 2016

Strategy 2.2: Support implementation of proven systematic quality improvement procedures, approaches and practices for improving quality of RMNCAH services.

Under this strategy, the country will develop and implement standardized quality improvement procedures and practices to ensure provision of quality RMNCAH services at all levels of service delivery. As part of the strategy implementation, and to guide development of a country standardized approach, a review of the existing quality improvement approaches and procedures will be undertaken. Based on the already existing evidence, this strategy prioritizes implementation of ETAT in the provision of child health services, strengthening of the MPDSR and respectful maternity care as the leading pillars for the country's quality improvement approaches and procedures. In addition to improving quality of care, implementation of respectful maternity care is expected to increase demand for facility based RMNCAH services including skilled birth attendance. The strategy will promote client involvement in providing feedback on their experiences in provision of RMNCAH services. Targeted facilities will be supported to develop service charters and ensure opportunities are created for clients to provide feedback on facility service delivery either through exit interviews, provider initiated client feedback or through complaint boxes. Under this strategy, the following key actions are prioritized.

Key actions

2.2.1. Support implementation of Emergency Triage Assessment and Treatment (ETAT). (immediate)
2.2.2. Support implementation of safe antenatal and respectful maternity care. (intermediate)
2.2.3. Strengthen Maternal and Perinatal Death Surveillance and Response at all levels of service delivery. (immediate)

SO 3: Strengthened Community systems for effective delivery of RMNCAH services

This strategic objective will focus on addressing the demand side barriers to access and utilization of RMNCAH high impact interventions, strengthening provision of RMNCAH services at community level as per the draft national CHW policy and strategy and mobilizing the community to hold government and other service providers accountable in delivery of RMNCAH services. Strategies prioritized under this strategic objective include addressing social cultural, geographical and financial barriers, implementing iCCM and other RMNCAH interventions that can be implemented at community level as well as promoting implementation of targeted multisectoral interventions. Described below are the prioritized strategies and key actions under this strategic objective.

Strategy 3.1: Address sociocultural, geographical and financial barriers to access and utilization of RMNCAH high impact interventions

This strategy will focus on addressing factors that result to delay 1 and 2 in accessing and utilizing RMNCAH high impact interventions. Through a targeted social and behaviour change communication approach, this strategy will address social cultural barriers such as low male involvement which impact on access to and utilization of RMNCAH services. The strategy will incentivize CHWs and other community based players as well as women and adolescents to increase access and utilization of RMNCAH services. As part of ensuring equity in service delivery, this strategy will develop innovative interventions for

districts that face geographical challenges to accessing RMNCAH services. Maternal Waiting Homes as well as integrated outreach programs will be implemented in districts with access challenges.

To address financial barriers to accessing RMNCAH services, the strategy will innovatively support implementation of evidence based demand side financing including vouchers to pregnant women and children in need of emergency child health services.

Key actions

3.1.1. Develop and implement targeted national social and behaviour change communication to address sociocultural barriers to access and utilization of RMNCAH interventions. (immediate)

3.1.2. Implement incentive based mechanism such as community level performance based financing and other results based initiatives for CHWs and other community based players to increase uptake of facility based prioritized RMNCAH services. (medium to long term)

3.1.3. Support interventions to address geographical access barriers to high impact RMNCAH interventions including integrated RMNCAH outreaches and maternal waiting homes. (immediate)

3.1.4. Design and pilot demand side financing interventions to address the financial barriers to access and utilisation of high impact RMNCAH interventions. (immediate)

3.1.5. In partnership with local level leadership, establish community based platforms for adolescent girls to access adolescent friendly services. (immediate)

Strategy 3.2: Implement iCCM plus as per the community health workers scope of practice

Sierra Leone has developed an elaborate CHW policy that outlines the provision of iCCM "plus" as a priority intervention area at community level. The CHW policy outlines as one of the mandates of CHWs: to identify and treat pneumonia, malaria and diarrhoea in children aged 2 to 59 months and refer cases with danger signs[53].The iCCM program is currently ongoing in selected districts in Sierra Leone and there are plans for scale up. As part of addressing equity to access of services, this strategy will promote implementation of iCCM in 7 priority districts, starting with the 5 districts that have access challenges in the Northern region. Aligning with the community health policy, the RMNCAH strategy will support community health systems strengthening to ensure delivery of iCCM "plus" interventions that are relevant to RMNCAH.

Key Actions

3.2.1. Strengthen capacity of health workers, CHWs and other structures and provide necessary facilitation for implementation of iCCM. (immediate)

3.2.2. In line with community health policy and strategy, strengthen commodity security for iCCM implementation Design and implement a sustainable and effective commodity security system for community health workers. (immediate)

[53]Draft CHW policy Oct 2016

3.2.3. In line with the community health policy and strategy, enhance community health workers' supervision and motivation for effective delivery of iCCM plus. (immediate)

3.2.4. Strengthen iCCM data collection, analysis, reporting and documentation. (immediate)

Strategy 3.3: Promote implementation of RMNCAH interventions at community level including social accountability

In addition to iCCM "plus", the draft CHW policy and strategy outlines other roles of the CHWs in the RMNCAH services at community level including family planning, nutrition, ANC home visits, postnatal care as well surveillance and reporting of vital events. Annex 9.3 provides an extract of CHWs scope of work on reproductive, maternal, newborn and child health as per the draft community health policy. This strategy, in collaboration with the Primary Health Care Directorate, will focus on strengthening the community health systems, mobilization and engagement to ensure CHWs are able to provide those RMNCAH services. Using experiences from Ebola outbreak on community based reporting/surveillance, this strategy will support implementation of maternal and perinatal death reviews at community level.

Key actions

3.3.1. Strengthen capacity of CHWs to implement RMNCAH interventions at community level as per the CHW policy and strategy. (immediate)

3.3.2. Strengthen social accountability and action for RMNCAH at community level including MPDSR/verbal autopsy at community level. (intermediate)

Strategy 3.4: Address other sector determinants to access and utilization of RMNCAH services: education, social protection, nutrition and WASH at community level

Non health sectors such as education, economic empowerment, social protection, water and sanitation among others have impact on access to and utilization of RMNCAH interventions. These sectors also present entry points for implementing RMNCAH interventions. Education sector for instance presents an opportunity to implement adolescent health programs especially comprehensive sexuality education (CSE). This strategy seeks to establish and utilize multisectoral forums led by the local community leadership to address bottlenecks to access and utilization of high impact interventions. Additionally, this strategy will support implementation of evidence based RMNCAH relevant multisectoral interventions at community level especially education and ASRH, food security and nutrition, water sanitation and hygiene and social protection and adolescent health. The Ministry of Education in collaboration with development partners have been implementing a model adolescent health and education program in selected districts, this strategy will support scale up of this model.

Table 7: Model Adolescent Health Multisectoral Intervention

The following key actions have been prioritized for strengthening multisectoral response for RMNCAH.

Key actions

3.4.1. Establish/strengthen and promote functional multisectoral platforms for RMNCAH at community level. (immediate)

3.4.2. Pilot and document promising multisectoral interventions in RMNCAH at community level. (immediate)

SO 4: Strengthened Health Information Systems, monitoring and evaluation and research for effective delivery RMNCAH services

Strengthening of health information systems is an important component of resilient health systems. Quality RMNCAH data and in a timely manner is necessary for effective planning and decision making. This strategic objective will focus on strengthening country's health information systems, as well as ensuring improved monitoring and evaluation for RMNCAH. The objective will ensure that all the necessary indicators for monitoring and evaluating impact including quality improvement are defined, that tools are available to collect this data in a disaggregated manner and that reporting is complete, of good quality and that it is done in a timely manner. Use of data for decision making will be promoted. To improve monitoring and evaluation and to promote use of evidence to inform policy and change practice, under this strategic objective, this RMNCAH strategy will strengthen research and use of innovations. The following strategies and key actions are prioritized.

Strategy 4.1: Strengthen the national HIS to ensure responsiveness to RMNCAH health information needs.

This strategy will invest in ensuring timely availability of quality and complete data for RMNCAH decision making and planning. In addition to strengthening the regular collection, collation, analysis and reporting of regular RMNCAH data, with renewed focus on quality improvement for RMNCAH services, the strategy will have a specific focus on ensuring the country has and reports on quality improvement indicators. The strategy will promote health worker, including community health workers, capacity building in data collection, management and use for decision making as well as review and strengthen existing tools and reporting systems to ensure responsiveness to RMNCAH needs. On CHWS, this strategy will strengthen capacity of community health workers in integrated disease surveillance and reporting. The current tools are not able to collect and disaggregate data especially for adolescent health. To ensure data on adolescent health is reported for purposes of planning and decision making, this strategy will promote review of tools to ensure they are able to disaggregate critical data by age and sex.

