REPUBLIC OF LIBERIA

National Health Sector Strategic Plan

A Roadmap to Universal Health Coverage

2022 - 2026

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Foreword

It is my pleasure to launch this National Health Sector Strategic Plan for the period 2022-2026. This plan also known as the Universal Health Coverage (UHC) roadmap begins a new five-year journey for the health sector in Liberia towards UHC and other Strategic Development Goal (SDG) 3 targets. As you all know, health and well-being (SDG3) is critical and central for the attainment of other SDGs. We cannot make any significant progress on any of the other 16 goals without doing well in heath.

As we launched this new national health strategy, our vision is to have *a healthy population, with particular protection for the poor and other vulnerable groups, for the attainment of equitable growth and sustainable development,* in line with the Pro-Poor Agenda for Prosperity and Development.

In this new strategy, we are focusing on the attainment of UHC to ensure that everyone who needs quality health care needs can have it at all times and without enduring financial hardship. This will be achieved by our collective efforts to empower local communities to take charge and ownership of their health through an evidence-based Primary Health Care approach to deliver Liberia (Essential Package of Health Services (EPHS) II. Additionally, based on our past experience from the Ebola Virus Disease outbreak and the COVID-19 pandemic and other public health events (PHE), this strategy aims to improve our national emergency preparedness and response efforts to PHE.

The leadership of the Ministry of Health remains committed and determined to transform the health sector to deliver effective, equitable and quality health services and move towards attainment of UHC and health security. We cannot achieve this alone as a sector. It is going to take the whole government, all partners including the private sector and the Liberian people to implement the interventions and achieve the milestones set out in this costed strategic plan.

Finally, I would like to sincerely thank the strong leadership, guidance and support from H.E. President George M. Weah and the support of our development partners who continue to stand with us shoulder-to-shoulder. We are confident that we can achieve the goal and objectives of this strategy to improve the health and wellbeing of all people in Liberia.

Wilhelmina S. Jallah, MD, MPH, CHES, FWACP
Minister of Health

Preface and acknowledgments

Many thanks to Allah all merciful and all powerful, for his guidance throughout the development of this National Health Strategy (2022-2026). Thanks to the President of Liberia, H.E. George M. Weah, for his passionate leadership and to the honorable Minister of Health, Dr. Wilhelmina S. Jallah, for her stewardship of the health sector and the MoH, and for steering the development of this strategy.

The development of the strategy was through a very rigorous one-year-long process by multiple stakeholders at all levels of the health system. It was guided and informed by achievements and lessons learned from implementing the National Health Policy and Plan (2011-2021), the Investment Plan for Building a Resilient Health system (2016-2021), and other national, regional and global instruments and frameworks.

It is a home-grown document built largely upon our own experiences with the active involvement of people who have been involved in health system management here in Liberia over the years. The process was facilitated by our former Minister of Health Dr. Bernice T. Dahn and supported by Dr. Angela Benson and Dr. Rose Jallah Macauley. Of course, it benefitted from peer review from various partner institutions with international expertise in Liberia and abroad. I want to thank all of them for this wonderful job.

I want to extend sincere thanks and appreciation to all members of the Senior Management Team of the MoH including Deputy Ministers, Assistant Ministers, Directors, me Managers and technical staff. Many thanks to the heads of Health Regulatory Agencies and Boards, Health Professional Associations and Health Training Institutions. Many thanks to the Chair of the House Committee on Health, Hon. Joseph Suwambi, the Chair of the Senate Committee on Health, Hon. Augustine Chea, Hon. Olyee Collins, Deputy Minister of Internal Affairs, Hon. Taneh Brumson, Deputy Minister of Finance and Development Planning, Hon. Alton V. Kessely, Deputy Minister of Education, and technicians from Ministry of Gender, Children and Social Protection, the National Commission on Disabilities and members of the disabled community and Civil Society Organizations for their participation in the policy dialogue leading to the development of this strategy and their immense contributions during the drafting and validation of this strategy.

Sincere gratitude to our partners including the World Health Organization, the World Bank/GFF, USAID, UNICEF, UNFPA, GIZ, GFATM, GAVI, EU Last Mile Health, JHPIEGO, PIH, CHAI, PIH and others not mentioned here for their financial and technical contributions.

Special thanks to all technical staff in the Department of Policy, Planning and Monitoring and Evaluation including Mr. G. Martin Dumoe, Director of Policy and Planning, and his team, Mr. J. Mike Mulbah, Director of Monitoring and Evaluation, and Hon. C. Sanford Wesseh for the level of hard work. Special thanks and recognition go to Hon. George P. Jacobs, Assistant Minister for Policy and Planning, for his outstanding leadership of the Technical Core Team and his technical expertise in coordinating the strategy development process.

Finally, as we launch this strategy, I call upon all partners in the health sector to join the Government of Liberia in fully supporting the implementation, monitoring and evaluation of this Strategic Plan and its corresponding Essential Package of Health Services II to improve the health and well-being of the people of Liberia.

A. Vaifee Tulay, BSc., BPham, MSc.
Deputy Minister for Policy, Planning and Monitoring and Evaluation

Abbreviations & acronyms

ASRH	Adolescent Sexual and Reproductive Health
CBOs	Community-Based Organizations
CHA	Community Health Assistants
CHT	County Health Team
CSOs	Civil Society Organizations
COVID-19	Coronavirus Disease 2019
DHO	District Health Officer
EPHS	Essential Package for Health Services
EPR	Emergency and Preparedness and Response
GoL	Government of Liberia
HCWs	Healthcare Workers
HFs	Health Facilities
HIV/AID	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HQMU	Health Quality Management Unit
HRH	Human Resources for Health
HTS	HIV Testing Services
IPC	Infection Prevention and Control
LDHS	Liberia Demographic Health Survey
LHEF	Liberia Health Equity Fund
MCH	Maternal and Child Health
M&E	Monitoring and Evaluation
MoH	Ministry of Health
NHSSP	National Health Sector Strategic Plan
NHO	National Health Observatory
OIC	Officer in Charge
PAPD	Pro-Poor Agenda for Prosperity and Development
PCV	Pneumococcal conjugate vaccine
PHE	Public Health Events
PMTCT	Prevention of Mother-To- Child Transmission
PPE	Personal Protective Equipment
QOC	Quality of Care
RDT	Rapid Diagnostic Test
RHS	Reproductive Health Supervisor
RMNCAH-N	Reproductive, Maternal, Newborn, Child, Adolescent Health & Nutrition
SDGs	Sustainable Development Goals
TTM/TBA	Trained Traditional Midwife/Trained Traditional Birth Attendants
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNSDCF	United Nations Sustainable Development Cooperation Framework
UNSERP	United Nations Socio Economic Response and Recovery Plan
WHO	World Health Organization

Executive summary

Introduction

The National Health Sector Strategic Plan (NHSSP) also known as the Universal Health Coverage (UHC) roadmap, is the health sector's medium-term framework to guide the MoH and partners in implementation of the National Health Policy (NHP) 2022-2031 during its first five-year period. It was developed through an extensive, bottom-up, multiple stakeholders' participatory and consultative process. It outlines the situational analysis, strategic objectives and interventions, implementation arrangements, required resources including financing and monitoring and evaluation (M&E) framework. The NHSSP envisions a healthy and productive population. It aims to contribute to the attainment of UHC and other Sustainable Development Goals (SDG) 3 targets through the delivery of the Essential Package of Health Services (EPHS II) over the period 2022-2026. The NHSSP builds on the achievements and lessons learnt from the previous National Health Policy and Plan (2011-2021) while addressing key areas where targets were not met, and progress was slow as well as emerging health issues and priorities.

This strategy was developed by a core national technical team (MoH and partners) with oversight from the policy and planning unit of the MoH, participation of county health teams, implementing partners, donors, UN agencies, and civil society organizations (CSOs) among others.

The development of NHSSP 2022-2026 was guided by the Pro-Poor Agenda for Prosperity and Development (PAPD) 2018-2023, National Health Policy 2022-2031, EPHS II, UHC 2030, SDGs, UHC2030 agenda, International Health Regulations (IHR) 2005, and the Paris Declaration on Aid effectiveness 2005 among others.

Situation Analysis

Country context and population health status

From 2011-2021, the National Health and Social Welfare Policy and Plan (NHSWP) guided the MoH. The NHSWP contributed to the attainment of Liberia's growth and Development, Millennium Development Goals (MDGs) and the SDGs. Substantial progress was made during the implementation of the plan over the last ten years while many challenges also remained to be addressed.

The Ebola Virus Disease outbreak (2014-2016) and the ongoing COVID-19 pandemic have negatively affected the health systems of Liberia. The MoH has increased the number of health facilities by 22 per cent, from 656 in 2015 to 806 in 2020. This translates to a density ratio of one health facility serving 5,000 people. Liberia was one of 12 counties in the WHO African Region that achieved the MDG target of reducing by two-thirds under-

five mortality between 1990 and 2015. The average life expectancy in Liberia is 65 years (66.5-female and 63.5-male) and the adult literacy rate is 52 per cent for women and 75 per cent for men.[1]

Liberia remains among those countries with the highest maternal mortality ratio (742/100,000 live births) in 2019-2020. Infant and neonatal mortality rates increased from 54 and 27 deaths per 1,000 live births in 2013 to 63 and 37 deaths per 1,000 live births in 2019-2020 and under-five mortality stagnated (from 94 to 93 deaths per 1,000 live births, respectively).[2]

Common causes of morbidity and mortality

In 2013, HIV prevalence was 1.9 per cent among those aged 15-49 years, slightly up from 1.5 per cent in 2007. Tuberculosis notification rates remained moderately high, just above 100 per 100,000 during 2009-2013. Malaria remains the leading cause of health facility consultations (about 40 per cent of all visits). One in five people living with HIV (21 per cent) are on ARV therapy (2015). The coverage of TB treatment with successful outcomes was 59 per cent in 2015, based on 63 per cent case detection rate and 79 per cent treatment success. The prevalence of the risk factors for non-communicable diseases is high. In 2013, 31 per cent of adults aged 25-64 years had hypertension (of which 88 per cent were not on treatment), 22 per cent of adults were obese (29 per cent among women), 14 per cent of men smoked and 19 per cent of adults had diabetes.[3] Chronic malnutrition and stunting are serious public health concerns in Liberia, with 30 per cent of children under-five have stunting. The prevalence of stunting has slightly declined from 35 per cent in 2018 to 30 per cent in 2019-20.[4]

Health system performance

Although 77 per cent of the populations have access to basic health care i.e., live within one hour walk or 5km distance, services availability and capacity to deliver them (health services) vary significantly across the country (SARA, 2018). Overall, the capacity for health facilities to provide health services in Liberia measured by the general service readiness index is 56 per cent compared 53 per cent in 2016. Basic amenities such as availability of clean and safe water, power, communication, etc., which are essential to provide health services was readily available in 79 per cent of health facilities, while standard precautions for infection prevention was available in 73 per cent of health facilities.

The current national health worker density per 10,000 populations is 11.7 (SARA, 2018). The clinical health workforce constituted over half (56.4 per cent) of the overall workforce. The healthcare workforce census recorded 4,756 core clinical health workers across

[1] Ministry of Health. 2021. Liberia National Health Observatory. 2021.

[2] Republic of Liberia. 2020. Liberia Demographic and Health Survey. 2019-2020.

[3] WHO. 2018. WHO Country Cooperation Strategy Agenda. 2017-2021.

[4] Republic of Liberia. Liberia demographic and health survey. 2013.

Liberia. The distribution and staff skill mix are insufficient to deliver the EPHS at all levels.

