



REPUBLIC OF LIBERIA



INVESTMENT CASE FOR REPRODUCTIVE, MATERNAL, NEW-BORN, CHILD, AND ADOLESCENT HEALTH

2016–2020

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ACRONYMS

| | |
|--------|--|
| ACT | Antiretroviral Combination Therapy |
| ANC | Antenatal Care |
| ANC4 | Fourth Antenatal Care Visit |
| ARR | Annual Review Report |
| ART | Anti-retroviral Treatment |
| ASRH | Adolescent Sexual and Reproductive Health |
| AYF | Adolescent and Youth Friendly |
| BCC | Behaviour Change Communication |
| BEmONC | Basic Emergency Obstetric and Neonatal Care |
| BPHS | Basic Package of Health Services |
| CEmONC | Comprehensive Emergency Obstetric and Neonatal Care |
| CHA | Community Health Assistants |
| CHC | Community Health Committee |
| CHSS | Community Health Services Supervisor |
| CHT | Community Health Team |
| CHV | Community Health Volunteer |
| CNDRA | Centre for National Documents and Records Agency |
| CRVS | Civil Registration and Vital Statistics |
| CSE | Child Sexual Exploitation |
| DHIS | District Health Information Systems |
| DHS | Demographic and Health Survey |
| DHT | District Health Team |
| DPC | Disease Prevention and Control |
| EERP | Emergency Ebola Response Project |
| EID | Early Infant Diagnosis |
| EmONC | Emergency Obstetric and Neonatal Care |
| EMTCT | Elimination of Mother to Child transmission |
| EPHS | Essential Package of Health Services |
| EPI | Expanded Program on Immunization |
| EVD | Ebola Viral Disease |
| FARA | Fixed Amount Reimbursement Agreement |
| FGM | Female Genital Mutilation |
| FHD | Family Health Division |
| gCHV | General Community Health Volunteer |
| GFATM | Global Fund for AIDS, TB and Malaria |
| GFF | Global Financing Facility Supporting for Every Woman and Every Child |
| GOL | Government of Liberia |
| GSM | Global System for Mobile Communications |
| GST | Goods and Services Tax |
| HCC | Health Coordinating Committee |
| HFU | Health Financing Unit |
| HHP | Household Health Promoter |
| HRH | Human Resources for Health |

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| HRSA | Human Resources and Services Administration |
| HAS | Health System Assessment Report |
| HSCC | Health Sector Coordinating Committee |
| HSSP | Health Systems Support Project |
| HWP | Health Workforce Program |
| ICCM | Integrated Community Case Management |
| IDSR | Integrated Disease Surveillance and Response |
| IEC | Information, Education and Communication |
| IHP+ | International Health Partnership |
| IMNCI | Integrated Management of Neonatal and Childhood Illnesses |
| IPC | Infection Prevention Control |
| IPT | Intermittent Prevention Treatment (Malaria) |
| LAC | Long Acting Contraceptives |
| LDHS | Liberia, Demographic and Health Survey |
| LISGIS | Liberia Institute of Statistics and Geo-Information Services |
| LMIS | Logistics and Management Information System |
| MBB | Marginal Budgeting for Bottlenecks |
| MCH | Mother and Child health |
| MCPR | Modern Contraceptive Prevalence Rate |
| MNCAH | Maternal, Neonatal, Child and Adolescent Health |
| MNCH | Maternal, Neonatal and Child Health |
| MNDSR | Maternal and Neonatal Death Surveillance Response |
| MNH | Maternal and Neonatal Health |
| MOH | Ministry of Health |
| MOHSW | Ministry of Health and Social Welfare |
| NACP | National AIDS Control Program |
| NER | Net Enrolment Ratio |
| NGP | National Gender Policy |
| OIC | Officer in Charge |
| ORT | Oral Rehydration Therapy |
| PBF | Performance-Based Financing |
| PMTCT | Prevention of Mother-to-Child Transmission |
| PNC | Postnatal Care |
| PSM | Procurement and Supply System |
| RHCS | Reproductive Health Commodity Security |
| RMNCAH | Reproductive, Maternal, New-born, Child and Adolescent Health |
| SBA | Skilled Birth Attendants |
| SOP | Standard Operating Procedure |
| SRH | Sexual and Reproductive Health |
| SRMNCAH | Sexual, Reproductive, Maternal, New-born, Child and Adolescent Health |
| TBA | Traditional Birth Attendant |
| TTM | Trained Traditional Midwife |
| WASH | Water Sanitation and Hygiene |

FOREWORD

Nearly ten years ago (2006), we embarked on a journey to transform a collapsed health care delivery system that had less than 400 urban-skewed health workforce and 360 functional health facilities providing services accessible to only 41% of the population. At that time, our infant and under five mortality rates were estimated at 157/1,000 live births and 235/1,000 live births respectively, while the maternal mortality was reportedly to be at 580/100,000 live births.

Our health reform efforts particularly aimed at improving RMNCAH service delivery have produced mixed results: we made significant progress towards reducing child and under-five mortality rates thereby successfully achieving the Millennium Development Goal 4 ahead of the 2015 deadline. We are however overwhelmed by the unacceptable increase in the Maternal Mortality Ratio from 578 per 100,000 in 2005 to 1072 in 2013 mainly due to several factors, including low emergency obstetric and newborn care coverage services, high home deliveries by unskilled personnel, and shortage of midwives. Notwithstanding, all hope is not lost; we, together with all our development partners have renewed our commitment to urgently take advantage of every opportunity to confidently embark on a new journey of building a resilient health care delivery system. We are determined to make the appropriate policy decisions and develop long-term impact driven programs to halt and reverse the increasing trend of maternal mortality while sustaining the gains in child health.

The RMNCAH Investment Case, serves as the national strategic roadmap for improving maternal health, demonstrates our resolved to make a change. The RMNCAH Investment Case is also in direct response to the global agenda-Sustainable Development Goals.

Today we call for individual and collective action towards the Sustainable Development Goals. Avenues such as the UN Secretary General's Commission on Every Woman Every Child for which Liberia is a Signatory are ensuring that Reproductive Maternal, Neonatal, Child and Adolescent Health become key priority areas for investment. These avenues have also provided best buys for efficient health systems while creating and maintaining a smart, scaled, and sustainable financing mechanism for the implementation of RMNCAH services. These are the tenets on which response to improving RMNCAH in the broader context of a resilient health system are based. Although we still have a long and hard road ahead of us, we have the opportunity to plan, implement, and monitor high impact interventions geared towards ending preventable causes of maternal, child and neonatal deaths.

I would like to thank all those who contributed to the crafting of this Investment Case and challenge everyone to forever remain engaged. We have certainly made a lot of progress together. It hasn't been easy. It hasn't been without controversy. But it has been steady, and we have stayed the course as a nation. As we begin this journey, we have to remember that investing in our future is the smartest investment we can make.



Bernice T. Dahn, MD, MPH, FLCP
Honorable Minister of Health
Republic of Liberia



PREFACE

The Ministry of Health (MOH), in collaboration with partners, has developed the RMNCAH Investment Case for Liberia 2016-2020 to guide our national efforts to increase ensuring quality RMNCAH service delivery in Liberia

The Investment Case is a result of an analysis of the country's policy documents and proposals for quality improvement; for example, our efforts to improve adolescent health programming are motivated by the knowledge a multi-sectoral approach will help this specialized group achieve their human rights to health, education, autonomy, and personal decision making about the number and timing of their childbearing. Similarly, we also know that family planning improves maternal and child health, facilitates educational advances, empowers women, reduces poverty, and is a foundational element to the economic development of a nation.

We believe that our joint efforts will lead to a decline in the Maternal Mortality Ratio, Neonatal Mortality Rate, unmet need for family planning and an increase in the modern contraceptive prevalence rate (mCPR) for in-union women to 50%. Our ambitious goals require an equally ambitious plan of action. This is the plan of action that we, government, Implementing partners, and civil society together, must follow to achieve our desired goals.

The RMNCAH Investment Case concentrates on a number of key strategic priorities that will help us reach our objectives:

- Improve Adolescent Health Programming
- Improve the quality of EmONC services
- Ensure sustainable Community engagement
- Strengthen IDSR including MNDSR
- Strengthen CRVS systems

The MOH calls on development partners and all financiers to work with us to fund and implement the RMNCAH Investment Case, to ensure its success and to improve the lives and well-being of our people.



Francis N. Kateh, MD, MHA, MPS/HSL, FLCP
Deputy Minister of Health/Chief Medical Officer
Republic of Liberia

Prologue

Liberia like many other countries is aiming at achieving Universal Health coverage, however, total health expenditure per capita stands at \$64. And yet \$86 per capita is needed for countries to move towards UHC. Currently, expenditure on health in Liberia is inequitable: Out Of Pocket expenditure as a percentage of Total Health Expenditure in financial year 2011/2012 was at 51%, of which the population that made up the lowest wealth quintile paid the biggest bulk of the cost.

The policy goal of the Ministry of Health is to create a sustainable health financing system that guarantees equal access to quality healthcare and ensures financial protection for all. The Global Financing Facility for Every Woman Every Child is fostering a new paradigm to help Liberia meet its Universal Health Coverage Goal - a breakthrough financing model that unites resources from countries themselves, international donors and the private sector to accelerate advancements in the health of women and children. This is done through ensuring smart scaled and sustainable financing. Liberia is grateful for the continued support from donor agencies but is also embarking on increasing availability of domestic resources: This is the basis of the country's Health Financing Strategy.

In addition, efficiencies through 'more health per dollar spent' is the premise on which implementing the RMNCAH Investment Case is grounded: the roll-out of performance-based financing has been proven to ensure value for money. Service Delivery in the next five years will be based on the vision that increasing efficiency plays an important role in increasing the sustainability of resources in the health sector.



Minister Yah Zolia

Deputy Minister of Planning and Research

Ministry of Health

Republic of Liberia

ACKNOWLEDGEMENTS

The Investment Case for Reproductive, Maternal, New-born, Child, and Adolescent Health (RMNCAH) of Liberia was developed by a multidisciplinary team from the Ministry of Health (MoH) along with its national and international development partners.

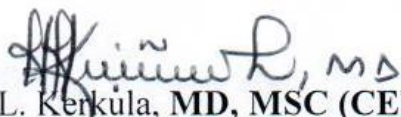
Presently, the Government of Liberia holds the RMNCAH agenda as one of its major priorities. Liberia was among the first countries in Africa to reach the Millennium Development Goals (MDGs) for the reduction of child mortality. Although there has been tremendous progress made in maternal, new-born and child health, the country currently ranks among countries with the worst maternal mortality ratio in the world with a maternal mortality ratio of 1,072 per 100,000 live births.

The Investment Case focuses on women, new-born, children, and adolescents, and recommends a set of high-impact interventions that could significantly improve the health status and livelihood of the Liberian population. These interventions when funded and implemented as planned will enable Liberia stays on track to achieve the sustainable development goals.

I would like to thank the staff members of the Ministry of Health and its development partners for their commitment during the development of the Investment Case. Special thanks and appreciation go specifically to UNICEF, UNFPA, WHO, the World Bank, the Clinton Health Access Initiative, Last Mile Health, JHPIEGO, Partners in Health, BRAC, and the members of the Core Team for their dedication to the process of developing this Investment Case for Liberia.

The civil society organizations represented by the RMNCAH Goodwill Ambassador Madam Miatta Fahnbulleh was also very instrumental in the development of this Investment Case.

Finally, I would like to encourage all stakeholders to remain committed in ensuring that the investment case is fully operationalized to accelerate the reduction of maternal, new-born, child, and adolescent morbidity and mortality in Liberia.



Joseph L. Kerkula, MD, MSC (CEH), DLSHTM
Director Family Health Division
Ministry of Health
Republic of Liberia

EXECUTIVE SUMMARY

Introduction

The Government of Liberia has prioritized the Reproductive, Maternal, New-Born, Child, and Adolescent Health (RMNCAH) agenda, while concomitantly recovering from 14 years of civil war and the largest Ebola Viral Disease outbreak recorded to date. The Republic of Liberia is a signatory to the Every Woman, Every Child initiative with a commitment to spend at least 10% of the health sector allotment on RMNCAH. In addition, Liberia is a signatory to the United Nations' Sustainable Development Goals 2030 (SDGs), Family Planning 2020, African Health Strategy, Paris Declaration, Maputo Call to Action, and the UN Secretary General's Global Strategy for RMNCH Accountability and Results.

Situation, Issues and Opportunities

Liberia's Vision 2030 set goals and a level of development for the country to strive towards. Within the health sector, the government has developed a series of strategies to ensure that the RMNCAH is a priority area for investment. Those include the National Health Policy and Plan (2011–2021), Investment Plan for Building a Resilient Health System (2015–2021), National Sexual, Reproductive, Maternal, Neonatal, Child and Adolescent Health (SRMNCAH) Policy and Plan, July 2015, Essential Package of Health Services (EPHS), National HIV & AIDS Strategic Plan 2015–2020, Essential Drug List, National Human Resource Strategy, Child Survival Strategy, Decentralization Strategy, National Fistula Guidelines, National Adolescent Reproductive Health Strategy, Reproductive Health Commodity Security Strategy, Maternal and New-born Death Surveillance and Response Guideline July 2015, and the National Health and Social Welfare Financing Policy & Plan (2011–2021). Nevertheless, the country still needs to create a policy environment to address the health transition and the double burden of disease.

Liberia fares well in comparison to its neighbors when health indicators such as maternal mortality ratio, infant mortality rate, and others are compared. All of the countries experienced civil war and are recovering from an Ebola Viral Disease outbreak. When compared to countries such as Ghana, however, it is apparent that Liberia needs to reengineer its health system.

Liberia's maternal mortality rate is amongst the highest in the world at 1,072 deaths per 100,000 live births. Yet, Liberia's maternal and new-born deaths are attributable to *preventable and treatable complications*. The major causes of maternal deaths are haemorrhage (25%), hypertension (16%), unsafe abortion (10%), and sepsis (10%). Neonatal deaths account for 35% of under-five deaths; prematurity is the leading cause of neonatal death. Intra-partum related events, and infections are the major causes of deaths for under-five mortality. Adolescents account for a large part of the country's population. The high teenage pregnancy rate (31%), median age of first pregnancy at 19 years, an estimated 30% of adolescent pregnancies ending in an abortion, and early marriages create great challenges, and impede the country's efforts to harness the demographic dividend.

Key hindrances to quality health service delivery in Liberia are predominantly from the supply side. Critical gaps exist in the availability of essential drugs, equipment, and medical supplies. Stock outs often occur at the subnational levels. The distribution mechanisms are weak and product pilferage is rampant. A major concern in health facilities is the irregular availability and improper storage of drugs for most RMNCAH interventions, especially oxytocin. The National Drug Service (NDS) has been deficient in its operations; although a complete restructuring exercise is ongoing at NDS alongside with last miles distribution of essential RMNCAH commodities. Procurement and stock management still remain a major challenge to RMNCAH service delivery.

Critical cadres in the health sector are in short supply, including midwives and physicians. Liberia has fewer than 1.15 skilled birth attendants (SBA) per 1,000 population, which includes all cadres. This ratio is below the estimated minimum threshold of 2.3 doctors, nurses or midwives per 1,000 people to ensure access to a skilled provider at birth for 80% of the population.

Access is hindered by low service quality and inequitable distribution of health facilities. In counties such as Gbarpolu, the rate of communities living outside the 5km radius, or a 60 minutes' walk from a health facility, is as high as 68%. Besides regional inequities, poor service delivery in relation to RMNCAH is widespread. The 2010 needs assessment of the Emergency Obstetric and Neonatal Care (EmONC) revealed that only 31.3% of the 73.5% of health workers were trained to do internal bimanual uterine compression. A number of facilities also lack the capacity to perform lifesaving signal functions required to provide basic and lifesaving interventions to women and girls with birth and pregnancy complications.

The high out-of-pocket expenditure on health (51%) of total health expenditure in fiscal year 2011–2012 further limits access to health services and expose the population to the risk of impoverishment.

This Investment Case is an integral part of Liberia's policies and plans to achieve the SDGs related to RMNCAH by 2030. It further outlines Liberia's efforts under the UN Every Woman, Every Child initiative to end maternal and new-born mortality from preventable causes, as highlighted in the country's policy and regulatory framework. Given the huge resources required to improve RMNCAH outcomes, and the limited fiscal space, strategic choices are necessary to select relevant best buys based on, but not limited to, resource gap and bottleneck analysis. The preferred mode of operation is cascaded through three tiers: facility-based, outreach, and community-based services. The cascade was specifically chosen to provide mechanisms to track progress holistically.

The RMNCAH investment framework focuses on translating commitment into sustainable results based on the guiding principles of respecting human and reproductive health rights, promoting equity and gender equality, ensuring a responsive health system to client needs, and leadership and ownership at national and county levels, and cognizant of the fact that business as usual won't yield the required progress. Emphasis will be on achieving results by enhancing accountability through effectively leveraging performance incentives, optimizing efficiency through improved productivity, and integrating RMNCAH service delivery with other vertical programs, e.g., HIV, tuberculosis, malaria, etc., while ensuring continuum of care.

Facility Based and Outreach Services

To improve the current infrastructure, the Government of Liberia is renovating the JFK Memorial Center national referral hospital in Monrovia, and plans to rebuild Redemption Hospital to include general, pediatric, and maternity wings to improve the current level of care, as well as upgrade 21 clinics to the level of health centers. Targeted maternity wings of health centers will be expanded and equipped to offer Emergency Obstetric and Neonatal Care (EmONC) services.

It is necessary to invest in quality EmONC and routine service delivery by encouraging women's antenatal care (ANC) attendance through nonmonetary incentives to first time young mothers, providing additional human resources to targeted facilities, facilitating mentorships and on the job training, equipping EmONC facilities coupled with investing in community health to support community-based antenatal and postnatal services. In addition, the Investment Case builds on lessons learnt from the Ebola response to create an efficient referral mechanism. To improve management, additional human resources will be deployed at all levels of service delivery.

Special services for adolescents and youth will focus on comprehensive sexuality education for increased knowledge on Sexual Reproductive Health and Family Planning (SRH/FP) and general family health issues, particularly to out of school

youth. Young people will be able to access contraceptives and interlinked comprehensive sexual education designed to enable them to make sexual and reproductive health decisions freely and responsibly.

The Ministry of Health will implement an integrated approach to child survival and development focusing on convergence and integration of health, nutrition, and water sanitation and hygiene (WASH) activities to achieve greater positive outcomes. These efforts include expanded integrated management of childhood illnesses, including screening and treatment of infant tuberculosis and HIV infections in health facilities, increased coverage of immunization, improved nutrition action, especially focusing on breastfeeding, and interventions for improved behaviour change, and implementation of family health practices.

The key to achieving quality is ensuring data driven decision making. The Investment Case will be an opportunity to support the Health Management Information System (HMIS) Unit and Planning Department to strengthen current data management processes at central, county, and facility levels, and to pilot the use of mobile technologies as a mechanism for improving data flow. This Investment Case will augment the current efforts of the Civil Registration and Vital Statistics (CRVS) program to facilitate data production that can be used to monitor and evaluate RMNCAH outcomes. Concerted efforts will be made to improve birth and death registration services; strengthen CRVS legislation and raise public awareness on the value of registration; and recruit staff at the central and county level.

Unique to building a strong monitoring system in Liberia is strengthening the emergency preparedness, response, and notification through Integrated Disease Surveillance and Response (IDSR) and Maternal, Neonatal Death Surveillance and Response (MNDSR). The Investment Case supports institutionalizing the Incident Management System (IMS), development of an e-tool for surveillance and early warning, including software, hardware, manual, training, and maintenance. In addition, community event-based surveillance (CEBS) case definition, training of community persons on the International Classification of Diseases, strengthening reporting tools and channels, social mobilization and community engagement are part of the current Strategic Plan for Integrated Diseases Surveillance and Response.

Community Based Interventions

To augment the facility and scheduable services, community-based interventions geared towards primary prevention of disease and general knowledge creation will be conducted, and the Ministry of Health (MOH) will conduct community-based RMNCAH promotion in the six targeted counties (Gbarpolu, Grand Bassa, Grand Kru, Rivercess, River Gee and Sinoe), and catchment communities through health education and social mobilization interventions. These interventons will lead to increased awareness, knowledge and acceptability of RMNCAH interventions at the community level to enhance behavior change. Demand creation through information dissemination at community and health facility levels is envisaged due to improved knowledge about pregnancy prevention and safe motherhood.

Programs that seek to strengthen health services through mobilizing community members to adopt healthy practices, shifting social norms to increase social support, and addressing barriers to access will be implemented. Efforts will be made to increase awareness of patient rights, needs, responsibilities and potential problems related to maternal, new-born, child and adolescent health and nutrition through capacity building of community structures and representation. The programs will also seek to strengthen social support networks among women, families and communities and link with health services improving quality of care through strengthening health services' interactions with women, families, and communities and responses to their needs (community forums).

Target and Impact

It is estimated that a nationally sustained level of investment of US\$ 32 per capita will be able to achieve a 19.2% reduction in maternal mortality, a 24% reduction in under-five mortality, and a 34% reduction in infant mortality. This will be in addition to Liberia's current total health expenditure estimated at US\$ 274 million or US\$ 65 per capita, accounting for 16% of 2012 GDP (National Health Accounts, 2012).

While the RMNCAH investment framework aims for a national response, a phased approach will be adopted starting with the high burden and most disadvantaged and vulnerable counties, including Gbarpolu, Grand Bassa, Grand Kru, Rivercess, Rivergee, and Sinoe. These counties account for the highest rates of infant, neonatal, and under-five mortality. In addition, they have low contraceptive prevalence rates and low rates of births assisted by skilled birth attendants.

Financing the Proposed Investment

The total amount of resources committed towards RMNCAH is US\$ 222,203,418 over a period of three years: FY 16/17–FY18/19¹ (Resource Mapping, MOH, 2016). The estimated total national cost over a period of five years is US\$ 298,710,060, excluding infrastructure investments (MBB Modeling, Liberia 2016). This represents a resource gap of US\$ 76, 506,642. Additional investment in infrastructure (health facilities) will be required at an amount of US\$ 420,247,720 (MBB Modeling, Liberia 2016).

Currently, the estimated resources for infrastructure are US\$ 19,606,647 over a period of three years (Resource Mapping, MOH 2016). This represents a gap of US\$ 400,641,073 over the five years, given the current estimated amount of resources coming in for infrastructure.

Phase one of investment in the six counties will require US\$ 80million over a period of five years. In FY 16/17, FY 17/18, and FY 18/19, there is an overall estimated amount of US\$ 133,178,538, US\$ 56,747,073, and US\$ 51,884,453.91, respectively. Phase I implementation of the Investment Case in six counties in FY 16/17 has an overall resource gap of US\$ 6,428,755 of which US\$ 1,760,286, the largest part of the gap, stems from developing the Civil Registration and Vital Statistics (CRVS). Conversely, there is a negative gap (resource surplus) of US\$ 6,318,053 for oversubscribed areas such as health workforce, which play a cross-cutting roll in the health sector. The Ministry of Health will be engaging partners to ensure equitable resource allocation across regions and thematic areas.

Management and Operational Strategy for the Investment Case

The RMNCAH investment framework will operate under a platform for collaborative and collective action led by Ministry of Health (MOH) with the county health teams and a wide array of stakeholders including communities, faith-based organizations, civil society organizations, professional associations, and the private sector (for profit and not for profit), development partners, and the international community. The MOH will also liaise with other line ministries such as education, gender, youth and sports, among others on the investment framework.

The current Health Sector Coordination Committee (HSCC), which comprises all health development partners, will be used to model a country platform to steer the investment plan. Embedded in this platform will be the National Reproductive Health Technical Committee, which will also be mirrored across the counties. A national Civil Registration and Vital Statistics (CRVS) multi-stakeholder Steering and Coordination mechanism will be revitalized to coordinate and oversee the implementation of prioritized activities in CRVS.

¹ Figure doesn't include government resources expected for years four and five.

Monitoring, Evaluation and Policy Reviews

The Ministry of Health, through the Planning Department together with the Family Health Division (FHD), shall have overall responsibility for monitoring and implementation of the Investment Case, including the coordination of all agencies, institutions, and organizations involved in the provision of sexual, reproductive, maternal, new-born, child and adolescent health (SRMNCAH) services in the country, including those involved in national (CRVS). Process evaluation will be done annually, making use of existing tools where appropriate, and will be built into the SRMNCAH program activities from the planning stage. Mid-term and end reviews of the implementation of the policy will be undertaken to inform revision or development of new policies. For quality assurance purposes, an independent review of the program will be undertaken after the first, third, and fifth year of the program implementation.

CHAPTER I: COUNTRY CONTEXT AND SITUATION ANALYSIS

1.1 Country Context

Liberia is a low-income country with a gross domestic product per capita of only US\$ 495. Poverty is pervasive in Liberia and has limited the population's access to health care and increased its vulnerability. Based upon consumption income in 2012, statistics showed that 56% of Liberians live below the poverty line at US\$ 1.25 per day. The absolute number of people living on less than US\$ 1 per day is 2.1 million, and more than 1.9 million, or 48% of the population, live in extreme poverty. Costs are considered a major barrier (47%) to access of care, as is distance to care (40%).

Nearly fourteen years of civil unrest and instability left Liberia with a weakened and seriously dilapidated health system incapable of adequately responding to the health needs of women and children. Still significant progress was made. Liberia achieved the MDG for child mortality. However, the fragile state of the health system was further exacerbated by the recent Ebola Viral Disease (EVD) outbreak. The Liberian health system now faces serious system challenges, including a critical shortage of skilled health workers, a broken health infrastructure, and weak service provision. Liberia is still near the bottom of the rankings on almost all comparative health indicators. Comparing Liberia to three of its neighbors, two of them post-conflict countries, Liberia scores considerably lower and worse off compared to more other countries. Table 1 is a comparison of key Reproductive, Maternal, New-Born, Child, and Adolescent Health (RMNCAH) indicators.

Table 1: Comparative Analysis of Selected RMNCAH Indicators

| Selected Indicators | Liberia | Guinea | Sierra Leone | Ghana |
|--|----------------|---------------|---------------------|--------------|
| Total fertility rate (births per woman) | 4.7 | 4.9 | 4.5 | 4.1 |
| Mortality rate of children under-five years of age (per 1,000 live births) | 94 | 42 | 120 | 62 |
| Infant mortality rate (per 1,000 live births) | 54 | 61 | 87 | 43 |
| Maternal mortality ratio (per 100,000 live births) | 1,072 | 650 | 1,100 | 380 |
| Proportion of births attended by skilled health personnel | 61 | 45 | 60 | 68 |

The Government of Liberia has set the RMNCAH agenda as a government priority. The Republic of Liberia is a signatory to Every Woman, Every Child with a commitment to spend at least 10% of the health sector allotment on RMNCAH. In addition, Liberia is a signatory to the UN Sustainable Development Goals (SDGs) 2030, Family Planning 2020, African Health Strategy, Paris Declaration, Maputo Call to Action, and the UN Secretary General's Global Strategy for Reproductive, Maternal, Newborn and Child Health (RMNCH) Accountability and Results.