Key actions

4.1.1. Strengthen availability of and use of data to measure and improve quality of care in provision of RMNCAH services including defining national RMNCAH QI indicators and reviewing existing tools to ensure they are able to collect and report QI indicators. (immediate)

4.1.2. Enhance monitoring and evaluation and use of RMNCAH data for decision making including the disaggregation of data. (intermediate)

Strategy 4.2: Strengthen innovation and use of research to improve delivery of RMNCAH services

Evidence based Innovations and research for RMNCAH are key in influencing policy for better outcomes. This strategy will support the country to develop RMNCAH research agenda, design and pilot RMNCAH innovations. Based on the operations research, the strategy will support linking evidence to policy and practice and scale up of promising interventions. As part of this, the RMNCAH strategy will strengthen capacity of health workers especially in implementation/operations research. The following key actions are prioritized under this strategy.

Key actions

4.2.1. Develop and implement national RMNCAH operations research agenda in partnership with research institutions and other players. (medium to long term)

4.2.2. Support documentation and dissemination of emerging best practices and or evidence based RMNCAH interventions for scale up and policy change. (medium to long term)

Strategy 4.3: Strengthen Civil Registration and Vital Statistics (CRVS) for delivery of RMNCAH services

Although civil registration and statistics has the potential to provide maternal, neonatal and under-five mortality data of better quality, it is one of the least developed and underfunded data sources in many developing countries including Sierra Leone. A well-functioning CRVS system registers all births, and deaths and issues birth and death registration, compiles and disseminates birth and death statistics including information on causes of death. The Sierra Leone Health Sector Recovery Plan identifies CRVS as a priority investment area. The Ministry of Health and Sanitation has recently developed a HIS strategy which also identifies CRVS as a priority intervention area. This RMNCAH strategy will align with and support implementation of the key CRVS priority areas within the HSRP and the national HIS strategy. This strategy will focus on strengthening coordination of CRVS, integrating CRVS within the health system through building capacity of health workers and ensuring the availability of the right infrastructure including adequate computers.

Key actions

4.3.1. Strengthen coordination of CRVS in the country including strengthening partnership between Ministry of Health and Sanitation and Ministry of Interior where CRVS is housed. (medium to long term)

4.3.2. Build capacity of health workers at all levels to implement CRVS including training in birth and death registration. (medium to long term)

4.3.3. Strengthen health care infrastructure at all levels to implement CRVS including provision of computers and other hardware to health facilities. (medium to long term)

7. Financing the Strategy

Understanding both the cost of implementing RMNCAH interventions and the resources available is critical in supporting further prioritization as well as designing appropriate measures to finance remaining gaps. This section outlines the methodology used in costing the strategy, the cost of implementing the five-year strategy and estimates of the available resource commitments in the country for the strategy period. Using the cost of the strategy and resource commitments available in the country, the total resource gap for implementing the strategy was calculated. The section further provides strategies for bridging the remaining financial gap.

Costing Methodology

The Sierra Leone Reproductive, Maternal, Newborn, Child and Adolescent Health Strategy 2017 to 2021 (RMNCAH) has been costed using the OneHealth tool. The total cost of the strategy that is presented in this section takes into consideration the cost of the activities to be carried out and also the health systems inputs that are required to ensure delivery of the proposed high impact interventions. The costing was done in a participatory process where an input sheet was developed and used to populate the cost of the inputs. The Ministry of Health and Sanitation provided the estimates of the various cost elements used in the costing of the strategy.

What was costed

The scope of the costing exercise included estimating all costs related to delivering the package of health interventions identified in this RMNCAH Strategy. The cost of this strategy has therefore been estimated from: a) the programmatic costs (i.e. activities to deliver the on the key actions and strategies that have been outlined in Chapter 6); and b) Health system investments needed to deliver the 8 strategy priority packages. These health systems investments include: number of human resources for health, cost of HRH staff time spent on providing RMNCAH services as a % of overall salary cost, running cost for maintaining the infrastructure (excluding those outlined in the key actions), logistics, and the medicines, commodities and supplies. Other health system costs such as governance and the health information system have been costed as part of the programme costs.

Scenarios and Key Assumptions

These scenarios represent the investments required to execute the key actions, strategies and interventions to meet the outcomes and targets presented in the RMNCAH strategy. The interventions modelled by these policy scenarios were established by the Live Saved Tool (LiST) analysis to have the biggest impact on mortality and development outcomes as shown in Annex 10.2.

The scenarios presented below were projected using the 2015 census population of 7,092,113 as the baseline population and a currency exchange rate of SLL6,900 to the US$. The programmatic costs reflected were based on 2017 estimates provided by the Ministry of Health and Sanitation for carrying out the identified activities and projected forwards over the 5 years of the strategy. The health system costs were updated values from the estimates that were used during the development of the National Health Recovery Plan in 2015.

Three scenarios are presented: an 'aggressive' scenario, what has been termed the 'strategy' scenario and the third scenario reflecting the cost if the country progresses at the current rate of improvement for RMNCAH.

a. The 'Strategy' scenario: The strategy scenario was scaled using linear interpolate. With this approach service coverage increased at a constant rate following a linear pathway until the target was achieved. The cost estimate presented in this scenario model outlines the investments needed to execute the key actions and strategies to meet the targets as currently presented in this RMNCAH strategy. The strategy scenario is estimated to cost 544.9 million USD for the five-year strategy period.
b. An aggressive scenario: This has been scaled using frontloaded interpolate profile; as implied this RMNCAH service coverage was scaled rapidly in the first three years of the strategy. This scenario presents the investments needed to meet universal coverage of all services to a minimum of 80% irrespective of the weight of their impact on lives saved to address the current mortality trends. Investments under this scenario proposes nationwide scale up interventions that are planned under 'strategy scenario' for implementation only in certain districts, such as the National CHW programme and the social protection programmes; or at certain level of the health service delivery such CEmONC and BEmONC services. This scenario assumes an ideal scenario with all the needed resources being available. This scenario is expected to cost 791.3 million USD for the five years.
c. The Baseline Scenario: Baseline: This scenario is considered business as usual as RMNCAH service coverage estimates are not scaled-up as with the other scenarios (Strategy and Aggressive). Rather they are left flat lined from the base year in 2016 to target year in 2021. Although the service coverage remains unchanged the programmatic interventions are similar to those of the "strategic" scenario, which would ensure that minimum quality of care is provided.

Table 8 below shows the cost of the RMNCAH Strategy by scenario.

Table 8: Total cost for the three scenarios (USD)

Scenario	2017	2018	2019	2020	2021	Total (USD)
Strategy Scenario	95.7M	106.4M	109.9M	113.8M	119.3M	544.9M
Aggressive:	141M	153.6M	159.4M	168.1M	169.4M	791.3M
Baseline Scenario:	89.2M	93.8M	91.3M	89.4M	89.5M	453.1M

Costs of the National RMNCAH Strategy 2017 -2021

As shown in the table 8, the estimated total cost for the RMNCAH strategy over the 5 years is USD$544.9M (based on the OneHealth tool modelling). The per capita cost for implementing the strategy gradually increases from USD$13.5 to USD16.8 in 2021 (mean per capita over the 5 years is USD$15.4). This is expected to achieve the following:

a. MMR from 1165 per 100000 live births to 650 per 100000 live births by 2021

b. NMR from 39 per 1000 live births to 23 per 1000 live births by 2021

c. U5MR from 156 deaths per 1000 live births to 71 live births by 20211

d. Still Birth Rate from 24 per 1000 live births to 18 per 1000 live births by 2021

e. Adolescent birth rate from 125.1 to 74 per 1000 women aged 15-19 years by 2021

Based on programmatic health service area – Child health services accounted for the largest cost share of the total cost of 34% as shown in Figure 1. Maternal, newborn and reproductive health (MNRH) services at 17%. WASH costs amounted to only 5%. Another key cost included in RMNCAH costing is the estimate for multisector interventions which accounted for 7% of the budget, these investments are targeted at reducing financial barriers for increased Access & Utilization to RMNCAH Services. The adolescent health interventions shown in the pie chart are those uniquely interventions that target adolescent but not including SRH or maternal interventions which are captured in MNRH services.