The government and households are the major sources of health expenditures in the country: compared to fiscal year (FY) 2013-2014) when donors contributed the majority of health expenditures at 51.2 per cent of total expenditure in health (THE), in FY 2015-2016 the government contributed 25 per cent of health spending while households met 47 per cent of THE. Catastrophic and impoverishing health expenditures are high; 15 per cent of households in Liberia face catastrophic health expenditures per year. For the poorest households, this percentage increases to 25 per cent. THE has increased by almost 300 per cent from (US$100,517,384 in FY 2007-2008 to US$392,848,553 in FY 2018-2019), while institutional health spending has tripled from US$65 million in FY 2007-2008 to almost US$184 million in FY 2018-2019.[5] Household or out-of-pocket expenditure accounted for 53 per cent of THE, followed by donors accounting for 27 per cent, the government accounting for 16 per cent and Private/Corporations 4 per cent. Increasing health financing through domestic funding in line with the Abuja Declaration will ensure that the sector is less dependent on external funding and provide financial protection for the population.

The availability of essential medicines and other health commodities is affected by frequent stock outs, with fewer (35 per cent) of health facilities having essential medicines (SARA 2018).[6] There are issues with procurement, the distribution system, logistics information systems and management at public health facilities experiencing stock-out of drugs and medical supplies because of limited budgetary support from the government and other challenges.

The Social Determinants of Health; Socio-economic factors that impact on health in Liberia includes high levels of poverty, low literacy, food insecurity, inadequate water and sanitation coverage, poor infrastructure, gender and socio-cultural practices, and air and environmental pollution.

Guiding principles in the development of the health strategy

Similar to the national health policy, this strategy was developed based on the following guiding principles: health as a human right, equity, gender sensitivity and responsiveness, quality of care and safety, efficiency, accountability and transparency, primary healthcare principles, family (people) centered care, inclusive and coordinated partnerships, and ownership and leadership.

Strategic Priority Areas: the following are the nine priority areas for the strategic plan 2022-2026

1. Leadership and governance

[5] MoH. 2022. Republic of Liberia National Health Account 2018/19.

[6] MoH. Liberia National Health Observatory. 2021.

2. Fit for purpose health workforce
3. Quality and equitable health care services (EPHS II)
4. Infrastructure and technology
5. Essential medicines, medical supplies and diagnostics
6. Health information, research and communication
7. Sustainable community health and engagement
8. Sustainable health financing
9. Epidemic preparedness and response

Vision, mission and goal and objectives of the strategic plan

Vision: A healthy population with particular social protection for the poor and vulnerable, for the attainment of equitable growth and sustainable development.

Mission: To transform the health sector as an effective, efficient and equitable system for delivery of quality health services towards attainment of UHC.

Goal: To improve the health and wellbeing of all people in Liberia through the incremental delivery of the EHPS II, starting with the priority package for UHC based on available resources.

The NHSSP sets the below four Strategic Objectives to be implemented from 2022 to 2026 by Liberia's health sector:

1. To strengthen governance, leadership and management at all levels of the healthcare delivery system and **devolve management responsibilities, resources and authority** in line with the Local Government Law and National Policy on Decentralization and Local Governance.
2. To ensure the availability and retention of a **highly-skilled and motivated health workforce** for the sector, including strengthening pre-service health education systems and absorption and retention to close workforce gaps.
3. To improve **access to and utilization of quality essential health services at all levels of care** to all persons, regardless of gender or social status **through standardized, integrated and sustainably financed** health mechanisms including community health, essential medicines, vaccines and diagnostics.
4. To ensure that **health security** is guaranteed through national frameworks aligned with **International Health Regulations 2005**.

Strategic interventions and approaches; these four strategic objectives shall be delivered using the following interventions and strategies at national and sub-national levels of the health system. These interventions cover the nine strategic priority areas.

1. **Strengthening** leadership, governance and management capacities at national and sub-national levels

2. **Strengthening** human resources for health, improving human resources for health (HRH) availability and performance. HRH are the cornerstones of any health system since no health system can function without a sufficient number of motivated and qualified health workers.

3. **Delivery of EPHS II to contribute towards attainment of UHC**

   A number of interventions and strategies will be used as elaborated in the strategic plan to support the implementation and delivery of nine key components (sub priorities) of EPHS II at facility and community levels towards UHC. The community health services, and health facilities will be strengthened to deliver EPHS II especially the prioritized package for universal health coverage which focus on primary health care.

4. **Improving health infrastructure and health technology;** health facilities will be 4. rehabilitated, expanded, upgraded and equipped to increase access to and utilization of services. The size and type of facilities will be based on population and other social demographic and geographic factors of each locality.

5. Strengthening procurement and supply chain management systems to **improve availability and access to** essential medicines, supplies and technologies including vaccines.

6. **Strengthening health information systems** including HMIS /DHIS 2 and other information management platforms, their linkages and interoperability. The NHSSP clearly outlines strategies on strengthening leadership and governance.

7. **Addressing** sustainable healthcare financing and development and implementation of health financing options and reforms.

8. Sustainable **community health ming and engagement. Se**lected community health me interventions for maternal and child health (MCH) and emergency preparedness and response (EPR).

9. Addressing **EPR** under the Global Health Security Agenda for Public Health Events (PHE).

Implementation Arrangements and Strengthening strategic partnerships for health

The NHSSP will be jointly implemented by MoH and partners through the annual operational plans (county and national) using existing structures and systems. This plan will be delivered using the decentralized health system and governance structures at

national and sub-national levels. The MoH will collaborate with other government ministries and agencies, donors, partners, private sector, academia and communities to implement the NHSSP. The Health Sector Coordination Committee, Health Coordination Committees (national and county), and Technical Working Groups shall provide the oversight and coordination forum to guide and support implementation, monitoring and evaluation.

The MoH is cognizant of the critical roles of various partners and stakeholders in the health sector. NHSSP outlines strategies and approaches to strengthen and ensure multi-sectoral collaboration and strategic partnerships with other ministries and government agencies, donors, UN agencies, NGOs, CSOs, community-based organizations (CBOs) private sector, academia and researchers. These strong partnerships will be leveraged to support the implementation of the strategy.

Financing the plan

From the costing of the plan, it is estimated that the MoH and partners will need about US$843 million over the next five years to implement, monitor and evaluate the plan. Out of this, HR costs are about 42 per cent, essential medicines about 23 per cent, 21 per cent various mechanisms (interventions), and 13 per cent on infrastructure and technology. Out of the total costs, more than US$555 million is expected to be mobilized by the GoL, donors and partners, with some portion being met by households (out of pocket).

Monitoring and Evaluation Framework and Plan

The Monitoring and Evaluation Framework and Plan will be used to track, monitor and report implementation of this strategic plan. Data to inform the input, output and outcome indicators will be obtained mainly from the HMIS/ DHIS2 platforms including civil registration and vital statistics as they improve, and from me assessments, supportive supervision, quality assurance, technical reports and service coverage surveys, the Integrated Human Resources Information Management System (IHRIS), and the Logistic Management Information System (LMIS). In addition, the impact indicators will rely more on surveys such as the LDHS, National Health Accounts and other surveys into ensure accountability to beneficiaries.

1. Introduction

1.1 Background

The purpose of the National Health Sector Strategic Plan (NHSSP) also known as the Universal Coverage (UHC) roadmap for Liberia is to provide a framework for the strategic vision of the health sector over the course of the next five years (2022-2026). It operationalizes the ten-year National Health Policy (2022-2031) over the first five years and identifies priority interventions in the health sector that will advance Liberia towards the objectives laid out in the vision 2030 and the Pro-Poor Agenda for Prosperity and Development (PAPD) and Sustainable Development Goal (SDG) 3 targets.

The Ministry of Health (MoH) derives its mandate from the amended act of the new executive law of 1972, which established the Ministry of Health and Social Welfare (MoHSW). During 2015-2017, the act was revised to establish the MoH with the core mandate of the following:

1. Formulation, implementation, monitoring and evaluation of health policies, plans and standards.
2. Delivery and coordination of decentralized medical care in public health facilities.
3. Development of health manpower.
4. Execution of preventive and promotive health services including specific health interventions.

This NHSSP advances the national rebuilding process that began in 2006 after 14 years of civil conflict. Since then, Liberia's health sector has gradually shifted from emergency humanitarian relief to developing sustainable systems for health service delivery. The National Health Policy and Plan (NHPP) 2007 was introduced as the framework for rebuilding the health sector; it suspended fees for service and introduced Free Health Care for Primary and Secondary level services, which is still in force today. The Essential Package of Health Services (EPHS) 2011-2021 served as the instrument that operationalized the NHPP 2011-2021. The EPHS set the pace for delegating management functions to county health teams and the rebuilding of health care delivery systems. Over the last 10 years of implementation, significant gains were made towards these goals.

The Ebola Virus Disease (EVD) epidemic in 2014-2016 interrupted this progress, destabilizing the health sector and significantly affecting the gains made in strengthening routine health services. During the EVD crisis 10,678 persons got infected and 4,810 died including 375 health worker infections and 189 health worker deaths (CDC, WHO). Nationally, 8 per cent of physicians, nurses and midwives died (Evans, Goldstein,

Papova, 2015). Service delivery across routine services was interrupted, with decreased performance in malaria treatment, immunizations, and antenatal and postnatal care, facility-based deliveries, HIV and TB treatment. In the wake of the epidemic, the Investment Plan for Building a Resilient Health Care Delivery (2015-2021) re-enforced the NHPP 2011-2021 after the health sector nearly collapsed from the shocks of the devastating EVD epidemic.

Similarly, the ongoing COVID-19 pandemic negatively impacted the health systems. As of July 2021, utilization of essential maternal and reproductive health services in Liberia was lower than expected based on pre-pandemic trends and seasonality. Similarly, there were substantial disruptions in outpatient services (down by 17 per cent), family planning consultations (down by 36 per cent), Post Natal Care first visit (PNC1) (down by 21 per cent), Ante Natal Care first visit (ANC1) (down by 19 per cent) (MoH, 2021)

With the peaceful transfer of presidential power in 2018, the PAPD was developed to move the country towards its vision for 2030. This document followed the Agenda for Transformation and contains the country's aspiration for health, opening a new page for public policy dialogue in Liberia and setting the stage for policy review across sector ministries. It builds on the NHPP 2011-2021, with specific targets for 2023 in high-priority areas:

1. Reduce maternal mortality ratio from 774 to 497 per 100,000 live births
2. Reduce under-5 mortality ratio to 57 per 1000 live births
3. Reduce under-5 stunting (malnutrition) from 32 per cent to 22 per cent
4. Reduce malaria prevalence by more than half to 20 per cent
5. Raise the share of rural population living within 5km of service delivery point from 71 per cent to 75 per cent
6. Respond to 100 percent of disease outbreaks within 48 hours
7. Reduce out of pocket payments to 35 per cent of total health care cost through a sustainable health financing mechanism

With this context, there remain many challenges in improving the health system's outcomes, responsiveness and financial protections. These targets have still not been met as of 2021.

1.2 Liberia National Health Sector Strategic Plan Development Process

The development of this National Health Strategic Plan 2022-2026 was led by the minister of health through the Department of Policy, Planning and Monitoring and Evaluation. A steering committee was set up and chaired and co-chaired by the minister of health and deputy minister for policy planning and monitoring and evaluation to oversee the development of the policy and strategy. The WHO country representative served as an advisor to the steering committee. Other members of the steering committee included key

partners and stakeholders. The steering committee set up a technical core team that was headed by the Assistant Minister for Policy and Planning and co-chaired by the WHO's health system strengthening advisor.