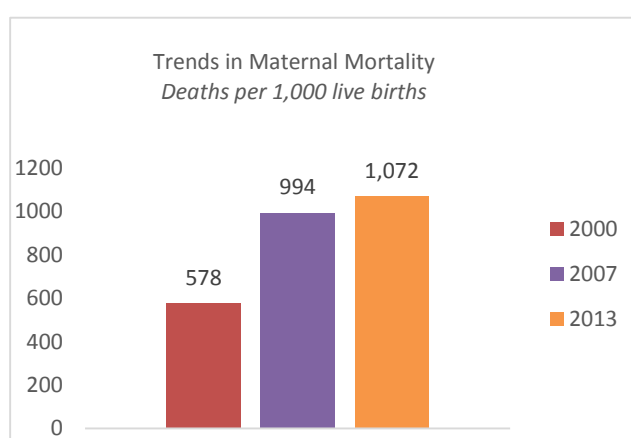
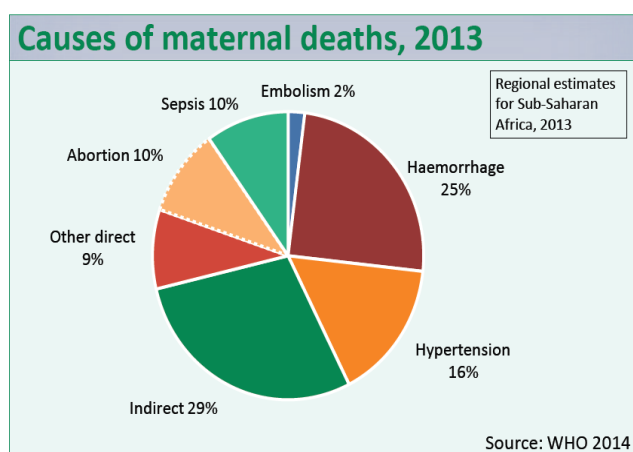
The Gbarnga Declaration: Vision 2030 is the overall national development framework that sets the vision and level of development that the Republic of Liberia is striving towards. Under the health sector, a number of strategies are all designed to ensure that RMNCAH is a priority area for investment. They include the National Health Policy and Plan (2011–2021), Investment Plan for Building a Resilient Health System (2015–2021), National Sexual, Reproductive, Maternal, New-Born, Child and Adolescent Health (SRMNCAH) policy and plans July 2015, Essential Package of Health Services (EPHS), National HIV & AIDS Strategic Plan 2015–2020, Essential Drug List, National Human Resource Strategy, Child Survival Strategy, decentralization strategy, National Fistula Guidelines, National Adolescent Reproductive Health

Strategy, Reproductive Health Commodity Security Strategy, Maternal and New-Born Death Surveillance and Response Guideline July 2015, and the National Health and Social Welfare Financing Policy & Plan (2011–2021).

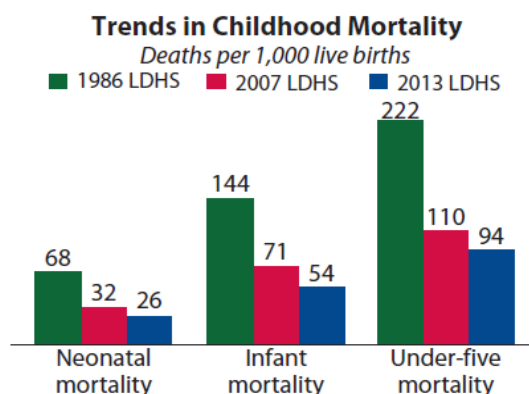
With an annual population growth rate of 2.1% (2008, Census) the current estimated population of Liberia is 4.2 million people. The country is still early in the demographic and epidemiologic transition. Life expectancy is 59 years, childhood infectious diseases dominate the morbidity and mortality figures, and fertility is at 4.7. The current demographic trend in Liberia shows that a large proportion of its population is within the teenage bracket.² This provides Liberia with an opportunity for a demographic dividend if evidence-based investments are made. With fewer births each year, the working-age population will grow larger in relation to the young dependent population. With more people in the labour force and fewer young people to support, dependency ratios will decline and a window of opportunity for rapid economic growth will open. However, this opportunity is threatened by the high rate of teenage pregnancies, with 31% of women between 15–19 years having begun childbearing. The overall contraceptive prevalence rate is low at 20% and an unmet need for contraception of 31%. About 1.9% of the population aged 15–49 years is infected with HIV, all contributing to the high level of maternal mortality.

Maternal Health

Liberia's maternal mortality rate ranks amongst the very highest in the world at 1,072 deaths per 100,000 live births, and the rate has continued to increase since 2000. Liberia's maternal and new-born deaths are driven *by preventable and treatable complications*. Major causes of maternal deaths are haemorrhage (25%), hypertension (16%), unsafe abortion (10%), and sepsis (10%)—causes that highlight major challenges with the quality of the maternal care provided. Low family planning coverage and high teenage pregnancies are also known to be major contributors to maternal mortality. Neonatal deaths account for 35% of under-five deaths with prematurity, intra-partum related events, and infections as the major causes of deaths. Special attention should be given to sexual and reproductive health because improving this area has a direct effect on maternal and child health, education, skills acquisition, eventual employment, and poverty reduction. Over 55% of neonatal mortality occurs among girls under-15 years compared to 6% for those over 19 years, indicating the need to delay child bearing to after age 20 through increased access to sexual and reproductive health (SRH) services. More investments are especially needed in adolescent sexual and reproductive health to decrease the high maternal mortality and infant mortality, which will also contribute to setting the demographic dividend into motion.



² World Bank. (2011). Reproductive Health at a Glance: Liberia. Retrieved on 8/11/2015 from <http://siteresources.worldbank.org/INTPRH/Resources/376374-1303736328719/Liberia41811web.pdf>.

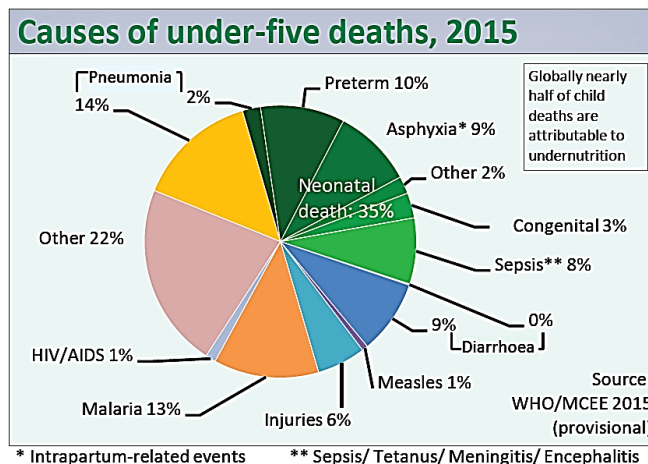


New-Born Health

Neonatal deaths contributed to 35% of under-five deaths. The three major-causes of neonatal deaths are preterm birth complications (10%), and intrapartum-related events, e.g., asphyxia (9%), and sepsis (8%). Neonatal mortality declined 19% from 32 to 26 (per 1,000). These improvements were made possible thanks to women's increased access to antenatal care (ANC) and skilled birth attendance, as well as broader improvements in the social environment.

Child Health

The three major causes of death among children under-five years³ are pneumonia (14%), malaria (13%), and diarrhoea (9%). Under-five mortality is still mainly caused by infectious diseases—although Liberia has fared rather well in reducing the mortality rate of children under five, and it was one of the first countries in Sub-Saharan Africa to achieve its MDG target in 2012.⁴ Between 2007 and 2013, under-five mortality showed a 15% decline (DHS),⁵ and infant mortality declined 24% from 71 to 54 deaths. Increased coverage of immunization, antibiotics for pneumonia, malaria treatment, and oral rehydration treatment contributed to the improvement of child health.



Quality of Services Provided

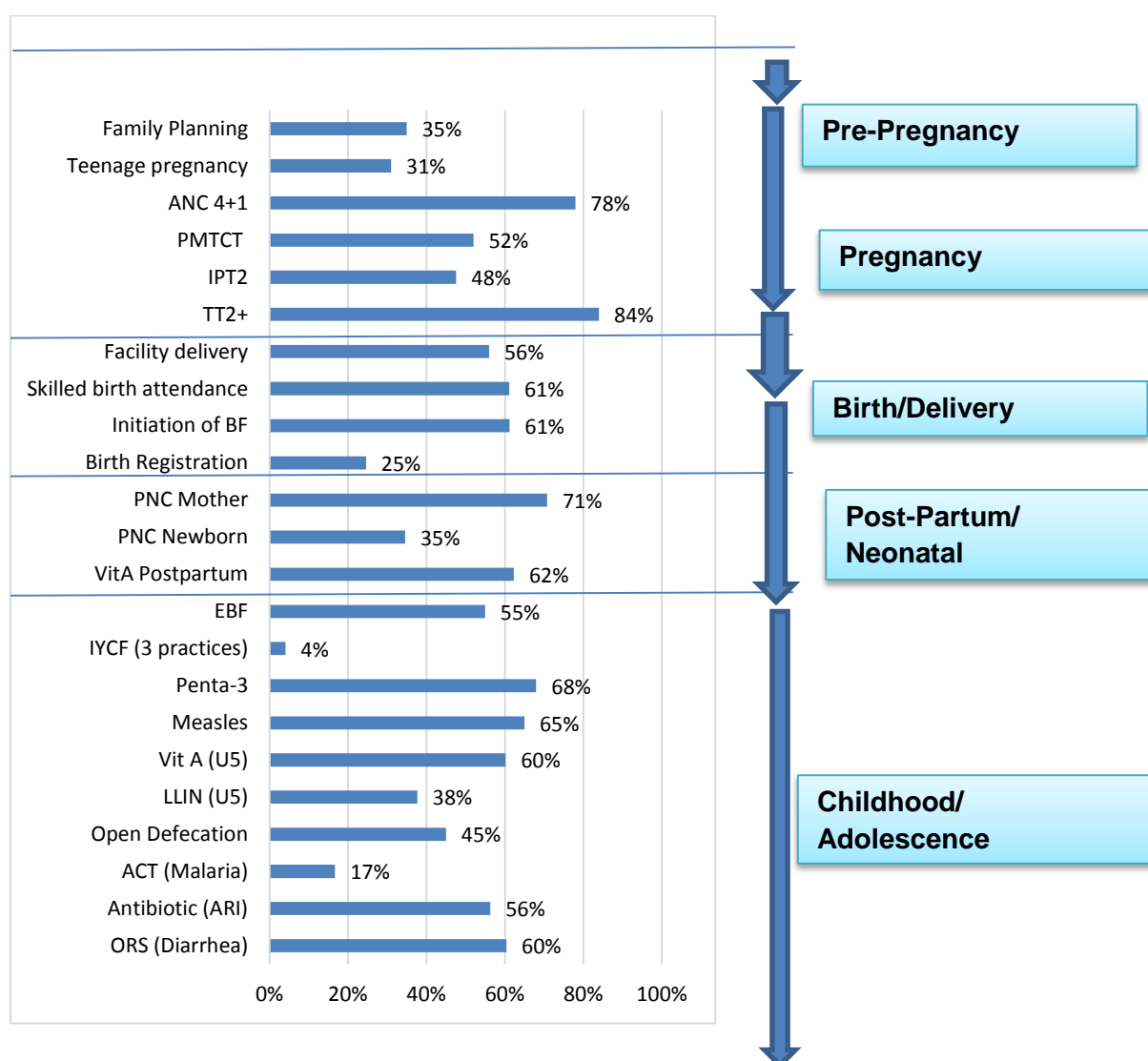
The continuum of care interventions (Figure 1) reveal a major challenge with the quality of care provided to women and children. While 71% of women access postnatal care within 48 hours after delivery, and only 30% of the new-borns actually receive any form of postnatal care by a skilled provider. About 61% of deliveries are done by a skilled provider. Coverage needs to be improved, particularly in select lagging counties. *The need to improve the quality of care while increasing the coverage of services delivery is crucial.*

³ WHO/MCEE 2015.

⁴ UNICEF and WHO 2015.

⁵ Liberia DHS 2013.

Figure 1: Interventions across the Continuum of Care



The drivers of infant and neonatal mortality across the country, according to the Demographic and Health Survey (DHS) are as follows:

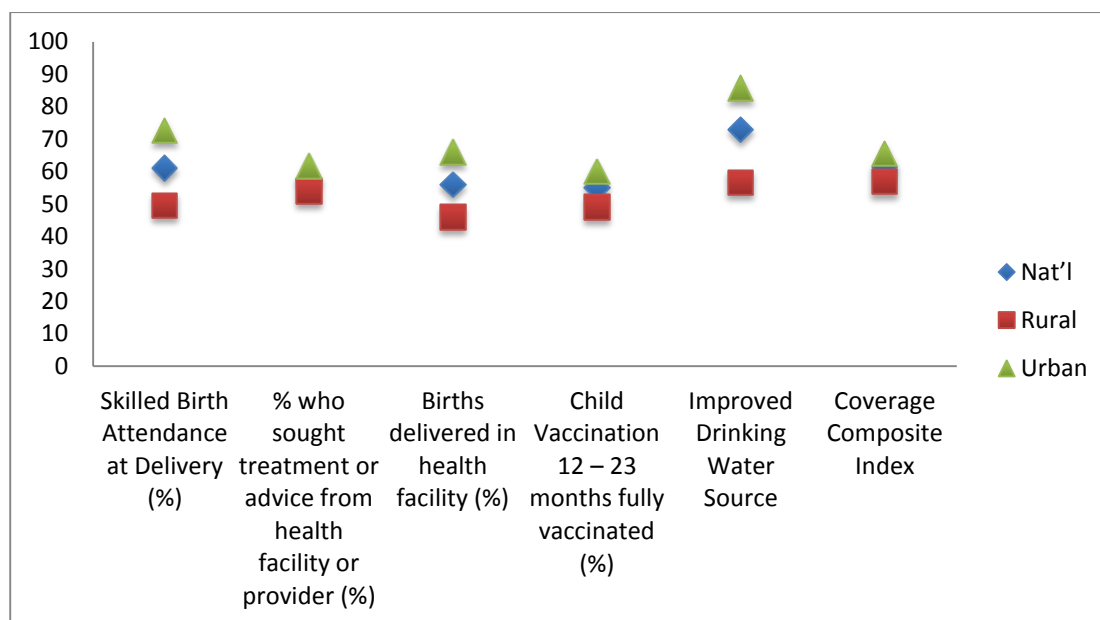
- Low birth weight:** two out of every ten babies in Liberia are estimated to be born with a low birth weight at less than 2.5kg at birth. This could be due to low IPT2 coverage of only 48% among pregnant women and the fact that only 37% of pregnant women in Liberia sleep under a bed net.
- Low immunization coverage:** only 48% of infants are fully vaccinated according to the Expanded Program on Immunization standards before their first birthday.
- Poor breastfeeding practices:** although the median duration of breastfeeding is 19 months, the median duration of exclusive breastfeeding is only 2.7 months and only 4% of children 6 to 23 months are being fed in accordance with the minimum feeding standards, as prescribed by the Infant, Young Child Feeding practices.

Note: many of the indicators described in this section are based on findings from the 2013 DHS and thus do not take into account the effects of the Ebola crisis, as described in section 1.2 below.

Inequity in Service Delivery

There is evidence of inequality in resources distribution. The south-eastern region of Liberia is the poorest and most deprived area of the country. Regional disparities exist in the proportions of health facility deliveries and skilled deliveries across the country. In addition to regional inequities, there are significant inequities between urban and rural areas; those living in rural areas are worse off in access to health services (see Figure 2).

Figure 2: Liberia Health Indicators – Rural versus Urban



1.2 The Impact of the Ebola Crisis

The Ebola viral disease (EVD) claimed around 5,000 lives in Liberia, including health workers. Among those affected by EVD, 378 cumulative confirmed cases were health workers of which 192 died. The EVD outbreak led to significant declines in the utilization of health care services, especially from August to December 2014, compared to the same period in 2012 and 2013, as shown in Figure 3. Antenatal utilization dropped from 16,000 visits in January 2012 to 4,000 visits by October 2014. The drop in vaccination rates for pentavalent and measles could be associated with the heightened awareness of messages, such as avoiding body contact. Anecdotal evidence suggests that such drastic changes in behaviour—though essential in combating the spread of Ebola—might have severely impacted women's utilization of RMNCAH services.

Figure 3: Impact of Ebola on Health System in Liberia

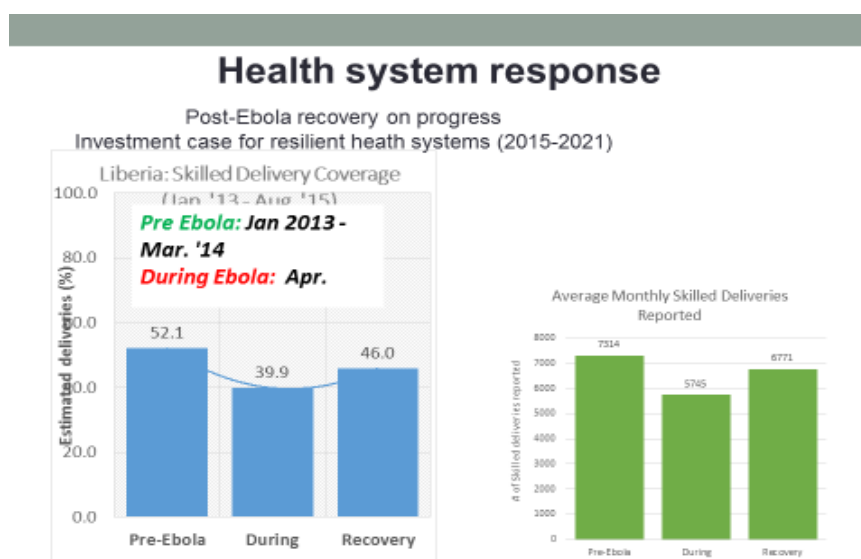
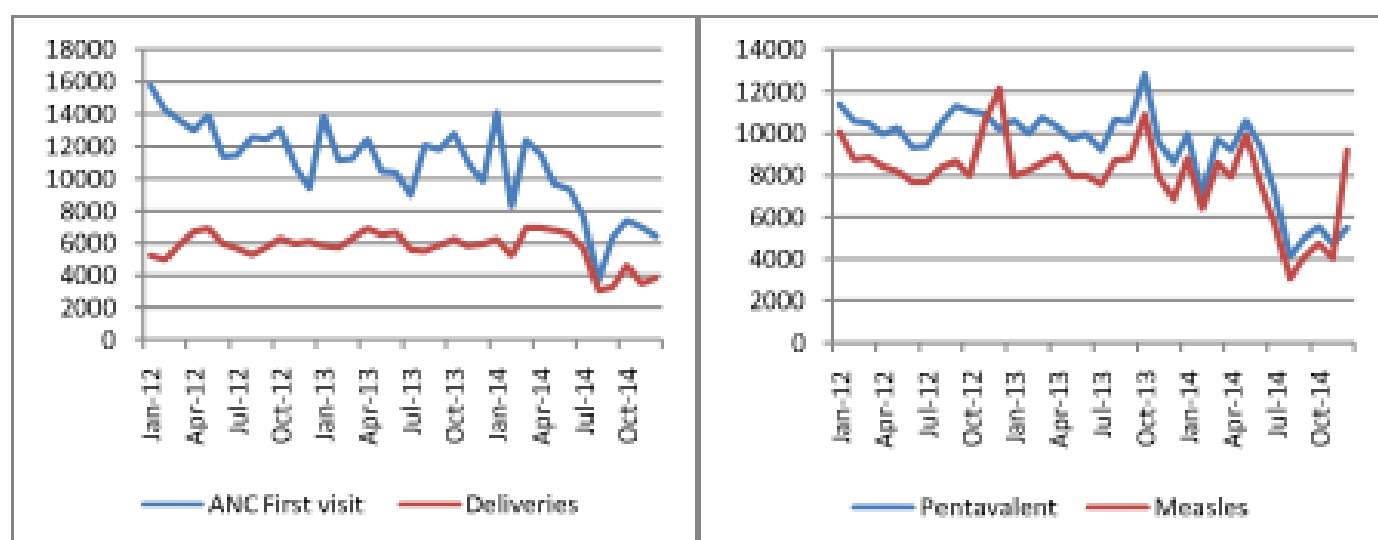


Figure 4: Utilization Trends for Key Maternal and Child Health Interventions



Having dealt with the last cases of Ebola, the Government of Liberia is also working towards restoring the gains lost due to the EVD crisis, building trust, and providing health security for the Liberian people through its policies and its *Investment Plan for Building a Resilient Health Systems, 2015–2021*.

There are opportunities to capitalize on what worked well during the Ebola virus disease crisis: the EVD outbreak mobilized Environmental Health Technicians and Community Health Volunteers (CHVs) who played a critical role in strengthening community engagement and improving environmental and community health in underserved areas. Community Health Workers also play a critical role in surveillance.

The EVD highlighted the service inefficiencies in the health system. In many locations, health facilities were poorly designed and ill equipped with inadequate waste management and infection prevention and control measures to ensure

occupational and patient safety. A particular case is the Redemption Hospital in Monrovia. It is one of the busiest facilities in the country and located in a very cramped area in an urban slum without any possibility for expansion or proper rehabilitation. As a result, to enforce some minimal infection prevention and control standards, the hospital is now functioning with a much reduced patient load.

1.3 Health System Issues

The key health system constraints that emerged from the participatory and multi-sectoral health systems analysis are summarized below.

Inefficient supply chain management system hampers quality of RMNCAH services

Critical gaps exist in the availability of essential drugs, equipment, and medical supplies in Liberia. Stock outs often occur at the subnational levels. The distribution mechanisms are very weak and product pilfering is rampant. Irregular availability and improper storage of drugs for most RMNCAH interventions, especially oxytocin, is a major concern in health facilities. This is due to challenges with last mile distribution, and stock management and maintenance, including inadequate monitoring of drug consumption. The National Drugs Service (NDS) of Liberia is deficient in asset management, storage capacity, supply management practices, appropriate quantity and quality of trained staff. At the county level, logistics constraints, such as inadequate storage space, poor warehousing practices, and lack of equipment to support last mile distribution, hinders timely commodity movement. Most counties have inadequate cold chain facilities for proper storage of some RMNCAH commodities, such as oxytocin.

This situation is further hampered by poor road conditions. As a result of the weak supply chain system, more than 50% of maternities experience frequent stock outs of essential lifesaving drugs and medical supplies to respond to the critical health conditions of pregnant women. An Emergency Obstetric and Neonatal Care (EmONC) assessment done in 2011 revealed that only 4% of all facilities had a functional blood bank; 75% of facilities reported stock outs of tracer family planning methods, such as Depo Provera, and in general, a lack of syphilis and hemoglobin level testing supplies to facilitate services required to focused antenatal care. Magnesium sulfate, though available at the central level, was hardly available at health facilities (GOL 2013). Though 70% of health facilities where deliveries are conducted reported availability of oxytocin, proper storage remains a challenge. Efficient procurement and distribution systems are vital for the provision of essential packaging of health services. Investments to build a modern warehouse are under way. The Supply Chain Policy was reviewed in 2015, and a national quantification for essential medicines has been completed.

Data from the 2011 EmONC Needs Assessment revealed poor access to EmONC services due to an unacceptably low number of facilities with the capacity to provide all seven and nine signal functions in line with EmONC requirements. From 2011 to 2015 very little progress was made to ensure that the population has access to Emergency Obstetric and Neonatal Care services as evidenced by the fact that potential EmONC facilities have not been able to deliver all seven or nine signal functions across the country.

Inadequate number and limited skills of health workforce providing RMNCAH services

Health care workers

The need to ensure the availability of required skilled human resources, drugs, equipment, and effective mentoring and supervision are essential to interventions that contribute to the reduction of maternal, new-born, child, and adolescents' morbidity and mortality.

Nurses, physicians, and physician assistants are all in short supply. An estimated 1,178% increase in birth personnel is needed to meet the 2025 health workforce targets.⁶ With all cadres combined, the country still has fewer than 1.15 skilled birth attendants per 1,000 population, which is below the minimum standard threshold of the 2.3 doctors, nurses, or midwives per 1,000 required to ensure women access to a skilled provider at birth for 80% of the population. Nurses and physicians provide essential care to women and new-borns in health facilities, but midwives currently handle the crucial services pertaining to antenatal care, basic emergency obstetric and neonatal care (BEmONC), including skilled delivery, postnatal care, and reproductive health services. The entire Liberian health system has approximately only one registered midwife for every 23,000 people.⁷ This ratio is significantly below the World Health Organization (WHO) recommended workforce ratio of 1 midwife per 5,000 people.⁸

Community Health Cadres

The Ministry of Health is transitioning from a fragmented community health model to a standardized national community health workforce embedded within the Ministry's public sector health workforce to restore and expand essential health services. Community health workers, known as Community Health Assistants (CHAs) in Liberia, will be essential to increase access to services, and will also play an important role in surveillance.

According to the 2013 Ministry of Health mapping exercise, there were 8,052 community health volunteers, including 3,727 general community health volunteers (gCHVs), 2,856 trained traditional midwives (TTMs), 586 traditional midwives (TMs), 238 household health promoters (HHPs), and 645 community-directed distributors (CDDs). The Ebola viral disease outbreak mobilized environmental health technicians and community health volunteers (CHVs) who played a critical role in strengthening community engagement and improving environmental and community health in underserved areas. The 2013 assessment report highlighted inconsistent training levels of gCHVs, lack of consistent availability of equipment and commodities, and the involvement of gCHVs into the delivery of health services. The services delivered at the community level by gCHVs included the integrated community case management of diarrhoea, pneumonia, and malaria, health and hygiene promotion, and social mobilization. Additionally, they provided support to all vertical program activities. However, most of the gCHV projects were partner led with minimal support from the county and district health teams.

The recently validated Community Health Policy calls for the creation of a formal cadre of incentivized Community Health Assistants (CHAs) to be deployed in the financial year 2016–2017. The plan envisages an estimated 4,000 CHAs deployed in remote areas beyond one hour's walk (or more than 5km) from a health facility, with a single curriculum, service delivery package, medical commodity and equipment lists, and training model standardized across partners with

Lessons Learned from the EVD Experience

Evidence of total community engagement in the EVD fight offers an opportunity for Community RMNCAH: Community Volunteers are equipped with an understanding of the areas in which they live and hence are more likely to be looped into all informal channels of communication across communities. Learning from these experiences, this cadre can be used as health promoters as well as surveillance agents in the delivery of RMNCAH interventions such as distribution of family planning commodities and creating awareness for increasing demand of utilization of the services at the community level.

⁶ Liberia Health Care Workforce Program.

⁷ Ibid.

⁸ *The World Health Report 2006: Working together for health to highlight the global health workforce crisis.*

Ministry of Health leadership. The trained traditional midwives will work closely with CHAs to encourage referrals to health facilities instead of delivering in remote communities.

Low availability of/limited access to and demand for adequate health facilities RMNCAH services

The 2010 Emergency Obstetric and Neonatal Care (EmONC) needs assessment revealed an unacceptably inadequate number of primary health care facilities with the capacity to perform lifesaving signal functions required to provide basic and lifesaving interventions to women and girls with birth and pregnancy complications. In addition the availability of tertiary level of care is limited and the few available facilities require either renovation or expansion. To reduce access barriers to care, renovation and equipping of health facilities will be conducted.

To improve in-service training programs, there are three fundamental issues that need urgent attention. First, the existing EmONC training curriculum needs to be streamlined and all essential modules harmonized. Currently, there are four different in-service training programs for skilled birth attendants (SBAs). The programs are Life Saving Skills (LSS), Helping Babies Breathe (HBB), Integrated Management of Neonatal and Childhood Illnesses (IMNCI), and family planning). Each program has its own curriculum and financial and non-financial resource constraints. This piecemeal training approach makes for a costly and fragmented training program. Only a harmonized and better coordinated program can close the training gaps for all essential signal functions.

The second issue has to do with the skills acquisition approach. Liberia in-service EmONC training has historically been classroom heavy, which is not optimal for long-term skills retention. As is the case with medical education and other clinical heavy programs, students need supervised hands-on practical training and continuous mentoring program to foster long-term skill retention and use. Third, the number of skilled, trained, equipped, and remunerated community health workers urgently needs to be scaled up.

Community Health Service Delivery

According to the Health Sector Assessment report (GOL, 2015), approximately 29% of the population in Liberia—particularly those in rural areas—has to walk more than 60 minutes or 5 kilometers to reach the nearest health facility, emphasizing the need for a scaled Community Health Worker program. In counties such as Gbarpolu those rates are as high as 68%.⁹ Without an effective referral system, this disproportionality could lead to hundreds—if not thousands—of mothers and babies dying of preventable complications. Before the EVD outbreak, emergency transportation systems functioned sub-optimally.