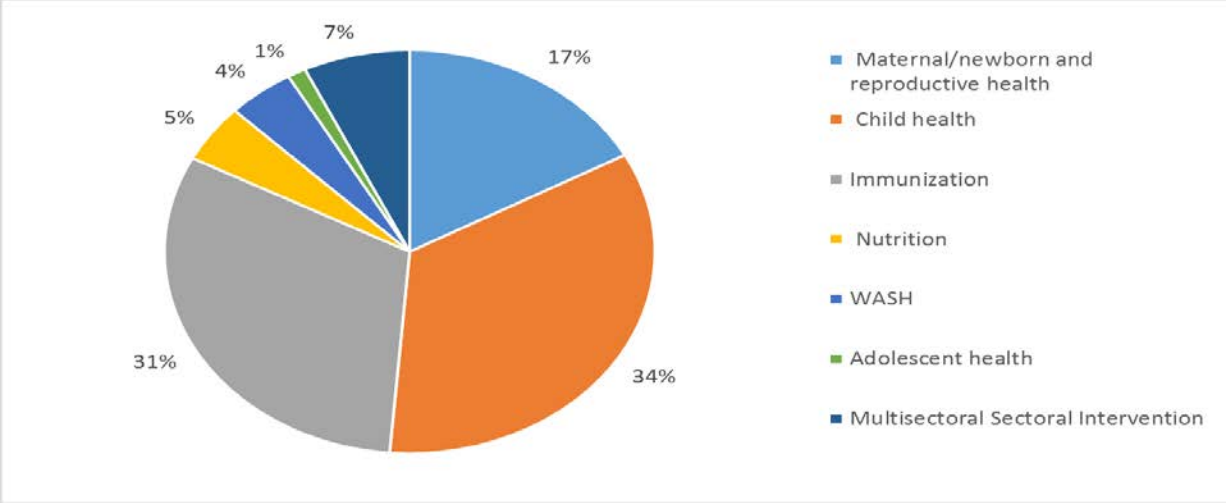

Figure 13*: Summary costs by health services area for the National RMNCAH Strategy 2017-2021*

When viewed across the health system the biggest cost is from the procurement of medicines (including vaccines), commodities and supplies that are necessary for meeting the impact targets. Table 2 below shows the breakdown of the health system investments needed per year to meet the outcome targets. Of the six pillars, only three were costed as shared cost, while specific investments for governance, activities to mobilize financing for the strategy and the health information system costs have been integrated into the RMNCAH strategy key actions and activities costs. For the share HSS cost (HR, infrastructure and Logistic) capture in this plan, RMNCAH costs accounts for 40% of total HSS cost. This estimate represents the proportion in cost of staff time spent delivering facility based cases RMNCAH services over total staff time available in Health sector.

Table 9: Cost per major inputs (USD)

Total costs	2017	2018	2019	2020	2021	Total
Programme (Activity) Costs	31.2M	36.2M	32.7M	34.9M	35M	169.8M
Human Resources: RMNCAH	2.2M	2.6M	3M	3.1M	3.2M	13.9M
Infrastructure: RMNCAH shared Cost for Health Facility Operating Cost and upgrade	8M	6.3M	6M	1M	0.1M	21.1M
Logistics: RMNCAH shared cost for Logistic Management & Distribution	7.1M	7.1M	7.1M	7.1M	7.1M	35.2M
RMNCAH Medicines, commodities, and supplies	40.1M	47M	53.9M	60.5M	66.8M	268.1M
Multi sectoral intervention (Reducing financial barriers for increased Access & Utilization to RMNCAH Services)	7.4M	7.4M	7.4M	7.4M	7.4M	37M
Grand Total	**95.7M**	**106.4M**	**109.9M**	**113.8M**	**119.3M**	**544.9M**

Further analysis of the programmatic cost as illustrated in table 3, shows the breakdown of cost of each of the 4 strategic objectives of the National RMNCAH Strategy. Important to note that the CHW programme cost which have been costed for 7 districts (7500 CHW and 750 peer supervisors) as well as the multisector interventions are reflected in strategic objective 3. Vaccines, drugs, supplies and commodities have been presented in the strategic objective 1.

Table 10: Cost per Strategic Objectives USD

RMNACAH 2017-2021 Strategic Objectives	2017	2018	2019	2020	2021	Total
SO1. Strengthened health systems for effective provision of RMNCAH high impact interventions	58.5M	64.7M	69.6M	70.1M	74.2M	336.8M
SO 2: Improved quality of RMNCAH services at all levels service delivery	14.9M	21.4M	18.4M	18.7M	23.9M	97.2M
SO 3: Strengthened Community systems for effective delivery of RMNCAH services	22M	19.8M	21.5M	24.7M	21M	108.9M
SO 4: Strengthened Health Information Systems, monitoring and evaluation and research for effective delivery RMNCAH services	0.4M	0.5M	0.5M	0.4M	0.4M	2.1M
Grand Total	**95.7M**	**106.4M**	**109.9M**	**113.8M**	**119.3M**	**544.9M**

Available Resources and Resource Gap

As part of the development of the national RMNCAH strategy, led by the Ministry of Health and Sanitation, a 5 year forward looking resource mapping was undertaken. The exercise covered the entire health sector from which the RMNCAH thematic commitments were extracted. Limitations in the resource mapping exercise were: -

a. Only the top development partners were able to share their resource commitments with most implementing partners not being able to complete the resource tool.

b. Most of the resource commitments declared were only for 2016/2017 and 2017/2018. Most development partners were not able to share commitments for the rest of the 3 years of the RMNCAH strategy. With this limitation, assumptions have been used to work out the total 5 years gap for the strategy.

c. The development partners only provided the total RMNCAH resource commitments and were not able to categorize the commitments into specific thematic areas of FP/reproductive, maternal, newborn, child and adolescent health.

d. Up to 53% of the total amount was identified as cross-cutting i.e. including for RMNCAH but not limited to RMNCAH. It is therefore likely that the true amount of funding available for RMNCAH is much higher that the USD$209 million that has been categorized as available RMNCAH resources. It will be useful to do further analysis on this category to better understand the funds available for RMNCAH.

Total resource commitments

The total amount of resources mapped is $535 million USD, around 57% or $306million USD of this was for programmes in the 2016/17 financial year as shown in table 11. Of the funds committed to the health sector in 2016/17 funding period, (which is the only year were full disclosure was given) funds clearly allocated RMNCAH projects amounted to $103million USD in the first year; and a further USD$179million USD which tagged cross-cutting. A significant proportion of these cross-cutting resources are for RMNCAH programmes, but also includes health systems strengthening support specifically targeted for improving RMNCAH outcomes as part of the presidents' recovery priorities in the post-Ebola recovery plan. Over the whole period of the plan, funds which respondents specified as being specifically RMNCAH funds were about $209 million USD.

Table 11: Distribution of Funding Based on Resource Map across RMNCAH Projects in Sierra Leone from 2016/17 to 21/22

Allocation to RMNCH Projects from Resource Map	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total (USD)
Yes	103.6M	77.8M	16.8M	11.2M	-	-	209.2M
Cross-cutting	179.2M	62.7M	38.2M	3.2M	2.8M	2.8M	288.7M
Non-RMNCAH Programmes	23.5M	13.9M	-	-	-	-	37.4M
Grand Total	**306.2M**	**154.4M**	**54.9M**	**14.3M**	**2.8M**	**2.8M**	**535.1M**

The major funding agencies for Health and RMNCAH in the country are as shown in the Table 12. These represent about 99% of all mapped funds in the RM exercise..

Table 12: Major Funding agencies and allocations to Health Sector and RMNCAH in Sierra Leone from 2016/17 to 21/22

FUNDING SOURCE	FY 16/17	FY 17/18	FY 18/19	FY 19/20	FY 20/21	FY 21/22	Total (USD)
Department for Int'l Development (DFID), UK	91M	75.4M	-	-	-	-	166.4M
Global Fund	51.9M	42.2M	9.2M	-	-	-	103.2M
World Bank	56.7M	9.9M	28.9M	-	-	-	95.4M
USAID	76.9M	0.2M	0.2M	-	-	-	77.2M
Government of Sierra Leone	9.7M	13.3M	1.2M	14.3M	2.8M	2.8M	43.9M
GAVI and GOSL	10.2M	6.3M	8.1M	-	-	-	24.4M
GAVI	-	5.8M	7.5M	-	-	-	13.3M
Irish Aid	3.4M	-	-	-	-	-	3.4M
GIZ	2.2M	-	-	-	-	-	2.2M
African Development Bank Group	0.7M	1.2M	-	-	-	-	1.9M
Grand Total	302.4M	153.9M	54.9M	14.3M	2.7M	2.8M	531M

Country discussions highlight that given the increased resource mobilization during the Ebola period, it is likely that the level of resources mobilized (as reflected) in the first 2 years of the strategy from external sources may not be sustained over the remaining period of the strategy. Without taking into consideration the available funds that are identified as cross-cutting, the resources required for the next four years (i.e. 2018/19 to 201/22) were calculated using previous resource commitments as per the last 2 NHA reports. Assuming a year on year increase of 5% from the NHA reports for 2014 and projected to 2021, and that 25% of total health commitments are allocated to RMNCAH, the resource commitments for the four years (2018/19 to 2021/22) is given as $144million USD. The total extra resource commitments for the strategy period would therefore be $222 million USD.

RMNCAH resource gaps

With the strategy scenario having a total cost of $544.9 million USD and resource commitments of $222 million USD for the five years, a total resource gap for this scenario is identified as $323 million USD. The first year of the strategy has no resource gap; this can be explained given the high post Ebola resource commitments from the development partners.