The MoH developed a concept note and roadmap that lay out the processes to follow building on the WHO policy and planning framework, which was adopted from the WHO toolkit for health sector planning. This concept note provided the MoH senior management team's vision and aspiration for the health sector, which is strongly rooted in the SDGs including UHC and was based on the government's PAPD. It provided a clear framework for the policy and plan development. The guide document was presented to and endorsed by the health sector coordination committee. Following the endorsement, a series of steps were taken:

1. Stakeholders were mobilized and ten thematic working groups (TWGs) were formed based on WHO building blocks (an extended model, with ten TWGs). The TWGs were made up of assistant ministers, directors, managers, county health officers, regulatory authorities, health professional boards and associations, donor, partners, NGOs, civil society actors and other government ministries and agencies. The TWGs met twice a week.
2. The chair and secretary of these TWGs formed part of the core team and met once weekly to provide updates, give feedback and give support to the TWGs.
3. Each TWG conducted desk reviews of major documents including the NHPP 2011-2021 based on their thematic areas under the supervision of the core team and two senior national technical consultants supported by WHO. Three international TAs (two for health financing supported by USAID and WHO and one costing expert supported by WHO).
4. A rapid assessment was conducted in four counties to assess stakeholders' perspective at health facilities, districts, counties and community levels to fill information gaps and enrich the policy and strategic development process. The counties were selected purposefully to represent three strata, dominantly urban (Montserrado), semi-urban (Grand Bassa) and dominantly rural (Grand Gedeh and River Gee counties). Key informant interviews were conducted to generate perspectives on the implementation of the previous health policy and plan and gather stakeholders' aspirations for the future.
5. Health managers at all levels, including officers in charge of health facilities, and community health workers were interviewed. Service users including women, youth, local leaders, and people with a disability were interviewed. Donor partners, NGOs, private sector, academia and civil society actors were interviewed either in person, via zoom or through self-administered online questionnaires.

6. A three-day meeting was held with key partners and MoH technicians to analyze and consolidate the data. The thematic working groups identified key policy issues, their implications and policy recommendations.
7. A health status (situation analysis) report was written to inform the drafting of the policy.
8. A three day policy dialogue was held in Buchanan in September 2021, and brought together key policy makers including the Senate and Houses' Health Committee chairs, the deputy minister of finance and development planning for budget and development planning, the deputy minister of internal affairs for policy and planning, representatives of the Civil Service Agency, and the National Public Health Institute of Liberia among other government ministries and agencies. Donor partners (including USAID) and UN agencies (including UNICEF, WHO) participated in the policy dialogue. Findings from the situational assessment, the policy implications and policy recommendations generated during the TWGs were presented and formed the agenda for the dialogue.
9. The new ten-year National Health Policy, five-year Strategic Plan and five-year EPHS were drafted by the technical consultants with the support of the TWGs. The documents were shared on an online platform for easy access and input from the stakeholders.
10. A five-day validation meeting was held in Ganta, Nimba county in November 2021, which brought together a cross-section of national stakeholders to validate the document.

The review and planning process led to the development of two key national health sector documents: the ten-year policy and this five-year strategic plan/roadmap for UHC (2022-2026).

2. Situational Analysis

2.1 Socio-economic Situation

According to the 2019 Human Development Index (HDI) report, Liberia is valued at 0.480 HDI (0-1), which puts the country in the low human development category and positions it at 175 out of 189 countries and territories. This rank is shared with Democratic Republic of the Congo and Guinea-Bissau. Between 2000 and 2019, Liberia's HDI value increased from 0.435 to 0.480, an increase of 10.3 per cent. Liberia's life expectancy at birth increased by 12.4 years from 51.7 years in 2000 to 64.1 years in 2019.

In Liberia, factors such as education, gender, household wealth, rural/urban status, and access to clean drinking water, electricity and sanitation facilities remain strong determinants of health, as reflected below.

While the national literacy rate stands at 65 per cent, it is highest among youth aged 15-19 (88 per cent) and lowest among those aged 65 years and above (17.5 per cent). In addition, gender, geography and wealth influence school attendance and educational attainment, with rural areas and poorer households attaining fewer years of education and experiencing lower school attendance rates compared to their urban and wealthier counterparts. Gender differences in educational attainment persist. Almost one-third (31 per cent) of women aged 15-49 in Liberia have no education compared with 13 per cent of men, with 41 per cent of girls having received no education compared with 29.6 per cent of boys, and fewer girls complete some (6.9 per cent) or all (5.3 per cent) of senior high school compared to boys (11.9 per cent and 8.3 per cent respectively). To underscore the gender education gap further, three-quarters of all men are literate compared to roughly half of all women in Liberia.[7]

Water, Electricity and Sanitation

As with education, access to sources of clean drinking water, electricity, and sanitation facilities vary based on household wealth and location (urban vs rural), with the poorest (54.1 per cent) and rural (68.9 per cent) households having less access to improved sources of drinking water compared to wealthier (98 per cent) and urban (95.3 per cent) households. Boreholes and hand pumps remain the primary source of drinking water, with anywhere from 31 per cent to 54 per cent of all Liberian households relying on them for drinking water. Roughly one quarter (24 per cent) of all households have access to electricity, including just 4 per cent in rural areas versus 39 per cent in urban households. About 8.1 per cent of the population receives electricity from Liberia Electricity

[7] Liberia Demographic and Health Survey. 2019-2020.

Corporation, with again an unequal urban/rural divide in access (15.5 per cent and 0.1 per cent, respectively). Use of generators for electricity follows a similar trend, with 14.2 per cent of urban and 1.8 per cent of rural households relying on generators as the primary source of electricity.

On average, 46.5 per cent of Liberian households have access to an improved sanitation facility (compared to 28 per cent in 2007), broken down to 65.5 per cent of urban households and 21.1 per cent of rural households. For nearly two-thirds of rural households, no toilet facilities exist. Differences in access to sanitation facilities are also driven by wealth, where nearly nine out of ten of the wealthiest households have access to improved sanitation facilities versus just 8.7 per cent in the poorest wealth quintile.[8]

2.2 Overview of the Health Sector

Indicators	2000	2007	2009	2013	2019/ 2020
Life expectancy at birth (years)		57		61	65
Maternal mortality ratio per 100,000 live births	578	994	--	1,042	742
Neonatal mortality rate (per 1,000 live births)		32		38	37
Infant mortality rate per 1,000 live births	117	71	73	54	63
Under-five mortality rate per 1,000 live births	194	110	114	94	93
% Children under five who are underweight	23%	19%	--	15%	11%
Stunting		39%		32%	30%
Fertility rate		5.2		4.7	4.2
% of children (12-23 months) vaccinated (all antigens)	33%	39%		55%	51%
% of births attended by skilled personnel	51%	46%	46%	61%	84.4%

Table 1: Liberia – Key Health Indicators, 1986 – 2019/2020 (MoH NHO 2021)

[8] Liberia Demographic and Health Survey. 2019-2020.

Liberia's health outcomes have been improving significantly since the end of the civil war in 2003. For example, according to the 2012 progress report *A Promise Renewed,* the under-five mortality rate declined by approximately 68 per cent over a 10-year period. This remarkable annual reduction of about 5.4 per cent not only achieved the fourth Millennium Development Goal (MDG) benchmark (to reduce under-five mortality rate by two thirds), but also represented the largest decline in Sub Saharan Africa. The WHO statistics report 2012 showed that Liberia's life expectancy increased by 20 years from 42 years in 1990 to 62 years in 2012, representing the largest increase in the world at the time (WHO Statistics Report). In 2020, the life expectancy stood at 64 years. (LDHS 2019-2020). This process was facilitated by relative political stability and strong leadership, significant donor contributions, and a strong annual economic growth averaging 6.4 per cent per year from 2004 to 2008 (World Bank report). Table 1 above represents trends in key health indicators to date.

2.3 Organization of the health systems and health service delivery in Liberia

Liberia has a three-tier health system comprising of primary, secondary and tertiary levels, with the primary level consisting of services provided at the community level and secondary and tertiary care consisting of care provided at the district, county and national levels. The Essential Package of Health Services (EPHS) identifies a minimum standard package of preventive and curative services to be provided at all levels of the health system.

The following are the composition of the health system levels for delivery of the EPHS:

2.3.1 Primary Care

Community Health System: This is the main primary care provider, and includes:

a) ***Community Level Services:*** Standard set of outreaches, health promotion and referral services provided for communities more than one hour walk (5km) from the nearest health facility by community health volunteers (CHVs) and the more recently introduced community health assistants (CHAs).

b) ***Primary Health Care (PHC) Clinic, Levels 1&2***: Open for eight hours on weekdays and covers isolated clustered communities with a population of 3,500 to 12,000 for Levels 1 and 2 respectively.

2.3.2 Secondary Care

District Health System: Receives referrals from the community system. The district health system has a catchment population of 25,000 to 40,000 and has either of the following:

a) ***Health Centres***: open 24 hours daily and receive referrals from PHC Clinics in the district; have up to 40 beds and a laboratory.

b) ***District Hospitals:*** Open 24 hours every day, with higher clinical capacity, including emergency surgery and Comprehensive Emergency Obstetric and Neonatal Care (CEmONC).

County Health System: Provides expanded services within the secondary level of care. It consists of:

a) ***County Hospitals:*** Open 24 hours every day and receive referrals from the community and district health systems, and provides general surgery, paediatrics, general medicine, obstetrics and gynaecological services (including CEmONC). It should have 100 or more beds with an intensive care unit, a laboratory and basic radiology services.

2.3.3 Tertiary Care

National Health System: Main provider of tertiary level care. It consists of two types of hospitals:

a) ***Regional Hospitals:*** Serve a catchment area of three to five counties and receive referrals from the county hospitals.

b) ***County Hospitals.*** They are located within reasonable distance from county hospitals, for which they play a capacity-building role and serve as training sites.

c) **John F. Kennedy Medical Centre (JFKMC)**: The National Referral Hospital, with advanced specialists, laboratory and radiology capabilities, it is the specialized referral facility and teaching hospital (in collaboration with Regional Hospitals) for physicians, sub-specialists, and allied health professionals.

Table 2: The level, structure, and organization of Liberia health systems

<table>
<tr><th>LEVEL OF SYSTEM CARE ORGANIZATION</th><th colspan="5">SDP & HEALTH FACILITIES</th></tr>
<tr><td>PRIMARY</td><td>CHAs, CHSS Non-permanent SDP Clinic</td><td>COMMUNITY</td><td rowspan="2">DISTRICT</td><td rowspan="3">COUNTY/ REGIONAL</td><td rowspan="4">NATIONAL</td></tr>
<tr><td rowspan="2">SECONDARY</td><td colspan="2">Health Centre
District Hospital</td></tr>
<tr><td colspan="3">County Hospital/ Regional Hospital</td></tr>
<tr><td>TERTIARY</td><td colspan="4">National specialized Hospitals</td></tr>
</table>

2.4 Progress by thematic areas (delivery of EPHS)

2.4.1 Maternal and Newborn Health

Despite strides being made, Liberia remained among countries with the highest maternal mortality ratio globally (742/100,000 live births) in 2019-2020. There was a 30 per cent decrease from 1,072 deaths per 100,000 live births in 2013 LDHS. Among the leading causes of maternal deaths reported via the Liberia 2020 Maternal and Neonatal Death Surveillance and Review were haemorrhage (41.6 per cent), sepsis (20.2 per cent) and eclampsia (17.2 per cent). Other factors include anaemia (3.9 per cent), ruptured uterus (3.0 per cent), abortion (3.0 per cent) and obstructed labour (2.6 per cent).

These factors highlight major challenges with the quality of the maternal care provided. The 2018 Service Availability and Readiness Assessment (SARA) findings revealed that only 2 per cent of the facilities assessed had all tracer items for the Comprehensive Emergency Obstetric Care (CeMONC) Service.