Community engagement represents a critical area for investment, given the experiences with the EVD outbreak. In 2014, the EVD epidemic devastated the already fragile health care system in Liberia. Health services were rendered dysfunctional with health facility closures, fears and inability of health workers to provide routine health services, and community distrust and fears. Community interventions and services were not well coordinated with many ongoing vertical efforts; poor community engagement and its linkages with the health service delivery system were weak. There was a greater need for strong social capital, which will engage communities in the planning and delivery of health services and integrate risk communication and social mobilization into health systems strengthening.

The health sector will focus on integrating the developed community systems into the formal health services for epidemic preparedness and response, health promotion, and disease prevention. Emphasis will also be placed on increasing access to non-EVD care through more frequent community outreach and quality provision of community-based services. Development of messages for restoration of health care services will focus on the safety of health

⁹ Liberia Investment Plan 2015.

facilities, benefits of early care seeking, health promotion, and disease prevention behavior in households and communities to increase awareness and knowledge around health issues.

Lack of accountability and inadequate monitoring and supervision systems

With plans to rapidly scale up the health workforce, there is also need for complementary intervention to improve workforce quality. The low quality of care currently provided in health facilities in rural and urban settings indicates poorly equipped health providers, as well as the absence of functional systems and infrastructure. These sentiments were echoed in a 2010 EmONC survey, which found few in-service skilled birth attendants trained in all signal functions, and a fewer number actually offering these signal functions due to lack of practice and confidence. One noteworthy example is that only 31.3% of the 73.5% of health workers trained to do internal bimanual uterine compression—a lifesaving intervention to stop postpartum haemorrhage, the leading cause of maternal death in Liberia—were actually performing this procedure.¹⁰ The limited capacity of detecting signs of pregnancy complications is an indication of increased risk. Cost-effective mechanisms of monitoring health programs such as use of civil registration and vital statistics (CRVS) have not been fully integrated into the health system and generally remain weak.

The Demographic Health Survey (LDHS, 2013) showed that birth registration increased from 4% in 2007 to 25% in 2013. Despite some progress made in birth registration, CRVS in Liberia remains fragmented and inefficient. Currently, two parallel systems exist under the Ministry of Health: one for children below 13 years, which is free of charge and available in all counties except Montserrado; and another in Montserrado that registers all ages for a fee of US\$ 9 per registration. To compound the problem, these systems are poorly linked with the issuance of the national ID number.

The level of death registration is very low and currently estimated as less than 2%. Furthermore, there is no information on causes of death. Though mandated by law, death registration and certification is generally managed as a voluntary activity and certificates are issued mostly at the request of family members of a deceased person needing proof of death, mainly for making insurance and other benefit claims

In addition, marriage and divorce systems fall under the Centre for National Documents and Records Agency (CNDRA), with oversight from the Ministry of Internal Affairs. However, grey literature shows limited coordination between these two line ministries. Lastly, the production of vital statistics is the responsibility of both the MOH statistics department and the Liberia Institute for Statistics and Geo-Information Services (LISGIS).

The CRVS system is fragmented, mainly due to the inoperative status of an overarching institution (such as a ministerial steering committee) to streamline and coordinate the roles and responsibilities within the CRVS system. This is further compounded by limited financial resources.

Weak leadership, management, and governance capacity at the county and district levels

The country defined a decentralization policy in 2008, which included capacity building for management of health services at the county and district levels. The implementation has been slow, with many of the decentralized units still having generally insufficient capacity for the overall coordination and management of services. A fundamental condition to accelerate progress in the public health field is to have well-designed policies with full political support and genuine endorsement, concentrated in the allocation of the required resources for implementation. This in turn depends on the effective mobilization of political leadership and an evidence-based policy design process.

Liberia has developed national policies and plans to accelerate progress towards the MDGs and beyond. However these plans, often generic, require further sharpening to effectively optimize the effort of all the stakeholders when it comes

¹⁰ 2010 EmONC Assessment.

to the subnational level. More specifically, these plans and strategies must be further refined by identifying deprived populations, selecting a limited number of interventions that can significantly narrow the mortality and malnutrition gap between the most and least deprived, targeting key bottlenecks that prevent deprived populations from enjoying effective coverage of these interventions, and prioritizing a minimum set of operational strategies around which government and partner support can focus. In addition, even where clear operational strategies are identified and supported by key actors, weaknesses in management and monitoring at the decentralized level often hamper their effective implementation and scale up. Sharpening policies and strategies require, on the one hand, to be based on a coherent framework and a rigorous evidence base, and on the other hand, to be embedded in a dialogue process which results in effective buy-in from key decision makers, partners, and stakeholders.

The MOH will work towards building capacity of local managers, including community health teams (CHTs), district health teams (DHTs), and health facility officers in charge (OICs) to identify priority populations, interventions, bottlenecks, and operational strategies and to estimate the required additional resources; facilitating policy dialogue among key decision makers; and mobilizing support and resources to address remaining gaps.

Youths and adolescents issues

Three-quarters of Liberia's population are below 35 years of age; 63% are less than 25 years old and 32.8% are 10–24 years old (GOL, 2011). Age and sex disaggregated data on adolescent and young people sexual and reproductive health is scarce. This could be attributed to the inability of public health programs to target specific interventions for adolescents and young people as well as incorporate their needs in existing data collection mechanisms and systems. Among the major problems or practices which threaten the sexual and reproductive health of adolescents and young people include: early sex, unsafe sex practices, increased sexual activity, early marriage, unplanned or unintended pregnancies, teenage pregnancies and its complications, unsafe abortion, harmful traditional practices, gender-based violence, alcohol and substance abuse.

- According to the 2013 Liberia Demographic and Health Survey (LDHS), the median age at sexual debut was 16.2 for females and 18.2 for males, which contributes to an adolescent birth rate of 177 per 1,000 and a high teenage pregnancy rate estimated at 31%. That is 3 out of 10 girls are pregnant before 19 years of age. In addition, nearly 60% of all mothers reported having a baby by 19 years of age. These early pregnancies are often unintended; an estimated 30% of adolescent pregnancies end in abortions, 90% of which are risky and contribute to the high mortality rate. Preventing pregnancy-related mortality and morbidity, and preventing rapid repeat pregnancy is crucial in curtailing the high maternal mortality and high neonatal mortality rates.
- The contraceptive prevalence rate of Liberia has increased from 11% in 2007 to 20% in 2013, but only 13.2% of married girls 15–19 years of age reportedly use any method of contraception compared to 86.8% who do not use any method. In Liberia, 63% of women age 25–49 reported to have had sexual intercourse by age 15 and 78% by age 18. Young motherhood is seen more common in rural areas (42%) than urban areas (24%).
- The National AIDS Control Programme's (NACP) HIV prevalence and AIDS estimates for 2014 reveal 1,789 new infections, including 309 in children 0–14 years. Females make up about 57% of the total new HIV infections while adolescents account for 34%. The same report shows that 29,538 people (children and adults 15–49 years) are living with HIV. More females (57%) than males are infected. Of the 2,730 young people (15–24 years) living with HIV, 64% are females. There are also 1,193 pregnant women and 4,784 children (49% girls) living with HIV. The high incidence of HIV infection among adolescents and young people can be attributed to high risk sexual behaviour and their limited understanding about the risk associated with having unprotected sex and multiple sexual partners. Access to dual protection programs is essential. In addition, the introduction of life skills and

peer-to-peer education will increase knowledge and subsequently influence behaviour towards a low-risk lifestyle.

- Sex and gender-based violence (SGBV), especially rape, is a major issue in Liberia. The “One Stop Centers” reported seeing 1,175 cases in 2013 and more than 1,500 cases in 2014 with a total of 14 deaths in the two years. Of the total cases seen more than 90% of the cases were children and adolescents with ages ranging from 6 to 17 years. According to the 2013 LDHS, 58% of women in Liberia have experienced Female Genital Mutilation (FGM), and 97% of women were circumcised before the age of 18 years. Although in some areas of the country, young girls have been educated about the dangers of the practice of FGM, there is still an enormous amount of sensitization and engagement of traditional and cultural leaders that has to be strengthened at all levels as well. Access to contraceptive use is a key component in reducing unintended pregnancies that might arise; a multisectoral approach is needed to tackle sexual and gender-based violence.
- The net enrolment ratio (NER) for secondary school is very low for males and females (2013 LDHS). In rural areas, only 12.3% of females of secondary school age are enrolled in secondary school and only 14.0% of males of secondary school age are enrolled in secondary school. Most young people are engaged in elementary occupations, such as skilled agricultural and fishery workers and service workers, shop and market sales workers.

Adolescents face many barriers in accessing health care services. These barriers include but are not limited to: financial barriers related to service charges or transportation, lack of respect, privacy and confidentiality for adolescents and youth from service providers, fear of stigma and discrimination, issues related to age of consent, inconvenient office hours and arrangements, and stock outs of family planning commodities. However, to harness the demographic dividend as a nation, the country has to invest in skilled education for youth and adolescents, both in and out of school, and empowerment programs to enable them to become independent and responsible and to provide employment opportunities for them to assume leadership roles for the economic development of the nation.

Equity will also need to be addressed in the process: these barriers are amplified for girls compared to boys. Evidence also shows that instead of marginalized adolescents or those with the most pressing health needs, advantaged adolescents, e.g., unmarried, older adolescents are more likely to benefit from interventions.

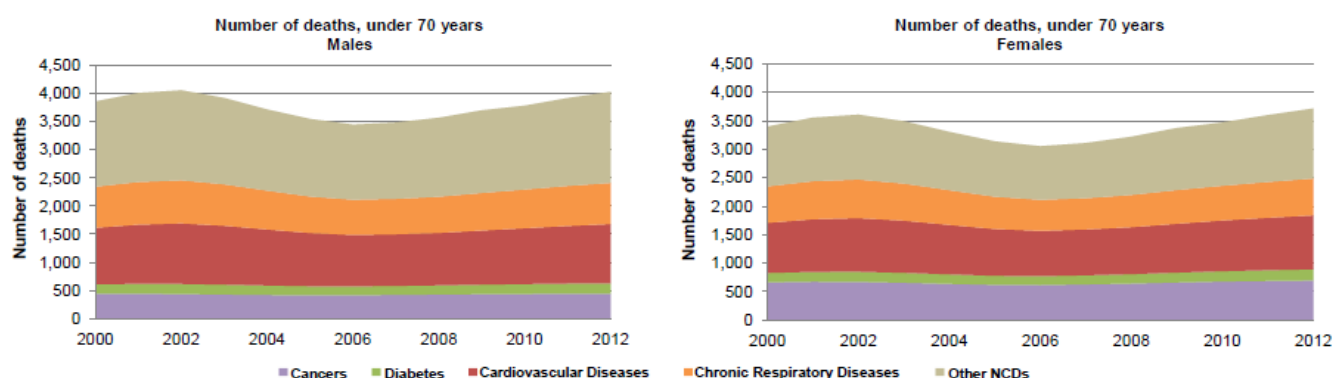
Adolescent health care services are seldom prioritized, especially in underserved counties. Health care services targeting adolescents are fragmented, poorly coordinated and most often embedded into the mainstream health care services. The need for ease of access to health care for adolescents and youth by providing an enabling environment to facilitate the process cannot be overemphasized. It is clear, especially in resource constraint countries, that integrating adolescent and youth friendly corners into the regular health care delivery system ensures sustainability. However, training service providers on properly identifying and handling issues that affect adolescents and youth will lead to significant improvement in coverage and quality of services.

Health Transition and the Double Burden of Disease

There is an increasing trend in developing countries characterized by ill-health systems, where the demographic and socio-economic transition imposes more constraints on dealing with the double burden of infectious and noninfectious diseases in an environment (Boutayeb 2006). It is predicted that, by 2020, non-communicable diseases will cause seven out of every ten deaths in developing countries. Among non-communicable diseases (NCDs), special attention is devoted to cardiovascular disease, diabetes, cancer and chronic pulmonary disease. The table below shows the premature mortality rates of NCDs in Liberia.

Premature mortality due to NCDs*

The probability of dying between ages 30 and 70 years from the 4 main NCDs is **21%** .



An increasing disease burden arises from interactions between communicable diseases and NCDs (Young et al. 2009). Common NCDs arising from the current high burden of chronic communicable diseases in Africa include cervical cancer linked to human papilloma virus infection and hepatoma linked to hepatitis B virus infection.

In recognition of the increasing magnitude and importance of non-communicable diseases (NCDs) to global health, the international community has included a target in the Sustainable Development Agenda (2015–2030) for NCDs: *By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being*. This provides an unprecedented opportunity for the global public health community to “end the epidemic” of preventable cervical cancer that robs the lives of women all over the world, particularly in the developing world, where screening is not yet a standard of care in many places.

1.4. Gender and Social Cultural Influence on RMNCAH

Studies examining the relationship between gender and health have consistently concluded that gender related factors have an effect on health outcomes. Placing RMNCAH within the broader family and society is essential for ensuring improved health outcomes but such systems are often influenced by gender dynamics (Erulkar et al. 2004). Inequalities and gender norms that encourage early marriage and childbirth contribute to poor birth outcomes and result in less education and more economic vulnerability for women and children (UNICEF, 2005). Women’s limited access to employment and limited control over family resources (relative to men), along with gender-based violence, may reduce contraceptive use (Mosha, Ruben, and Kakoko 2013), and impede uptake of maternal health care including prevention of mother to child transmission of HIV services.

A technical evaluation report assessing Influences of gender measures on maternal and child health in Africa showed that gendered (wife beating) variables were significantly associated with a child’s health. In Nigeria, women with high decision making authority and who believed a wife beating was unacceptable had a greater likelihood of having their children fully immunized. In both Nigeria and Liberia, women who believed a wife does not have the right to refuse sex were less likely to have their child fully immunized (Singh et al. 2011).

In addition to harming child health, gender-based violence increases the risk for poor health outcomes for women, e.g., pregnancy complications, preterm birth, physical and sexual violence and obstetric fistula (Falb et al. 2014). Fistula is associated with social and psychological effects on patients. Often there is a stigma associated with this condition, and those women suffering from fistula are abandoned by their families and marginalized by their communities, thereby denying the patients any form of social security (Siddle et al. 2012). Together, these patterns suggest the need to integrate and address gender dynamics in behavioral interventions and health seeking behaviour .

CHAPTER 2: RMNCAH RESULTS

2.1 RMNCAH Baselines

This Investment Case for RMNCAH is an integral part of Liberia's policies and plans to achieve the United Nations Sustainable Development Goals (SDGs) by 2030 related to RMNCAH. It also outlines Liberia's efforts under the UN Every Woman, Every Child initiative to end maternal and new-born mortality from preventable causes. Launched by UN Secretary-General Ban Ki-moon during the United Nations Millennium Development Goals Summit in September 2010, it is an unprecedented global effort that mobilizes and intensifies international and national action by governments, multilaterals, the private sector, and civil society to address the major health challenges facing women and children around the world.

The effort puts into action the Global Strategy for Women's and Children's Health, which presents a roadmap on how to enhance financing, strengthen policy and improve service on the ground for the most vulnerable women and children. Restoring and expanding health care service delivery and RMNCAH in particular remains the number one priority of the government of Liberia. There is an urgent need to intensify efforts to address the underlying drivers of maternal, new-born and child mortality through catalytic and transformative high impact interventions. Achieving this ambitious feat requires substantial investments targeted at strategic areas of the health system, particularly in under-performing areas.

The overall policy goal of the plan is to reach the RMNCAH targets as laid out in the Sustainable Development Goals by 2030. However, over the next five years the goals are as follows:

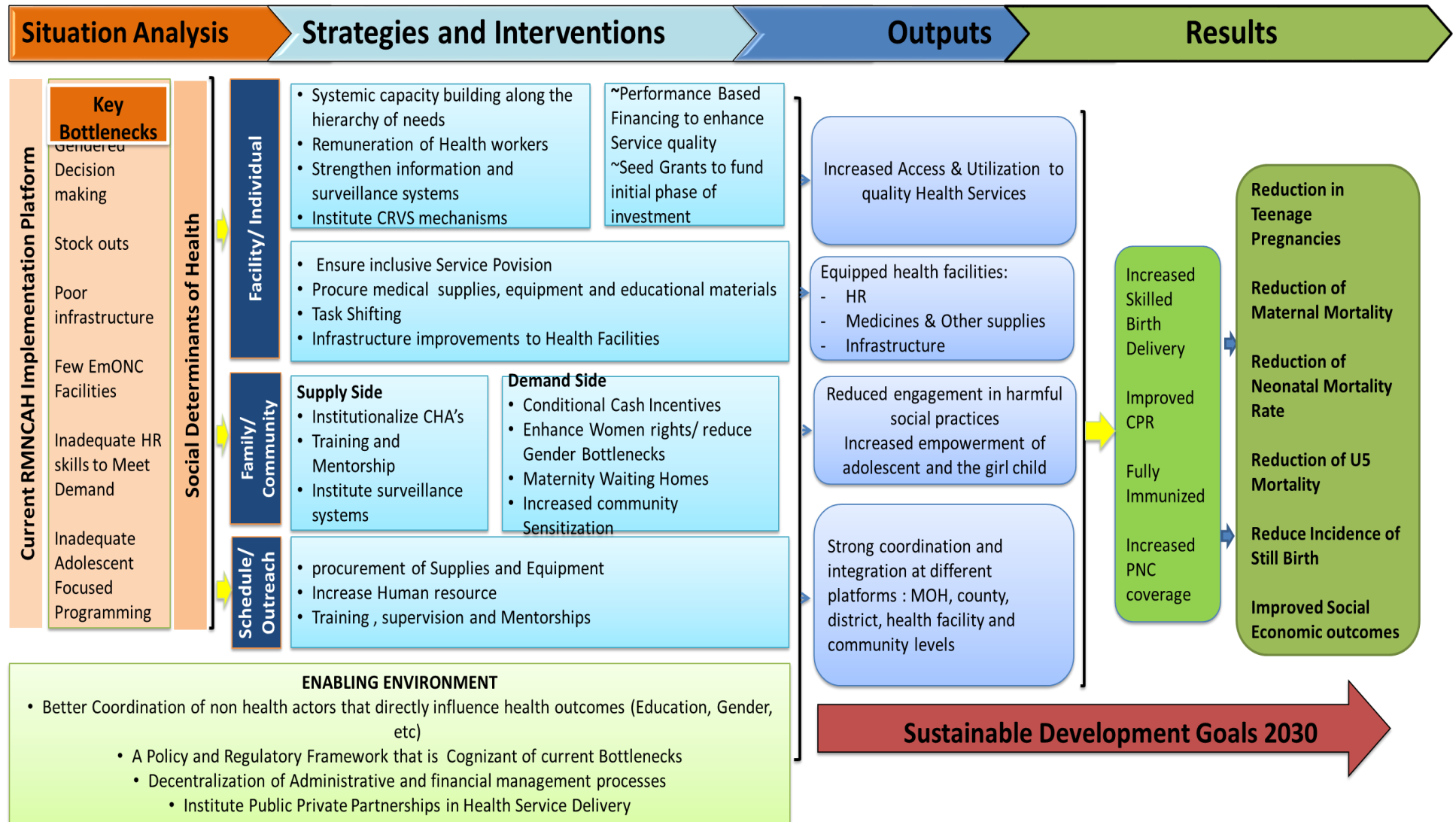
- This Investment Case aims to improve the overall health and social welfare of the Liberian population through improving RMNCAH services, and
- Provides health security by narrowing the impact of social determinants of health and effects of inequity among vulnerable populations.

The RMNCAH Investment Case reflects the broader SRMNCAH Policy 2015, the Roadmap to Reduction of Maternal Mortality and the Investment Plan for building Resilient Health System 2016–2021 plans, and the National Development Plan for Liberia.

The current demographic trend in Liberia shows that over 40% of the population is under 20 years of age.¹¹ With a median birth age of 18 years, and a relatively high adolescent fertility rate (DHS, 2013), productivity of a sizable number of Liberia's population is limited by early childbirth and high incidence of abortion, which would also partly explain the escalating maternal mortality. The country intends to deploy interventions to reduce the unmet need for family planning, increase support for adolescent and youth empowerment to improve their livelihood, and reduce the deaths occurring among women at the peak of their productive ages. With more people in the labour force and fewer young people to support, dependency ratios will decline and a window of opportunity for rapid economic growth will open.

¹¹ World Bank. (2011). Reproductive Health At a Glance: Liberia. Retrieved on 8/11/2015 from <http://siteresources.worldbank.org/INTPRH/Resources/376374-1303736328719/Liberia41811web.pdf>.

Figure 5: Conceptual Framework



The Conceptual framework provides a basis for which the implementation, process, and monitoring framework of the Investment Case will be operationalized. Following a national level assessment of key bottlenecks, county specific assessments will be conducted following the broad areas set out in the situation analysis. Key to achieving the desired change will be consideration of social determinants of health, specifically gender influence on health seeking behaviour, and understanding barriers that affect special groups such as adolescents. Based on the findings, interventions broadly broken down by the three different levels of implementation with the individual and facility level interventions will further address demand and supply side challenges. The main assumption is that supply side interventions need to improve and create quality service delivery while innovative demand side approaches are scaled up. The framework also highlights the need for a multi-sectoral approach to address key social determinants of health, such as education, safe water and sanitation, transport, communication, and food security, as well as gender equality.

Existing systems such as the Health Management Information System (HMIS) will be used to measure the outputs, while additional mechanisms, such as adopting existing mobile telephone technologies, will augment the system. Nationwide surveys will be conducted to measure the outcomes of the interventions and specifically track progress towards the Sustainable Development Goals.

2.2 Estimated Impact and Outcomes

The RMNCAH indicators and targets for the National Investment Plan for Building a Resilient Health System, Liberia 2015–2021, will guide the indicators and targets for the monitoring and evaluation of this Investment Case (See Annex 1). Table 2 provides a list of core indicators and targets for the RMNCAH Investment Case. These indicators will be monitored via an independent end line evaluation of the first phase of investment. Further information is expected at the end of 2016 following a comprehensive assessment of the health facilities.¹²

Table 2: Selected RMNCAH Indicators and Targets for 2021

| Key Statistic | National Baseline Value | Year of Data | Target 2021 for Focus Counties |
|---|-------------------------|--------------|--------------------------------|
| Total fertility rate (births per woman) | 4.7 | 2013, DHS | 4.2 |
| Contraceptive prevalence rate | 20% | 2013, DHS | 26% |
| Unmet need for contraception | 31% | 2013, DHS | 25% |
| Women 15–19 years begun childbearing | 31% | 2013, DHS | 25% |
| Population 15–49 years infected with HIV | 1.9% | 2013, DHS | 1.5% |
| Percentage of women of reproductive age (15–49 years) who are sexually active and who have their need for family planning satisfied with modern methods | 41.6% | 2013, DHS | 60% |
| Percentage of children aged below five years whose birth has been registered with the Bureau of Vital Statistics | 25% | 2013, DHS | 40% |
| Percentage of births in a given year registered with the Bureau of Vital Statistics | TBD | | |
| Percentage of deaths in a given year registered with the Bureau of Vital Statistics | TBD | | |
| Maternal mortality ratio (per 100,000 live births) | 1072 | 2013, DHS | 600 |

¹² A Service and Readiness Assessment has been conducted for all health facilities in the country. This will provide the basis for assessing health facility capacity to deliver on the proposed interventions.

| | | | |
|--|-----|-----------|-----|
| Percentage of pregnancies which receive at least 4 antenatal visits (ANC4) | 78% | 2013, DHS | 60% |
| Proportion of births attended by skilled health personnel | 61% | 2013, DHS | 60% |
| Proportion of births delivered in health facility | 56% | 2013, DHS | 60% |
| Postnatal care for mothers | 71% | 2013, DHS | 70% |
| Postnatal care for new-borns | 35% | 2013, DHS | 70% |
| Antiretroviral combination therapy treatment coverage among under-five within 24 hours | 17% | 2013, DHS | 20% |
| Antibiotic treatment for pneumonia | 56% | 2013, DHS | 60% |
| Oral rehydration therapy treatment for diarrhoea (under-5) | 62% | 2013, DHS | 65% |
| Neonatal mortality rate (per 1,000 live births) | 26 | 2013, DHS | 20 |
| Infant mortality rate (per 1,000 live births) | 54 | 2013, DHS | 45 |
| Under-five mortality rate (per 1,000 live births) | 94 | 2013, DHS | 80 |
| Proportion of children under five who are stunted | 32% | 2013, DHS | 30% |
| Proportion of children 12–23 months who received pentavalent-3 immunization | 68% | 2013, DHS | 80% |

2.3 Guiding Principles

The following will be the **guiding principles** for the RMNCAH program:

- **Equity and accessibility:** Recognizing the fundamental right to health and the particular needs of underserved populations, especially those of women, youth, and populations most at risk, in the provision of services;
- **Community participation:** Meaningfully involving beneficiaries in planning, implementation, monitoring, and evaluation of programs and activities to ensure ownership and sustainability;
- **Complementarity:** Building on existing national instruments for the provision of health services and health system strengthening;
- **Partnership and Coordination:** Promoting partnership, collaboration and joint programming among stakeholders and sectors as well as a clear definition of roles; recognizing the comparative advantage of key players to avoid duplication and enhance synergies;
- **Stewardship:** Ensuring government-driven leadership for effective interventions that are planned and implemented according to national priorities and the specific needs of the population;
- **Quality:** Building on a clear understanding of local knowledge, practices, perceptions and behaviour in relation to RMNCAH including gender sensitivity, confidentiality, and responsiveness, as well as meeting the health needs of the populations with evidence-based, low-cost, high-impact interventions;
- **Transparency and accountability:** Promoting a sense of responsibility and good governance at all levels in the execution of activities;
- **Sustainability:** Recognizing the need for optimal allocation of resources for appropriate interventions, as well as strengthened managerial capacity to ensure cost-effectiveness and sustainability of investments.

CHAPTER 3: PRIORITY AREAS FOR RMNCAH INTERVENTIONS

Introduction

The results of the health system assessment were used as the evidence for identifying and prioritizing new strategies that could be operationalized in the next five years to overcome the most critical bottlenecks affecting equitable quality service delivery. Reaching vulnerable and underserved populations in the six counties while maintaining the momentum in the remaining nine requires investment in every aspect of the health system, including leadership and governance, workforce, infrastructure, commodities and supplies, service delivery, information systems, community engagement, and financing.

The Liberia context requires multi-sectoral tailored approaches, i.e., health, nutrition, water, sanitation and hygiene (WASH), gender, education, protection, communication involvement targeting different population subgroups, e.g., adolescents, women, new-borns, and children, with specific attention to preparedness and building resilience. Long-term transformational and innovative interventions have been identified that could potentially lead to sustainability and positive outcomes.

Water Sanitation and Hygiene Strategic Plan 2010–2020

From 2001, The Water and Sanitation Ministry in Liberia prioritized improving access to water, sanitation and hygiene (WASH) services with attention given to all hospitals and health facilities (not including dispensaries) in the initial phase of the plan. Though progress hasn't been tracked (GOL 2012), consultations with the sector will allow value for money through reduction of duplication of effort towards improving WASH services in health facilities.

Four priority investment areas have been identified across the continuum of care and include a priority area focusing on service delivery. These include quality emergency obstetric and neonatal care (EmONC), and routine adolescent and youth friendly (AYF) RMNCAH services. Three cross-cutting priority investments are essential for building resilience: (a) emergency preparedness, surveillance and response, especially maternal neonatal death surveillance and response (MNDSR); (b) sustainable community engagement; and (c) leadership, governance, and management at all levels. For each priority area, key interventions are succinctly presented and summarized in Annex 3.

3.1 Priority Investment I: Quality Emergency Obstetric and Neonatal Care

Improvement of EmONC services will be done by ensuring better infrastructure and product availability, and by improving the skills of health workers to deliver the services.