Bridging the resource gaps

Coming from Ebola response, Sierra Leone had substantial donor resource commitments for the year 2016/2017. The high donor resource commitments are likely to decrease over the strategy period. In addition to the health care financing sections of the strategy that makes specific recommendations for

increasing resource commitments for RMNCAH, this strategy makes the following recommendations towards bridging the 5-year resource gaps of this strategy.

a. Aligning the partners to the prioritized RMNCAH strategy to reduce inefficiencies and increase effectiveness. This RMMCAH strategy identified priority interventions for improving RMNCAH indicators. It is proposed that in the first year of this strategy, all partners will be sensitized on this strategy and their resource commitments aligned to the priority interventions. It is expected that this alignment will also reduce duplication and as such increase efficiency in the utilisation of the available resources.

b. Support a more detailed annual resource mapping to provide more details in resource commitments by region and thematic areas. As earlier identified, this resource mapping had a lot of limitations including not being able to provide resource commitments by region and by thematic area. It is therefore recommended that in the first year of the strategy implementation the country undertakes a detailed resource mapping to identify commitments by thematic area. This will help in re-allocation of resources to interventions and thematic areas of highest impact as per the strategy.

c. Advocate for increased Government resource allocation to RMNCAH. To ensure health care financing sustainability, this strategy recommends increased Government resource allocation to RMNCAH. It is recommended that the RMNCAH health care financing coalitions are formed as part of the implementation of this strategy to advocate with the Government of Sierra Leone towards increased resource allocation for RMNCAH as well as improved governance and accountability in the use of the available resources.

d. Use the ongoing process for development of the health care financing strategy to develop sustainable health care financing options. As part of the Global Financing Facility processes, the Government of Sierra Leone is in the process of developing health care financing strategy. It is recommended as part of that process that the country comes up with innovative solutions to increase health care financing for RMNCAH response.

e. Mobilise development partners in alignment with the RMNCAH strategy to pre-commit resources. Despite the decreasing RMNCAH resources from development partners, donor funding is expected to continue to be the leading source of funding for implementing the RMNCAH strategy. To increase the predictability of the resources, it is recommended that the Government uses the strategy to mobilise donors pre-commit their resources in alignment with the strategy.

8. Operationalizing Implementation of the RMNCAH Strategy

This section of the strategy presents the how of the strategy implementation. The section outlines the service delivery approaches, service delivery platforms, governance, management and coordination and implementation approach.

8.1. Service Delivery Approaches and Platforms

8.1.1. Service Delivery Approaches

Integrated Service Delivery Approach

Integrated service delivery model is an effective and efficient strategy in the delivery of health services especially RMNCAH interventions. RMNCAH platforms for instance focused antenatal care are an important entry points for other services especially HIV/AIDS interventions. This strategy will support and strengthen bi-directional integration of services across the continuum of care from pre-pregnancy and adolescence through pregnancy, child birth, postnatal for both mother and newborn and infancy and childhood period. To ensure no missed opportunities, service providers will have their capacity strengthened so as to deliver integrated essential services to clients who need them. Health systems strengthening opportunities for integration such as delivering both RMNCAH and HIV commodities and supplies through one supply chain system will be promoted. In addition to helping increase coverage for the RMNCAH strategy prioritized interventions, for instance when FP is integrated in HIV prevention and treatment services such as in HIV Testing and Counselling (HTC) and ART clinics, strengthened integration is critical in addressing the indirect causes of maternal, newborn, child and adolescent mortality such as AIDS, Tuberculosis (TB), Malaria, STIs, cervical cancers among others. Figure 13 below shows a representation on how this strategy will integrate HIV and AIDS prevention and care, more specifically PMTCT across the RMNCAH continuum.

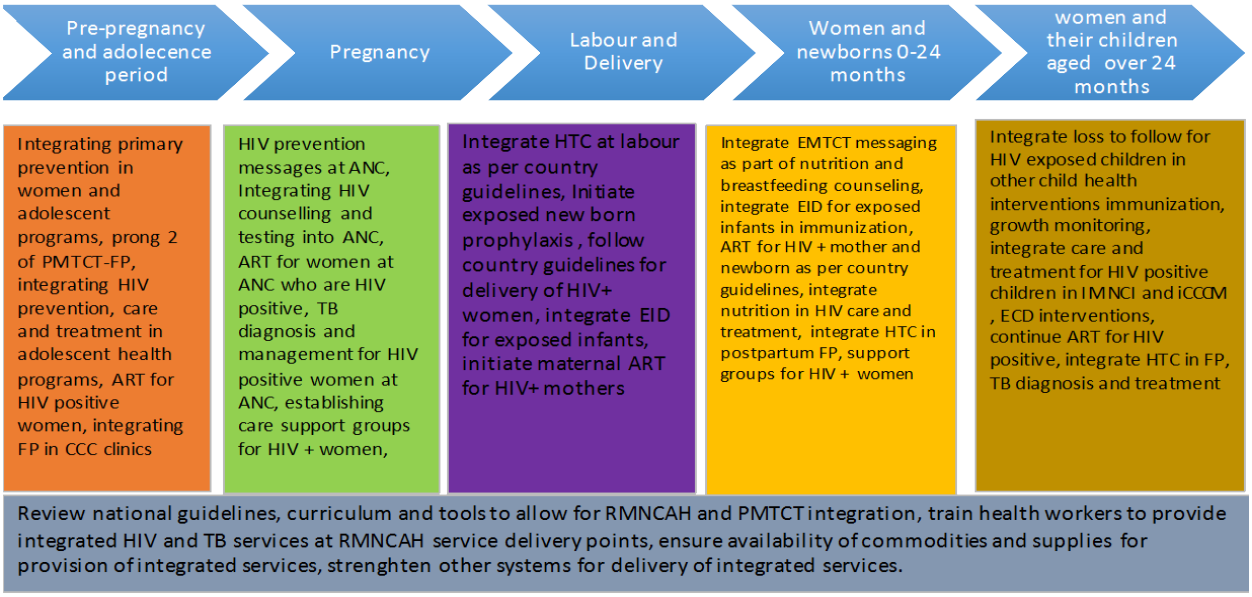

Figure 14: RMNCAH Integration Model

Multisectoral approach

This strategy recognizes that improving maternal, newborn, child and adolescent indicators is a play many other sectors outside the domain of health. To adequately and sustainably address bottlenecks to access and utilization of quality RMNCAH services, this strategy will promote a multisectoral response bringing in other sectors that impact on RMNCAH. Health and in particular the RMNCAH sub sector will engage in partnership with key sectors impacting RMNCAH including education, food security and agriculture, social protection and economic empowerment, water and sanitation and the local government. As part of the strategy coordination and implementation approach, a multisectoral coordination forum at national level will be established. Prioritized action plans for RMNCAH multisectoral interventions will be developed for joint implementation. At district levels, the district councils will be tasked to establish or strengthen and use existing multisectoral forums to plan and implement prioritized multisectoral interventions. These forums will be also established at the chiefdom levels. This RMNCAH strategy will prioritize and implement evidence based multisectoral interventions.

Private Sector Involvement

There is low involvement of private sector in Sierra Leone in the provision of health care services with bulk of services being delivered through the public sector. Out of the total of 1280 health facilities in the country only 72 (5.6%) are private[54]. Despite the low presence of the private sector, this strategy recognizes the potential role of the private sector in the delivery of RMNCAH services especially family planning services. This Ministry of Health and Sanitation will ensure involvement of the private sector in the coordination forums.

[54] Sierra Leone basic package of essential health services 2015-2020.

Additionally, the DHMT will be strengthened to offer supportive supervision to private health facilities and to ensure the facilities collect and report their service delivery data through DHIS.

8.1.2. Service delivery platforms

The prioritized intervention packages will be implemented through primary health care Units and secondary care facilities as described in the Sierra Leone BPEHS 2015. The private facilities including mission hospitals will also play their role in delivery of prioritized interventions as per their level. This strategy will strengthen each level of service delivery platform to ensure provision of quality RMNCAH services as per the level service delivery. Facility outreach platform will be used to deliver services where communities have poor access to facility based services. Inputs to be provided contextualized to service delivery level include: Ensuring adequate number of staff as per norm, training health workers including community health workers to deliver prioritized RMNCAH package of services appropriate for each level, ensuring adequate and reliable RMNCAH supplies and commodities, improving infrastructural development for provision of RMNCAH services and implementing quality improvement interventions such as functional facility improvement committees, supportive supervision and mentorship of health workers. The health workers at the different levels will have their skills strengthened in health information systems as well improving systems to ensure collection, analysis, reporting and use of RMNCAH data. The Sierra Leone BPEHS 2015 provides further details on specific inputs required by level of service delivery to ensure their delivery of essential health services including provision of RMNCAH services prioritized in this strategy. Other service delivery platforms will include the school health program which will be used to deliver mainly adolescent health programs and to integrate other interventions such as immunization and nutrition into early child hood program. Community health platform will be used to deliver interventions at communication such as integrated community case management (iCCM) and other interventions as described in this strategy.