Neonatal Mortality rates have reportedly increased from 26 deaths per every 1,000 live births to 37 deaths per every 1,000 live births from 2013 to 2019-2020. Most of the newborn deaths are driven by preventable or treatable factors such as: birth asphyxia

(56.6 per cent), neonatal sepsis (34.4 per cent), preterm labour (2 per cent), neonatal tetanus (1.3 per cent) and aspiration pneumonia (1.3 per cent).[9]

Institutional capacity for increasing access to high quality obstetric and newborn care remains a challenge. According to the 2018 SARA findings, Basic Emergency Newborn Obstetric Care service availability stood at 85 per cent while only 4 per cent of health facilities assessed offered comprehensive emergency newborn obstetric care service. Up to 33 per cent of facilities lacked capacity for newborn resuscitation.

Figure 1: Leading Causes of Maternal Deaths, 2020

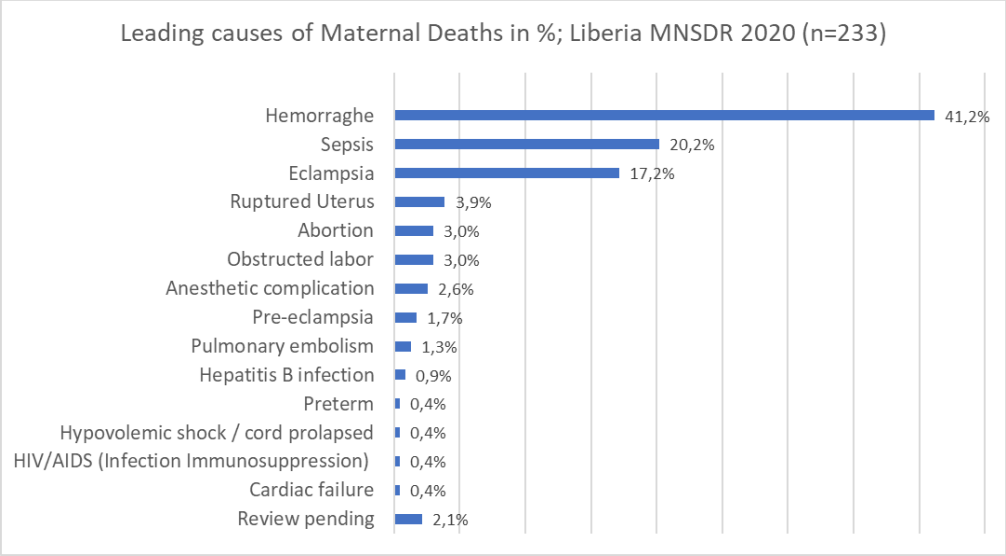
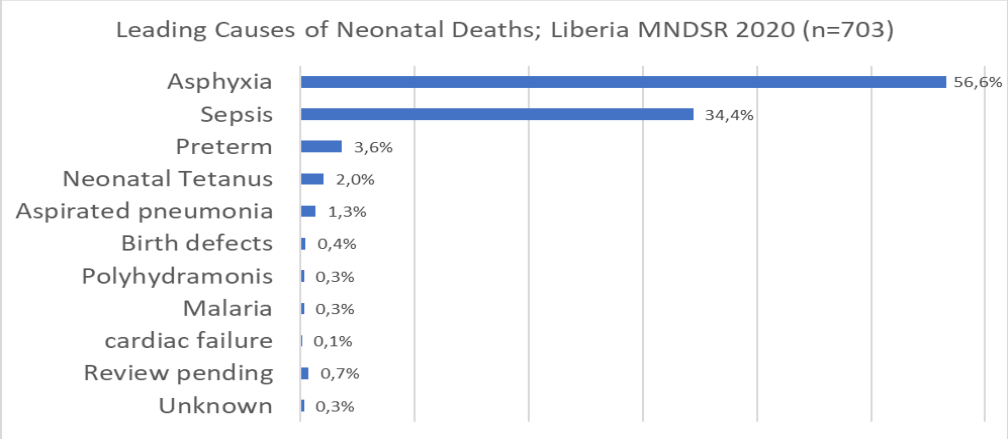


Figure 2: Leading Causes of Neonatal Deaths, 2020



Antenatal Care (ANC): to ensure better maternal and neonatal health outcomes, high-quality antenatal care is essential. The EPHS 2011-2021 defines a minimum of four ANC

[9] Maternal and Neonatal Death Surveillance and Review Report. 2020.

visits prior to delivery, with a minimum package of services during those visits. According to the 2019-2020 DHS survey, 87 per cent of women aged 15-49 years with a birth in the past five years reported attending at least four prenatal care visits and 71 per cent received the first prenatal care visit during their first trimester. A majority of women (97 per cent) received prenatal care from skilled providers. ANC (at least four visits) coverage has improved from 66 per cent (2007) to 78 per cent (2013) and 87 per cent in 2019/20.

Postpartum care: The EPHS 2011-2021 recommends that women attend at least two postpartum visits within six weeks of delivery, including a visit immediately following delivery and another visit within the first week of delivery. The percentage of women who received a postnatal check within two days of birth increased from 71 per cent in 2013 to 80 per cent in 2019-20 (LDHS).

Per the 2019-2020 LDHS, 76 per cent of newborns received a postnatal checkup within 48 hours of birth, and 18 per cent of newborns never received a postnatal check. Only 39 per cent of community deliveries received a postnatal care visit. The percentage of newborns with at least two signal functions performed during the two days after birth is higher in rural than urban areas (68 per cent versus 60 per cent).

2.4.2 Child Health

Liberia is among few African countries that achieved MDG 4 of reducing child mortality by 2015. Notwithstanding, the slow progress demonstrated in recent years (a 1 per cent reduction from 94 to 93 deaths per 1,000 live births) and the increase in infant mortality rate from 54 to 63/1,000 live births underscore the urgent need for progress if Liberia is to achieve its SDG target of reducing child mortality to less than 25 per 1,000 live births. The slow progress is due to the challenging service delivery context, health systems bottlenecks and the effect of epidemic and outbreaks in Liberia. Most of the childhood illnesses and deaths are due to preventable and treatable causes such as malaria, acute respiratory tract infections and diarrhoea. According to DHS 2019-2020, 25 per cent of children under five were assessed to have had fever, 16 per cent had diarrhoea and 4 per cent had acute respiratory infection (ARI) over the last five years.

Liberia adapted several cost-effective strategies including the Integrated Management of Childhood Illnesses (IMCI), the National Community Health Strategy and the Reach Every District-Reach Every Pregnant Woman (RED-REP) approach as strategies for delivering the EPHS for the management of childhood conditions. These strategies have expanded access to a range of integrated cost effective, lifesaving services and have accounted for some of the gains and successes in health outcomes. Notwithstanding our efforts aimed at improving child health indicators, performance have produced results for some indicators. But the immunization status of children remains poor, with 51 per cent of children assessed to have received all basic vaccines (down from 55 per cent as recorded in 2013 DHS) and 39 per cent with all age-appropriate vaccines.

The EPHS presumes that the service delivery environment complies with basic standards or requirements for service delivery. Access to a full range of EPHS services for the prevention and management of childhood illness is challenged by the lack of basic amenities, medicine and supplies in some facilities for effective service delivery. According to the 2018 SARA findings, 13 per cent of facilities (n=765) assessed did not offer all preventive and curative services for under five; 85 per cent of assessed staff were not trained in integrated management of newborn and childhood illnesses, 89 per cent were not trained in growth monitoring; only 53 per cent of facilities provides growth monitoring services; none of the 765 health facilities assessed had all tracer items available for the provision of child health preventive and curative care services, and 53 per cent had some form of tracer items for the child health preventive and curative care services.

Factors for the high risk of child mortality include the nutritional status of mothers and children. In Liberia, nearly one in every hundred children die before reaching their fifth birthday.

Children's early years are at the core of their life chances. They are the "make or break" years when children are either provided with the opportunities to grow and thrive or they face adversity that negatively affects their bodies, minds and emotions for life.

2.4.3 Reproductive Health

Liberia's total fertility rate has decreased steadily over time, from 5.2 children in 2007 to 4.7 children in 2013 and 4.2 children in 2019-20. This declining fertility trend resonates with the steady increase in modern contraceptive prevalence from 19 per cent to 24 per cent (See Figure 3 below). The demand for family planning has increased over time, from 47 per cent in 2007 to 58 per cent in 2019-20; only 25 per cent of the demand for family planning is being satisfied while unmet need has also increased slightly (from 31 per cent in 2013 to 33 per cent in 2019-20).

Despite the increase in access to modern contraceptives (19 per cent to 24 per cent), The percentage of women aged 15 who have started childbearing increased from 3.8 per cent to 4 per cent. Childbearing at a very young age is associated with an increased risk of complications during pregnancy and childbirth and higher rates of neonatal mortality (LDHS 2019-2020).

Access to institutional based prenatal care services provided by a skilled provider have considerably increased from 79 per cent in 2017 to 98 per cent in 2019-2020 and about 87 per cent of mothers had at least four antenatal care visits by a skilled provider. Similarly, 80 per cent of births were conducted in a health facility, 84 per cent of which were delivered with the assistance of a skilled provider. This implies that an increasing

number of mothers are likely to have access to basic life-saving interventions and services needed to protect the mother and unborn baby from adverse health outcomes.

2.4.4 Nutrition

Malnutrition remains a major public health concern in Liberia that is affecting mostly children aged under-five, pregnant and lactating women, adolescents, and people with specific ill-health and vulnerability.

The trend of malnutrition in Liberia, from 2000 to 2020, shows that significant progress has been made in reducing the levels of malnutrition. The prevalence of stunting among children aged under-five has shown a downward trend of a 15-point reduction, while wasting has reduced from 7.4 per cent to 3 per cent, and anaemia has decreased from 79 per cent to 71 per cent. There has been no significant progress made in reducing overweight (4 per cent) among children aged under-five.

The Liberia Demographic and Health Survey 2019-20 results show that 30 per cent children aged under-five are stunted while 10 per cent are severely stunted. The stunting prevalence is classified as “very high” based on the WHO threshold of ≥30 per cent. Stunting rates are spatially distributed across the county with geographical variations. The prevalence of stunting is lower in the South-Central region (25 per cent) than in the other regions (33-34 per cent). Among the counties, the prevalence of stunting is highest in River Cess (41 per cent) and lowest in Montserrado (21 per cent) again indicating the urban rural disparities.

2.4.5 Communicable Diseases

Malaria is endemic in Liberia. The disease constitutes the highest morbidity of diseases of public health concern, representing 34 per cent and 48 per cent of all outpatient and inpatient cases. Children under the age of five years account for 35 per cent of all malaria cases and 34 per cent of in-patient laboratory-confirmed deaths in 2018. The national prevalence of malaria is at 45 per cent using Malaria Rapid Diagnostic Tests (mRDT).[10] Overall malaria mortality has reduced by 59 per cent, from 172 per 100,000 persons in 2016 to 71 per 100,000 persons in 2019. Also, the incidence of malaria per 1,000 persons in the population fell by 37 per cent from 380 (2016) to 238 (2019), while the reduction in

[10] Malaria Indicator Survey. 2016.

incidence in children under-five years of age was 40 per cent (from 1002 to 603 per 100,000 persons) over the same period.

With an estimated 35,000 persons living with HIV in Liberia and a national prevalence of 2.1 per cent, the HIV epidemic in Liberia is both generalized in the wider population at a low level and also concentrated among key populations.[11] Women have a much higher HIV prevalence at 2.4 per cent compared with men (1.8 per cent). Presently 65 per cent of women aged 15 and above living with HIV are on antiretroviral therapy, compared with 37 per cent of men. The population is infected by both strains of the HIV virus (HIV1 and HIV2) with HIV prevalence being 2.1 per cent (1.9 per cent HIV-1: 0.3 per cent HIV-2) in the general population. [12]

In 2020, the TB incidence in Liberia was estimated at 314/100,000 population, equivalent to 16,000 infections with notified TB cases (all cases, all forms) of 6,990, where 59.4 per cent were men and 16 per cent children. There is a low case detection rate of 57.8 per cent. The incidence has shown an upward trajectory since 2015 with no tendency to decline. There were 3.9 per cent deaths due to TB in 2020 (MoH 2020 Annual Report).