Construction and Renovation of Health Facilities

In addition to the renovations ongoing at the JFK National Referral Hospital in Monrovia, the Government plans to rebuild Redemption Hospital and upgrade 21 clinics to health centers. Redemption Hospital serves as the largest free health care service provider in Liberia, providing care and medication at no cost to all those who cannot afford to pay for medical treatment.

As part of the *National Investment Plan for Building a Resilient Health System (2015–2021)*, the Ministry of Health (MOH) has identified the rebuilding and expansion of Redemption Hospital as a critical priority. The project is a centerpiece of Liberia's renewed drive to build an optimized system not only to avert future epidemics, but also to deliver comprehensive services to a growing population. The hospital currently serves as a training center for midwives and nurses and is the in-service training center for emergency obstetric and neonatal care (EmONC). The new construction of Redemption Hospital will serve as a tertiary referral hospital, especially for the North Western Region. Construction of Redemption Hospital will not only respond to growing patient needs, but will also provide opportunities, combined

with the ongoing hospital performance-based financing activities, to further improve quality of care of the largest secondary hospital in the country, and strengthen teaching functions for physicians' training.

Focused Antenatal Care

The distribution of birthing kits (Mama Kits) for the mother and new-born can contribute to increased health facility deliveries. Though attendance of antenatal (ANC) is high, targeted ANC still remains a challenge because key supplies and equipment are lacking at health facilities, and the detection of pregnancy complications was weak (LISGIS, 2013). Implementation reports in Liberia indicate that the distribution of cost-effective, safe delivery kits are a best practice intervention to promote safe and clean delivery practices for the mother and new-born in settings with high home based deliveries. This is particularly important to prevent postpartum and postnatal infection after delivery. Recommendations include:

- Ensure two trained health workers who focus on maternal and neonatal and child health (MNCH) are available during the antenatal care (ANC) service in facilities and at least one available for night time operations;
- Procure and distribute key equipment and supplies, including but not limited to, blood pressure machine, rapid diagnostic test of syphilis, HIV, malaria, urine strips, ferrous, folic acid, and multivitamin drugs for intermittent prevention treatment (IPT), weighing scale, and safe delivery kit during the fourth ANC visit (ANC4);
- Facilitate monthly meetings in the health facilities involving trained traditional midwives (TTMs), community health volunteers (CHVs), and community health assistants (CHAs) at the end of the month to ensure monitoring, supervision, and mentorship. Hold quarterly reviews of the indicators lead by the county and organize peer-to-peer reviews between facilities;
- Within the wider mechanisms of reducing social inequalities and health systems strengthening, pilot a voucher system as a form of demand-side funding to provide access to antenatal care, maternity and postnatal care services mainly for hard-to-reach populations. The goal is to place the power of purchasing care in the hands of patients. Vouchers have been used for maternal health care in numerous resource limited settings with substantive benefits for the low income groups (Elmusharaf et al. 2015);
- Incentives such as Mama Kits, other in-kind gifts and cash incentives will be provided to trained traditional midwives to facilitate them to accompany mothers to health facilities.

Maternal and New-Born Health—Labor and Delivery: Emergency Obstetric and New-Born Care

Emergency obstetric and neonatal care (EmONC) services are critical interventions. When implemented correctly and according to standards, EmONC services contribute significantly to complications associated with pregnancies and delivery processes, which otherwise would result in mortality or severe morbidity of the pregnant woman or girl. Nationwide investments will be made to strengthen EmONC services in Liberia.

As per WHO's guidelines, a population of 500,000 should have access to at least five basic emergency obstetric and neonatal care (BEmONC) facilities and one comprehensive emergency obstetric and new-born care (CEmONC) facility. In the context of Liberia, due to the population size as well as the sparsely populated nature of some geographic settings, the country has adjusted the standard to five BEmONCs and one CEmONC facility per 200,000 population, as prescribed in the Liberia 2011–2015 RMNCAH roadmap.

This investment case will focus on reinforcing and upgrading health facilities to provide EmONC services. Emphasis is placed on BEmONC facilities to ensure that more women have access to emergency obstetric and new-born care in line with standards.

- Health facilities will be assessed and equipped with **skilled providers** and necessary supplies to adequate levels that ensure the provision of BEmONC, provision of 24 hours and 7 days a week BEmONC services, as well as timely referral of emergency obstetric cases requiring comprehensive care.
- All trainings will use an **on-site facility-based/on-the-job training approach** that will be based on the specific facility data and context.
- The community health teams will build on already existing mechanisms to improve remuneration, **motivation and retention schemes**, e.g., incentives to work beyond regular duty hours, travel to communities, especially in remote areas, and also institutionalize performance-based pay for health workers.
- Implement task shifting where appropriate. Evidence is strong that life-saving interventions can safely be delegated to mid-level health workers through a **task shifting** approach, but only if health workers are appropriately trained. The Ministry of Health will optimize the performance of available staff by progressively considering delegation of tasks to mid-level health personnel with appropriate training.
- Support the role of community health assistants, including trained traditional midwives, in bridging gaps between families and health services.
- Operationalize the integration of oxytocin storage and management into the Expanded Program on Immunization program.
- Distribute misoprostol in communities.

Child Health

Malnutrition is the underlying cause for one-third of child deaths. The current rate of chronic malnutrition in Liberia is extremely high at 32% (2013 LDHS). Also, anemia in young children is at 59% putting children at risk of infections, poor growth and development. The MOH will emphasize an integrated approach to child survival and development, focusing on convergence and integration of health, nutrition and WASH activities to achieve positive outcomes for the children of Liberia. The main strategic areas include:

- Expand integrated management of childhood illnesses, including screening and treatment of infant tuberculosis and HIV infections in health facilities, increasing coverage of immunization, improving nutrition especially breastfeeding;
- Improve behaviour change and implementation of family health practices;
- Prioritize early infant feeding education and supplements;
- Improve referral network of early infant diagnosis (EID) program and roll out elimination of mother to child transmission (EMTCT) across the country;
- Institutionalize the first 1,000 days nutrition concept as relevant in fighting stunting and preventing acute malnutrition among children;
- Strengthen strategies regarding measles vaccination, vitamin A, and deworming coverage improvement in RiverCess and Sinoe counties.

Postnatal Care

During the postnatal period, the essential package of health services (EPHS) policy requires health facilities to ensure that women and adolescents who did not present complications after the birth of their baby remain at the health facilities for at least 24 hours. However, the postnatal period extends far beyond the required duration of stay also in the absence of complications.

Integrated maternal and new-born care through outreach activities using the Reaching Every Pregnant (REP) Woman approach is a strategy that ensures pregnant and postpartum women and girls are targeted in the provision of ANC and PNC services using health facility staff in collaboration with community health cadres (CHAs and TTMs). The aim of the

approach is to ensure that all targeted beneficiaries in a particular catchment location are tracked and provided care by health facility staff in collaboration with community structures.

- The MOH will ensure that health facilities have the required logistics including motorbikes, fuel, and medical supplies to allow the health clinic and health centre supervisor, a vaccinator and at least one midwife to provide bi-monthly outreach activities in their catchment community.
- Taking lessons learned from the EPI community approach, monitoring tools will track progress made towards various MNH targets such as ANC visits, deliveries, PNC visit IPT2+, and PMTCT information. Each health facility monthly progress will be captured and displayed in the form of a graph on a monthly basis.
- Health facility OICs and MNH supervisors will be trained to ensure periodic completion and dissemination performance. Information from this monthly tracking tool will be shared with community members during monthly and quarterly meetings with the community.
- Providing demand side incentives to promote health seeking behaviour.

Special outreach services for adolescents of young people will focus on sexuality education for increased knowledge on SRH/FP and general family health issues. Targeting is needed towards young men and women out of school through Community Health Workers and health outreaches. Also approach of peer educators on ASRH is essential to increase access to services.

Improve Community Participation in Maternal Child Health Outcomes

As mentioned above, 29% of Liberians live farther than 5km from a health clinic, are effectively cut off from Liberia's health systems, and do not receive adequate health services. Morbidity and mortality are higher in the country's rural areas where more than half of the population lives. Indicators for child mortality are all significantly higher in rural areas. Likewise, skilled birth attendance and facility-based birth deliveries are all lower in rural areas. This rural versus urban disparity suggests that addressing the health needs of all requires extending the health systems to rural and remote populations. Community Health Assistants (CHAs) are a crucial link in the continuum of care that encompasses home-based visits, health facility delivery, and post-delivery follow-up in communities.

Liberia's Health Sector Investment and Recovery Plan (2015–2021), Health Workforce Program, and the National Community Health Services Policy have set targets for investment in community health and, in particular, RMNCAH priorities. The community health assistants (CHA) program of the MOH is an innovation in service delivery, and in the most remote areas where communities do not have access to health facilities, CHAs are the best, and sometimes only, choice for primary health care. In accordance with these national plans, this investment case prioritizes investments that increase access and ensure quality of services through recruiting, training, deploying, incentivizing, and supervising the community level health workforce. This Investment Case is a unique opportunity to reduce inequities in access to and utilization of services in hard to reach areas in the selected counties due to long distance to health facilities and difficult terrain.

This innovative CHA program will be implemented in the targeted counties to expand basic preventive, promotional, and curative RMNCAH services to those critically in need. The community health teams (CHTs) will work with communities to recruit an estimated 910 CHAs (population ratio of 1:350) to deliver critical RMNCAH interventions in the six focus counties. The CHTs/DHTs and Community Health Services Supervisors (CHSSs) will provide pre-service and in-service trainings for CHAs in RMNCAH interventions; provide technical, clinical, and managerial supervision; and ensure CHAs are adequately equipped (including standardized medical commodities and equipment) and motivated (incentives) to deliver required services. The CHA program will strengthen the linkage between health facilities and

communities to facilitate the tracking and referral of MNCH cases to health facilities. The MOH through the CHTs will ensure CHA-delivered implementation of the following.

- **ASRH/MNCAH services**

Counselling, identification of high-risk pregnancies, and referral for facility-based delivery. According to the 2013 LDHS report client preference for injectable contraception was two times higher than oral pills. Scale up community based distribution of contraceptives as well as establish long acting reversible contraception (LARC) service delivery points at the community level to reduce unintended pregnancies by addressing unmet need and service awareness. Innovative approaches that have proven to increase access to contraceptives such as market based distribution of contraceptives on weekly community and district market days will form part of the community distribution strategy.

Demand creation through information dissemination at community and health facility levels to improve knowledge about pregnancy prevention and safe motherhood will form part of the project implementation. Peer-to-peer education through community pregnancy prevention advocacy groups will serve as forums for adolescents to access information and services. School health programs will be strengthened to provide FP/ASRH services and support the establishment of girls clubs in communities. The use of media, IEC/BCC context approved strategies will be employed to increase the promotion of adolescent pregnancy prevention in catchment communities and districts.

- **Home-based maternal and neonatal care (HBMNC)** through the CHA program to expand antenatal and postnatal services. The CHAs will be continuously equipped, monitored and supervised to strengthen the provision of integrated community-based care, health, and nutrition services during antenatal (birth preparedness package and referrals), delivery (referral for SBAs and safe delivery), and postnatal periods (home visits).
- **Child health services** including integrated community case management (iCCM) of diarrhoea, pneumonia, and malaria, vaccination drop-out tracing to ensure full immunization coverage, nutrition services such as MUAC screening, community bi-directional referrals to facilities for malnutrition, and nutrition education such as exclusive breastfeeding are among the key interventions CHAs will provide.

The Commission on Information and Accountability for Women's and Children's Health has called for improved oversight and transparency, urging parliamentarians, community leaders, civil society and the general population to demand information and participate actively in planning and monitoring health services and the quality of care received by mothers and children. The MOH will conduct **community-based MNH promotion and prevention for FP/MNCAH** in the six targeted counties, districts and catchment communities through health education and social mobilization interventions to increase awareness, knowledge and acceptability of RMNCAH interventions at the community level to enhance behaviour change.

Quality Assurance and Improvement of RMNCAH and EmONC Services

Quality care will be improved by expanding the quality improvement approach in health facilities and communities to strengthen monitoring and accountability processes and linkages. Quality improvement in the monitoring of EmONC/RMNCAH services will involve measuring performance and finding ways to improve performance using better, simpler methods on a regular basis. Using the existing EmONC and MCH performance monitoring tools, the QI process will involve creating QI teams at health facilities, client interviews, clinical record reviews, and client flow review as well as facility capacity assessments to deliver services. Monitoring and supervision arrangements will employ the following steps:

- Bi-annual joint monitoring and assessments of all EmONC facilities in collaboration with central level technical teams while the technical support supervision and mentorship will take place on a quarterly basis at subnational (county and district) level.

- A new approach to mentorship that will consider peer-to-peer BEmONC facility monitoring (experience sharing/mentorship among BEmONC facilities) to be implemented. During the first year, health facilities that demonstrate progress and improved performance in all aspects of service delivery, leadership, management and accountability will be identified as facilities to participate in the peer-to-peer mentorship program to mentor other BEmONC health facilities. A separate training guideline and implementation plan will be developed for the peer-to-peer mentorship program to support implementation. In addition, the MOH will enforce implementation of infection prevention control measures in all health facilities and at the community level as per national guidelines.
- The MOH will explore the possibility to expand the performance-based financing scheme to the selected poor performing counties to improve quality care.
- National Youth Volunteers can have an important role in RHCS monitoring and overall quality assurance as well as linking these activities to interventions coordinated by the Ministry of Youth and Sports and supervision mechanism for youth related programs including SRH/HIV.
- Equipment of delivery units with adequate equipment and human resources capacity to deliver RMNCAH services and emergency care as per national standards.
- Improvement of referrals and linkages across the health service delivery continuum.
- Strengthening logistics and supply chain capacities in skilled human resources in the absence of an effective supply chain renders maternal death reduction difficult to achieve. A functioning monitoring and supervision system (checklists) with feedback will be put in place to strengthen supply management capacity to ensure regular stock movement and distribution of the required quantity and timely supply of RMNCAH medicines to health facilities (including communities). To ensure an effective response to stock out challenges and emerging issues in the health system, innovative approaches such as mobile technology and results-based monitoring will be experimented in selected health facilities and catchment communities in conjunction with the current system to enable accurate collection, analysis and use.

Data driven decision making is an important aspect of quality care. The Investment Case will be an opportunity to support the HMIS Unit of MOH to collect data on adolescent health, integrate specific indicators and targets on adolescents' access to health services in existing data collect and disaggregate RMNCAH data by age and sex. In addition the MOH will ensure that the maternal and neonatal death surveillance response (MNDSR) and National EmONC monitoring and assessment include specific questions/indicators on adolescents and young people. Available literature shows an increase in mobile phone usage in Liberia, a phenomenon that is closely linked to global development (Best et al. 2010). These are all opportunities on which improving data driven decision making can be hinged. To achieve this goal, investments will be made in:

- Strengthening national DHIS2 systems;
- Weekly reporting through mobile applications on selected indicators;
- Set up and task county and district RHTCs with monthly reporting on maternal audits.

Prevention and Treatment of Breast and Cervical Cancers

The overall strategy proposed by the Ministry of Health Liberia is to leverage the existing reproductive-maternal-new-born health project platform to incorporate cervical cancer prevention and control program in a sustainable manner within a strengthened health system. Most developing countries including Liberia record about 90% one-time ANC visits

and numerous efforts for increased attention to Focused Antenatal Care (FANC). ANC has played a successful role in the delivery of prevention and care interventions for communicable diseases, such as tuberculosis, HIV, and malaria. Building on this success, it is envisaged to play a crucial role in the response to NCDs in terms of health promotion and disease prevention and treatment. Practical intervention areas include:

- Improving data on communicable diseases and NCDs;
- Implementing a structured approach to improved primary-care delivery and a community awareness campaign;
- Strengthen the quality of clinical care through set-up of four regional Centers of Excellence;
- Aligning the response to health transition with health system strengthening (improve referral systems, and coordinate capacity building and skills acquisition);
- Create an enabling policy environment;
- Create a data and information tracking mechanism.

3.2 Priority Investment II: Strengthening the CRVS System

A well-functioning CRVS system provides indispensable information needed for proper programming, monitoring, and evaluation of health programs. It provides better measurement of mortality, including comprehensive data on causes of death which can be used to inform policies that are more effective and responsive to the needs of women, adolescents and children. Failure to collect high-quality data through universal registration of births and deaths, including cause of death, results in unavailability of crucial information for policy making, planning, and evaluation of programs across all development sectors, including health and health services.

The Government of Liberia Strengthening has prioritized strengthening the CRVS system as a basic social service to its citizens and as a source for vital statistics. While CRVS is the best source of vital statistics, it remains inadequate in Liberia as both birth and death registration rates are low, with limited information on causes of death collected. However, there have been some improvements in the registration of births, which have increased from 4% in 2007 to 25% in 2013. Death registration is estimated at less than 5%.

The RMNCAH program has prioritized improvements of the CRVS system as an important tool for monitoring health indicators such as the maternal mortality ratio; infant and child mortality rate; adolescent birth rate; as well as immunization rates. Accordingly, this investment case will support the strengthening of the registration of births and deaths, including causes of death, covering events that occur in health facilities as well as those that occur in the community. Registration of marriages will also be prioritized to discourage early marriages, which are directly related to early childbearing. The CRVS activities prioritized for the RMNCAH Investment Case are largely drawn from an investment case to improve CRVS in Liberia over the period 2016–2020 (GOL and The World Bank, 2015). They include:

- **Improving birth registration services:** The investment case will prioritize the development and institutionalization of a uniform birth registration process and issuance of a standard birth certificate, taking into consideration the two co-existing birth registration systems in the country. Birth registration will also be improved through developing and implementing a plan for using immunization processes as well as community maternal and child health outreach services for community births. This will include developing manuals for birth registration; training relevant staff at county and district levels as well as in the community; developing job descriptions and specifications for all CRVS staff; conducting advocacy campaigns; and procurement of equipment to facilitate the registration processes.
- **Improving death registration services:** Decentralization of death registration will be a priority area to cover deaths that occur in health facilities as well as community deaths. This will entail developing and implementing

a plan to ensure all deaths in health facilities and in the community are registered; the use of international standards for collecting and classifying information on causes of death including the adoption of the latest revision (currently 10th) of the international classification of diseases (ICD); revising data collection forms; training doctors in certifying causes of death; and recruiting and training relevant health personnel in ICD coding. For community deaths, verbal autopsy will be adopted, prioritizing maternal deaths. All these processes will require the development of training manuals and the training of relevant staff, as well as advocacy at community levels to promote death registration. The implementation of death registration will be aligned to the roll-out of MNDSR at facility and community levels. Furthermore, the registration teams at county and district levels will need to be institutionalized and integrated into the county health team to receive required support and supervision.

- **Expanding the coverage of the birth and death registration system:** Expanding registration points and recruiting additional district and county registrars in a phased manner will be prioritized, including compensation of registrars. The registration centers will work closely with the MCH outreach teams. Furthermore, there will be a requirement for registration supplies to facilitate registration such as registration forms and certificates furniture, equipment, etc.; and increasing internet connectivity across all counties and their districts.
- **Improving civil registration information systems:** Integration and interoperability of systems covering births, deaths and causes of death, marriages and other vital events will be prioritized. This will include integration of all systems to the central birth registration system as well as with other systems such as the DHIS2; the National Identification Registry; and marriages. Priority areas in strengthening information systems include the automation of coding causes of death; digitization of historical records; procurement of servers and database licenses; and training of technicians and service providers. In addition, priority will also be accorded to building the capacity of statisticians; production of vital statistics; and dissemination of statistical reports. Recruitment and training of IT engineers will be required for improving the overall CRVS system.
- **Strengthening legislation and raising awareness and advocacy:** The implementation of the CRVS component will need to have a policy and legal framework under which it operates. The investment case will support the process of updating the legal and policy environment and also use the opportunity to create awareness among legislators and stakeholders.
- **Coordinating national efforts and project management:** A National CRVS Multi-stakeholder Steering and Coordination Committee will need to be established to coordinate the implementation of the investment plan. Mechanisms to ensure regular meetings, participation of stakeholders and monitoring of the Investment Case need to be put in place.

3.3 Priority Investment III: Adolescent Health

In dealing with adolescent needs, WHO recommends shifting from *adolescent-friendly* projects to *adolescent-responsive* health care systems. Adolescent-friendly services often focus only on SRH and other health issues and risks, such as mental health problems, nutrition, substance use, intentional and unintentional injuries; chronic illnesses are neglected. In Liberia additional health issues and risks include unplanned and unwanted pregnancies (177/1000 live births), high rates of abortion, HIV/STI infections and sexual gender based violence (SGBVs). In addition they include social cultural factors, such as peer pressure and parental pressure for childbearing, particularly among rural populations and marginalized groups. In addition, many programs aimed at making health service adolescent friendly fail to achieve intended results as they are not comprehensively implemented. Key adolescent health issues to be addressed include:

- Enhancing cultural and legal environments for the protection of adolescents and young people through advocacy for adolescents' rights to health through strengthening laws against early marriages, domestic violence and harmful practices such as female genital mutilation;
- Improving collection and use of appropriate information on ASRH/HIV for advocacy and evidence-based decision making;
- Increasing access to and utilization of education services responsive to the needs of adolescents and youths;
- Engaging communities including youths to increase awareness and impact of gendered decisions on adolescents' well-being;
- Integrating ASRH programs into a multisectoral policy agenda.

In the health system, key issues include:

- Ensure the integration of AYF/RMNCAH initiatives and service delivery platforms so that no opportunity to reach mothers, new-borns, children, and adolescents are missed;
- Expand the 'one-stop approach' capacity of health facilities to provide integrated AYF/RMNCAH services, including ART/option B+. The CHTs will ensure adolescents' access to pregnancy, STI and HIV prevention and management services including HIV testing and counselling (HTC), post-abortion care services and appropriate information for safe sex targeting adolescents and youths;
- Improve service delivery especially pre- and postpartum family planning, and management of abortions;
- Adolescents who are soon to be first-time young mothers (FTYM) are a particular target group for services since the guidance and mentoring throughout the first pregnancy period is very crucial to the maternal health outcomes for the new mother and the new-born. Additionally, it is even more important that FTYMs receive special care and attention during pregnancy to ensure breaking the chain and likelihood of subsequent pregnancies.

Education Sector Policy Targets on Pupil Teacher Ratio (PTR)

The Government of Liberia is committed to providing its citizens with education that meets their needs, as expressed during national Poverty Reduction Strategy, Joint Education Sector Review, and extensive Education Sector Plan consultations. Key among the strategies is providing more primary school teachers to achieve a PTR of 40:1 by 2020 and implementing a comprehensive policy on early childhood development covering education, health, nutrition, protection, water and sanitation (GOL 2010). These two targets offer opportunities to strengthen adolescent health in the school curriculum. Aligning programming between the two line ministries will ensure a coordinated approach to improving child and adolescent health.

Prevent Mortality and Morbidity during the Antenatal, Childbirth, Postpartum Periods

The rationale for identifying this issue as a priority is that nearly 6 out of 10 girls are mothers before 19 years of age. In addition, adolescent pregnancy contributes to high maternal mortality and to high neonatal mortality.

Following a causal pathway analysis, mortality and morbidity during pregnancy, childbirth and in the postpartum period result from three adolescent behaviours: they seek antenatal care late and less often than recommended; they don't seek care in the presence of danger signs or do so too late; and they do not deliver in health facilities or in the care of a skilled birth attendant.

The factors that contribute to these adolescent behaviours can be categorized at three levels:

Individual environment

- They are not aware of the value of antenatal care or of delivery care with a skilled attendant.
- They believe that they can get more empathy and support from traditional birth attendants.
- They fear the medical procedures they could be subjected to in health facilities.
- They are turned away by the costs, including the direct and indirect costs, for health facility delivery.

Immediate environment

- Families are not aware of the importance of antenatal care, delivery care and of the special importance of preparing adolescents for birth.
- Health workers do not pay special attention to supporting adolescent mothers-to-be and are judgmental in their dealings with them.

Wider environment

- There is no guidance for health workers and health services on dealing with adolescent mothers-to-be.

To address these challenges, the Investment case proposes the following three pronged approach:

Population-wide actions

- Expand access to skilled antenatal, childbirth and postnatal care, and emergency obstetric care for all segments of the population.
- Actively provide postpartum contraception and post-abortion contraception.
- Increase community awareness of the importance of adolescents getting the support they need to be well prepared for birth and birth-related emergencies.

Adolescent-specific actions

- Inform adolescents about the importance of skilled antenatal, childbirth, and postpartum care.
- Ensure that health workers are sensitive and responsive to the special needs of young mothers-to-be.

Specific monitoring mechanisms to ensure a responsive health care system at the various levels

- Health outcomes level: Numbers of adolescents who die of pregnancy related causes and numbers of adolescents with pregnancy-related morbidity (Source: Hospital service statistics)
- Adolescent behaviours level: Numbers of adolescents who obtain antenatal care and skilled delivery care (Source: Clinic and hospital service statistics)
- Determinants level: Proportions of pregnant adolescents who have developed birthing plans. (Source: Survey)
- Programmatic inputs and outputs level: Quality and coverage of school and community-based education and health service provision (Source: Quality assessment)

Prevent Unsafe Abortion, and Mortality and Morbidity from Unsafe Abortions

An estimated 30% of adolescent pregnancies end in abortions and unsafe abortion. Mortality and morbidity from unsafe abortions are due to adolescents procuring unsafe abortions for unintended pregnancies, and not seeking care promptly or at all when complications result from unsafe abortion. The factors that contribute to these adolescent behaviors can be categorized at three levels:

Individual

- The pregnancy is unintended and unwanted.
- They procure unsafe abortions because of the fear of the reactions of their parents/guardians if they inform them of their pregnancy.
- Belief that they can get what they want (a termination of pregnancy) without anyone knowing.

Immediate environment

- Illegal and unsafe abortions can be procured in their communities with ease.
- Knowledge and information on where to access the unsafe pregnancy termination processes.

Wider environment

- Safe abortion is restrictive.

The investment case proposes the following actions to address these determinants through a two-pronged approach:

Population-wide actions

- Increase community awareness of the scale and consequences of unsafe abortions and that post-abortion care can be lifesaving when illegal abortion care occurs.
- Expand access to post-abortion care for all segments of the population.

Adolescent-specific actions

- Inform male and female adolescents about the dangers of unsafe abortions and about the availability of post-abortion care, including where and how to access care.
- Make post-abortion care services more adolescent friendly, specifically by reducing costs, increasing privacy and ensuring that health workers and support staff deal with adolescents effectively and sensitively.

In addition to the current monitoring and evaluation processes, the health specific programming for adolescents will be monitored through:

- At the level of health outcomes: Numbers of adolescent health facility admissions with complications resulting from illegal abortions or seeking post-abortion care services will be collected and monitored through the routine information collection processes (hospital service statistics).
- At the level of the health behaviors: Numbers of adolescents who use post abortion care services (Source: Obstetrics care service statistics)
- At the level of the determinants: Proportions of adolescents who are aware of the dangers of unsafe abortion and about the availability of post abortion care services (Source: Survey)
- Information on impact and reduction of wider determinants, such as proportions of adolescents who are aware of the dangers of unsafe abortion and about the availability of post-abortion care services, as well as measuring the level of coordinated efforts and synergies, will be collected through surveys and assessments.

Prevent Early and Unintended Pregnancy and Sexually Transmitted Infections Including HIV

Coupled with the high number of teenage pregnancies, use of contraceptives by married adolescents is much lower than in adults, yet teenage marriages are common. One in three new HIV infections are in adolescents and nearly two out of three young people living with HIV are females. Early pregnancy and sexually transmitted infections—including HIV—result from unprotected sexual activity, early initiation of sexual activity, and early marriage.

At the individual level, key drivers include:

- Knowledge gaps about sexuality and reproduction and how to avoid problems;
- Numerous misconceptions about contraceptives; and
- Early marriages.

Yet in the immediate environment:

- Adolescents cannot access quality sexuality education at home, school or elsewhere in the community ;
- Adolescents are unable to obtain contraceptives from government facilities and cannot afford them from private providers; and
- They are pressured to have sex early by peers and adults.