8.2. Governance, management and coordination

A strong governance, management and coordination structure is as critical as the proposed interventions in ensuring effective implementation and achievement of the RMNCAH strategy stated results. To the extent possible, the governance and management of the RMNCAH strategy will build on existing structures at national and district levels. The existing structures will be strengthened to ensure effective coordination, inclusiveness, transparency and accountability for RMNCAH results. After the launch of the RMNCAH strategy, a review of the existing structures will be undertaken to understand the gaps based on which targeted interventions will be implemented to strengthen the structures for effective implementation of the strategy.

Overall Coordination & Accountability: The Health Sector Coordinating Committee chaired by the Minister of Health

Operational Implementation at National Level: The Directorate of Reproductive and Child Health

Operational Implementation at District Level: Expanded DHMT

Support Committees: Relevant TWGs, various Cluster Committees including Leadership and Governance, Service Delivery, HRH, Health Infrastructure, Health care financing, Procurement and Supply Chain management, Health Information and M&E

Lessons from the Ebola response and later implementation of the President's Recovery Plan have shown that leadership and political buy in at the highest level is critical for achievement results. Given the need to drastically improve the poor RMNCAH indicators, the governance and accountability structure of this strategy will be coordinated from the highest level of the Ministry of Health and Sanitation. The Health Sector Coordinating Committee (HSCC) chaired by the Minister of Health will be the overall coordinating organ for the RMNCAH strategy. This committee will be responsible for resource mobilization and holding the different players accountable for delivery of results as stated in this RMNCAH strategy. Given the multisectoral nature of implementing RMNCAH interventions especially adolescent and maternal health, a review of the composition and responsibilities of the HSCC will be done to ensure representation of other relevant government departments, civil society and other players in health, education, water and sanitation, registration of persons, social protection and local government. The Reproductive and Child Health Directorate will be responsible for the operational implementation of the strategy and its monitoring and will regularly update the Health Sector Steering Group (HSSG). The HSGG is proposed to meet quarterly to discuss the implementation of the RMNCAH strategy and conduct biannual briefing meetings to the HSCC. With RMNCAH cutting across the different health systems blocks, the HSSG will ensure integration of RMNCAH agenda into each of the seven clusters of leadership and governance, service delivery, HRH development, health infrastructure and development, health care financing, procurement and supply chain management and health information, monitoring and evaluation.

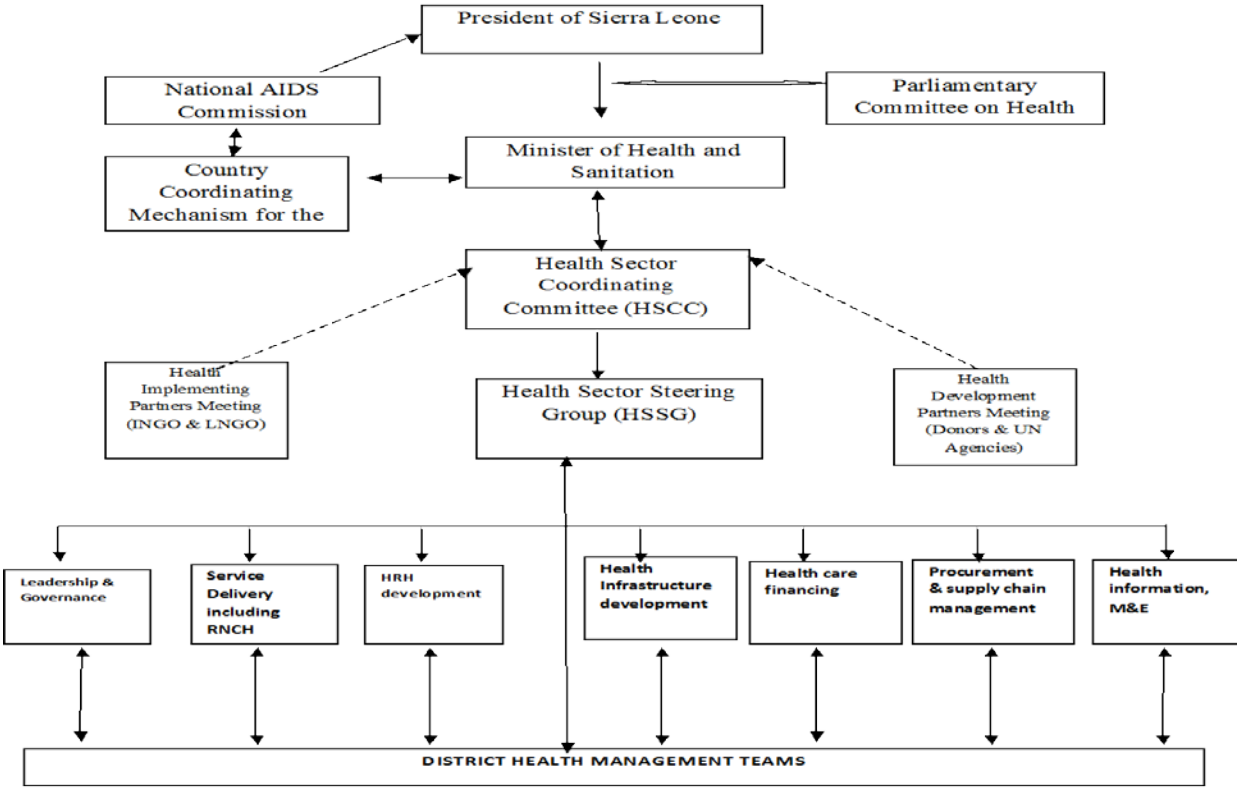

Figure 15: Existing Sierra Leone Health Sector Coordination Structure

At district level, the District Health Management team will be responsible for the overall implementation of the RMNCAH strategy at all levels of health service delivery as well as coordination of all players within the district of operation. The DHMT will co-opt members from other relevant government departments including the local government, civil society, community representatives among others to ensure inclusiveness and accountability. An expanded district RMNCAH technical group chaired by representative from DHMT but including other sectors will be constituted to provide technical guidance to the DHMT in the implementation and monitoring of the strategy. Each year, the DHMTs will ensure inclusion of the RMNCAH prioritized interventions into their annual health sector plans.

8.3. Implementation approach

To ensure learning and applications of lessons learned from the RMNCAH strategy as it is implemented, a quasi-phased implementation approach will be used. All regions and districts in Sierra Leone have poor RMNCAH indicators making it a difficult choice for the country to phase interventions by districts and regions.

The strategy will be implemented in three interlinked phases. In the first phase, the strategy will build on and align to the ongoing initiatives especially the President's Recovery Plan (PRP). In line with the momentum of the Health Sector Recovery Plan, this RMNCAH strategy will start with a bold vision, that no woman should die at the designated CEmONC and BEmONC centres- *Zero preventable maternal deaths at designated BEmONC and CEmONC centres*. To ensure zero maternal and neonatal deaths at those sites, phase 1 (2017 & 2018) of this strategy will focus in ensuring 100 % functionality of 13 CEmONC and 26 BEmONC sites selected from each district and region. As part of addressing inequalities, iCCM interventions will also start off in the worse districts of Northern region and then scaled up to other regions in the next phases. The second phase (2019 to 2020) of the strategy will be the intensive phase combining demand side interventions at the community level and rolling all the prioritized interventions at all the service delivery platforms. Emergency obstetric and neonatal care interventions will be rolled out to other selected BEmONC and CEmONC sites and Centres of Excellence to be implemented in the 4 regional referral hospitals. A midterm review will be undertaken by the end of phase 1 (end of 2nd year of implementation) to document achievements and early emerging lessons. The third phase of the strategy will be the stock taking phase involving an end term strategy review and planning for next phase. All interventions started in the other phases will continue in phase III.

The Sierra Leone RMNCAH strategy implementation will therefore have three interlinked phases: Phase I, making selected BEmONC and CEmONC sites fully functional while at same time implementing quality improvement interventions; Phase II, the intensive phase and Phase III, taking stock and planning for the next strategic period. A detailed phased approach for the specific key actions and activities is presented in the annexed RMNCAH strategy activity plan. Figure 15 presents a schematic description of the RMNCAH strategy implementation framework.