The treatment success rate for new cases in 2020 (cases notified in 2019) was 71.4 per cent. Treatment success for retreatment cases was 75 per cent in 2020. Treatment success outcome varies by county: in 2020 Grand Kru reached (100 per cent) while Grand Cape Mounty showed a 48.8 per cent success rate, the lowest success rate. The same Grand Cape Mount showed the highest lost to follow-up rate at 33.9 per cent.

2.4.6 Non-Communicable Disease

Non-communicable diseases and injuries comprise a large share of Liberia's burden of disease. In 2016, it accounted for an estimated 37.9 per cent of the national burden from all causes and 43.4 per cent of all deaths. Although it is often believed that NCDs only affect older populations, over half (51.5 per cent) of the NCD disease burden and 69.8 per cent of injuries in Liberia occur before the age of 40.[13]

Additionally, the Rapid Assessment of Avoidable Blindness (RAAB) shows the prevalence of visual impairment, especially cataract blindness and uncorrected refractive errors, is on the increase. Approximately 4 per cent of people in Liberia is estimated to be legally

[11] UNAIDS Spectrum Estimates. 2020.
[12] Liberia Health Demographic Survey. 2013.
[13] Global Burden of Disease. 2016.

blind and approximately 9 per cent have visual impairment. Cataracts constitute 60 per cent of all blindness. Overall, 72 per cent of all blindness is preventable.

According to the last population census conducted (post-war in 2008), Liberia has a disability prevalence of 3.17 per cent. Of the disabled population, the majority experience visual impairments (34 per cent), followed by mobility impairments (25 per cent), hearing impairments (11 per cent), communication impairments (4 per cent), and cognitive impairments (4 per cent). However, these figures are widely regarded to be a significant underestimation of disabilities in Liberia, considering that nearly one-third of the population fought in the civil wars, with countless more being impacted.

2.4.7 Neglected Tropical Diseases (NTDs)

There is high prevalence and overlap of onchocerciasis, lymphatic filariasis, schistosomiasis and soil-transmitted helminths in Liberia. Other NTDs requiring case management that are co-endemic are Buruli ulcer, yaws, rabies, leprosy and lymphatic filariasis manifestations to include hydrocele and lymphoedema. Guinea worm is eliminated but under surveillance.

Liberia has a comprehensive integrated case management me that has been piloted in five counties including Lofa, Nimba, Bong, Maryland and Bomi counties.

Onchocerciasis is prevalent in all 15 counties of Liberia with more than 1.1 million Liberians at risk. Between 2012 and 2019, annual mass drug administration (MDA) treatment percentages remained consistently above 80 per cent annually. The prevalence rate of Onchocerciasis ranges from the lowest at 0.7 per cent (Margibi county) to the highest at 11.9 per cent (River Cess county).

Lymphatic filariasis is prevalent in 13 of 15 counties with ongoing integrated MDA. Between 2012 to 2019, annual MDA with albendazole obtained treatment was coverage of not less than 80 per cent annually. The baseline in 2012 was at 6.23 per cent of microfilaremia and by 2019 microfilaremia had reduced to 4.3 per cent.

Schistosomiasis is prevalent in 13 of the 15 counties with high prevalence in four counties that require annual MDA with praziquantel for school-age children and adults. However, the prevalence of Schistosomiasis haematobium has reduced over time, from 20.2 per cent to 9 per cent yet has stayed largely stable in recent years.

Mapping results for soil-transmitted helminths indicate prevalence in all fifteen 15 counties. The highest prevalence of 50-100 per cent is found in Maryland, Grand Kru, Sinoe and River Cess counties in the Southeast.

2.4.8 National Blood Transfusion Services

Similar to many sub-Saharan African countries, malaria-associated anaemia and obstetric haemorrhage are the most common indicators for transfusion therapy, and the shortage of blood supply contributes to high maternal and child mortality. Based on WHO estimates, Liberia needs 40,500 units of blood per year, however, currently only 10 per cent of the country's blood needs are being met through voluntary, non-paid donors.

2.4.9 Health Systems Performance

The health systems in Liberia continues to face significant challenges, with the EVD epidemic and COVID-19 pandemic eroding previous progress and weakening an already fragile health system. In 2018, a Service Availability & Readiness Assessment (SARA) was conducted in 765 out of 831 health facilities (92 per cent). Fifty-nine percent of the 765 surveyed facilities were public facilities. The assessment revealed that access to a health facility is low: there was an average of 1 visit per person per year to a health facility, compared to the WHO recommendation of at least 5 visits per person per year (SARA 2018). Improvements since 2016 include increased bed density, increased emergency transport availability, and a slightly overall lower health worker density (though there is variability by region). Readiness or capacity of health facilities to offer required health services was assessed based on the presence and functionality of equipment and supplies necessary to provide services within the following five domains: (1) basic amenities, (2) basic equipment, (3) standard precautions, (4) diagnostic testing, and (5) essential medicines. The results showed the following:

- Overall, the capacity for health facilities to provide health services in Liberia, measured by the general service readiness index, is 56 per cent (compared to 53 per cent in 2016). It is notable the diagnostics and essential medicines readiness mean scores were comparatively lower.

- Basic amenities essential to providing health services, such as availability of clean and safe water, power, communication etc., were readily available in 79 per cent of the health facilities (compared to 57 per cent in 2016).
- Availability of basic equipment was 60 per cent (compared to 77 per cent in 2016).
- Standard precautions for infection prevention were available in 68 per cent of the health facilities (compared to 73 per cent in 2016).
- Availability of diagnosis services was 39 per cent (compared to 42 per cent in 2016).
- Availability of essential medicines was 35 per cent (compared to 44 per cent in 2016).

The assessment of quality and safety of services delivered by 32 hospitals and 48 health centres within the four priorities mes (TB, Malaria, ART and PMTCT) scored fairly low. Comprehensive delivery of specific service readiness (i.e., having all tracer items) was

extremely low. For example, while availability of child health services was good (87 per cent), none of the facilities had all the recommended tracer items to deliver quality child health services.

Access to health services: In terms of access, in 2011, 69 per cent of the population lived within a 5km radius of health facilities. While current data is not available regarding the proportion of the population that lives within 5km of a health facility, early indicators suggest that health infrastructure has been significantly expanded in the last decade. In 2018, there were 449 public health facilities (SARA), up from 404 in 2015 and 306 in 2006 (PAPD). By 2021, it is estimated that 29 percent of Liberia's population, particularly those in rural areas, walk more than 60 minutes or 5km to reach the nearest health facility to access primary health care (71 per cent live within 5km radius). Furthermore, the lack of an effective referral system to support primary health care leads to many mothers and babies dying of preventable complications.

Health facility density: Progress was made in the construction and rehabilitation of health facilities during 2009-2011 (Health Sector Performance Evaluation). This activity increased physical access to health infrastructure nationwide by 20.7 per cent over a one-year period (2009-2010) and led to the reduction of one health facility serving an average of 8,000 of the population in 2006, to 5,500 in 2010.

In 2018, the health facility density was 1.95 per 10,000 populations, compared with 1.7 per 10,000 in 2016 (SARA). The health facility density remains below the WHO recommended minimum level of two per 10,000, and half of Liberia's counties were below this WHO recommendation (SARA 2018). There is also inequity regarding distribution of facilities by geographical location with urban centres having more facilities than rural.

Human Resources for Health: The health workforce capacity is constrained by limited numbers of nurses, midwives, physicians, pharmacists, physician assistants, specialized health workers and community health workers (CHWs). This can be attributed to several challenges including low production, a high attrition rate from higher education institutions, and an inability of the MoH to absorb new graduates. Furthermore, there is a need to strengthen the quality of pre-service training for all cadres, including promoting certification upgrades (e.g., from certified nurse to registered nurse or lab aide to lab technician) and specialization options (e.g., introduction of additional specialty and subspecialty training mes for physicians or creation of master's level clinical training for nurses and midwives). As part of efforts to ensure that quality of care is met and maintained within the health delivery system, the quality of the training of health care workers will be monitored regularly by the requisite authorities.

Health Information Systems: The country's ability to engage in evidence-based decision making is limited due to poor data quality and very limited research activities. A harmonized approach to the implementation and scaling of electronic health records will be essential to improving data collection, analysis and real-time use for decision making.

Quality of care and safety:

The Institute of Medicine defines health care quality as "the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge." The MoH regularly reviews quality standards established for the various levels of health services and revises as necessary.

There had been a number of initiatives to improve the quality-of-care outcomes which led to the development and launch of the Liberia National Health Quality Strategy 2017-2021. In spite of these efforts, the quality of health services along all quality dimensions (i.e., safety, timeliness, efficiency, effectiveness, equity, people-centred care and integration) in Liberia has been described as being suboptimal and inadequate. There is also inadequate oversight and fragmentation with respect to quality approaches and their overall impact on care outcomes and patient experience. Anecdotally, poor-quality and unsafe care continues to lead to loss of lives and productivity.

Quality of care and safety is affected by the critical gaps in the availability of human resources; supplies, equipment and commodities; and adequate infrastructure among other things. Recognizing these inter-connected and challenging issues, the strategy will focus directly on interventions to address gaps identified by the situation analysis, that were based on the WHO building blocks across the seven quality dimensions.

Emergency preparedness and Response: The National Action Plan for Health Security (NAPHS) was developed and launched in country with a recent 2021 mid-term review conducted. According to the JEE, the IHR core capacity index has increased from 42 per cent (2016) to 51 per cent (2021) . The country’s public health laboratory capacity for diagnosis has also improved tremendously. Testing has now been conducted for 11 priority diseases (including bacterial meningitis, Buruli ulcers, EVD, etc.) and for the first time since the EVD outbreak, Lassa fever testing is now done at the National Reference Lab. As part of Emergency Preparedness and Response (EPR) surveillance, data/information have been enhanced and data are now collected at both health facility and community level. Electronic surveillance and data collection platforms have been piloted in a few counties with plans to expand to all counties by end of 2022. Designated ports of entry (PoEs) have developed PoE public health emergency contingency plans for managing events caused by biological hazards and other public health threats.

2.5 Key Strengths and Opportunities

1. **Delivery of quality essential health services**

- Guidelines for priority areas are readily available and ensure care is provided at the lowest level.
- There is an opportunity to develop and integrate all health service delivery guidelines, to ensure distribution, easy access and use across all health facilities by health providers.
- The capacity and tools are available at county health team level to monitor and supervise health care delivery in respective health facilities.
- Health Quality Management Unit established and in place to lead quality improvement efforts at national and sub national levels.

2. **Health Infrastructure**

- Health Infrastructure department established and functional.
- Standards for all level of health facilities have been developed; ensuring minimal standards are met in building new facilities and rehabilitating old facilities.

3. **Health information system**

- Key health information and data management systems and platforms are already in place.
- Opportunities and plan in place to improve data quality at each level.
- Ongoing efforts to ensure data is presented and analyzed at decision making level.

4. **Health Workforce**

- There is increased community health workers capacity with plan for roll out.
- New medical curriculum in place.
- Residency me for specialists introduced.

- Regulatory bodies for health professionals (physicians, pharmacists, nurses, midwives) are in place for licensing of medical practice. The protocols are in place. It is an opportunity to implement these regulations and enhance patient safety.