The wider environment further exacerbates these conditions through social norms and beliefs that do not acknowledge adolescent sexuality and are not supportive of providing adolescents with sexuality education and contraception. Few educational and employment opportunities exist, especially for girls. This situation hinders economic empowerment and traditions and economic constraints pressure families to have their daughters married early.

These challenges are addressed through the following individual and population wide actions:

Population-wide actions

- Improve community awareness about adolescent sexuality and support for protecting adolescents with sexuality education and sexual and reproductive health services, notably contraception and HIV testing and counselling;
- Improve access to contraceptive information and services and HIV testing and counselling services to all segments of the population; and
- Improve the tracking and registration of marriages in communities.

Adolescent-specific actions

- Ensure that school-going adolescent girls who become pregnant are not expelled from school and can resume their studies after they give birth;
- Educate boys and girls about sexuality and reproduction;
- Build individual and social assets of adolescent girls to avoid them from choosing child marriage or being forced into child marriage;
- Improve access and uptake of contraception by married as well as unmarried adolescents, including a full range of contraceptive methods including long acting ones, through government clinics and complementary community outreach, social marketing, and commercial sales; and
- Improve access to HIV testing and counselling and links to HIV-related care.

Operational research will also be conducted to understand the preferred sources of contraceptives for females and male adolescents, health system impediments to seeking care, and contraception knowledge.

In addition, specific monitoring mechanism to ensure a responsive health care system will be put in place at various levels:

- At the level of the adolescent behaviors: Proportions of adolescent girls who report using modern contraception and boys who report using condoms (Source: Survey)
- At the level of the determinants: Proportion of adolescent boys and girls who are knowledgeable about contraception and know where they can get them (Source: Survey)
- At the level of the programmatic inputs and outputs: Quality and coverage of school and community based education and health service provision (Source: Assessments)

Prevent Gender-Based Violence and the Response to It When It Occurs

Young people should be able to access services and interlinked comprehensive sexual education that is empowering and designed to enable them to make sexual and reproductive decisions freely and responsibly.

School health programs could better prepare young men and women for a responsible and healthy adult life. Youth-friendly health services should be available to give pregnant female adolescents the full support they need to be well prepared for birth and parenthood, regardless of marital status.

Chapter 4 of the National Gender Policy (NGP) lays out 19 priority areas. Some of them are topic-oriented, focusing on areas such as health and education, while others are process-oriented, focusing on how the Liberian government should implement the NGP (GOL, 2009). The priority areas that are most relevant to adolescent girls include: eliminating and addressing sexual violence and abuse, training policy makers and communities, prioritizing the girl child in free access to education, appointing gender focal persons in all agencies, ensuring access to sexual and reproductive health services, and punitive laws to deter sex and gender-based violence. These provisions and the multi-participatory national gender forum provide a platform for gender mainstreaming in health. Following on the already available policy platform, the Ministry of Health will work with county teams in these cross-cutting areas to further strengthen the multisectoral approach towards implementing the interventions.

3.4 Priority Investment IV: Emergency Preparedness, Surveillance, and Response, Especially Maternal Neonatal Death Surveillance and Response

In the investment plan, two key specific electronic patient records priorities of the Ministry of Health are to establish (1) Integrated Disease Surveillance and Response (IDSR) and Early Warning and Alert Response Network (EWARN) structures at national, county, district, and community levels and to set up (2) comprehensive surveillance integrated data reporting and action frameworks. Successful implementation requires the transfer of surveillance responsibilities to the counties, districts, and communities and investing in policy and operational structures to support its implementation. The key interventions to be implemented include the following.

Surveillance and Notification of Epidemic Prone Diseases (IDSR)

Capacity building at the county and district levels (notification, investigation, verification, supervision); governance and management: functioning Incident Management Center, information flow and reporting channels; development of e-tool for surveillance and early warning (software, hardware, manual, training, maintenance); community event-based surveillance (CEBS)-case definition, training of community persons on the International Classification of Diseases, strengthening reporting tools and channels, social mobilization and community engagement are part of the current strategic plan for Integrated Diseases Surveillance and Response.

Notification of Maternal and Neonatal Deaths (MNDSR)

The death of a mother and new-born is a tragedy that has an immense impact on the well-being of the family and society at large. Most causes of maternal and new-born deaths in Liberia can be prevented or treated. An active surveillance system is therefore necessary to document and ensure that all deaths are investigated by trained and qualified staff and appropriate actions taken to reduce occurrence of similar incidences. The Investment Case will support the MOH to:

1. Strengthen the capacity of the country to conduct effective surveillance activities; train personnel at all levels; develop and carry out plans of action; and advocate and mobilize resources.
2. Guide program managers and involve clinicians in the implementation and supervision of the MNDSR.
3. Facilitate standardization and harmonization of the MNDSR process at community, facility, district, county, and national levels.
4. Improve the use of information to detect changes in time to conduct a rapid response to maternal and new-born deaths; monitor the impact of interventions, e.g., declining maternal and new-born deaths, and for planning and management.
5. Trigger epidemiological investigations in detection, investigation, and reporting of maternal and new-born deaths; improve the flow of surveillance information between and within levels of the health system.
6. Emphasize community engagement and leadership in reporting and response to maternal and new-born deaths to prevent future deaths.

Detection: strengthening laboratory surveillance/screening at the regional level and implement quality assurance and control standards.

The National Incident Management System (IMS)

Transitioning from an Emergency Operations Centre, the IMS is now a platform to address key challenges facing the health sector: actively engage in Maternal New-born Death Surveillance and response in addition to IDSR. The Chair has tasked all stakeholders to provide an update on bottlenecks in MNDSR surveillance. The goal is that in the coming months this initiative will result in improved death notification and investigation as well as audit/verbal autopsy as prescribed by the MNDSR guideline. Results from this process can be used to draw the attention of MOH and partners in the development of addressing strategies to support the response component of MNDSR.

Preparedness for response and case management: contingency logistics and supplies (readiness) and strengthening response capacities to ensure implementation guidelines.

3.5 Priority Investment V: Sustainable Community Engagement

During the EVD response, a heightened level of community engagement and ownership was observed and promoted. Community engagement represents a critical area for investment in building resilience, given the experiences and lessons learned from the EVD outbreak. Community engagement, including engagement of adolescents, will be leveraged to build lasting involvement with communities in health service planning and management. Within the community health framework, community engagement is defined as “the bringing together of and working collaboratively with community members in an interactive and participatory way to make decisions, change behaviours, mobilize resources, and take action to improve community health and well-being.” It engages traditional structures, including TTMs and TBAs. It is well embedded in community systems strengthening, which is a systematic approach that promotes the development of informed, capable, and coordinated communities and community-based organizations, groups, and structures.

Sustainable Community Engagement Established, Enhanced, and Maintained via Community Structures

To improve health outcomes for Liberians, it is widely recognized that the main objectives include strengthening the capacity of the MOH to (a) maintain EVD vigilance and response, and (b) rebuild trust in the health system to create demand for services, and reduce delays in health-seeking behavior, which will in turn increase the uptake of basic quality health and nutrition services through a multi-sectoral platform. At the community level, efforts will be made to reinforce community engagement in planning and management of health services and bolster the community structures to effectively undertake their roles and functions, especially in support of health promotion and disease prevention.

The MOH intends to build on this EVD response experience to set up sustainable citizen engagement that ensures communities’ capacities are built to identify and take corrective actions needed to manage health threats in the future. Real community engagement will be sought, where there is citizen participation and ownership in health management. In the immediate period, the sector will focus on deepened community engagement, through sustained social mobilization strategies that were first successfully employed during the response to the EVD outbreak.

The community volunteers, including young people, will be involved in the implementation of the community event-based surveillance (CEBS). The MNDSR process will be triggered and led by community members hearing about a death in their area. Under this support, the following activities will be conducted by the communities:

- Establish systems to ensure community death identification, notification and reporting;
- Conduct community meetings for verbal autopsy on causes of deaths;

Community Engagement during the EVD Outbreak

During the EVD response, a heightened level of community engagement and ownership was observed and promoted. Strengthening community-based surveillance, while involving youth, ultimately improved case detection and communication support for the epidemic preparedness and response, structures that still exist long after the EVD crisis has concluded. Moving forward, this community engagement will be leveraged to build lasting involvement with communities in health service planning and management. The establishment of a formal and professionalized CHA cadre will reinforce community-based health promotion and preventive activities, and this cadre will play a critical role in the development and rollout of an effective surveillance system.

- Organize feedback meetings and forums to hold health workers accountable for the actions identified to prevent future maternal and neonatal deaths and to check progress; and
- Use TTMs and TBAs as active referral agents for pregnant and lactating mothers.

It is vitally important to overcome barriers to accessing skilled care and to harness the power of parents, families, and communities, engaging them to seek care throughout pregnancy, birth, childhood, and adolescence. This is particularly important in Liberia, where almost half of the mothers do not receive skilled care during childbirth, more than 70% of babies born outside facilities receive no postnatal care and most maternal and new-born deaths and stillbirths occur. Programs seek to strengthen health services through mobilizing community members to adopt healthy practices, shifting social norms to increase social support and addressing barriers to access have demonstrated the effects of such approaches. Community-oriented activities will be regrouped broadly in the five following areas.

- Increasing awareness of rights, needs, responsibilities, and potential problems related to maternal, new-born, child and adolescent health and nutrition through capacity building of community structures and representatives;
- Developing capacities to stay healthy, make healthy decisions, and respond to obstetric and neonatal emergencies at the community level;
- Strengthening social support networks among women, families, and communities and to linkages with health services;
- Improving quality of care through strengthening health services' interactions with women, families, and communities and the responses to their needs (community forums); and
- Provide demand-side incentives, such as cash and non-cash subsidies.

The Role of Civil Society Groups

Actions need to be taken collectively by multiple parties alongside efforts to improve the quality of health services. Civil society can play a catalytic role through existing and strengthened coalitions and networks. In conjunction with other actions, social and mass media can be influential in imparting knowledge, changing behaviour, and instilling social accountability for RMNCAH services. Advocacy campaigns using radio and television have contributed to increasing the number of births in health facilities, early initiation and exclusive breastfeeding, and other interventions. Multi-pronged approaches enhance the reach of messages; public-private partnerships are especially amenable to multimedia advocacy campaigns through existing private sector communications. Peer-to-peer strategies of using parents' voices to mobilize civil society, mass media, and social media can be used to spread information and change norms.

3.6 Priority Investment VI: An Enabling Environment: Leadership, Governance and Management at All Levels

The functional analysis of the MOH system in 2012 and 2015 recommended strengthening of county and district health systems to support the operationalization of the decentralization policy. The Investment plan will lead to a revamping of the health system, requiring a strengthening of the governance and accountability capacity in the country. The focus will be on strengthening leadership and management skills of senior and middle-level managers throughout the health system.

To ensure that the activities outlined in the Investment Case are able to be effectively accomplished, staff in the Family Health division should be capacitated. Formal leadership and management training shall be provided to all central, county, and district RMNCAH staff to ensure they have the right mix of skills needed for ensuring program management and timely implementation of activities. This training will be aligned with objectives laid out in the MOH's investment plan for building a resilient health system.

To strengthen the family health division's (FHD) ability to monitor and direct programmatic priorities, additional staff will be placed at FHD to work with the director specifically on managing the programmatic priorities outlined in this Investment Case. They include a technical assistant to the director, an additional staff to complement the FP, MCH, PMTCT and Fistula Coordinator, a Public-Private Partnerships Coordinator, and a desk officer in Ministry of Gender, Children and Social Protection, Education, Youth and Sports and Internal Affairs to coordinate the proposed multisectoral approach to implementing the proposed interventions. The FHD will conduct the following activities:

- Lead the process of reviewing and disseminating policies and guidelines across the country;
- Enhance management capacity for county and district health teams and county boards, including dissemination of key policy and strategy documents, clarifying roles and responsibilities, reporting structures; SOPs, TORs;
- Conduct bimonthly mentorship and technical support supervision;
- Build capacity including mechanisms for skills transfer and support to health managers; train health workers in customer/patient prioritization in service delivery;
- Support health facility quality improvement coaching in focus counties;
- Develop and disseminate a communication strategy to boost adolescent behaviour change;
- Collaborate with the community health division, M&E unit to monitor and track progress; and
- Coordinate the meetings of Technical Working Groups.

Another important activity will be on improving accountability and participation of communities and citizens in addressing their health agenda. The FHD/MOH will undertake the following:

- Establish robust feedback systems and mechanisms from communities, through facility, district, and county levels by having quarterly stakeholders fora at these levels involving communities, which discuss health issues and services;
- Develop operational procedures for implementing AYF/RMNCAH services at the county and district level in a de-concentrated form of governance to provide guidance and support to the county, district, and facility managers; and
- Establish a mechanism for inter-sectoral dialogue and inter-sectoral collaboration to foster integration and maximize the use of resources (community health division, county health teams, health promotion).

CHAPTER 4: FINANCING THE INVESTMENT CASE

What Package of Interventions Shall We Implement?

The Investment Case provides an opportunity to analyse constraints on scaling up key interventions for reducing preventable deaths, and also provides an understanding of potential progress that can be made towards the Sustainable Development Goals by 2030 by implementing the proposed strategies and a reasonable estimate of the costs that would be associated with such progress. Table 3 presents a summary of strategies to be implemented.

Table 3: Description of Key Strategies to Be Delivered in the Investment Package

| | Description |
|--|---|
| An equity-based approach will be used with additional effort focused on the six low-performing counties, while maintaining momentum in all others | <ul style="list-style-type: none"> • Comprehensive and basic EmONC strategy (human resource capacity development and provision of delivery kits, emergency transport, and training, incentives, drugs, and equipment for remote communities) • Provision of RMNCAH services during antenatal, birth, and postnatal periods (the one-top approach); schedulable outreach RMNCAH activities • Supervision and monitoring, m-health monitoring and tracking system, information generation and management, CRVS; contracting for last mile distribution of drugs and supplies • Emergency preparedness and response, especially MNDSR • Leadership and governance: capacity building activities, quarterly reviews and supervision activities, management support to districts • Community Health Workers to expand community-based maternal, new-born, child, and adolescent health and nutrition services in underserved areas (recruitment and training support, capacity building and incentives, supportive supervision mentoring, and strengthened referral systems) • Sustainable community engagement for resilience (revamp community structures, community mobilization, public-private communication activities, engage CBOs) • Scale up performance-based financing • Sensitization, prevention, screening and treatment of breast and cervical cancers • Task shifting to expand the provision of RMNCAH/ART services • Expand hardship allowance package to additional counties for additional CHAs in remote areas • Quality of care: upgrade additional health facilities, establish and institutionalize QI/QA teams <p>Adolescent specific components will include:</p> <ul style="list-style-type: none"> • Increase community awareness of the scale and consequences of sexual and gender-based violence (including female genital mutilation) • Change social norms with BCC campaigns that condone sexual and gender-based violence, and engage male champions to lead this • Inform adolescents about the importance of skilled antenatal, childbirth and post-partum care • Inform adolescents (boys and girls) about the dangers of unsafe abortion, and about the availability of post-abortion care |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Ensure that health workers are sensitive and responsive to the special needs of young mothers-to-be • Make post-abortion care services more adolescent friendly (specifically, reduce costs, increase privacy and ensure that health workers and support staff deal with adolescents effectively and sensitively) • Improve access and uptake of contraception through government clinics and through complementary approaches in community outreach, social marketing and commercial sales • Improve access to HIV testing and counselling and links to HIV-related care • Ensure that boys and girls can access health and social care if they experience sexual and gender-based violence • Increase community awareness about adolescent sexuality and support for protecting adolescents with sexuality education and sexual and reproductive health services, notably contraception and HIV testing and counselling • Enact and/or revise laws to ensure protection against rape, gender-based violence and gendered influences that hinder education and livelihood of adolescents • Ensure social inclusion and protection including involvement in decision making |
|--|--|

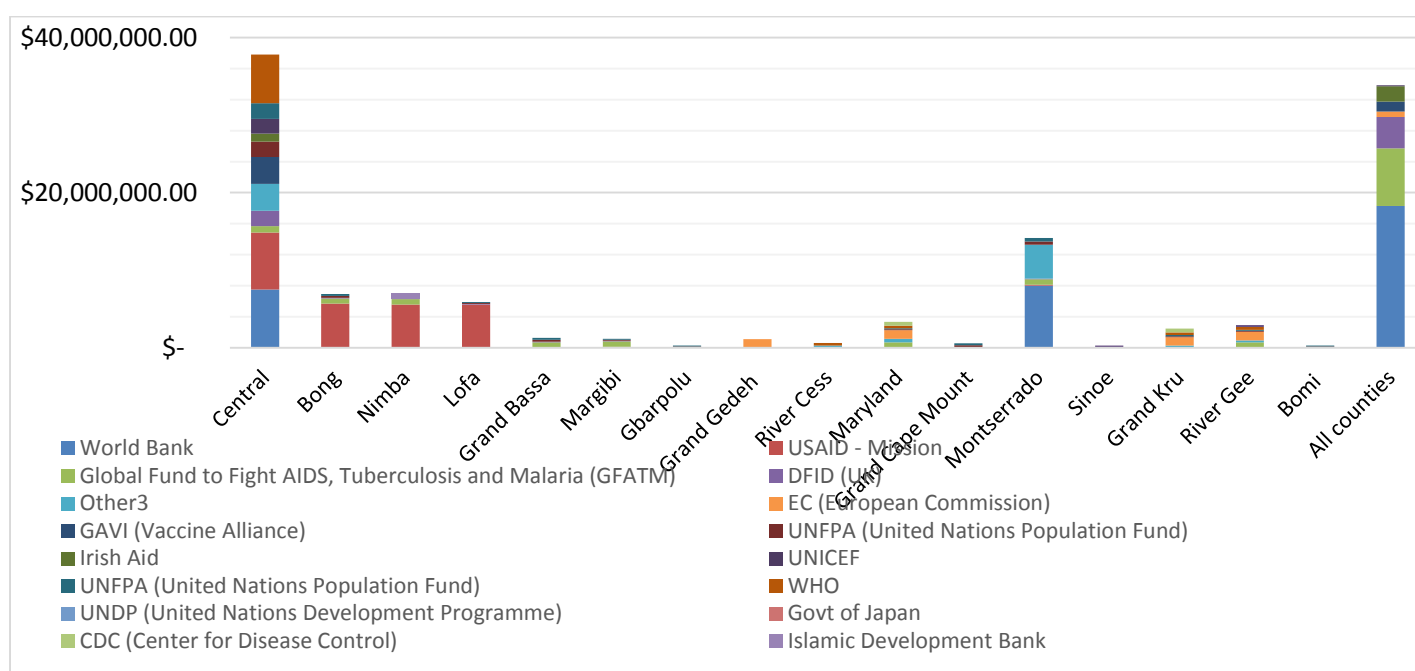
4.1 Estimated Costs and Current Resource Allocation

Liberia's current total health expenditure is estimated at US\$ 240 million or US\$ 64 per capita (accounting for 16% of 2012 GDP¹³). The total amount the Government of Liberia and development partners have pledged towards RMNCAH is US\$ 342,902,288 over a period of three years for the development partners and five years for the government contribution (Resource Mapping, MoH 2016). The estimated total national cost over a period of five years is US\$298,710,060 (MBB Modeling exercise carried out during preparation of this IC, Liberia 2016¹⁴). Figure 6 shows resource allocation by county.

¹³ National Health Accounts, 2012.

¹⁴ The costing as shown excludes the additional investments such as Infrastructure. The Infrastructure investments require US\$ 400,641,073 over the five years. See Annex 4 for MBB Report.

Figure 6: Resource Allocation by County (Resource Mapping 2016)



Impact Estimates for the Proposed Investments

The package described above amounts to a marginal cost of US\$ 32.4 per capita per year. It is expected that through the targets set in Tables 2 and 7, Liberia will reduce the maternal mortality ratio by 19.2%, under-five mortality by 24.1%, and neonatal mortality by 34% at the end of the five years. Table 4 shows the impact of each service delivery mode.

Table 4: Summary of Impact Estimate Based on a Marginal Cost of US\$ 32.4 per Capita¹⁵

| Service Delivery Mode | Neonatal | Under-five | Maternal | Cost per capita per year in US\$ |
|---|----------|------------|----------|----------------------------------|
| 1. Family oriented community based services | 15.5% | 13.1% | 0.0% | 3.55 |
| Family preventive/WASH services | 0.0% | 4.0% | 0.0% | |
| Family neonatal care | 3.1% | 1.7% | 0.0% | |
| Infant and child feeding | 12.4% | 7.2% | 0.0% | |
| Community illness management | 0.0% | 0.1% | 0.0% | |
| 2. Population oriented schedulable services | 0.8% | 2.4% | 6.6% | 8.67 |
| Preventive care for adolescents and adults | 0.0% | 0.0% | 0.6% | |
| Preventive pregnancy care | 0.8% | 0.5% | 5.9% | |
| HIV/AIDS prevention and care | 0.0% | 0.4% | 0.0% | |
| Preventive infant and child care | 0.0% | 1.5% | 0.0% | |
| 3. Individual oriented clinical services | 17.7% | 8.7% | 14.3% | 19.01 |
| Maternal and neonatal care at primary clinical level | 8.9% | 1.6% | 7.8% | |
| Management of illnesses at primary clinical level | 0.0% | 0.7% | 0.0% | |
| Clinical first referral care | 6.2% | 5.8% | 3.9% | |
| Clinical second referral care | 2.7% | 0.7% | 4.2% | |
| Total family & community outreach & clinical care | 34.4% | 24.1% | 19.2% | 31.23 |
| Management and technical support | | | | 1.17 |
| Three service delivery modes + management and technical support | | | | 32.40 |

4.2 Resource Gap Analysis

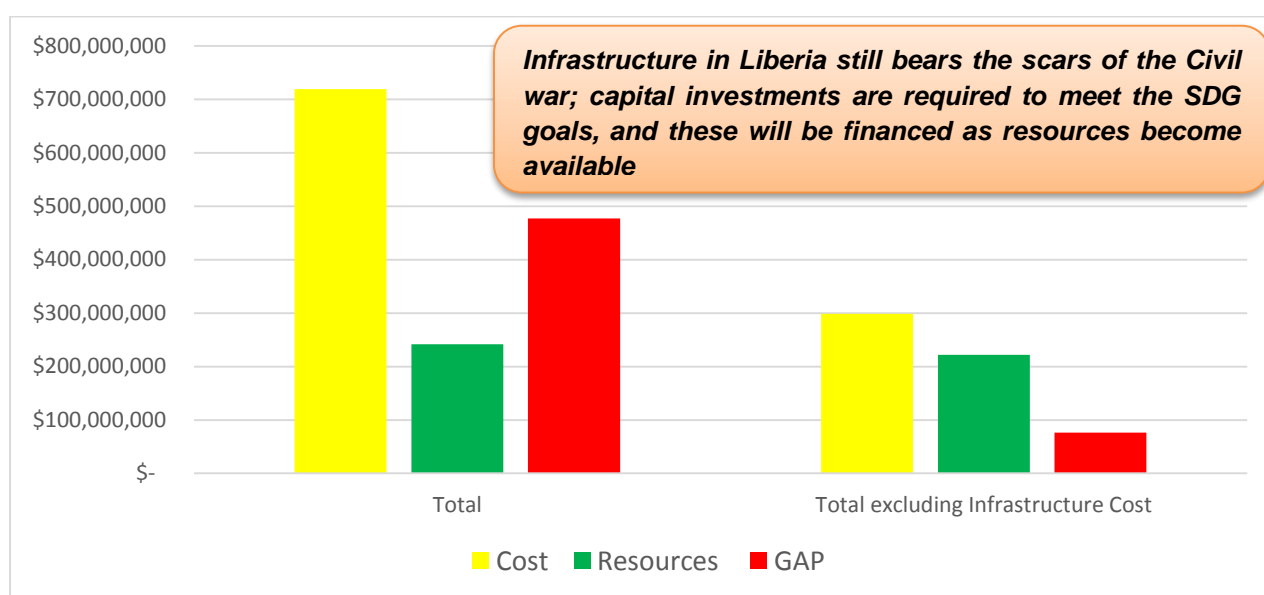
The total amount of resources committed towards RMNCAH is US\$ 222,203,418 over a period of three years: FY 16/17–FY18/19¹⁶ (Resource Mapping, MOH 2016). The estimated total national cost over a period of five years is US\$ 298,710,060, excluding infrastructure investments (MBB Modeling, Liberia 2016). This represents a resource gap of US\$ 76, 506,642. The additional investment in infrastructure (health facilities) required is US\$ 420,247,720 (MBB Modeling, Liberia 2016).

Currently, the estimated resources for infrastructure are US\$ 19,606,647 over a period of three years (Resource Mapping, MoH 2016). This represents a gap of US\$ 400,641,073 over the five years, given the current estimated amount of resources coming in for infrastructure. Figure 7 shows the financial gap required to meet the targets with infrastructure and excluding the infrastructure investments.

¹⁵ MBB Modeling, Liberia 2016.

¹⁶ Figure doesn't include government resources expected for years four and five.

Figure 7: Total Cost, Resources and Gap Analysis for the RMNCAH Investment Case



4.3 Financing Mechanisms

According to the MOH SRMNCAH Policy 2015, the provision of SRMNCAH services requires a significant sustained investment of financial and managerial resources. In line with the national development plan and principles of Universal Health Coverage, the SRMNCAH Financing Policy has the following objectives:

1. To ensure sustainable financing and effective management systems for SRMNCAH services; and
2. To attain uninterrupted provision of SRMNCAH services at all levels.

Hereto the GOL shall:

- Increase financial support to SRMNCAH programs as part of the national health budget;
- Explore alternative financing mechanisms for SRMNCAH services to alleviate the financial burden from individual households;
- Mobilize additional resources from partners and other sources for SRMNCAH care services;
- Use existing resources more efficiently;
- Strengthen management support systems, including HMIS, procurement, supply chain management, and logistics, in accordance with the National Health Plan; and
- Ensure the use of standardized health service management tools and procedures by all implementing partners.

Challenges in the Health Sector Affecting RMNCAH Service Provision

Currently, the sector is highly donor dependent. Donors provided 80% of the resource envelope for fiscal year 2015-2016 (Resource Mapping, HFU, MOH 2015). In FY 2011–2012, donor expenditure accounted for 65% of TIHE (NHA Report, 2011/2012). Additionally, according to the NHA from FY 11/12, out-of-pocket (OOP) expenditure was at 51% of total health expenditures in FY 11/12 and total health expenditure per capita was US\$ 64. US\$ 86 per capita is needed

for countries to move towards UHC.¹⁷ Not only is OOP expenditure high, but it is regressive.¹⁸ In Liberia, OOP expenditure is highly regressive as the lowest quintile of the population pays almost as much as the highest quintile on health related expenditures (LDHS, 2013). This can be seen in Table 5.

Table 5: Household Expenditure in Liberian Dollars by Wealth Quintile

| Wealth Quintile | Annual Total Health-Related Expenditures/Household (L\$) |
|-----------------|--|
| Lowest | 11,672 |
| Second | 11,032 |
| Middle | 10,718 |
| Fourth | 14,208 |
| Highest | 17,826 |

The high OOP expenditure strongly questions the effectiveness of the Essential Package of Health Services (EPHS) free at the point of use (GOL, 2015). Additionally, the quality of care at public facilities is low with a 77% stock out of essential drugs (UNFPA 2014), varied facility functionality and workforce motivation. The low quality of services contributed to a decrease in service utilization of 39% in 2014 (UNFPA, 2014). Lastly, resource allocation across counties by donors and the government is inequitable and inefficient as it is based on want and not on need. This disadvantages certain counties relative to others in terms of resources going towards RMNCAH activities.