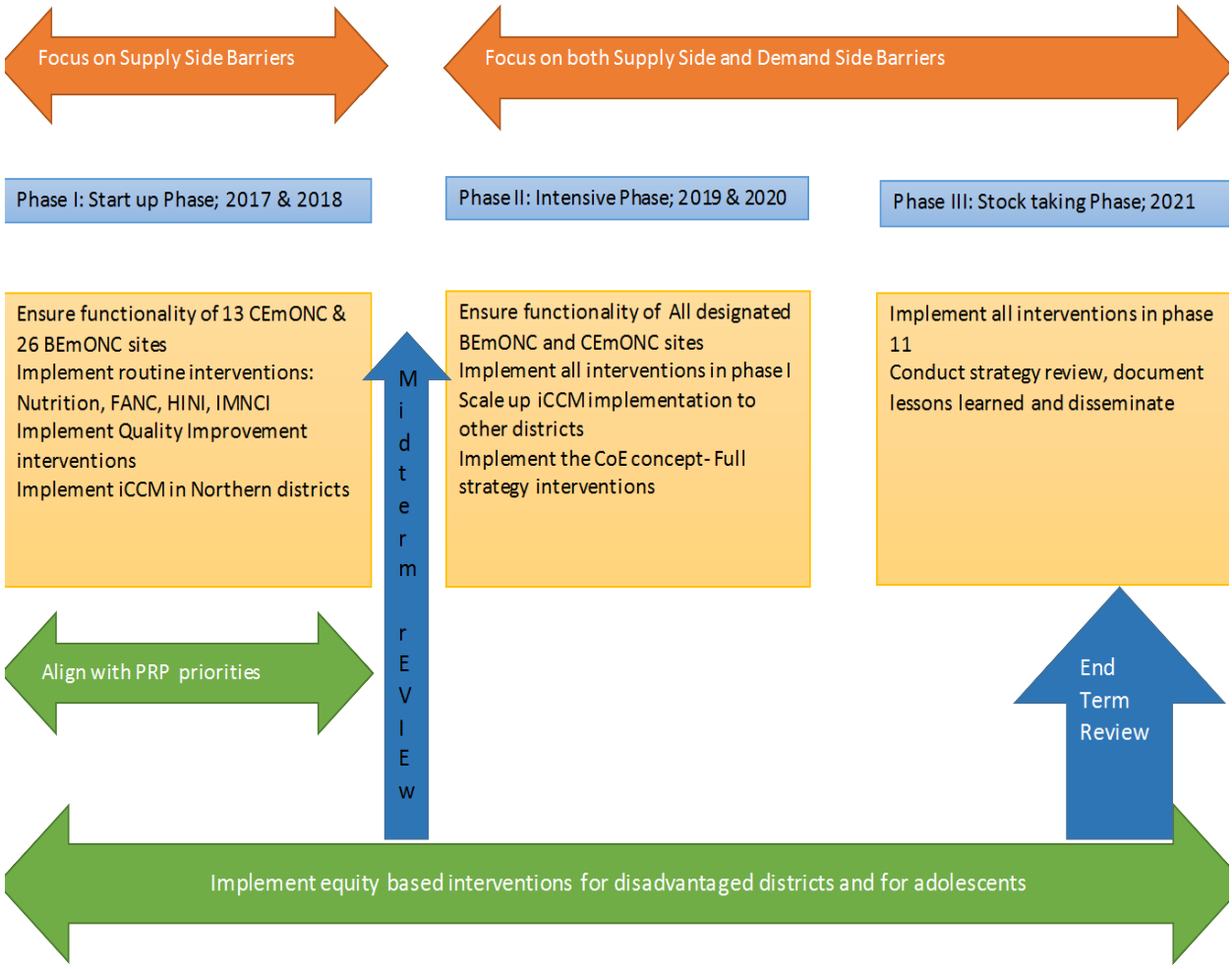

Figure 16: RMNCAH Implementation Framework

9. RMNCAH Strategy Monitoring and Evaluation

The monitoring and evaluation of this RMNCAH strategy will be at two levels: -

a. Level one, monitoring implementation of the strategy and
b. Level two, monitoring and evaluation of the impact of the strategy in achieving the set impact and coverage targets.

Monitoring implementation of the strategy will be done as part of the governance and management function and will serve to ensure that the government and other RMNCAH players are implementing and aligning to the RMNCAH strategy. This will ensure the strategy does not become a "*shelf document*". All RMNCAH specific programs and documents for the period 2017 to 2021 will be reviewed on their alignment to this RMNCAH strategy. An annual review will be held every year to monitor the strategy implementation and its impact on achieving the stated goals. An independent midterm and end term evaluation of the strategy will be done by end of year two (end of 2018) and after five year strategic period respectively. The midterm review will help revise targets and strategies if necessary. To the extent possible, monitoring and evaluation will ensure use of existing national health information systems. Additionally, a strategic objective on research, monitoring and evaluation will work to strengthen national health information systems including DHIS and CRVS. The monitoring and evaluation framework will be used to monitor the impact of the strategy in achieving stated goals and objectives. The framework, annexed to this strategy, defines the impact and coverage indicators, their annual targets for the period 2017 to 2021, the data sources and the frequency of the indicator collection/reporting. Baseline values for coverage indicators are the Post-Ebola modelled rates and where such more recent data is not available, data from the Sierra Leone Demographic Health Survey (SLDHS) 2013 has been used.

10.0. Annexes

10.1. Monitoring and Evaluation Framework

Indicators	Indicator definition	Baseline	Targets					Data Sources	Frequency of Data collection
			2017	2018	2019	2020	2021		
Goal: Accelerate reduction of preventable deaths among women, newborns , children and adolescents and promote their health and wellbeing									
Maternal mortality ratio	The annual number of female deaths from any causes related to or aggravated by pregnancy or its management (excluding accidental or incidental causes) during pregnancy or child birth or within 42 days termination of pregnancy irrespective of the duration and site of the pregnancy, expressed per 100000 live births for a specified time period.	1165	1050	945	850	760	650	CRVS, SDHS, MICS, MPDSR	5 years
Under-5 mortality rate	The proportion of a child born in a specific year dying before reaching the age of 5 years, if subject to age specific mortality rates of that period, expressed per 1000 live births	156	140	126	114	102	92	CRVS, SDHS, MICS, MPDSR	5 years
Neonatal mortality rate	Probability that a child born in a specific year or period will die during the first 28 completed days of life if subject to age specific mortality rates of that period, expressed per 1000 live births.	39	35	32	28	26	23	CRVS, SDHS, MICS, MPDSR	5 years
Stillbirth rate	Number of stillbirths per 1000 births (live and still births). phStill births are defined as third trimester foetal births (more than or equal to 28 weeks)	24	22	19	17	16	14	CRVS, SDHS, MICS, MPDSR	5 years
Adolescent birth rate (10-14, 15-19) per 1000 women in that age group	Annual number of births to women aged 15-19 years per 1000 women in that age group. It is also referred to age specific fertility rate for women aged 15 to 19 years.	125	113	101	91	82	74	CRVS, SDHS, MICS, MPDSR	5 years
Overall Objective: Increased access and utilisation of quality RMNCAH Services									
Birth weight	% of low birth weight babies	TBD	TBD	TBD	TBD	TBD	TBD	DHIS, MICS	Annually
Exclusive breastfeeding rate 0 to 5 months of age	% of infants aged 0 to 5 months (under 6 months) who are fed exclusively on breast milk	36	40	42	44	46	48	DHIS	Annually

Early initiation of breastfeeding	% of infants breastfed within one hour of birth in a specified period	52	53	53	53	53	54	DHIS	Annually
Prevalence of stunting among children under 5 years of age	% of stunted children aged 0-59 months (moderate=height for age below -2 standard deviation s from the WHO child grown standards median, severe-height for age below -3 standard deviation from the WHO child growth standards median)	29	TBD	TBD	TBD	TBD	TBD	DHIS	Annually
Children under five who are wasted	% of wasted (moderate and severe) children aged 0-59 months (moderate = weight for height below 2 standard deviations of the WHO child growth standards median , severe= weight for height below 3 standard deviation of the WHO child growth standards median)	5	TBD	TBD	TBD	TBD	TBD	National nutrition survey, SLDHS	Annually
Population using safely managed drinking water services	Population using a basic drinking water source(piped water into dwelling, yard or plot, public taps or standpipes, boreholes or tube wells, protected dug wells, protected springs and rain water) which is located on premises and available when needed ; free of faecal matter contamination and or regulated by a competent authority.	63	TBD	TBD	TBD	TBD	TBD	DHS	5 Years
Population using safely managed sanitation services	Population using a basic sanitation facility (flush or pour flush toilets to sewer systems, septic tanks or pit latrines, VIP, pit latrines with slab, and composting toilets) which is not shared with other households and where excreta are safely disposed in situ or transported to a designated place for safe disposal or treatment.	13	TBD	TBD	TBD	TBD	TBD	DHS	5 Years
Adolescents intimate partner violence	% of currently partnered girls and women aged 15 to 19 years who have experienced physical and or sexual violence by their current intimate partner in the last 12 months.	TBD	TBD	TBD	TBD	TBD	TBD	DHS	5 Years
Demand for FP satisfied with modern methods	% of women of reproductive age (15 to 49 years) who are sexually active and who have their need for FP satisfied with modern methods	37.5	TBD	TBD	TBD	TBD	TBD	DHIS, DHS	Annually
Contraceptive prevalence rate	% of women aged 15 to 49 years, married or in union , who are currently using or whose sexual partner is using, at least one method of contraception regardless of the method being used	21	24	26	28	30	31	DHS	5 Years