5. Strategic Partnerships

- There is strong presence and commitment of health partners with various technical expertise and other resources to support the implementation of the new strategy.

- The newly launched Public Private Engagement strategy provides a great opportunity for the sector to further partner and collaborate with private sector actors. The private sector plays critical role in health service delivery and social determinants of health in Liberia. The private facilities contribute slightly more than 50 per cent of all the health facilities in Liberia.

6. Health financing (Health Facility Autonomy)

- The MoH is committed to decentralizing management responsibilities to the county health teams, district teams, and health facilities. This will require the GoL especially the Ministry of Finance and Development Planning (MFDP) to devolve some of its responsibilities and capacities to the local levels.
- The MoH in 2021 received an authorization letter from the MFDP to pilot the primary bank accounts opening at 29 primary healthcare facilities in selected counties (Rivercess, Gbarpolu and Sinoe). This pilot was informed by the introduction of direct cash payment of US$300 each to the 29 facilities in Rivercess, Gbarpolu and Sinoe counties.
- The evidence from recent verification conducted by the National Verifying Agency (NVA) indicates that the health facilities with individual bank accounts expended 85 per cent of the allocated amount in line with counties finance law.
- Qualitative evidence from the field suggests an overall improvement of the health facilities performance as opposed other facilities but there is a need for further assessment to scale up facility-based health financing mechanisms.

7. The pharmaceutical framework agreement

- In 2019, through the performance-based financing (PBF) me, the MoH established a local pharmaceutical framework contract to allow counties (Rivercess, Gbarpolu and Sinoe) and hospitals (Redemption, Phebe, CB Dunbar, Tellewoyan, Jackson F. Doe, FJ Grant, St. Francis, and Jallahlone) to procure specific reproductive maternal and child health commodities from selected private vendors to top up under-supplied commodities from the Central Medical Store (CMS).

- This framework has helped to reduce stock out at the health facilities, while assuring the quality and pricing of medicines that are procured. This also shows promises for further scale up.

8. Facility Based Revolving Drug Funds and cost recovery

- The MoH and partners are working to begin the revolving drug fund (RDF) and cost sharing at health facilities which will support health facilities at all levels to attain cost recovery to sustain their performances.

- Primary-level health facilities still have limited purchasing power but with the autonomy to manage bank accounts, these PHCs have been given the leverage to procure from the local markets, thereby promoting an economic multiplier effect.

- Evidence from hospitals (Kolahun Hospital, Foya Boma etc.) implementing the facility-based RDF have eliminated stock outs. The Kolahun community raised $20,000 as initial capitalization.The advantage of the model is community acceptance, which has the advantage of increasing RDF turnover, permitting the timely replenishment of exhausted stocks, avoiding the funds being tied-up and increasing the revenue available to cover RDF operating expenses.

- The Christian Health Association of Liberia has introduced RDF schemes in 26 health facilities, which led to high availability and quality of medicines and supplies, increased number of patients attending the facilities and enhanced drug management capacity.

- There would be an opportunity to combine the two initiatives above to ensure minimal quality of drugs (pharmaceutical framework agreement) and continue cost sharing of the drugs with the community (facility-based revolving drug funds). The MoH can consider elaborate partnerships with experienced partners in these initiatives.

2.6 Key Health Sector Threats

The following are some key possible threats to the sector over the next five years and beyond. The MoH, other line ministries and partners will work collectively through coordination platforms, policy and strategic dialogue, advocacy and planning to address and minimize their impacts to the sector.

1. Limited/declining funding to the sector from external donors.

2. Emerging and re-emerging diseases including Public Health Emergencies such as increasing substance abuse, non-communicable diseases, COVID 19.
3. Antimicrobial resistance including multidrug resistant TB.
4. Socio economic decline due to global and regional economic crises leading to poor health and other social sectors performance.
5. The effects and impacts of climate change globally, regionally and nationally on the health and well-being of the population in Liberia.

3. Priority Areas

The strategic priority areas were identified based on situation analysis, emerging health issues, burden of disease in Liberia, policy and strategic objectives, cost effectiveness, feasibility of interventions and ongoing efforts and progress to date.

1. Strengthen governance, leadership and management at all levels of the health care delivery system.
2. Ensure the availability and retention of highly skilled and well-motivated health workforce.
3. Improve access to and utilization of quality essential health services at all levels of care including infrastructure, community health, quality essential medicines, vaccines supplies, and diagnostics.
4. Increase mobilization and distribution of sustainable resources in an equitable and efficient manner align to population needs and health benefits through provider payment reform and use of data to guide planning, budgeting and strategic purchasing decision.

5. Ensure that health security is guaranteed through national frameworks aligned with International Health Regulations 2005.

4. Strategic Framework

4.1 Mission

The mission of the MoH is to transform the health sector as an effective, efficient and equitable system for delivery of quality health services towards attainment of UHC.

4.2 Vision

Liberia's vision is to have a healthy population, with particular protections for the poor and vulnerable, for the attainment of equitable growth and sustainable development.

4.3 Goal

To improve the health and wellbeing of all in Liberia.

4.4 Strategic Objectives

1. To strengthen governance, leadership and management at all levels of the health care delivery system and **devolve management responsibilities, resources and authority** to the lower levels in line with the Local Government Law and National Policy on Decentralization and Local Governance
2. To ensure the availability and retention of a **highly-skilled and well-motivated health workforce** including strengthening pre-service health education systems and absorption and retention to close workforce gaps.
3. To improve **access to and utilization of quality essential health services at all levels of care** to all persons, regardless of gender or social status **through standardized, integrated and sustainably financed** health mes including community health, quality essential medicines, vaccines, and diagnostics,
4. To ensure that **health security** is guaranteed through national frameworks aligned with **International Health Regulations 2005**.

4.5 Guiding principles

This strategy was founded and based on the guiding principles that are also reflected in the National Health Policy 2022-2031 and are as follows: health as a human right, equity, quality of care and safety, gender sensitivity and responsiveness, efficiency, accountability and transparency, primary health care, family (people) centred care, inclusive and coordinated partnership, and ownership and leadership.

a) **Health as a human right:** Access to quality health care is a basic human right and is a precondition for individual and societal development.

b) **Equity:** All people in Liberia shall have person-centred and equal access across the life course to effective healthcare services without discrimination.

c) **Quality of care and safety:** The delivery of quality services that meet the seven quality dimensions (i.e., safety, timeliness, efficiency, effectiveness, equity, people-centred care, and integration) is fundamental to improving the health and wellbeing of the population. Decision-making will be predicated on doing the right thing, in the right way, at the right time and making the best use of the resources available in order to satisfy patients and ensure their safety.

d) **Gender Sensitivity and Responsiveness:** Concerted efforts will be made by the MoH to understand the role gender plays in health and health care, and to design responsive systems that ensure services are accessible, available and acceptable to all Liberians, regardless of gender or other social status. Particular emphasis is placed on involving women and girls in the planning, design and implementation of health care programming.

e) **Efficiency:** Allocative and technical efficiency will be pursued by all actors always in the public health sector to ensure that available resources deployed attain the highest possible outputs. Resources will be allocated to various layers and levels of the health sector based on need demonstrated by evidence and the amount will be based on a combination of epidemiological, social, demographic, economic and geographic variables. Efforts will be exerted to ensure that duplication, wastage and abuse are eliminated.

f) **Accountability and transparency:** Adequate political, financial and administrative mechanisms are needed from the government and all stakeholders to ensure that decision-makers are accountable for the transparent use of health resources including physical assets, commodities and time among others. These mechanisms must encompass the whole sector, enabling the public to know how decisions are taken, how resources are allocated and how results are achieved. To this effect, all resources, internal and external, public and private shall be judiciously monitored, accounted for and transparently reported on. The monitoring system will be designed to enable stakeholders to verify adherence to laws and regulations and to the Primary Health Care principles underpinning the national health policy and strategy.

g) **Primary Health Care:** primary health care approaches, operational frameworks and strategic and operations levers informed and guided the development of the strategy. Similarly, they will guide the implementation, coordination and monitoring the strategy.

h) **Family and People-Centred care:** The health care delivery system shall seek to promote health mes targeting families to prevent and control illnesses. ming should

benefit families, communities, individuals not just one disease or condition, index patient. In the case of illness or other health conditions, the family shall have the necessary support system and tools necessary to be resilient to regain their health status and remain economically stable

i) **Inclusive and coordinated partnership:** The multi-sectorial approach used for development of the NHP and HSSP will continue during implementation and partners will be mobilized according to their comparative advantages to ensure better coordination, harmonization, and alignment.

Ownership and leadership: The MoH will ensure that the county and district health teams and partners will align their policies, operational strategies and plans with the national health policy and strategy to ensure implementation of this policy through all partners.

4.6 Strategic Priority Areas and Interventions

4.6.1 PRIORITY AREA 1: Leadership and Governance

The MoH shall be responsible for the overall implementation of this plan within the framework of the policy, through well-coordinated mechanisms that will ensure the provision of effective leadership, management and governance at all levels. The MoH provides oversight of the delivery of quality health services through various levels which requires active leadership and management engagements at these levels – central, county, district, facility and community.

At the central level, leadership, management and governance (LMG) interventions shall require effective coordination between the departments, divisions and multiple mes and units. At the county level, such interventions would require effective coordination between the county health teams, district health teams, health facilities and communities, with active linkages and feedback among the different levels.

The private sector plays a pivotal role in the Liberian health care delivery system. The flourishing size of the private sector in recent years offers the Government of Liberia an opportunity to expand quality-assured care to more of its population without increasing the allocation of public resources. To complement efforts of coordination, the MoH Private Sector Engagement Strategy has been launched to provide a roadmap and guidance on MoH engagement with the private sector.

In recognition of the myriad of challenges affecting LMG capacities, especially coordination, feedback, and the implementation of legal and regulatory systems frameworks, the plan provides the following objectives and strategic interventions:

Strategic Objective	Strategic interventions
a: Strengthen regulatory bodies to reinforce professional standards, ethics and requirements to the delivery of quality health care	● Strengthen regulatory bodies and other independent agencies to promote the monitoring and reinforcement of Title 33, also known as the "Public Health Law" of the Liberian Code of Laws Revised (and any amendments and revisions thereof). ● The scope of this enforcement mechanism will include but not be limited to professional public, private for-profit, private not-for-profit, voluntary and independent healthcare training institutions, departments, mes, and facilities. ● Guidelines and policies for establishing and monitoring health training institutions should be developed where needed and enforced. ● Institute mechanisms to ensure that the workforce complies with existing legislation, regulation, standard operating procedures, work protocols, guidelines and professional and ethical codes of conduct. Care will be given to separating regulatory responsibilities from the MoH's service delivery duties in order to avoid conflicts of interest. ● The MoH, through the revised public health law, will ensure that the mandates, roles, and responsibilities of various bodies dealing with regulation, standards, and maintenance of ethical conduct are clearly defined and regularly communicated to all stakeholders. Steps will be taken to identify and eliminate actual or potential conflicts of interests with regulators (for instance, when a member of the regulatory board either works in, owns or is otherwise affiliated with a private practice facility). ● The current review of the public health law provides the opportunity for the ministry to work with regulatory bodies and other stakeholders to create a council of health professionals that would serve as an umbrella regulatory mechanism with oversight over the other professional regulatory bodies within the health sector. The umbrella body would serve to promote interdisciplinary collaboration and improve synergies in the regulation of health professionals; ensure consistency in educational standards across professions; and enhance regulatory transparency ● The MoH will work with partners and regulatory bodies to strengthen regulation of health professions education, to ensure that all cadres of health workers receive quality

Strategic Objective	Strategic interventions
	education and internship that prepares them to provide safe, competent and ethical care, are duly certified/licensed upon entry to professional practice and maintain competence throughout their active clinical careers. ● The MOH will work with regulatory bodies to institute measures to curtail the proliferation of institutions that train auxiliary health workers (e.g., nurse aides, operating room technicians) so as to maintain optimal quality at all levels of the healthcare system. Institute effective legal and monitoring mechanisms for identifying and dealing with patient/client grievances resulting from health worker negligence and/or misconduct while deploying appropriate communication strategies to educate the public on their rights as patients/clients of the health system
1b: To improve coordination and mutual accountability for enhanced health outcomes	○ Strengthen coordination, cooperation and collaboration between units and mes of the health sector through periodic senior management teams, departmental/division meetings, TWGs and me reviews. ○ Strengthen coordination of all health stakeholders for the effective implementation of the National Health Policy 2022-2032 and the National Strategic Plan 2022-2026. ○ Strengthen multi-sectoral collaboration mechanisms through the Health Sector Coordination Committee (HSCC), Health Coordination Committee, Technical Working Groups, Country Coordination Mechanism (CCM), and the Liberia Health Federation, the Ministry of Internal Affairs and other relevant Ministry, Agencies and Commissions (MACs) to promote synergy and leverage capacity to address the social determinants of health. ○ Strengthen existing communication structures for the effective dissemination and promotion of the National Health Policy and other strategic frameworks of the health sector. ○ Strengthen accountability framework that promotes effective monitoring and evaluation of health sector performance, systems audit and feedback mechanisms. ○ Implement the MoH Private Sector Engagement (PSE) Strategy to support national health goals.