High donor dependency, coupled with high OOP expenditure, needs to be addressed by increasing domestic resources for health and pooling these effectively to achieve UHC. The fiscal space analysis for health, conducted in 2015, looked at various sources for fiscal space. The conclusions drawn per source are the following:

- **Macroeconomic condition:** The economy is projected to rebound in 2016, providing a modest increase in the budget for health even with the current allocation rate.
- **Sector-specific earmarked taxes:** Earmarking taxes for the health sector provides a lucrative option to increase domestic revenue for health. Since 2013, the Ministry of Health has been advocating with stakeholders about earmarking taxes specifically to the health sector. The discussion has been focused on allocating a percentage or the entire revenue collected from sin taxes on alcohol and tobacco to health, while exploring other innovative mechanisms such as allocation of about 2.5% or 3% of GST for the health sector or looking at the possibility of exploring the GSM sector.
- **Reprioritization of health within existing government budget:** Increasing the general budget allocation to health to 15% of the overall budget provides another option. However, the health sector already receives 12%. Therefore the additional 3% will only generate a modest increase in revenue.
- **External resources:** Maintain current level of external resources.
- **Improve efficiency in use of current resources.**

¹⁷ US\$ 86 per capita represents an update of the WHO standard US\$ 54 per capita based on inflation. Chatham House. Shared Responsibilities for Health. May 2014.

¹⁸ C.M. Zikusooka, R. Kyomuhang, J.N. Orem, and M. Tumwine. (2009). *Is health care financing in Uganda equitable?* African Health Sciences 9(S2): S52–S58. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2877292/> on 14/10/2015.

Health Financing Strategy for RMNCAH Service Provision

The policy goal of the Ministry of Health is to create a sustainable health financing system that guarantees equal access to quality health care and ensures financial protection for all Liberians (Investment Plan for Building a Resilient Health System, 2015). It intends to protect Liberia's poor from catastrophic costs of accessing health care through risk pooling: mobilizing additional and more sustainable resources for health care delivery while improving aid effectiveness and coordination in the health sector. It also purports to improve the quality of health care services by establishing provider payment mechanisms that distribute resources based on need, while also rewarding improvements in quality and performance.

The health financing strategy will pool these revenues coming from different sources to cross-subsidize from the relatively rich to the relatively poor. The aim is to introduce pooling in stages. The ultimate goal is to have a national virtual pool where the funds are used to purchase health care providers and a benefits package for the entire population. The strategy is to employ a resource allocation formula that allocates resources across counties based on need, rather than want. Additionally, the rollout of performance-based financing may be increased to address one of the reasons for low quality of care by incentivising service providers to improve their performance. A concept note with the details of the LHEF is currently being developed.

Given that the above domestic options for resource mobilization are either only feasible in the long run or will only provide modest increases in the budget for health, the health financing strategy is to use existing resources more efficiently to get "more health for the money." In line with the recommendations from the fiscal space analysis, the health sector shall retain the current level of external resources but increase their efficiency through joining the IHP+. This will not only improve the coordination with donors but aims to increase the percentage of donor spending that is on budget.

Additionally, to improve efficiency in the use of current resources, the strategy is to employ a resource allocation formula that distributes resources across counties based on need and to increase the rollout of performance-based financing. Performance-based financing not only addresses efficiency in the health sector, but also addresses the challenge of low quality of care by incentivising service providers to improve their performance.

Increasing efficiency plays an important role in increasing the sustainability of resources in the health sector. However, the sector also needs to decrease donor dependence since the external resources will eventually be phased out. In FY 2013–2014, a national resource mapping exercise projected US\$ 179 M would be available for health from donors (73%) and the government (27%). This equates to US\$ 43 per capita, compared to a costing of the Essential Package of Health Services that indicated US\$ 53 per capita was needed in Liberia, and an international recommendation of US\$ 86 per capita for countries to move towards universal health coverage.¹⁹ Donors provided 80% of the resource envelope for fiscal year 2015–2016 (Resource Mapping, HFU, MOH 2015). Therefore, the health financing strategy proposes to pilot a strategy that aims to channel individual contributions into the public sector through pooled funding.

Reversing Impact of Regressive Financing for Health

According to WHO,²⁰ government expenditure on health in Liberia, though increasing, is still below the Abuja declaration target. As discussed earlier, OOP expenditure is high because households either pay under the table at public facilities or use services at private facilities. Therefore it is apparent that there exists a willingness to pay for services. The aim of

¹⁹ US\$ 86 per capita represents an update of the WHO standard US\$ 54 per capita based on inflation. Chatham House. Shared Responsibilities for Health. May 2014.

²⁰ B. Evans (nd) Health System Financing in Guinea, Liberia and Sierra Leone: Overview. World Health Organization retrieved from <http://www.who.int/csr/disease/ebola/health-systems/health-systems-ppt2.pdf> on 8/11/2015.

individual contributions is to lower the current level of OOP expenditure through a community-based willingness to pay study combined with increasing the quality of services through the additional funds. The additional funds available from this approach will be low due to exemption of the indigent and maternal and child health. Nonetheless, it is an important first step that will feed into the long-term policy goal of the Liberia Health Equity Fund (LHEF) to pool resources from different sources to achieve UHC.

Contributions from Development Partners

The National Community Health Services Policy 2016–2020 has an overall goal to extend the reach of the country's primary health care system via a standardized national community health model that can provide a package of essential, lifesaving primary health care services and epidemic surveillance within communities and households. USAID funding of US\$ 25 million is being made available to support the policy. Key issues that will need to be mapped out for implementation include how to bring CHAs on the MOH payroll, the overall financing of the policy in short to medium term across the country, and ensuring this community piece is part of the RMNCAH Investment Case being developed. Key gaps include management, monitoring, and accountability of the CHA programs. There are many CHA related implementation partners, and large-scale support from USAID and the Bank has some time and financial constraints.

USAID is further preparing support of about US\$ 10 million in a 2–3 year period for pre-service training for midwifery and lab technicians. The focus of this potential midwifery pre-service support would be improved instructor/teaching (classroom and practical), improved learning environment, support to schools and foreign faculty, and equipment. Also, HRSA is currently developing an RFP for US\$ 50 million which would be shared across four countries over a five-year period. This represents a possible allocation of US\$ 2 million per year over the five-year period for Liberia. Given the short-term nature of USAID midwifery institution support, limited funds compared to the HWP budget, and its constraint particularly on infrastructure renovations/constructions, it was proposed that the both EERP and HSSP will secure a small amount of funds (US\$ 2 million each) as originally planned for midwifery and nursing support. Detailed planning of financing items will be done under the leadership of the MOH with a USAID secured consultant to program the activities.

USAID provides about US\$ 49 million for primary health care service delivery using a PBF approach as well as support to Community Health Workers (see above) in select counties, whereas the World Bank with current and future funding supports other counties. USAID is also providing HRH support of about US\$ 10 million over the coming 2.5 years for education of midwives and lab technicians, which complements the HRH support envisioned by the Bank. GFATM is currently supporting HIV/AIDS, TB and malaria as well as some health system strengthening with US\$ 74 million remaining until the end of 2017. This includes support to HRH, NDS, HMIS and LMIS, blood safety, equipment for the reference lab and light renovations to hospital and clinics. The MOH has the opportunity to access additional supplementary health system strengthening funding and is preparing an application to be submitted to GFATM by mid-March 2016.

Current gaps, as identified in the RMNCAH Investment Case, which do not appear to be fully financed by other development partners, include support to community engagement in adolescent health and beyond; CHA program in select counties; primary health care support in select counties; supply chain (from procurement to warehousing and delivery); fleet management and ambulance support; as well as additional financing for Redemption Hospital. MOH targets such key gaps in RMNCAH services for available funding opportunities including the one for GFATM. The MOH will share the draft RMNCAH Investment Case to help inform the future GFATM support, recognizing that an elaboration of donor partners' support and a clear funding gap analysis is required as an integral part of the GFATM application process.

Managing Resources

The Ministry of Health has made a policy decision to join the International Health Partnership (IHP+). Since 2008 several Partners (DFID, Irish Aid, AFD, SDC and UNICEF) have pooled their resources for the health sector. Pledges to the pooled fund to date amount to approximately US\$ 71 million, and the annual contribution for implementing HSPF activities from 2008 to 2013 constitutes 10% of support to the national budget of the health sector.²¹ A Pool Fund Secretariat (PFS) in the MOH manages the day-to-day operations of the Pool Fund. As Liberia transitions from post-Ebola recovery mode to designing long-term resilient health systems, it wishes to use the sector-wide approach (SWAp) for implementing its health sector strategy, building on the foundation laid by the Pool Fund implementation. The Ministry envisages joining IHP+ to help improve upon donor coordination, and to jointly work with development partners to strengthen MOH systems, including financial management, M&E, resource tracking, and rigorous monitoring of key projects.

Role of the Private Sector

There was generally limited collaboration between the public and private actors in the health sector despite them being a key player in urban areas—38% of health facilities in Liberia are privately owned. Key bottlenecks raised were limited to no capture of data from private health facilities in Monrovia County despite providing the bulk of the services, and laxity of the government to engage the sector despite recognising the fact that private sector engagement had potential to increase the resource envelope of the health sector (GOL, 2015).

Experience from Ebola has shown that private sector engagement in health provides opportunities for additional health financing and management. The private sector was also late to raise its collective voice. Multinational companies operating in the affected countries were initially focused on their own operations and individual initiatives and did not coordinate a collective response until August 2014, with the formation of the Ebola Private Sector Mobilization Group (EPSMG). The Ebola outbreak has successfully brought together businesses across national boundaries, working in a noncompetitive way, towards a common objective. This has the makings of a private-sector platform that can organize itself around a common purpose beyond Ebola and become a direct participant in driving the development agenda (Kamara, 2015). With a platform currently available, private sector engagement is possible.

Resources mobilized from various members of the business community significantly contributed to the fight against EVD. The Fula, Indian, Lebanese, business communities and others donated various gift in-kind including ambulances, vehicles, food and kits for survivors, medical supplies and other logistical needs in addition to direct financial contribution to support the government's efforts in combatting the epidemic. Local and international banking institutions, GSM phone companies; various concession groups all provided resources in support of the national cause. Interestingly, the involvement of the private sector was not only limited to private institutions with greater financial potential. These examples clearly demonstrate the potential of the private sector to support national health initiatives, including RMNCAH. Liberia can build on this experience to shift the spotlight on RMNCAH and galvanize a similar support for RMNCAH through the GFF

A multifaceted response was required to bend the EVD curve. A quick realization from the MOH leadership was to know who was best at doing what and then deploy them using the comparative analysis mapping resulting in multiple players working towards this goal.

²¹ External Assessment of the MOH, Liberia, Health Sector Pooled Fund (HSPF) and its Future Management, 2015.

platform to contribute to domestic resource mobilization in a more structured and sustainable manner.

Greater Efficiency for RMNCAH Resource Utilization: Performance-Based Financing (PBF)

In other countries, PBF has led to greater productivity of the health workforce. To date, PBF in Liberia has been largely donor-driven and limited to the use of financial bonuses to reward quality performance, with a focus on primary care services. Donors taking part in the Health Sector Pool Fund (HSPF) supported PBF in seven counties until the end of FY 2013–14, while USAID through the FARA programme has supported PBF in Bong, Nimba, and Lofa since 2012. During this time, the Pool Fund helped increase annual health expenditures to US\$,29 per person per year, enabling decentralization of the BPHS to a majority of public health facilities by 2010 and strengthened country ownership and coordination between government, local NGOs, and international NGOs by empowering the MOHSW to contract service provision to partners aligned with the goals of the 2007 NHP (GOL 2008). The HSPF stopped its financing of PBF due to competing priorities following a reduction in its overall resource envelope. To date there has been no formal impact evaluation done to assess the PBF schemes managed by the Pool Fund or FARA. A WB-funded pilot using PBF to improve secondary level care at Redemption Hospital is under way (GOL 2015), but has yet to be fully implemented and show results. Still, the Pool Fund and FARA managers provided general observations as follows: ensure a hybrid system that allows CHTs to be mentored while they take on overall management during the contracting in process; provide seed grants to all CHTs involved in the process to avoid a ‘Catch 22’ of not being reimbursed because they didn’t meet the targets because they lacked funds; institute a system of swift verification and institute the bonus package as part of the MOH budget accounting for at least 10%.

Above its role in domestic financing, the private sector has a considerably large portion of interaction with the adolescent population (Hallman et al. 2016). Building on this platform, the Investment Case proposes to strengthen the central roles indigenous NGOs, CBOs, and organizations play in community education, community empowerment, and the networks that such NGOs have with regional and multinational partners. If harnessed, the learning and implementation process of adolescent health is expected efficiency in resource allocation and utilization.

CHAPTER 5: GOVERNANCE AND MANAGEMENT OF THE RMNCAH INVESTMENT FRAMEWORK

5.1 Country Management Platform

The RMNCAH investment framework will operate under a platform for collaboration and collective action by the MOH and the County Health Teams, and a wide array of stakeholders including communities, FBOs, CSOs, professional associations and the private sector (for profit and not-for-profit), development partners, and the international community. These partnerships are critical to build capacity, support innovations, foster multi-sectoral collaboration across disciplines and invest in research and performance measurement and accountability (PMA) to measure results and track progress. However, at the moment, there is an urgent need for much better coordination amongst development partners. There are numerous examples of overlaps in DP resources on the one hand and gaps in support on the other. The MOH intends to use the IC for RMNCAH to enhance management of the external support and improve the coordination in program planning and implementation, in line with IHP+ principles. As a first step to improve efficiency and cost-effectiveness, an extensive mapping exercise of all external support will be carried out, followed by a review of the effectiveness of the support.

The MOH will liaise with other line ministries, including the Ministry of Internal Affairs, Ministry of Education, Ministry of Youth and Sport, Ministry of Gender, Children and Social Protection, among others, to build synergies to help obtain overall Investment Case objectives leveraging. Existing funding and programming available at community and county level will allow for greater impact across all sectors.

The Country Platform will have three components: oversight, management, and operationalization of the IC. It will use existing structures already in place. These may be strengthened as needed. At the county level the operationalization could be through the multi-sectoral County Health Development Boards (if functioning) and/or the County Health Teams with additional members coopted as may be needed. Operationalization at the central level will be through existing technical working groups offering managerial and operational oversight, and these will report to the Health Sector Coordination Committee that meets monthly.

The technical working groups are: Reproductive Health Technical Committee (RHTC) for service delivery, the supply chain technical working group, health financing technical working group, Human Resources for Health technical working group and the community health service delivery technical working group. In addition, the Country Platform will operationalize the M&E, CRVS, and communications Technical Working Groups. A review of the terms of reference of all these technical groups will be needed to ensure that advocacy, policy, communication and M&E of implementation are well addressed. Management of issues and matters arising from the technical working groups will be handled at the HCC which meets monthly. Oversight functions will be fulfilled by the HSCC during its quarterly meetings.

For all levels of governance it needs to be considered that the actors for that level are well represented, such as Ministry of Finance, other line ministries, financiers, local and international CSOs and NGOs and the private sector. GFF will make funds available for a liaison officer to assist in linking the various levels of governance. As an initial strategy, the terms of reference will have to be reviewed and adapted to the rigors required to achieve the results laid out in the framework.

Under oversight of the national committees, individual counties will activate RMNCAH technical working groups that consist of key partners and CHT members reviewing maternal and neonatal health data and suggesting interventions that will be used to address specific issues identified and work towards positive solutions. These meetings and committees will be cascaded down to district and health facility levels. Their functionality will be ensured through a

results based financing mechanism with monthly coordination meetings held to review RMNCAH indicators and set goals to improve quality of care and reinforce the bidirectional referral pathways between the community and health facility.

5.2 Civil Registration and Vital Statistics (CRVS)

In Liberia, the Bureau of Vital Statistics in the MOH has the mandate to produce birth and death certificates and has a decentralized system with registration centres located in major health facilities. Laws on birth and death registration exist, although some revisions need to be made as part of this Investment Case.

The prioritized activities in this Investment Case are derived from a national CRVS strategic investment plan, which highlighted that a broad-based and high-level political support is necessary for the successful implementation of the multi-sectorial national action plan. The establishment of a national multi-stakeholder steering and coordination mechanism to coordinate the implementation of the multi-sectorial national action plan is therefore of critical importance for ensuring the long-term results. The mechanism, under the leadership of the Bureau of Vital Statistics, should be able to directly involve all relevant stakeholders within the CRVS system. These include civil registration offices, local governments at counties and ministries of Health, Justice, Interior affairs and LISGIS. Additional stakeholders include other sectorial agencies, such as the ministries of education, labour, transportation, security, public information and foreign affairs, the business and private sectors, donors and development partners, civil society and NGOs, and representatives of communities.

5.3 Monitoring, Evaluation, Accountability, and Learning

The country platform, through the Planning Department and Family Health Division (FHD), will be responsible for monitoring and evaluation of the implementation and progress of the IC at national and county levels. Key coverage indicators, as described in Table 6, will be measured to monitor progress against the priorities in the Investment Case. Adolescent health and equity are important priorities in the Investment Case, both requiring disaggregated data. Disaggregated data will be collected based on existing data systems to capture progress made on adolescent health in key indicators such as ANC visits and mCPR. In addition, national data systems will be further strengthened to collect better data on adolescents in the longer term. In regards to equity, disaggregated data will be collected with a particular focus on three primary elements: economic status (measured by household income, expenditure or wealth), place of residence (urban/rural) and sex. Health financing indicators will also be measured and monitored to assess progress in smart, scaled and sustainable financing (see Table 7), although it is recognized that changes in such financing indicators will take time.

Table 6: Indicators for which Approximate Values Can Be Calculated through HMIS

| Key Statistic | Baseline in Focus Counties | Target 2021 in Focus Counties | Means of Verification | Frequency |
|---|----------------------------|-------------------------------|-----------------------|-----------|
| Birth registration | 16% | 40% | HMIS | Annual |
| Death registration | TBD | TBD | CRVS | Annual |
| ANC4 | 48% | 60% | HMIS | Annual |
| Proportion of births attended by skilled health personnel | 52% | 60% | HMIS | Annual |
| Proportion of births delivered in health facility | 48% | 60% | HMIS | Annual |

| | | | | |
|---|-----|-----|------|--------|
| PNC for mothers | 51% | 70% | HMIS | Annual |
| Postnatal care for new-borns | 19% | 70% | HMIS | Annual |
| ACT treatment coverage among under-five within 24 hours | 14% | 20% | HMIS | Annual |
| Antibiotic treatment for pneumonia | — | 60% | HMIS | Annual |
| ORT treatment for diarrhoea (under-5) | 59% | 65% | HMIS | Annual |
| Proportion of children 12–23 months received pentavalent-3 immunization | 71% | 80% | DHS | Annual |
| Stock-out rate of tracer commodities | | 20% | HMIS | Annual |

To assess the impact on health financing, the following indicators will be monitored so as to assess effects on smart, scaled and sustainable financing. Almost all of these indicators (or the raw data for them) are routinely captured in either health accounts or household surveys, requiring minimal additional work.

Table 7: Results Framework for the Health Financing Strategy²²

| Health Financing | Baseline | Target ²³ |
|--|------------------|----------------------|
| SMART FINANCING | | |
| Percentage of current health expenditures on primary health care | 20% (2011, 2012) | |
| Average price of a basket of essential RMNCAH medications compared to the international reference price ²⁴ | | |
| SCALED FINANCING | | |
| Current country health expenditure per capita (and specifically on RMNCAH) financed from domestic sources | 50% (2014, 2015) | |
| Ratio of government health expenditures to total government expenditures | 12% | 15% |
| The incidence of financial catastrophe due to out-of-pocket payments | TBD | |
| The incidence of impoverishment due to out-of-pocket expenditure on health | TBD | |
| SUSTAINABLE FINANCING | | |
| Growth rate in domestically sourced current total health expenditures since baseline (and for RMNCAH expenditures) divided by the growth rate of GDP | TBD | |

²² Key deliverables for the health financing strategy is to set baselines and targets for the smart scaled and sustainable financing.

²³ Targets for the focus counties will be decided upon during the first six months of implementation when a realistic implementation plan for each county can be developed.

²⁴ Operational research on current cost of basic package including benchmarking to be conducted.

| | | |
|--|-------------------|--|
| Percentage of external financing pooled under the virtual Health Basket Fund | 12% | |
| Percentage of external financing through on allocation | 41% (GHE 2014/15) | |

A rapid assessment will be carried out to take stock of existing indicators and baseline data. In addition, it will explore existing data, systems, and existing and planned surveys as well as highlight existing challenges and gaps that exist in current national M&E systems, both at the national and subnational level, which require support. Such a rapid assessment will be developed under the guidance of the country platform. The starting point will be a review of M&E assessments that have been conducted in recent years with the aim of developing an M&E strengthening plan with prioritized activities for M&E capacity building and outsourcing of activities (such as verification of routine data by a third party) to ensure quality data. As much as possible, this will build on verified data gathering for PBF implementation measuring quantity and quality of services provided.

Monitoring of implementation of the Investment Case will be done by the country platform on a quarterly and annual basis through review meetings. A web-based dashboard will be developed and utilized to visualize progress at national and county levels. Where they are implemented, performance-based financing will enhance recognition for well-performing counties, while biannual data quality audits and review meetings will be conducted to authenticate the reports posted on the dashboard.

Apart from progress on coverage indicators, it will be key to monitor the implementation of key activities for each of the technical priorities in the Investment Case on a quarterly basis. The focus will not just be on *whether* activities are implemented but also the *quality* of how these activities are being implemented as it will be important to ascertain what is working well and what needs to be improved. Supervision, within county and from national to county level, will be carried out on a quarterly basis with relevant action plans developed to improve implementation. Peer-to-peer learning will also be used to enable counties to share their progress and lessons learned with implementation, including challenges faced and solutions developed, on a biannual basis. Innovative approaches, such as bringing together better-performing and less-performing counties to share experiences will include a similar approach at county levels for better- and less-performing health facilities.

In line with the aforementioned M&E plan, government will request that DHS and/or other relevant surveys, such as facility assessments or mini-surveys, be carried out at regular intervals in order to evaluate at population levels the impact of all efforts carried out in Liberia to improve RMNCAH. For quality assurance purposes an independent review of the IC implementation will be undertaken after the first, third and fifth year of the program with recommendations made to the country platform for adjustments and proposed areas of study through operational research.

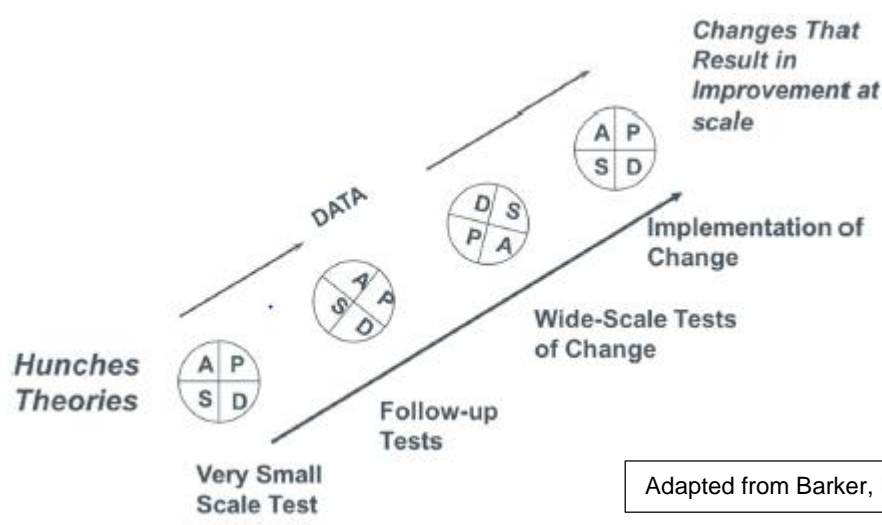
Process monitoring will be integrated in the implementation process. Data will be reviewed periodically and feedback loops created through and during data review meetings, expansion of the current MCH scorecard dashboard to monitor management and financial indicators, and building on the results based financing mechanisms currently employed in the country.

CHAPTER 6: THE IMPLEMENTATION PLAN

Introduction

Numerous studies have tried to compare differences between having nationwide approaches to interventions versus a phased scale-up. Current literature though modeled to a random control trial versus phased implementation, shows that when medium or large intervention effect sizes are anticipated, use of a phased experimental approach is likely to result in identifying a more potent intervention than the classical approach of nationwide scale up (Collins et al. 2009). The phased experimental approach may be helpful in identifying the inactive components which would otherwise be bundled up in confounders. Figure 8 illustrates the process for scale up and phasing of interventions and why it offers greater potential for return on investment.

Figure 8: Graphical Presentation of the Scaling and Phased Approach for Implementation



6.1 Selection Criteria for Phase One of Implementation

Standard criteria were used to select phase one implementation. Performance indicators were based on the scorecard and other determinants that affect health seeking behaviour, such as distance from a health facility.

Disparities in quality of care exist within the subnational levels in Liberia. Analysis of selected indicators of the RMNCAH scorecard, in addition to other parameters such as population density outside a 5km of any health facility and health facility density. Table 8 shows that Gbarpolu, Grand Bassa, Grand Kru, Rivercess, River Gee, and Sinoe had among the worst RMNCAH indicators. In addition, distance from a health facility was considered a strong deterrent of seeking health care (Kenny et al. 2015) and the above counties showed the highest population outside the 5km radius (GOL 2015).