Antenatal care coverage at least four visits	% of women aged 15 to 49 years with a live birth in a given period who received antenatal care four times or more	55	70	77	84	91	91	DHIS,DHS,	Annually
Births attended by a skilled personnel	% of live births attended by a skilled personnel during a specified time period	46	57	62	67	73	78	DHIS , DHS	Annually
Postpartum care coverage for mother	% of mothers who received post-partum care within 2 days of birth regardless of the place of birth	79	85	88	91	91	91	DHIS , DHS	Annually
Postpartum care coverage newborn	% of babies who received post-partum care within 2 days of birth regardless of the place of birth	55	70	78	86	94	94	DHIS , DHS	Annually
Children 6-59 months who have received vitamin A supplementation	% of children aged 6-59 months who received two age appropriate Vitamin A in the past 12 months.	83	TBD	TBD	TBD	TBD	TBD	DHIS , DHS	Annually
Out-of-pocket health expenditure as a percentage of total health expenditure	% of out of pocket expenditure of the total budget spent on health	71	TBD	TBD	TBD	TBD	TBD	National Health Accounts	Annually
Proportion of government spending on health	% of health expenditure (and specifically for RMNCAH) as part of the overall health budget	TBD	TBD	TBD	TBD	TBD	TBD	NHA	Annually
Proportion of women in antenatal care (ANC) who were screened for syphilis during pregnancy	% of women attending antenatal care who are screened for syphilis	TBD	TBD	TBD	TBD	TBD	TBD	DHIS,	Annually
Percentage of children with diarrhoea receiving oral rehydration salts (ORS)	% of children with diarrhoea in the last two weeks receiving ORS	52	72	81	91	91	91	DHIS,	Annually
Proportion of children with suspected pneumonia taken to an appropriate health provider	% of children under 5 years of age with suspected pneumonia in the two weeks preceding the survey taken to an appropriate health facility or health provider	82	93	93	93	93	93	DHIS,	Annually

proportion of newborns with suspected pneumonia who received antibiotics	% of children under five years with pneumonia who treated with antibiotics	43	48	50	52	55	57	DHIS, CHW reports	Annually
Percentage of children fully immunized	% of children 12 to 23 months who received all the vaccines as per the Sierra Leone national schedule	46	60	66	73	80	87	DHIS,	Annually
Use of insecticide-treated nets (ITNs) in children under 5 (% of children)	% of children aged 0-59 months who slept under a ITN two weeks preceding the survey	73						DHIS,	Annually
Proportion of women aged 30-49 who report they were screened for cervical cancer	% of women aged 30-49 who are screened for cervical cancer	TBD	TBD	TBD	TBD	TBD	TBD	DHIS,	Annually
Proportion of adolescents who have tested and know their HIV results	% of people aged 15 to 19 years who were counselled, tested for HIV and received results	21	TBD	TBD	TBD	TBD	TBD	DHIS,	Annually
PMTCT	% of HIV positive pregnant women provided with ART to reduce the risk of mother to child transmission during pregnancy.	67.9	92	94	96	98	100	DHIS,, national HIV surveys	Annually
Proportion of pregnant women who were tested for HIV and received test results	% of pregnant women who are counselled, tested for HIV and receive test results	42.9	TBD	TBD	TBD	TBD	TBD	DHIS, national HIV surveys	Annually
Births registration coverage	% of children under five years who have their births registered	74	94	94	94	94	94	CRVS, DHS	Annually
CEmONC coverage	% of facilities certified as CEmONC by national standards	TBD	TBD	TBD	TBD	TBD	TBD	Facility assessments	Annually
BEmONC coverage	% of facilities certified as BEmONC by national standards	TBD	TBD	TBD	TBD	TBD	TBD	Facility assessments	Annually
Commodity stock outs	% of health facilities reporting no stock out of essential RMNCAH commodities	TBD	TBD	TBD	TBD	TBD	TBD	Facility assessments	Annually

10.2. Impact of interventions as the LiST tool

Cumulative deaths prevented in children under one month of age by intervention relative to impact year from 2017 – 2021	
Periconceptual	
Folic acid supplementation/fortification	84
Pregnancy	
IPTp - Intermittent preventive treatment of malaria during pregnancy	467
Syphilis detection and treatment	9
Calcium supplementation	290
Micronutrient supplementation (iron and multiple micronutrients)	221
Balanced energy supplementation	650
PMTCT - Prevention of mother to child transmission of HIV (including breastfeeding choices)	2
Maternal age and birth order	7
Childbirth	
Clean birth practices	237
Labour and delivery management	3,117
Neonatal resuscitation	1,098
Antibiotics for pPRoM	321
Breastfeeding	
Changes in breastfeeding	615
Early initiation of breastfeeding	123
Preventive	
Clean postnatal practices	121
Chlorhexidine	382
Water connection in the home	18
Curative after birth	
Case management of premature babies	593
Case management of neonatal sepsis/pneumonia	270
Antibiotics for treatment of dysentery	5
Zinc for treatment of diarrhoea	19

Cumulative deaths prevented in children under five years of age by intervention relative to impact year (1-59 months) from 2016 -2021	
Pregnancy	
IPTp - Intermittent preventive treatment of malaria during pregnancy	85
Calcium supplementation	23
Micronutrient supplementation (iron and multiple micronutrients)	40
Balanced energy supplementation	119
PMTCT - Prevention of mother to child transmission of HIV (including breastfeeding choices)	111
Maternal age and birth order	1

Breastfeeding	
Changes in breastfeeding	762
Preventive	
Appropriate complementary feeding	545
Vitamin A supplementation	780
Zinc supplementation	750
Water connection in the home	1,316
ITN/IRS - Households protected from malaria	1,737
Complementary feeding to prevent wasting	58
Vaccines	
DPT vaccine	38
H. influenzae b vaccine	278
Pneumococcal vaccine	106
Rotavirus vaccine	222
Measles vaccine	178
Curative after birth	
Antibiotics for treatment of dysentery	179
Zinc for treatment of diarrhoea	1,096
Oral antibiotics for pneumonia	1,020
Vitamin A for treatment of measles	584
ACTs - Artemesinin compounds for treatment of malaria	10,051
SAM - treatment for severe acute malnutrition	1,849
MAM - treatment for moderate acute malnutrition	815
Cotrimoxazole	32

Cumulative maternal deaths prevented by intervention relative to impact year from 2016-2021	
Periconceptual	
Safe abortion services	498
Post abortion case management	269
Ectopic pregnancy case management	64
Pregnancy	
IPTp - Intermittent preventive treatment of malaria during pregnancy	25
Calcium supplementation	180
Hypertensive disorder case management	150
Malaria case management	20
MgSO4 management of pre-eclampsia	187
Childbirth	
Clean birth practices	72
Labour and delivery management	1,189
Antibiotics for pPRoM	135

MgSO4 management of eclampsia	267
AMTSL - Active management of the third stage of labour	408
Curative after birth	
Maternal sepsis case management	300

Cumulative Stillbirths prevented by intervention relative to impact year from 2016 -2021	
Pregnancy	
IPTp - Intermittent preventive treatment of malaria during pregnancy	571
Syphilis detection and treatment	24
Multiple micronutrient supplementation in pregnancy	729
Balanced energy supplementation	2,698
Diabetes case management	142
MgSO4 management of pre-eclampsia	313
Childbirth	
Labour and delivery management	3,681
Induction of labour for pregnancies lasting 41+ weeks	257

10.3: RMNCAH Interventions by Life Course

Life Course	Interventions
Pre-pregnancy	• Information, counselling and services for comprehensive sexual and reproductive health including contraception • Prevention, detection and treatment of communicable and non-communicable disease and sexually transmitted and reproductive tract infections including HIV, TB and syphilis • Iron/folic acid supplementation (pre-pregnancy) • Screening for and management of cervical and breast cancers • Safe abortion (wherever legal), post-abortion care • Prevention of and response to sexual and other forms of gender-based violence • Pre-pregnancy detection and management of risk factors (nutrition, obesity, tobacco, alcohol, mental health, environmental toxins) and genetic conditions
Pregnancy	• Early and appropriate antenatal care (four visits), including identification and management of gender-based violence • Accurate determination of gestational age • Screening for maternal illness • Screening for hypertensive disorders • Iron and folic acid supplementation • Tetanus immunization • Counselling on family planning, birth and emergency preparedness • Prevention of mother-to-child transmission of HIV, including with antiretrovirals • Prevention and treatment of malaria including insecticide treated nets and intermittent preventive treatment in pregnancy • Smoking cessation • Screening for and prevention and management of sexually transmitted infections (syphilis and hepatitis B) • Identification and response to intimate partner violence • Dietary counselling for healthy weight gain and adequate nutrition • Detection of risk factors for, and management of, genetic conditions • Management of chronic medical conditions (e.g. hypertension, pre-existing diabetes mellitus) • Prevention, screening and treatment of gestational diabetes, eclampsia and pre-eclampsia (including timely delivery) • Management of obstetric complications (preterm premature rupture of membranes, macrosomia, etc.) • Antenatal corticosteroids for women at risk of birth from 24-34 weeks of