Strategic Objective	Strategic interventions
	Strengthen the capacity for leadership, management and administration of MoH including NPHIL to improve coordination and collaboration.
1c: To strengthen MOH and regulatory authorities' capacity to implement and enforce legislative and regulatory frameworks for the health sector including the Public Health Law, health regulations and protocols	○ Advocate for the legislation of the revised public health law and the LHEF. ○ Strengthen collaboration with health regulatory bodies and professional health training institutions to regulate the practice of health professionals and health training institutions in collaboration with the National Commission on Higher Education (NCHE). ○ Collaborate with regulatory bodies and/or institutions to monitor both public and private health facilities and enforce licensing of institutions and health professionals to guide patient safety and rights. ○ Collaborate with health regulatory bodies to establish a mandatory system for continuous professional development of health professionals. Include the participation of regulatory bodies at the level of HSCC.
1d: Strengthen the leadership, management, and governance capacities at central and the decentralized levels	○ Ensure the capacity development of health management teams including health facilities to adequately deliver health services and manage human and financial resources. ○ Support regulatory authorities to strengthen their capacity to support quality health care services delivery ○ Establish, strengthen and monitor county health governance boards and structures as they provide oversight of the implementation of health service delivery. ○ Define a set of criteria for the qualification of health districts. ○ Strengthen county, district and community level coordination mechanisms to promote effective planning and synergy. Ensure that key national policies, plans, protocols and guidelines are available at the county, district and facility levels.

4.6.2 PRIORITY AREA 2: Highly skilled and well-motivated health workforce

Human resources are the cornerstones of any health system since no health system can function without a sufficient number of motivated and qualified health workers.

The health workforce is defined as “all people engaged in actions whose primary intent is to enhance health.” Human Resources for Health (HRH) plays an important role in improving health system performance and should reflect the right number, mix, distribution and appropriate skills set (experience and qualifications) to provide the services required. “These include professional staff such as physicians, physician assistants, nurses, midwives, laboratory technicians and pharmacists as well as management and support staff (those who do not deliver services directly but support the work of those who deliver direct services). Community health workers are a critical part of the health workforce.

Strategic Objectives	**Strategic Interventions**
2a: To strengthen the **production** of the workforce with the right skills mix, using evidence-based workforce planning to determine the required production pipeline	● Strengthen capacity of health training institutions to produce the quality and quantity of the needed cadres. ● Enhance the availability as well as equity and quality of the health work force production. ● Prioritize the production of cadres with acute shortages (e.g., laboratory technologists, biomedical engineers, nurse anesthetists, anesthesiologists, midwives, specialized nurses and physicians). ● Enhance the quality of the teaching and learning environment. ● Strengthen the implementation of data systems to generate student enrolment information and other key metrics for decision making. ● Expand remediation me to improve enrolment quality and reduce dropout rates. ● The MoH will explore strategies to decentralize the selection of scholarship recipients through the inclusion of county stakeholders in scholarship nominations, to ensure the selection and retention of scholarship recipients at the county, district, and community levels. ● The MoH will consider the use of scholarship awards as a means of motivating health workers serving in rural settings for long periods. ● Strengthen the effectiveness, transparency, and accountability of the Scholarship Committee and actively collaborate with funding agencies and relevant national

Strategic Objectives	Strategic Interventions
	and international training institutions and mes to secure funds to increase scholarship opportunities.

Strategic Objectives	Strategic Interventions
2b: To strengthen the institutional framework for human resources for the absorption of health workers	● Engage multi-sectoral stakeholders, including the Ministry of Finance, Development and Planning (MFDP), Civil Service Agency (CSA), Cabinet and the National legislature to approve and implement health financing strategies to increase the MoH's fiscal space for the adsorption retention and management of health workers. ● Improve MoH internal efficiencies to enhance the fiscal space for the absorption of health workers through processes such as payroll audits, retrenching of redundant and over-age workers, and enhancing its asset management practices. ● Co-develop with partners and implement a framework for sustainable financing of the absorption of future increases in the production of health workers, including future financing for community health workers and the increased production of priority cadres. ● Develop strategies to strengthen the relevant systems at national and sub-national levels for merit-based recruitment, which is needs-based, and gender and disability sensitive. ● Track all human resource expenditures through the financial accounting system (national account surveys).

Strategic Objectives	Strategic Interventions
2c: Strengthen the mechanism to enhance the equitable distribution and retention of various cadres of health workers based on need	● Establish evidence-based staffing criteria for all health facilities based on workload and health needs of their catchment population. ● Ensure equitable distribution by operating an increasingly decentralized recruitment system for all cadres of health workers, including at the county, district, and facility levels. ● Strengthen the system for the enforcement of bonding agreements with returning beneficiaries of GoL scholarships. ● Enforce employee accountability through the reinstatement of periodic reporting requirements from the counties on key HR metrics such as recruitments, attendance reports, authorized and unauthorized absences, voluntary and involuntary attrition of employees. ● Promote local recruitment of health workers within counties based on needs. ● The MoH, in collaboration with county authorities, traditional and faith-based structures, and other stakeholders will develop solutions for the provision of non-monetary incentives such as housing, transportation, and other social amenities to motivate and retain skilled health workers as close to the communities as possible. ● As a retention strategy, the MoH, in collaboration with the professional associations, boards, and relevant GoL agencies will develop career pathways for all professional cadres of the health workforce.

Strategic Objectives	Strategic Interventions
2d: To enhance the development of a fit for purpose workforce with the requisite skill mix to deliver high quality health service	● Progressively absorb all in-service training activities into a comprehensive in-service training me. Annual training plans will be developed in a systematic way that incorporates the input of me managers and supervisors in determining training priorities according to documented service delivery needs, and in line with development needs identified during performance appraisals. ● Develop a framework for the integration and monitoring of requisite core competencies to be acquired during pre-service education, in-service training, and continuous professional development (CPD). ● Link the continuous professional development to re-licensing of health workers based on evidence of competencies. ● Focus on strategies for developing the competencies of the workforce in a deliberate and systematic way that ensures that they largely remain in their practice settings; e.g., through distance learning mes, evening and weekend courses, e-learning, and other innovative learning methods. Practice settings will be supportive of employee development and CPD and encourage health workers to take advantage of the opportunities. ● Quality of care will constitute a cross-cutting component of all training modules. Pre- and in-service training curricula will include professional codes of ethics and conduct as well as non-clinical subjects, such as food security and nutrition, as applicable to the profession. ● The Scholarship Committee will ensure that all scholarships contribute to meeting high priority, critical human resource needs for the health sector. The MoH will facilitate the deployment of the new graduates after successful completion of the sponsored course.

4.6.3 PRIORITY AREA 3: Quality and equitable healthcare services

Health care services in Liberia are organized to provide the EPHS to the population. The EPHS will be implemented based on the available fiscal space starting with the prioritized EPHS package for universal health coverage that emphasizes primary care. Health care services are provided through public and private sectors (for profit and not-for-profit), medicine vendors and traditional healers.

Considerable investment has been made over the years in the health sector. Nonetheless evidence suggests that the health system is still weak. As a result, it is unable to provide basic, cost-effective services for the prevention and management of common health problems, especially managing diseases with epidemic potential.

Increasing access to quality health care services will entail ensuring strong health systems, availability of medicines, health commodities and equipment at all levels. This would involve a review of the EPHS, the essential medicines list and strengthening procurement and distribution of essential health products on a sustainable basis at all levels among other things. In the short to medium term, a RDF and cost recovery mechanism will be established to support continuity of quality services. For longer term sustainability, the MoH shall introduce a National Health Insurance Scheme (Liberia Health Equity Fund). Implementing the RDF will require policy and regulatory changes, the development of an operational framework, mobilization of resources and capitalization as well as social marketing.

Costs shall not be a barrier to accessing health services especially for vulnerable groups (e.g., pregnant women, under-ones and the elderly). Models for their financial protection will be explored, such as exemption schemes. Furthermore, there will be the need to take inventory of all equipment, repair defective equipment, conduct timely maintenance and review the equipment requirement for different levels of health facilities in line with the EPHS. Procurement and distribution of equipment should be based on need.

A system for maintenance of health equipment is essential. To ensure optimal performance and longevity of equipment, there is a need to strengthen the capacity of biomedical equipment and technology (BMETs) and their workshops.

Priority Area 3: Quality and Equitable Healthcare Services

4.6.3.1 Sub-Priority Area: 1: Reproductive Maternal Newborn Child Adolescent Health + Nutrition

1a: Maternal & Reproductive Health Care	
Strategic Objectives	**STRATEGIC INTERVENTIONS**
1.1: Reduce maternal mortality and morbidity through the provision of timely, safe, appropriate and effective healthcare	1.1.1: Deliver quality Maternal Health Care Services along the continuum of care.
	1.1.2: Increase access to basic and comprehensive Emergency Obstetric Care Services.
	1.1.3: Expand the coverage of skilled delivery services.

services before, during and after childbirth	1.1.4: Improve Maternal and Perinatal Death Surveillance, Review and Response.
	1.1.5: Promote advocacy, community Mobilization and Behaviour Change Communication for Safe Motherhood Services.
1.2: Promote demand and increase access to family planning and comprehensive abortion care services	1.2.1: Promote demand and increase uptake of a wide range of modern contraceptive/family planning methods and services.
	1.2.2: Increase availability of comprehensive safe and post abortion care services in line with provision of the law.
1.3: Strengthen prevention, treatment and rehabilitation services for fistula survivors	1.3.1: Promote Obstetric Fistula preventive interventions.
	1.3.2: Strengthen/expand the capacity of the health care delivery system in early and timely care/treatment for fistula survivors.
Objective: 1.4: Increase access to integrated Sexual Reproductive Health and Rights/SGBV services	1.4.1: Support the provision of integrated SRHR/SGBV services including, prevention, counseling and management of rape and other gender-based violence such as intimate partner violence etc.
1b: Management and Care for the Newborn and Child Health	
Strategic Objective	**Strategic Interventions**
1.5: Reduce neonatal and childhood mortality and promote optimal growth, protection and development of all new-born and children aged under-five	1.5.1: Strengthen postnatal and newborn care including emergency new-born and care.
	1.5.2: Intensify the promotion of exclusive breastfeeding for the first six months of life and appropriate complimentary feeding.
	1.5.3: Strengthen routine child immunization including introduction new antigens as appropriate.
	1.5.4: Promote advocacy, community mobilization and behavioural change communication for newborn and child healthcare services.
	1.5.5: Expand coverage of Integrated Management of Childhood Illnesses (IMCI), Community-IMCI (cIMCI).
	1.5.6: Promote school health services (including Early childhood development centres) including deworming and iron supplementation.
1c. Adolescent Reproductive Health Care	

Strategic Objective(s)	Strategic Interventions
1.6: Improve access to adolescent reproductive health services and information and services	1.6.1: Promote demand for adolescent reproductive health services and expand access and utilization.
	1.6.2: Strengthen prevention, detection, and management of HIV and STIs among adolescents and youth.
	1.6.3: Scale-up implementation of adolescent sexual and reproductive health education in the school curriculum and in out-of-school settings (e.g., youth-friendly centres).
	1.6.4: Promote menstrual hygiene among adolescents.
	1.6.5: Scale up screening and management of drug use, self-harm, mental health, nutrition disorders and other leading adolescent health issues.
1d. Nutrition	
Strategic Objective(s)	**Strategic Interventions**
1.7: Improve the nutritional status of Liberians throughout their life cycle with a particular focus on vulnerable groups especially children aged under-five, adolescents, women of reproductive age and the elderly	1.7.1: Promote evidence based, feasible and cost-effective interventions to improve nutritional status
	1.7.1: Promote livelihood support for households.
	1.7.2: Ensure nutrition products are available to the counties.
	1.7.3: Promote multi-sector nutrition.
	1.7.4: Integrate nutrition indicators into the DHIS2.
	1.7.5: Promote access and utilization of the Direct Nutrition Interventions (DNIs).
	1.7.6: Promote an enabling environment for essential nutrition.