Table 8: County Performance in Key RMNCAH Indicators Based on Scorecard and DHS 2013

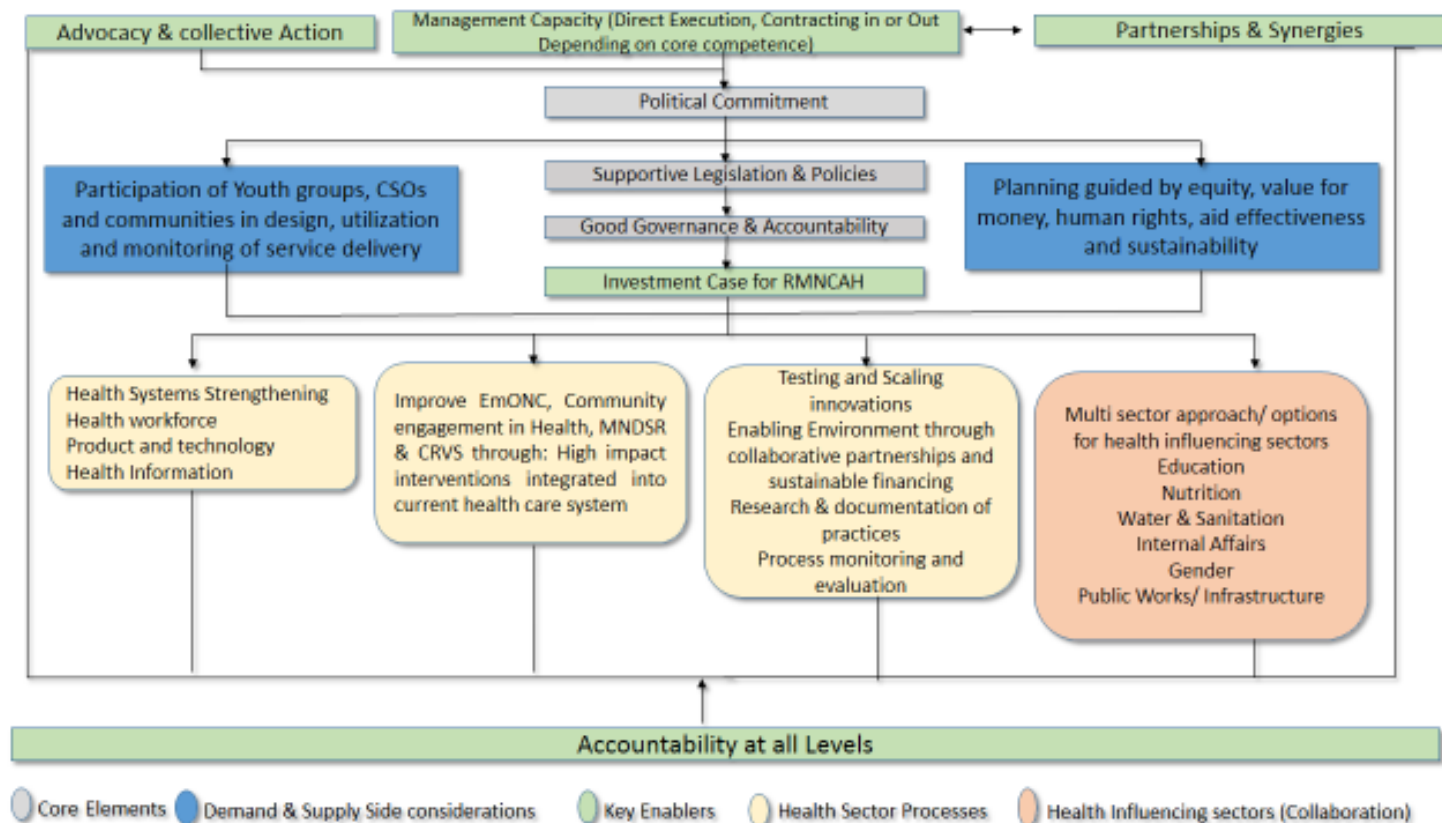
| Investment Case with Additional Indicators | | | | | | | | | | | | | | | | | |
|--|--------------------------------|---------|-------|-------|----------|-------------|------------|-------------|-----------|-------|---------|----------|-------------|-------|--------|----------|-------|
| No | Intervention (DHS 2013) | Liberia | Bomi | Bong | Gbarpolu | Grand Bassa | Grand Cape | Grand Gedeh | Grand Kru | Lofa | Margibi | Maryland | Montserrado | Nimba | Rivers | Rivergee | Sinoe |
| 1 | Family Planning | 19% | 19% | 20% | 25% | 8% | 19% | 18% | 18% | 10% | 20% | 23% | 28% | 9% | 20% | 31% | 23% |
| 2 | ANC 4+ (HMIS 2014)* | 46% | 51% | 58% | 31% | 61% | 31% | 65% | 42% | 53% | 36% | 55% | 34% | 60% | 31% | 45% | 54% |
| 3 | IPT2 | 48% | 52% | 52% | 34% | 36% | 58% | 35% | 33% | 40% | 45% | 46% | 50% | 55% | 37% | 50% | 36% |
| 4 | Delivery in facility | 56% | 64% | 35% | 48% | 40% | 39% | 69% | 51% | 76% | 51% | 54% | 73% | 48% | 59% | 53% | 51% |
| 5 | SBA | 61% | 69% | 45% | 52% | 42% | 44% | 73% | 58% | 72% | 5% | 55% | 81% | 50% | 63% | 58% | 60% |
| 6 | PNC Mother | 71% | 73% | 58% | 62% | 32% | 72% | 81% | 56% | 81% | 80% | 56% | 77% | 82% | 78% | 63% | 55% |
| 7 | PNC Newborn | 35% | 51% | 38% | 32% | 8% | 35% | 43% | 19% | 28% | 15% | 26% | 45% | 42% | 23% | 30% | 21% |
| 8 | IYVF (3 Practices) | 4% | 0% | 2% | 4% | 0% | 5% | 4% | 6% | 4% | 2% | 1% | 8% | 4% | 1% | 2% | 2% |
| 9 | Penta-3 | 71% | 91% | 62% | 63% | 53% | 86% | 62% | 42% | 81% | 79% | 58% | 80% | 69% | 61% | 57% | 54% |
| 10 | ACT (Malaria) | 17% | 47% | 24% | 3% | 9% | 25% | 11% | 12% | 15% | 12% | 25% | 13% | 13% | 18% | 39% | 19% |
| 11 | ARI Symptoms | 7% | 5.70% | 6.70% | 6.00% | 5.60% | 9.10% | 7.40% | 11.50% | 4.20% | 8.70% | 5.20% | 6.30% | 3.30% | 12.20% | 10.40% | 9.80% |
| 12 | Fever Treatment | 37% | 62% | 38% | 21% | 23% | 60% | 41% | 23% | 34% | 49% | 37% | 49% | 22% | 29% | 42% | 23% |
| 13 | Diarrhea Not Treated | 8.4% | 4% | 8% | 7% | 8% | 0% | 15% | 10% | 7% | 14% | 11% | 7% | 6% | 11% | 10% | 10% |
| 14 | Women's Access Problem | 67% | 64% | 74% | 55% | 73% | 75% | 59% | 70% | 80% | 59% | 66% | 50% | 78% | 79% | 70% | 53% |
| 15 | Birth Registration | 24% | 42% | 21% | 31% | 9% | 23% | 22% | 11% | 33% | 12% | 14% | 13% | 35% | 13% | 22% | 17% |
| 16 | ORT | 62% | 70% | 62% | 73% | 50% | 87% | 55% | 66% | 76% | 62% | 74% | 54% | 66% | 52% | 72% | 59% |
| 17 | Stunting | 32% | 33% | 35% | 25% | 38% | 29% | 31% | 31% | 29% | 31% | 33% | 27% | 36% | 35% | 43% | 32% |
| 18 | Unmet need for FP | 31% | 33% | 34% | 36% | 33% | 32% | 29% | 31% | 36% | 29% | 41% | 27% | 35% | 37% | 23% | 35% |
| | # of Low Performing Indicators | | 2 | 8 | 9 | 14 | 6 | 7 | 13 | 6 | 11 | 10 | 5 | 8 | 12 | 12 | 11 |

| Additional Indicators for Consideration | | | | | | | | | | | | | | | | | |
|---|---------------------------|---------|------|------|----------|-------------|------------|-------------|-----------|------|---------|----------|-------------|-------|--------|----------|-------|
| No | Intervention (DHS 2013) | Liberia | Bomi | Bong | Gbarpolu | Grand Bassa | Grand Cape | Grand Gedeh | Grand Kru | Lofa | Margibi | Maryland | Montserrado | Nimba | Rivers | Rivergee | Sinoe |
| 19 | Remoteness (>5km from HF) | 28% | 31% | 52% | 68% | 49% | 34% | 45% | 41% | 30% | 26% | 22% | 4% | 42% | 54% | 36% | 39% |
| 20 | Facility Density | 1.63 | 2.50 | 1.01 | 1.45 | 1.13 | 2.18 | 1.24 | 2.56 | 1.75 | 1.36 | 1.53 | 1.86 | 1.20 | 2.20 | 2.20 | 2.80 |

North Western: Bomi, Grand Cape Mount, and **Gbarpolu**
 South Central: Montserrado, Margibi, and **Grand Bassa**
 South Eastern A: **Rivercess**, **Sinoe**, and Grand Gedeh
 South Eastern B: **River Gee**, **Grand Kru**, and Maryland
 North Central: Bong, Nimba, and Lofa

While focusing additional investments in these counties, the Ministry of Health will strengthen its coordination and oversight role among its development and implementing partners to ensure a coordinated national effort among the remaining 11 counties and additional counties receiving direct and indirect partner support (USAID Liberia 2013).

Figure 9: Implementation Framework for the Investment Case



The above adaptation of an implementation framework illustrates the interconnectivity that would be required to achieve the goals set out in the investment case (Mishra et al 2015). The guiding principles were based on a systematic evaluation of factors that lead to success or impede projects in low- and middle-income countries and a discussion with political and administrative leaders. While previous chapters have detailed the different health and health influencing processes that will be required to improve on RMNCAH in Liberia, these processes will need to be implemented within defined principles and parameters.

Core Elements

These provide the backbone of the programs. National leadership (political and administrative) is required for a successful program. It's the leadership that needs to provide the required legislation and policies, and also to ensure good governance and accountability. In implementing the Investment Case in Liberia, the country platform will be adapting already existing leadership and management structures and financing their functionality. The operationality of county health boards is crucial. These will form the backbone of service delivery at the county level. Liberia's commitment to addressing RMNCAH issues is ingrained in all its policies and legislations, i.e., the National Development Plan, Investment Plan to Rebuild Resilient Health Systems, and the country has also signed on to a number of international treaties aiming for the same.

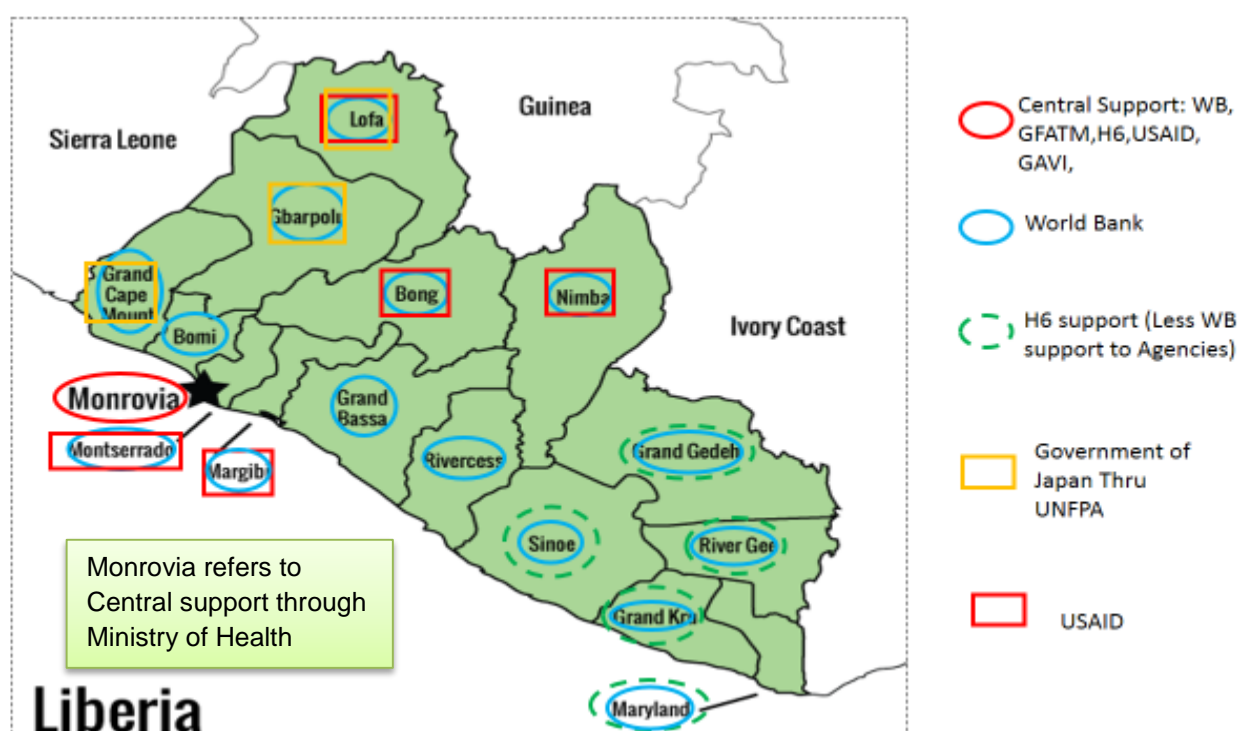
Demand and Supply Side Considerations

The key to ensuring sustained use of the proposed package of interventions is addressing essential demand and supply constraints. Target populations must realize that trust and sustainability are key in the execution and success of the projects. It is therefore imperative to have a bottom up planning process and ensure the representation and participation of these groups at all levels. The private sector plays a big role in bridging service delivery gaps. Including them as part of the implementation will increase the program and intervention reach to areas normally not served by the public sector. An interministerial approach is essential in addressing the supply side determinants highlighted in the Investment Case. Service segmentation will also enable the designed strategies to be delivered following an equity approach and also to address gender disparities.

Key Enablers

Among key enablers are management capacity, partnerships and synergies, accountability, advocacy, and collective action at all levels. A close collaboration based on core capacity will be employed during implementation. The Government of Liberia as the primary recipient of public trust and governance responsibility for developing and setting the development agenda will take the lead in ensuring the implementation and monitoring of the Investment Case and also coordinating the efforts of its development partners. This role will also be augmented by bilateral and multilateral development agencies.

Figure 10: Map Showing Distribution of Donor Agencies across Liberia



Currently numerous strategies such as contracting in and out are being used to enhance quality service delivery. In counties such as Gbarpolu, Rivercess, and Rivergee, negotiations are under way to finalize contracting for operational and management mechanisms for service delivery. Implementation of the Investment Case in these counties will align to these mechanisms for implementation.

National and international NGOs are a driving force for development and a bridge where government services need supplementation. Using a bottom up approach that emphasizes sustainability, skills transfer, value for money, and accountability, the additional three counties of phase one (Grand Bassa, Grand Kru and Sinoe) will either employ a

contracting out process using development partners or explore the possibility of contracting in. In addition, a number of counties (Montserrado, Nimba, Lofa, Bong and Margibi) have support from donor agencies with specific focus on RMNCAH. As a means of leveraging synergies and collaboration, Ministry of Health and the County Health Teams will be supported to strengthen oversight of the programs.

Civil society, known for their creativity, advocacy and ingenuity, and as architects and implementers of new paradigms for efficiency in resource allocation, will take an active role in ensuring that RMNCAH remains a policy priority for the Government, functions as a watchdog for the use of national and international resource envelopes (WHO 2012), and advocates for increased domestic funding for RMNCAH.

6.2 Key Risk Factors to the Successful Implementation of the Investment Case and Mitigation Mechanisms

The current political, legal, and policy environment offers a conducive environment for the successful implementation of the proposed investments. However a number of risk factors still remain. Key among them are the following.

- Potential change in priorities due to change in national leadership. The current leadership of the country has made RMNCAH a priority in its development agenda. However, the current political cycle will see a change of leadership during the first year of implementation of the Investment Case. This poses a potential risk in change of priorities. However, given that the health, wealth, and development of its citizens is a right enshrined in the country's constitution, the impact of the risk can be mitigated through advocacy and overarching responsibility of national leadership to ensure a healthy citizenry.
- Socioeconomic impact of Ebola hampers fiscal space expansion hence limiting availability of domestic funding. The Ministry of Finance acknowledged that the 2015 GDP growth projection of 5.9% (B.C. C. Hamilton 2014) was no longer realistic due to the devastating effects of Ebola on the productivity of the country due to mobility restrictions and a trade blockade. With the current economic situation, implementation of the Investment Case is expected to follow a phased approach ensure value for money through implementing best buys, and the country has also wholly endorsed IHP+ membership to ensure aid effectiveness. Liberia will also be piloting a health equity fund as a means of achieving universal health coverage.

6.3 Costing of Phase One of the Investment Case for RMNCAH

The costing process applied an activity based costing using standardised costs adjusted for inflation. Based on the method above, the first phase of investment in the six counties requires 79.8 million over a period of five years.

Table 9: Itemized Cost per Investment Area (thousands) in United States Dollars

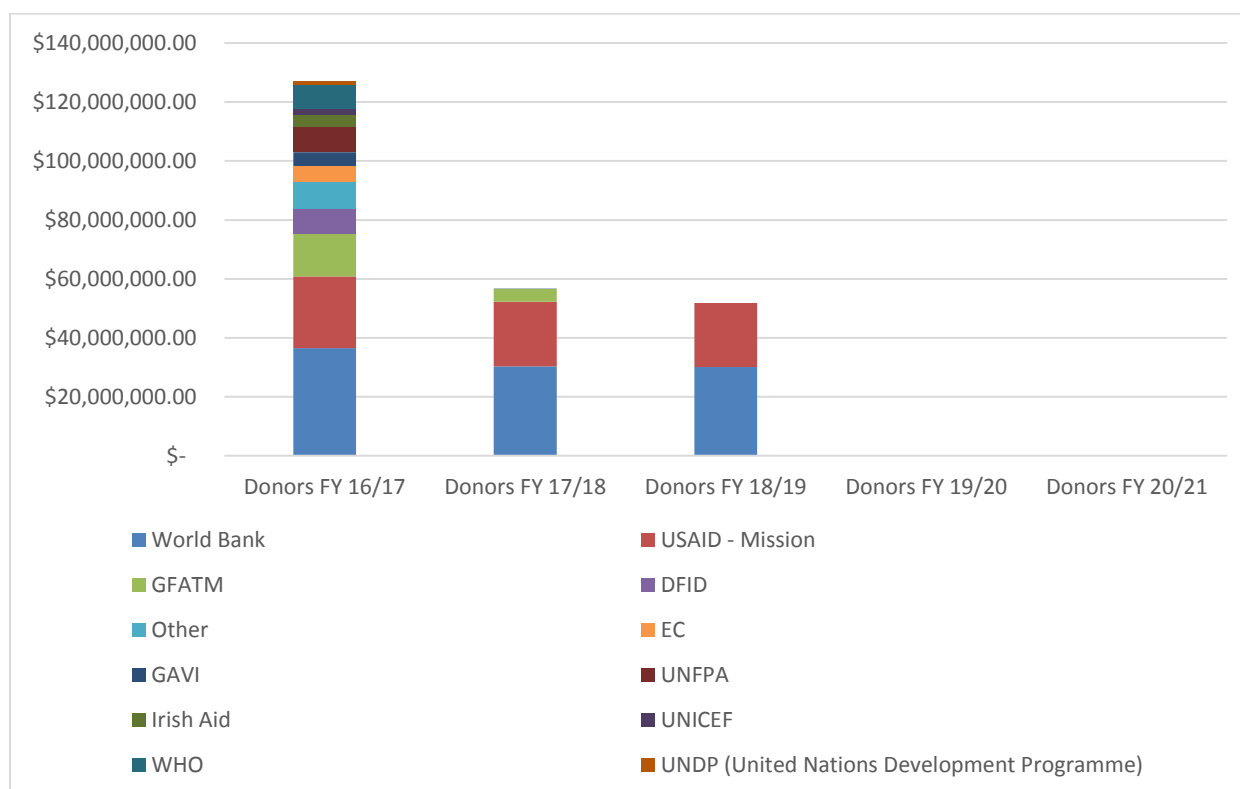
| Area of Investment | Intervention | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|--------------------------------------|---|---------|---------|---------|---------|---------|----------|
| Improve Adolescent Health Services | Adolescent health programming | 584.8 | 1,781.9 | 1,586.7 | 1,770.7 | 959.0 | 6,683.1 |
| | Operational research | 1,515.8 | — | 1,708.3 | — | 1,940.2 | 5,164.2 |
| Improve EmONC and other MCH Services | Fit-for-purpose productive and motivated health workforce | 782.3 | 1,027.1 | 927.3 | 100.0 | 1,029.6 | 4,766.2 |
| | Reengineered health infrastructure | 403.3 | 4,856 | 4,638.3 | 3,881.9 | 54.4 | 13,833.8 |
| | Data and information systems management | 448.2 | 598 | 427.6 | 337.3 | 404.0 | 2,215.0 |
| | Medical supplies and diagnostics | 1,139.8 | 1,529.9 | 1,179.7 | 1,270.3 | 1,285.4 | 6,405.3 |

| | | | | | | | |
|---------------------------------------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Quality reproductive, maternal and neonatal health service delivery | 1,335.3 | 1,477.7 | 1,442.5 | 1,498.9 | 1,611.2 | 7,365.6 |
| Institutionalize CRVS systems | CRVS | 2,237.3 | 388.3 | 278.3 | 425.0 | 172.9 | 3,501.8 |
| Integrate MNDSR into IDSR | Maternal neonatal death surveillance and response | 414.3 | 1,195.7 | 385.3 | 514.3 | 547.9 | 3,057.6 |
| Strengthen Community Health Services | Community health | 2,032.1 | 3,632.9 | 3,906.6 | 1,987.3 | 2,117.2 | US\$13,676.2 |
| | Child health | 2,713.6 | 2,407.2 | 906.6 | 293.0 | 1,029.6 | 7,349.9 |
| Smart, Scaled & Sustainable Financing | Management and coordination | 768.7 | 1,247.7 | 710.1 | 885.5 | 780.6 | 4,392.5 |
| | Health financing strategy | 699.3 | 414.1 | 273.6 | — | — | 1,387.1 |
| | TOTAL BY YEAR | 15,074.8 | 20,556.4 | 18,370.8 | 13,864.2 | 11,932.1 | 79,798.2 |

Resource Allocations toward Phase One

In FY 16/17, FY 17/18, and FY 18/19 there is an overall estimated amount of US\$ 133,178,538, US\$ 56,747,073, and US\$ 51,884,453.91, respectively. The two largest donors are the World Bank and USAID, providing a total of US\$ 97,331,185.33 and US\$ 68,019,967 respectively. Figure 11 displays the amount of resources provided by each donor per fiscal year.

Figure 11: Estimated Resources for RMNCAH per Donor in Phase One of Implementation

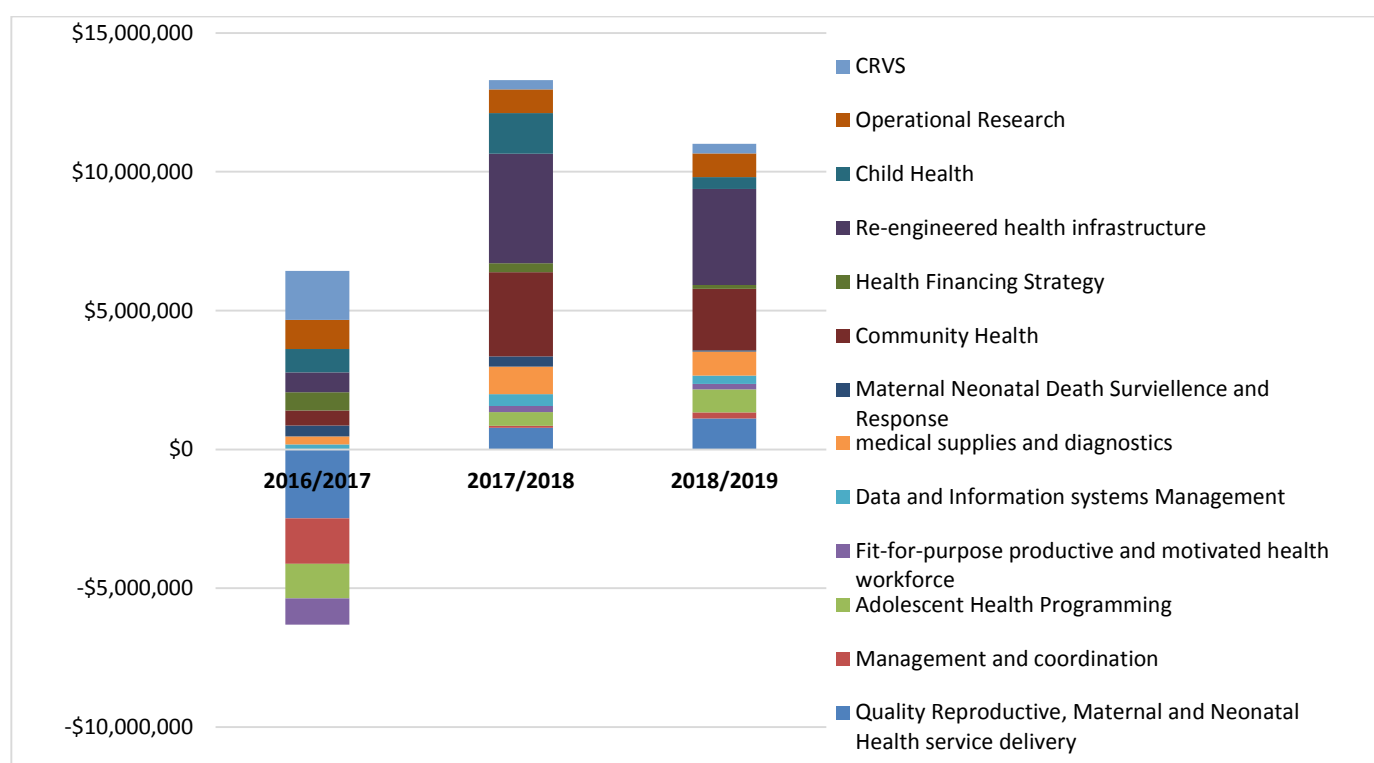


The results from the resource mapping show that most funding is going towards central level activities (MoH and other autonomous agencies in the health sector). Counties receiving the least funding are Sinoe, Bomi, Grand Cape Mount, Gbarpolu, and Rivercess. This creates the need to review the resource allocation mechanism currently being used, for example, the amount available per RMNCAH investment category over the next three fiscal years. Also, the overall resources available for health workforce are US\$ 52,606,920 over the next three years. In FY 16/17, US\$ 22,229,728 is expected to go towards health workforce.

Financial Gap Analysis for Phase One

For the phase one implementation of the Investment Case in six counties, FY 16/17 presents an overall resource gap of US\$ 6,428,755 of which US\$ 1,760,286, the largest gap, stems from CRVS. Conversely, there is a negative gap (resource surplus), of US\$ 6,318,053. For example, Quality Reproductive, Maternal and Neonatal Service Delivery is facing a surplus of US\$ 2,484,265 in FY 16/17. This surplus may arise from the cross cutting nature of the intervention areas and will require further coordination in their implementation. For FY 17/18 and FY 18/19 there is a resource gap of more than US\$ 10 million each. These numbers are illustrated in Figure 12.

Figure 12: Financial Gap Analysis for the RMNCAH Investment Case



Targets are required to ensure that quality of service in the selected counties is continuously improving. The first phase of implementation will replicate the national results framework to ensure alignment and consistency. Table 10 shows the indicators that will be monitored at the county level. Key deliverables for year one evaluation is to ensure baselines and benchmarks are set for the target counties in phase one.

Table 10: Results Framework for the RMNCAH Program

| Key Statistic | National Baseline Value | Baseline in Focus Counties | Year, Source of Data | Target 2021 in Focus Counties | Means of Verification |
|---|-------------------------|----------------------------|----------------------|-------------------------------|-----------------------|
| Total fertility rate (births per woman) | 4.7 | - | 2013, DHS | 4.2 | DHS |
| Contraceptive prevalence rate (%) | 20% | 18% | 2013, DHS | 26% | DHS |
| Unmet need for contraception (%) | 31% | 33% | 2013, DHS | 25% | DHS |
| Women of reproductive age who have their need for family planning satisfied with modern methods (%) ²⁵ | 41.6% | — | 2013, DHS | 53% | DHS |
| Adolescent Birth Rate | 31% | — | 2013, DHS | 25% | DHS |
| Population 15–49 years infected with HIV | 1.9% | — | 2013, DHS | 1.5% | DHS |
| Proportion of children aged below five years whose birth has been registered with the Bureau of Vital Statistics | 25% | 16% | 2013, DHS | 40% | DHS |
| Percentage of deaths in a given year registered with the Bureau of Vital Statistics | | | | | |
| Maternal mortality ratio (per 100,000 live births) | 1072 | — | 2013, DHS | 600 | DHS |
| Antenatal care 4 Visits | 78% | 48% | 2013, DHS | 60% | DHS |
| Proportion of births attended by skilled health professional | 61% | 52% | 2013, DHS | 60% | DHS |
| Proportion of births delivered in health facility | 56% | 48% | 2013, DHS | 60% | DHS |
| Percentage of mothers who received postnatal care | 71% | 51% | 2013, DHS | 70% | DHS |
| Percentage of new-borns who received postnatal care | 35% | 19% | 2013, DHS | 70% | DHS |
| Percentage of ACT treatment coverage among under five within 24 hours | 17% | 14% | 2013, DHS | 20% | DHS |
| Percentage of under-5 treated with antibiotic for pneumonia | 56% | — | 2013, DHS | 60% | DHS |
| Percentage of under-5 treated with ORT for diarrhoea | 62% | 59% | 2013, DHS | 65% | DHS |

²⁵ Defined as number of women with family planning demand who use modern methods/total number of women in need of family planning.

| | | | | | |
|---|-----|-----|-----------|------|-----------------------|
| Neonatal mortality rate (per 1,000 live births) | 26 | — | 2013, DHS | 20 | DHS |
| Infant mortality rate (per 1,000 live births) | 54 | — | 2013, DHS | 45 | DHS |
| Under-five mortality rate (per 1,000 live births) | 94 | — | 2013, DHS | 80 | DHS |
| Proportion of children under five who are stunted | 32% | 35% | 2013, DHS | 30% | DHS |
| Proportion of children 12–23 months who received pentavalent-3 immunization | 68% | 71% | 2013, DHS | 80% | DHS |
| Proportion of hospitals with 100% CEmONC compliance | | | | 100% | Special Surveys |
| Proportion of schools with recommended PTR (40:1) | | | | 60% | MTR of Strategic Plan |
| Basic equipment availability (BEmONC) | | | | 80% | Special Surveys |

For several of the above mentioned indicators approximate values can be measured through the regular health management information system of the Ministry of Health. On the basis of the absolute values (numbers) for the areas of interest, more evaluative measures such as percentages of the target population can be calculated.