Life Course	Interventions
	gestation when appropriate conditions are met • Management of malpresentation at term
Child birth	• Facility-based childbirth with a skilled birth attendant • Routine monitoring with partograph with timely and appropriate care • Active management of third stage of labour • Management of prolonged or obstructed labour including instrumental delivery and caesarean section • Caesarean section for maternal/ foetal indications • Induction of labour with appropriate medical indications • Management of post-partum haemorrhage • Prevention and management of eclampsia (including with magnesium sulphate) • Detection and management of women with or at risk of infections (including prophylactic use of antibiotics for caesarean section) • Screening for HIV (if not already tested) and prevention of mother to child transmission • Hygienic management of the cord at birth, including use of chlorhexidine where appropriate
Postnatal for the Mother	• Care in the facility for at least 24 hours after an uncomplicated vaginal birth • Promotion, protection and support of exclusive breastfeeding for 6 months • Management of post-partum haemorrhage • Prevention and management of eclampsia • Prevention and treatment of maternal anaemia • Detection and management of post-partum sepsis • Family planning advice and contraceptives • Routine post-partum examination and screening for cervical cancer in appropriate age group • Screening for HIV and initiation or continuation of antiretroviral therapy • Identification of and response to intimate partner violence • Early detection of maternal morbidities (e.g. fistula) • Screening and management for post-partum depression • Nutrition and lifestyle counselling, management of inter-partum weight • Postnatal contact with an appropriately skilled health-care provider, at home or in the health facility, around day 3, day 7 and at 6 weeks after birth

Life Course	Interventions
Post natal for the newborn	• Care in the facility for at least 24 hours after an uncomplicated vaginal birth • Immediate drying and thermal care • Neonatal resuscitation with bag and mask • Early initiation of breastfeeding (within the first hour) • Hygienic cord and skin care • Initiation of prophylactic antiretroviral therapy for babies exposed to HIV • Kangaroo mother care for small babies • Extra support for feeding small and preterm babies with breast milk • Presumptive antibiotic therapy for newborns at risk of bacterial infection • Continuous positive airway pressure (CPAP) to manage babies with respiratory distress syndrome • Detection and case management of possible severe bacterial infection • Management of newborns with jaundice • Detection and management of genetic conditions • Postnatal contact with a skilled health-care provider, at home or in the health facility, around day 3, day 7 and at 6 weeks after birth
Infancy and Childhood period	• Exclusive breastfeeding for 6 months; continued breastfeeding and complementary feeding from 6 months • Dietary counselling for prevention of undernutrition, overweight and obesity • Responsive caregiving and stimulation • Routine immunization (including *Haemophilus influenzae*, pneumococcal, meningococcal and rotavirus vaccines) • Periodic vitamin A supplementation where appropriate • Iron supplementation where appropriate • Prevention and management of childhood illnesses including malaria, pneumonia, meningitis and diarrhoea • Case management of severe acute malnutrition and treatment for wasting • Management of moderate acute malnutrition (appropriate breastfeeding, complementary feeding; and supplementary feeding where necessary) • Comprehensive care of children infected with, or exposed to, HIV • Case management of meningitis • Prevention and response to child maltreatment • Prevention of harmful practices including female genital mutilation

Life Course	Interventions
	• Care for children with developmental delays • Treatment and rehabilitation of children with congenital abnormalities and disabilities
Adolescence period	• Routine vaccinations (e.g. human papillomavirus, hepatitis B, diphtheria-tetanus, rubella, measles) • Promotion of healthy behaviour (e.g. nutrition, physical activity, no tobacco, alcohol or drugs) • Prevention, detection and management of anaemia, especially for adolescent girls • Comprehensive sexuality education • Information, counselling and services for comprehensive sexual and reproductive health including contraception • Psychosocial support and related services for adolescent mental health and well-being • Prevention of and response to sexual and other forms of gender-based violence • Prevention of and response to harmful practices such as female genital mutilation and early and forced marriage • Prevention, detection and treatment of communicable and non-communicable diseases and sexually transmitted and reproductive tract infections, including HIV, TB and syphilis • Voluntary medical male circumcision in countries with HIV generalized epidemics • Detection and management of hazardous and harmful substance use • Parent skill training, as appropriate, for managing behavioural disorders in adolescents • Assessment and management of adolescents who present with unintentional injury, including alcohol-related injury • Prevention of suicide and management of self-harm/ suicide risks

9.4. Extract from Draft CHP; CHWs Scope of Work on RMNCAH

- Provide pre-pregnancy counselling on the importance and availability of FP methods, including distribution of condoms and refill of oral contraceptive pills to all women of childbearing age. This includes teaching adolescent girls about the importance of deferring childbearing.
- Identify pregnant women as early as possible through: 1) self-reporting of mothers or their family

members; 2) active surveillance through routine house visits, and; 3) notification by PHUs, TBAs, and other stakeholders in the community.

- Conduct three antenatal home visits: first early in pregnancy (2–4 months), second during mid pregnancy (5–6 months), and third late in pregnancy (7–9 months) to:
    - Educate and counsel the woman and her spouse/family on:
    - The importance of focused antenatal care at PHUs by skilled health workers. The CHW must ensure that the pregnant women visit PHU for antenatal care.
    - Maternal nutrition.
    - The importance of the use of long-lasting insecticide-treated bed nets.
    - HIV testing and prevention of mother to child transmission of HIV, as needed.
    - Hand washing and use of toilets.
    - Use of FP methods and referral to closest facility.
    - Essential newborn care (exclusive breastfeeding, hygienic cord care, thermal care, and immunisation).
    - Preventive and promotive behaviours for MNCH, including WASH, infant and young child feeding, FP, immunisation.
    - Screen for danger signs (bleeding, oedema, fever, persistent headache, etc.) during pregnancy and refer to PHUs if one is identified.
    - Educate woman for birth preparedness and planning for delivery at health facility.
    - Provide intermittent preventive treatment in pregnancy for malaria—specifically, sulfadoxine-pyrimethamine—at each visit.

- Conduct a fourth visit to women identified and/or referred by the PHU as having vulnerable pregnancies (e.g., women with previous obstetric complications, HIV-infected women, adolescents).
- Where possible, accompany labouring women to the PHU for delivery and facilitate birth registration.
- Conduct three postnatal home visits for both the mother and the baby on the 1st, 3rd and 7th day after delivery to:
    - Educate and counsel the mother and her family/spouse on:
    - Essential newborn care practices (including feeding the colostrum, exclusive breastfeeding for up to 6 months, thermal care, skin-to-skin contact, delayed bathing, and hygienic cord care).
    - The importance of using FP methods (e.g., condoms, oral contraceptives, injectable contraceptives, implants, and intrauterine devices)
    - Maternal nutrition
    - Danger signs for mothers and newborns and the need for immediate PHU treatment if one occurs
    - Hand washing and use of a toilet
    - Vaccination for the baby

  - Educate and screen for danger signs in both the mother (excessive or offensive lochia, fever, etc.) and the newborn (fever, inability to breastfeed, etc.) and refer to PHUs if identified.
  - Follow up to ensure implementation of essential newborn care practices and vaccination schedule.
  - Supervise mothers in administering chlorhexidine for appropriate cord hygiene.
- Conduct a fourth postnatal home visit to low birth-weight (small) babies to provide the services listed above, including kangaroo mother care.
  - Assess breastfeeding practices for younger infants (0 to 2 months) and facilitate appropriate breastfeeding practices as needed.
  - Screen children 6–59 months for moderate acute malnutrition (MAM) and severe acute malnutrition (SAM) (e.g., through the use of mid-upper arm circumference [MUAC] measurement) and refer to health facility.
  - Provide support and follow-up for MAM & SAM referrals to health facility. - Provide support for adherence to supplementary feeding programmes and ready-to-use therapeutic feeding doses. - Provide follow-up support after supplementary feeding programme and after discharge for treatment of MAM.
- Conduct five infant home visits during 1st, 5th, 9th, 12th, and 15th months to ensure vaccination and appropriate feeding.
- Report births, maternal and under-five deaths in the community.
- Conduct social mobilization for specialized campaigns and PHU outreach services in community (e.g., MCH Week, National Immunisation Day).

iCCM 'Plus'

- Identify and treat pneumonia, diarrhoea, and malaria (using rapid diagnostic testing) in children ages 2 to 59 months, and refer cases with danger signs as outlined in the National CHW Training Programme. Diarrhoea cases should be immediately referred during outbreak of diarrheal diseases.
  - Plus: Identification and treatment of malaria (using rapid diagnostic testing) in older children and adults (entire population /over-fives) as outlined in the National CHW Training Programme.
  - Plus: Identification and provision of oral rehydration salts for over-fives with diarrhoea and refer to the PHU.
- Provide follow-up care for patients who are on treatment, as well as those who have finished treatment, with referral if necessary, through appropriately scheduled home visits as outlined in the National CHW Training Programme.