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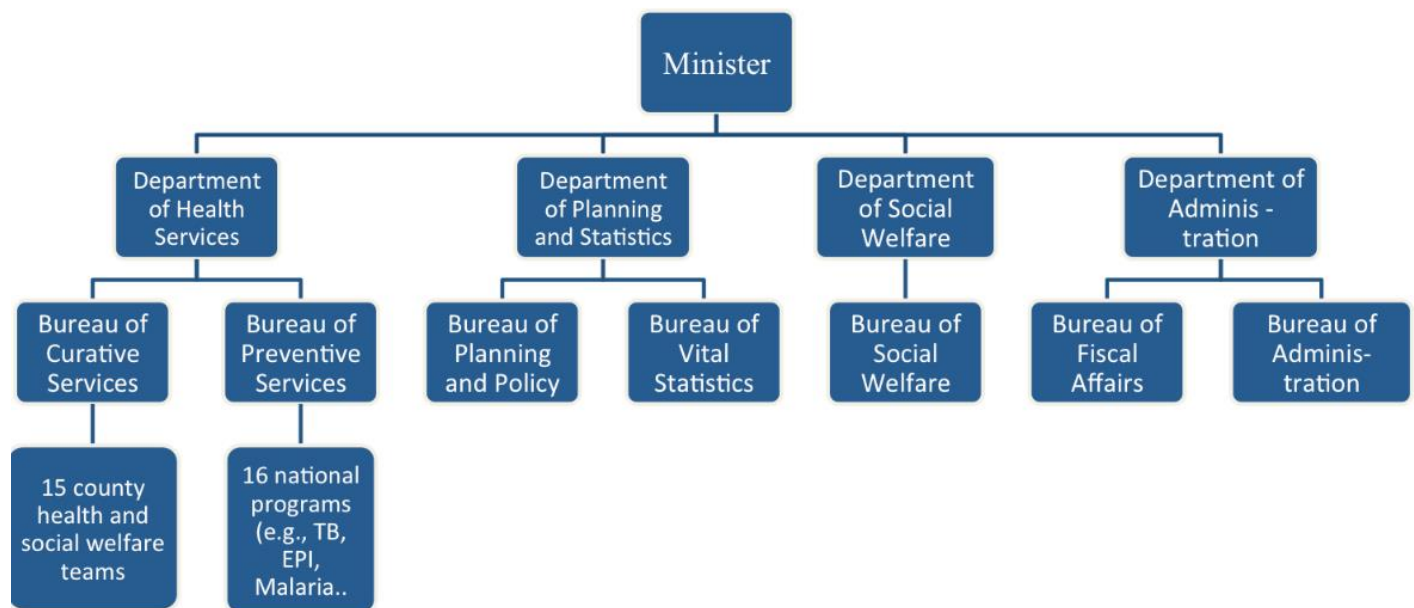
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Annex 1: Indicators for the National Investment Plan for a Resilient Health System, 2016–2021

| Domain | Description/Area | Indicator | Base-line | Year | Source | Target (2021) |
|-----------------------------|---|---|-----------|------|---------------|---------------|
| Goal | Improved health status | Neonatal mortality rate | 26 | 2013 | DHS | 19 |
| | | Infant mortality rate | 54 | 2013 | DHS | 22 |
| | | Under-5 mortality rate | 94 | 2013 | DHS | 57 |
| | | Maternal mortality ratio | 1072 | 2013 | DHS | 497 |
| Purpose | A resilient health system through Improved <ul style="list-style-type: none"> Access to safe and quality services Health emergency risk management Enabling environment and restoring trust | percentage of infants fully immunized | 65 | 2013 | AR | 91 |
| | | percentage of pregnant women attending 4 ANC visits | 54.4 | 2013 | AR | 85 |
| | | percentage of deliveries attended by skilled personnel | 61 | 2013 | DHS | 80 |
| | | percentage of women receiving ITP-2 | 48 | 2013 | DHS | 80 |
| | | TB case detection rate | 56 | 2013 | AR | 85 |
| | | Total couple years protection (all methods) | 71,714 | 2013 | AR | |
| | | HIV-pos pregnant women receiving ART | 42 | 2013 | AR | 80 |
| | | percentage of new/reemerging health events responded to within 48 hours as per IHR requirements | 0 | 2014 | AR | 100 |
| Outputs per investment area | Health workforce | Skilled health workforce (physicians, nurses, midwives, physician-assistants) per 100,000 persons | 8.6 | 2015 | Personnel | 14 |
| | Health infrastructure | percentage of population living within 5km from a health facility | 71 | 2013 | RBHS | 85 |
| | | Functional health facilities per 10,000 persons | 1.63 | 2015 | HAS | 2 |
| | | percentage of health facilities with all facilities, ready to provide services (water, electricity) | 55 | 2015 | HAS | 100 |
| | Epidemic preparedness, surveillance and response system | percentage of counties with funded outbreak preparedness and response plans | 0 | 2014 | HAS | 100 |
| | | Proportion of counties reporting information using event-based surveillance | 0 | 2014 | IDSR | 80 |
| | | Proportion of counties 2011 with public health risks and 2013 resources mapped 2014 | 0 | 2014 | IDSR | 80 |
| | Medical supplies and diagnostics | percentage of health facilities with no stock-outs of tracer drugs during a given period | 62.3 | 2011 | Accreditation | 95 |
| | Quality service delivery systems | Number of blood units collected | 836 | 2013 | AR | 100,000 |
| | | percentage of facilities practicing IPC according to standards | 65 | 2014 | HAS | 100 |

| Domain | Description/Area | Indicator | Base-line | Year | Source | Target (2021) |
|--------|--|--|-----------|------|---------------|---------------|
| | | percentage of facilities reaching two star level in accreditation survey, including clinical standards | 9.3 | 2011 | Accreditation | 90 |
| | | OPD consultations per inhabitant per year | 1.9 | 2013 | DHS | 2 |
| | Information communication and management | percentage of timely, accurate and complete HIS reports submitted to MOH during the year | 36 | 2013 | AR | 90 |
| | | percentage of counties with harmonized data collection systems (HMIS with LMIS, FMIS, iHRIS, CBIS) | 45 | 2013 | AR | 100 |
| | Community engagement | percentage of communities with 2 or more general community health volunteers | 28 | 2013 | CMR | 80 |
| | | Proportion of communities with a functional health committee | 25 | 2013 | AR | 100 |
| | Leadership and governance | Proportion of county health teams fully established and functional | 65 | 2013 | AR | 100 |
| | Leadership and governance | Counties with functional stakeholder forums (County Health Board) | 0 | 2013 | AR | 8 |
| | | percentage of bilateral aid that is untied | 25 | 2013 | AR | 80 |
| | Health systems financing | Per capita public health expenditure (US\$) | 65 | 2013 | AR | 80 |
| | | Public expenditure in health as a % of total public expenditure | 12.3 | 2013 | AR | 20 |
| | | Out-of-pocket payment for health as a share of current expenditure on health | 51 | 2014 | HFU | 15 |

Annex 2: Organogram Ministry of Health, Liberia (2015)



Annex 3: Key Health System Constraints and Priority RMNCAH Interventions

| System Areas | Key Bottlenecks | Priority Interventions | Priority Activities |
|---------------------------------------|--|---|---|
| SERVICE DELIVERY | | | |
| Supplies and commodities | <p>Frequent stock-outs of essential drugs for most RMNCAH interventions (contraceptives, HIV, syphilis kits, EID reagents, delivery kits, antibiotics, etc.)</p> <p>Inadequate procurement of supplies and stock management capacity at county, district and health facility level, mainly due to ineffective monitoring and transportation system</p> | <ul style="list-style-type: none"> • Ensure an integrated and functioning procurement supply management (PSM) system • Establish a reliable distribution system from central level to health facilities (including communities for community-based commodities) • Improve information system to enable accurate collection, analysis and use of data on stocks and consumption at all levels through results-based monitoring approach | <ul style="list-style-type: none"> • Train and supervise 60 health facility, district, county PSM focal points to ensure monthly drug monitoring and follow-up actions to data needs on LMIS • Forecast, quantify and procure all community RMNCAH supplies through established health facility supply systems • Make available delivery kits and mama-baby packs prioritizing remote facilities • Re-task current transport assets to timely transport supplies from counties to facilities • Contracting-in for last mile distribution of supplies • Fleet management and maintenance of equipment • Establish “real time” monitoring system (m-health) for weekly checks and monthly reports • Ensure feedback mechanism through review of quarterly county dashboards |
| Health workforce | <p>Limited availability of health cadres trained to provide midwifery and obstetric care</p> <p>Inadequate basic MNCH & EmONC skills of the health workforce</p> <p>High turnover of trained professionals in remote areas due to poor retention package</p> | <ul style="list-style-type: none"> • Strengthen capacity of midwifery training institutions • Strengthen supportive supervision and mentoring systems at all levels • Implement the CHA program including home-based maternal new-born care to expand services • Implement motivation/retention schemes, especially in remote/underserved areas | <ul style="list-style-type: none"> • Develop a task shifting strategy for EmONC to expand the one-stop strategy • Decentralization: training of health care workers in IMNCI • Train, equip, incentivize and deploy community health workers to deliver community-based FP/HBMNC/nutrition interventions • Develop and gradually implement a hardship allowance package (in selected counties) |
| Youth friendly SRH/FP services | <p>Weak health facility competency and structural limitations to deliver health care package to adolescents and young people</p> <p>Shortage of health workers with adequate skills to deliver adolescent and youth friendly health services</p> | <ul style="list-style-type: none"> • Integration of youth friendly SRH/HIV and FP services in existing public health facilities • Build skills and follow up health workers on delivery of SRH/HIV and FP services to adolescents and young people • Support extension of health services through school nurse approach to young people in schools | <ul style="list-style-type: none"> • Conduct vulnerability assessment to map most vulnerable adolescents to inform targeting of interventions • Review and revise existing data collection tools to collect information on key RMNCAH indicators and train country data focal points on utilization • Reduce practices harmful to women through BCC • Improve school enrollment of girls |

| System Areas | Key Bottlenecks | Priority Interventions | Priority Activities |
|--|--|---|---|
| | Weak community structures to increase demand generation amongst adolescents and young people for utilization of SRH/HIV and FP services | <ul style="list-style-type: none"> Promote school health and sexuality education Establish and support two approaches to demand generation amongst young people in communities, i.e., integration of ASRH in gCHV structure and scaling up of peer education | <ul style="list-style-type: none"> Establish and support Adolescent Health Development Centres (ADC) and strengthen existing ones in 6 counties Promote, supply and distribute contraceptives (oral, injectable and condoms) to adolescents through the ADCs and community outlets and refer those needing LAC to facilities offering youth-friendly services Review and revise existing training curricular for all cadre of RMNCAH service providers to integrate adolescents and youth-friendly services according to WHO 7 minimum standards Develop and disseminate a Multi-sectorial Teenage Pregnancy Prevention Strategy and establish one national multi-sectorial task force to guide and monitor its implementation Review, revise and disseminate the national Condom Programming Strategy Establish and train SBA to provide focused ANC and postpartum care First Time Adolescents & Young Mother Program from one county to 15 counties and ensure integration into routine RMNCAH services Support to 100 National Youth Volunteers to monitor and report on RH commodities stock levels at targeted health facilities to inform forecasting, quantification and distribution of commodities to adolescents and young people |
| Availability of/access to RMNCAH services | <p>30% of the population has limited access to services (remoteness)</p> <p>Transport/distance to health facilities is a major concern</p> <p>Limited availability of services due to lack of integrated approaches (FP, ART/HIV, IMNCI, EmONC, MNCH, nutrition)</p> <p>Irregular provision of outreach services (no</p> | <ul style="list-style-type: none"> Expand the Reach Every Pregnant women (REP) approach and improve CVRS through CHA programs Expand the “one-stop approach” capacity of health facilities to provide integrated RMNCAH services Review guidelines to facilitate expansion of ART services Strengthen capacities of relevant community cadres (CHAs, CHVs and TTMs) to bring basic RMNCAH services closer to communities Implement integrated RMNCAH outreach services | <ul style="list-style-type: none"> Scale up quality EmONC and AYP – RMNCAH services Expand access to CVRS through the CHA program Conduct and monitor integrated RMNCAH outreach / mobile services coupled with market-based distribution of FP commodities Implement the “one-stop approach” coupled with in-service training, supervision, and mentoring of health workers (FP, MNCH, IMNCI, eMTCT/option B+) Train and monitor provision of IMNCI services in all health facilities Expand the one-stop approach at the household level via the CHA program; |

| System Areas | Key Bottlenecks | Priority Interventions | Priority Activities |
|--|--|---|---|
| | funding, poor monitoring) | <ul style="list-style-type: none"> Scale up IMNCI services in health facilities | <ul style="list-style-type: none"> Establish functional referral mechanisms in remote areas |
| Utilization of /demand for services | <p>Low awareness and inadequate knowledge in health matters</p> <p>Cultural barriers and social norms causing delays to access care</p> <p>Unfriendly health workers attitude does not encourage use of services</p> | <ul style="list-style-type: none"> Scale up IEC BCC interventions at all levels Enhance community awareness, empowerment and engagement for FP/MNCAH services Maximize the power of parents' voices, civil society, mass media and social media to provide information and change norms Strengthen school health programs to provide FP/ASRH services and increase awareness and knowledge | <ul style="list-style-type: none"> Public-private multimedia RMNCAH campaigns (drama, prints, leaflets, social media, U-Report, etc.) to change social norms, promote zero tolerance for preventable deaths at birth Advocacy activities: create awareness and advocate for adolescent's rights to health and introduction of AYP-SRH modules in school curriculum Develop gender, culturally sensitive and adolescent-friendly IEC/BCC strategy for community-based integrated outreach interventions Conduct community engagement activities via peer adolescents, males, women & youth groups, local & traditional leaders, TTMs, CBOs, media to increase knowledge in RMNCAH issues Conduct facility outreach and mobile preventive and promotive FP/RMNCAH services (markets, schools) |
| Quality of RMNCAH services | <p>Poor communication and counseling skills among health workers; unfriendly HCWs attitude</p> <p>Unavailability of required data at different levels to regularly monitor progress</p> <p>IPC standards not optimum; lack of job aids and guidelines in health facilities</p> <p>Limited access to quality secondary/ tertiary care</p> | <ul style="list-style-type: none"> Scale up quality improvement (QI) approach and pilot the performance-based financing (PBF) approach Strengthen the capacity of the county and district teams (quantity, quality, required resources) to perform monitoring, mentoring, and supportive supervision Generate data on adolescents for evidence based decision making Expand community based information system to enhance data availability and use Improve CRVS system in the country | <ul style="list-style-type: none"> Identify data gaps on adolescent health, strengthen mechanisms for data generation within and across sectors, and improve local capacities for data analysis Expand the PBF in targeted counties—contracting in—and document lessons learned Establish QI/QA team to support and monitor adherence to clinical protocols for priority health conditions (IMNCI, EmONC, etc.) Increase access to quality care with new construction for Redemption Hospital Disseminate relevant tools/checklists in health facilities Conduct supportive supervision visits (district, facilities, communities) and quarterly reviews Quarterly review meetings to ensure information management and use at the community /facility/ district level for decision making |

| System Areas | Key Bottlenecks | Priority Interventions | Priority Activities |
|--|---|--|--|
| | | | • |
| CROSS-CUTTING HEALTH SYSTEM INVESTMENT AREAS | | | |
| Emergency preparedness, surveillance and response | Weak capacity (HR, tools, report system) to detect and report community events, especially maternal and new-born deaths | <ul style="list-style-type: none"> Set up comprehensive integrated (events, diseases) data reporting and action frameworks, especially birth and death registration coverage and quality, promoting recording of every birth (live or stillbirth) and deaths Institutionalize maternal and neonatal death surveillance and response (MNDSR), linking this with perinatal death reviews and taking action to address avoidable factors at the national, county, district and community levels | <ul style="list-style-type: none"> Work in close collaboration with DPC Unit to ensure a reliable and adequate surveillance system at the community and facility level Disseminate existing guidelines/collection & reporting tools, conduct orientation sessions, and implement MNDSR at the community, facility, district, and county levels Monitor and ensure the completeness and timeliness of monthly reports on MNDSR at community and facilities Monitor adherence to IPC standards and triage protocols in health facilities |
| Sustainable community engagement | <p>Lack of coordination between community structures, interventions and services with many vertical efforts</p> <p>Poor community engagement and weak linkages with the health service delivery system</p> <p>Loss of community trust and confidence in health system due to the EVD outbreak</p> | <ul style="list-style-type: none"> Revitalize community ownership & engagement to broaden surveillance, health promotion, BCC, and community-based delivery of preventive and curative RMNCAH services to other health threats of relevance to communities Engage community networks, organizations, partnerships; strengthen the functionality of community structures, and establish linkages with health facilities through CHSSs Build institutional capacity of community structures to coordinate and support integrated community service delivery | <ul style="list-style-type: none"> Engage community groups in surveillance activities, information systems and service delivery through the CHA program Organize monitoring and accountability meetings, monthly community and facility joint context-appropriate fora for problem solving and action, program monitoring, through CHDCs Set up/revamp community-based structures (CHCs, CDCs, etc), TTMs, and form partnerships with NGOs, CBOs, FBOs, networking of community groups, county authorities, local government, and traditional leaders Orientation/training sessions for MARA groups, community groups, CBOs, networks in RMNCAH themes, resources mobilization, planning for sustainability, and income generation support |
| Health financing | <p>Inefficient use of resources</p> <p>Lack of Financial Protection</p> <p>Lack of sustainable financing</p> <p>Low value for money</p> | <ul style="list-style-type: none"> Create a sustainable health financing system—Liberia Health Equity Fund (LHEF)—which guarantees equal access to quality RMNCAH care for all Liberians: <ul style="list-style-type: none"> ➔ Pool resources ➔ Pay providers based on meeting targets | <p>Short–medium term activities that will feed into the LHEF in the long term:</p> <ul style="list-style-type: none"> MOH to join IHP+ Pooling of donor contributions (use GFF for RMNCAH as a case for this) Pilot cost-sharing mechanism such as Revolving Drug Fund High quality piloting of PBF Pilot Resource Allocation Formula across counties |

| System Areas | Key Bottlenecks | Priority Interventions | Priority Activities |
|--|---|--|--|
| | | <ul style="list-style-type: none"> • Increase efficiency of existing resources and make revenue stream for health sector more sustainable (less donor dependent) | <p>Short–long term activities (2016–2022):</p> <ul style="list-style-type: none"> • Develop evidence to inform design of LHEF, engage key stakeholders in LHEF development process, bring LHEF to cabinet and legislature, start-up of LHEF administrative structures and accrue LHEF revenues, finalize enrollment action plan, pilot LHEF |
| Enabling environment (leadership, management, governance, etc.) | <p>National RMNCAH road map outdated</p> <p>Inadequate standard structures and system across all levels (operationality of counties, district, and health facility management units)</p> <p>Weak governance and management system for health at the county and district levels; inadequate accountability for results</p> | <ul style="list-style-type: none"> • Establish and ensure functionality of sector coordination mechanisms at community, health facility, district and county levels • Strengthen coordination and integration of plans and service delivery platforms among service providers at county, district, health facility and community levels • Operationalize governance and monitoring systems and structures at community, health facility, district, county and national levels that ensure citizen participation and involvement in health | <ul style="list-style-type: none"> • Strengthen capacity of FHD at central level (4 additional staff) • Develop operational manuals, disseminate and monitor implementation of national standards to guide scale-up of AYF/RMNCAH • Build and enhance management capacity of county and district health teams and county boards • Organize quarterly stakeholders reviews involving communities to establish robust feedback systems and mechanisms from communities through facility, district and county levels (county dashboards) • Review and adjust criteria required (mini lab) to set up health facilities providing ART/HIV services |

Annex 4: Report for the Marginal Budgeting for Bottlenecks (MBB) in the development of Liberia RMNCAH Investment Case (GFF), 2015–2016

The MBB tool is an analytical tool for evidence-based health policy, planning, costing, and budgeting at the country level. Teams from UNICEF, the World Bank, and the ministries of health in several countries worked together to develop the tool. The MBB tool is intended for medium-term health system analysis, planning, costing, budgeting, financing, and impact assessment.²⁶ The Liberia Country Team decided to use the MBB tool for the development of RMNCAH Investment Case (GFF) in the first stage in November 2015.

The approach focuses on the selection of evidence-based interventions currently implemented in a country and organizes them into three service delivery modes: family-oriented, community-based services; population-oriented schedulable services; and individual-oriented clinical services. It uses baseline coverage of “tracer” interventions and coverage determinants to assess current performance of the health system and identify bottlenecks in both supply and demand. There are four sub-packages of interventions assigned to each of the three service delivery levels, for a total of 12 packages.

Process in the Application of MBB

Step 1. Setup and Inputs

Following a three day retreat to conduct a bottleneck analysis of Liberia’s health system, the development team set up five key tracer items in RMNCAH and also set targets/frontiers of an average positive percentage change of 25. This was based on literature on targets versus achievement of various Strategic plans in Sub-Saharan Africa.

Star year: 2016. Duration of this plan: 5 years. Analysis options: Compare three scenarios: 1) Business as usual; 2) Expanded; 3) Comprehensive. LiST has been used for calculating the impact. Inputs: The major resources are from Liberia (DHS 2013, Malaria Indicators Survey, Commodity Security Survey, etc.). Alternatively used data from West Africa Countries or used expert opinion during bottleneck analysis workshop.

Step 2. Strategies

Three major criteria for choosing a tracer for a bottleneck analysis include:

1. The tracer is selected only if data are available for each of its six determinants: availability of commodities, availability of human resources, geographical accessibility, initial utilization, continued utilization, and effective coverage level.
2. The tracer is an internationally recommended intervention, with proven and quantified efficacy on mortality reduction.
3. The tracer is nationally relevant.
4. The tracer should be representative of the other indicators within its intervention group, in terms of facing similar health system constraints at the chosen serviced delivery level, for accurate assessment of costs in overcoming system bottlenecks.

²⁶ MBB Concise User Guide (Based in Version 5.6), March 2011.

Selected Tracer Indicators include:

1. Family-oriented, community-based services:
ITNs, Exclusive Breastfeeding 1st 6 months, Community Case Management of Pneumonia
2. Population-oriented schedulable services:
Family Planning, Antenatal Care, PMTCT, Immunization
3. Individual-oriented clinical services:
Skilled Delivery, Pneumonia, Paediatric HIV Treatment, EmONC

In the case of the non-availability of the data, expert opinion during bottleneck workshops had been used. The country team also determined the strategies and set the target.

Step 3. Policy Scenarios

Validate coverage targets; organise health service delivery; select services packages and define implementation strategies.

Step 4. Budgeting and Financing

Define budget items; Map budget items to national programme, National chart of accounts; Define implementation curves—phasing assumption including Inflation set above the average level of inflation in the country.

Step 5. Outputs

Impact: Mortality reduction, Morbidity reduction; Additional budget needed to include management and technical support. This section provided health system improvements that would be needed to achieve the targets. It is these components that informed the ingredients in the costing of the Investment Case.

Upon comparison of outcomes, the team chose to use the moderate scenario as the basis for investment; its impact was comparable to the comprehensive package and yet it cost less to implement. In addition the cost per capita required in this package was in tandem with the cost of the basic package for essential health services.

Annex 5: Chronology of the Development Process

The RMNCAH Investment Case has been molded over a period of 10 months. This MOH-led consultative process involved numerous stakeholders (technical agencies, financiers, implementing partners, consultation with other line ministries, civil society and the MOH departments). A lead consultant for the development of the case was provided to MOH by UNFPA and technical reviews, inputs and consultations provided by the World Bank GFF secretariat, WHO, UNICEF and the Family Health Division of the Ministry of Health.

In November 2015, the consultative process began with a retreat to conduct a comprehensive bottleneck analysis of RMNCAH in Liberia. All members agreed that there was need to consolidate RMNCAH efforts if the high maternal and neonatal mortality trends were to be reversed. Further consultations and deliberations agreed that having CRVS systems as a key area of investment would be crucial in continuous monitoring of progress. The process ended with a draft sketch of ideas that were to be further polished. A select team was invited to attend an orientation session for the GFF in Nairobi during the same month: this orientation further provided direction to what the aim of the process was. A key lesson learned was the need to have a government led process and not another project document.

A second RMNCAH technical consultative workshop was at MOH in the first quarter of 2016 with development and implementing partners who agreed to focus the investment on five key issues:

- Improve EmONC services and child health
- Strengthen community engagement
- Improve on adolescent health services
- Strengthen IDSR and ensure the integration on MNDSR into the same
- Improve CRVS systems

The consultative meeting ended with the development of the first draft of the Investment Case that was then shared with the implementing partners and the financiers for review. A video conference was held in April 2016 to have a comprehensive discussion with the financiers on the proposed areas of investment and solicit support to ensure the GFF mechanism is adopted. This meeting ended with a recommendation to conduct a report and program mapping exercise to better understand the health expenditure on RMNCAH in Liberia, looking for cross-cutting components and synergies that could be adopted and natured. The resource and program mapping was conducted and formed the basis of the subsequent revisions leading to the development of a more refined draft in July 2016.

A third RMNCAH technical working session was held end of July 2016 to discuss the results of the resource mapping and also plan for the final consultative and validation process of the Investment Case. During the week-long exercise, technical input on ensuring a comprehensive adolescent health component was provided by WHO. The team also reviewed the Investment Case to ensure alignment with national strategies such as the SRMNCAH Policy. The working session ended with plans for three consultative and validation meetings:

1. Present the Investment Case to the senior management of the Ministry of Health;
2. Organize a discussion with the respondents of the program and resource mapping to get feedback following the analysis of the data provided;
3. Minister of Health meeting with financier to discuss alignment of resources investment in health and also draw up plan to achieve better efficiency; and
4. Final stakeholder consultation and validation meeting.

A Validation Meeting was held on September 2, 2016. All stakeholders, county health teams and administrators from the six focus counties of phase one were in attendance. The meeting was opened with presentation on how the

Investment Case fits into the broader aspects of rebuilding a resilient health system. The presentation was given by the Assistant Minister for Preventative services. He was preceded by the Deputy Minister for Planning and Research who provided a background to why the Investment Case was built and how it is a key step toward achieving the country's goal of better stakeholder coordination. The Minister of Health further stressed that this was going to be done differently—it won't be another document on the shelf. The meeting ended with an endorsement of the document, next steps and a call for action from the Chief Medical Officer.

Prior to the validation meeting with the stakeholders, the Investment Case was endorsed by the Senior Management Team on Tuesday, August 30, 2016. On the same day, the Deputy Minister for Planning led a discussion with the financiers, where they provided feedback and clarifications on the figures provided during the resource and program mapping. These numbers were then revised and are currently reflected in the Investment Case.

The pre-stakeholder meeting with financiers and technical agencies was led by the Minister of Health on September 1, 2016, with the aim of ensuring that the Investment Case is adopted. Key outcomes of the meeting were commitments to ensure that the country operational plans for the financiers and technical agencies are aligned to the Investment Case. The meeting also resolved to institutionalize the discussions around efficiency in financing and also better development partner coordination at the central and country level.