4.6.3.2 Sub-Priority Area 2: Neglected Tropical Diseases

Strategic Objectives	Strategic Interventions
2.1: To reduce the burden of targeted NTDs to a level that is no longer a public health problem through an integrated control me contributing to socio-economic development of Liberia	2.1.1: Strengthen integrated vector control and environmental management for targeted NTDs.
	2.1.2: Strengthen capacity to improve the coverage of Mass Drug Administration (MDA)for various NTD conditions.
	2.1.3: Strengthen capacity for implementation of evidenced-based eradication/elimination strategies for NTD with potential for eradication/elimination in all endemic counties.
	2.1.4: Strengthen capacity for expansion and scale up of disability prevention attributed to NTDs, case management with emphasis on vulnerable and hard to reach populations.
	2.1.5: Strengthen capacity for monitoring and evaluation, data management, and research around new and existing NTDs.

4.6.3.3 Sub-Priority Area 3: Health Promotion and Social & Behavior Change

Strategic Objectives	Strategic Interventions
3.1: To promote and empower individuals, families and communities with accurate, relevant and appropriate health information that enhances informed decisions to foster adoption and maintenance of healthy behaviours for their health and wellbeing	3.1.1: Strengthen leadership for improved coordination and Management of an integrated health promotion system at national, county, district, health facility and community levels.
	3.1.2: Strengthen capacity for effective collaboration to ensure quality health promotion and Social and Behaviour Communication (SBC) mechanism for all health mes at all levels.
	3.1.3: Strengthen the implementation of risk communication strategies for outbreaks, epidemics and pandemics and priority public health conditions.
	3.1.4: Improve advocacy for supportive environment to adapt or alter social,

	political, economic related health promotion messaging.
	3.1.5: Develop mechanism to improve community and stakeholder action for health through innovative SBC me.

4.6.3.4 Sub-Priority Area 4: Non-Communicable Diseases

4a: Prevention, Control and Management of Chronic Conditions (cardiovascular, diabetes, haemoglobinopathies etc.)

Strategic Objectives	Strategic Interventions
4.1: Promote sustainable healthy lifestyles and social behaviours for the prevention of NCDs among the population including persons exposed to environmental, occupational, genetic and biological risk factors	4.1.1: Strengthen advocacy, public awareness and regulatory interventions to reduce the modifiable risk factors for non-communicable diseases (unhealthy diets, physical inactivity, tobacco use and harmful use of alcohol and other substances) thereby promoting health lifestyles among the population.
	4.1.2: Develop and implement a comprehensive communication strategy (BCC, advocacy and social mobilization) to address all issues relating to NCDs at all levels.
	4.1.3: Ensure public awareness on prevention and control of exposure to environmental, biological and occupational risk factors on NCDs.
	4.1.4: Initiate and promote mes aimed at protecting and reducing exposure to risk factors for NCDs at the workplace, public and home environment.
4.2: Strengthen the health system to reduce morbidity, disability and mortality of NCDs among the population	4.2.1: Strengthen the availability of legal frameworks, policies, standards and guidelines to reduce exposure to environmental, biological and occupational risk factors to protect

	populations from environmental contaminants and occupational hazards that predisposes to NCDs.
	4.2.2: Expand and strengthen capacity to improve the availability and affordability of quality, safe care and treatment including vaccination using efficacious basic technologies for screening, diagnosis, treatment and monitoring of NCDs at the national and county levels.
	4.2.3: Integrating palliative care and end-of-life care to the primary and secondary health care platforms.
	4.2.4: Developing and disseminating integrated clinical guidelines and treatment protocols for NCD prevention, care and treatment for all levels.
	4.2.5: Strengthen local and international partnerships for the prevention and control of non-communicable diseases.

4b: Promote Oral Health in Liberia

Strategic Objectives	**Strategic Interventions**
4.3: To improve advocacy and demand for oral health promotion, oral disease prevention and care seeking behaviour among Liberians	4.3.1: Strengthen capacity to develop and implement locally adaptable, inclusive and integrated oral health prevention and promotion strategy and ensure dissemination at all levels.
4.4: Expand access to oral health care services by integrating oral health into the mainstream of service delivery at all levels of the health care system	4.4.1: Strengthen the capacity of the health facilities to provide dental care services as appropriate level of health care that ensures the inclusion of new/developing practices and standards.
	4.4.2: Establish/strengthen oral health referral centres.

	4.4.3: Promote school-based Oral Health Services including prevention and care adapted to various age groups.
4c: Prevention and care for the injured and People With Disabilities	
Strategic Objective	**Strategic Intervention**
4.4: Promote and implement evidence-based strategies and interventions for prevention and control of violence and injuries	4.4.1: Develop, strengthen and implement national, policies, plans, regulations, standards and guidelines for violence and injury prevention and control.
	4.4.2: Enhancing public awareness on the risk factors for violence and injuries and their prevention and control.
	4.4.3: Improve the organization and planning of trauma care and rehabilitative services in the health care system.
4.5: Promote and implement evidence based strategies and interventions for the provision of Assisted Technology (AT)	4.5.1: Develop and enforce use of national guidelines and service standards for AT service delivery adapted for the Liberian context.
	4.5.2: Initiate decentralization of AT services in public facilities to ensure greater coverage of the population.
	4.5.3: Establish mes for peer-to-peer training and support (e.g., for AT user training, repairs) between AT users.
4d: Encourage and promote the health and wellbeing of the elderly	
Strategic Objectives	**Strategic Interventions**
4.6: Promote and generate evidence-based strategies and plans for the provision of care to the elderly	4.6.1: Ensure adequate data management, monitoring and research to determine best practices for health needs and services of the elderly and integrate information on the health of the elderly into the national health database.
	4.6.2: Develop and enforce use of national guidelines and service standards on the delivery of services to the elderly.

	4.6.3: Develop and implement an elderly persons' minimum care package to include nutrition, recreational activities, vaccination, old people's homes.
4.7: Community involvement, participation and partnerships to sustain health mes for the elderly	4.7.1: Establish and implement models of comprehensive care services for the elderly based on needs and location e.g., home and community-based healthy nutrition and social support care services, day-care services and long-term care facilities.
	4.7.2: Ensure community engagement and formulation of support groups to improve care of the elderly.
	4.7.3: Strengthen collaboration with CSOs and CBOs to establish elderly persons' recreational centres in communities for psycho-social health promotion.
	4.7.4: Leverage private-public partnerships to expand support and care for the elderly.
4e: Eye Health	
Strategic Objective	**Strategic Intervention**
4.8: To reduce the burden eye diseases through comprehensive and quality eye health service that is available, accessible and affordable to all Liberians.	4.8.1: Strengthen and expand quality and affordable eye care services to all primary, secondary and tertiary levels.
	4.8.2: Promote outreach eye care services including screening to underserved areas and schools.
	4.8.3: Promote adequate Human Resource development for eye health that is skilled, motivated, and equitably distributed.
	4.8.4: Ensure the availability of appropriate infrastructure, equipment, essential medicines, diagnostics, assistive devices and health technologies at all levels.

	4.8.5: Integrate eye health indicators into the health information system for evidence-based planning, advocacy and implementation of eye health services including research.
	4.8.6: Strengthen leadership and coordination of eye health service delivery at county and national levels.

4.6.3.5 Sub-Priority Area 5: Mental, Neurological and Substance Use Disorders

Strategic Objective	**Strategic Intervention**
5.1: Reduce the burden of mental, neurological and substance use disorders, as well as the associated stigma and discrimination, across Liberia in an effort to improve the overall health, wellbeing, and development; enhance socio-economic condition, and increase productivity in the population.	5.1.1: Capacity building of the mental health workforce in the provision of an integrated Mental and Neurological and substance use disorder (MNS).
	5.1.2: Strengthen capacity to support implementation of the 2017 mental health legislation as well as scale up community-based psychosocial support and well-being services.
	5.1.3: Foster the creation of peer support groups with trained peer support specialists to facilitate recovery among persons with mental health and substance use disorders and epilepsy and their families.
	5.1.4: Strengthen advocacy for regulations, social mobilization and behaviour change communication for the prevention and control of factors promoting mental and neurological and substance use disorders.
	5.1.5: Reduce stigma and discrimination against mental health and persons with mental illness.
	5.1.6: Ensure implementation of a national suicide prevention strategy.
	5.1.7: Ensure the utilization of evidence-based strategies including research and data management that will improve psychosocial well-being of vulnerable people.

4.6.3.6 Sub-Priority Area 6: Immunization and Vaccine Delivery

Strategic Objective	Strategic Intervention
6.1: Reduce morbidity and mortality of vaccine preventable diseases by fully vaccinating at least 85 per cent of all persons of immunization ages in line with national standards	6.1.1: Strengthen the availability and use of affordable, accessible and quality vaccines at all levels and age groups.
	6.1.2: Build capacity in forecasting, quantification and procurement of vaccines and ensure compliance in line with global and national standards.
	6.1.3: Establish an effective and sustainable routine immunization strategy to capture many children aged under-five.
	6.1.4: Implement the procurement policy on vaccines.
	6.1.5: Establish and implement an effective safe vaccines waste management system in the country.

4.6.3.7 Sub-Priority Area 7: Healthcare Technology and Management

Strategic Sub Objectives	Strategic Intervention
7.1: Strengthen the health care delivery to ensure the availability of functional and utilized biomedical equipment in all health facilities and institutions	7.1.1: Ensure the availability of standard operating procedures and guidelines for management of biomedical equipment.
	7.1.1: Establish sustainable collaboration and coordination with the private sector, partners and other stakeholders.
	7.1.1: Strengthen the capacity of national and subnational Bio medical engineers and technicians to implement interventions in line with the HTM policy and framework training capacity (National and International)
	7.1.1: Ensure the availability of fully equipped workshops in all counties.
	7.1.1: Advocacy by MoH to establish Biomedical Technology Training Institution in Liberia in collaboration with partners,

	donors, bilateral and other relevant institutions.
	7.1.1: Resource mapping, mobilization and allocation to support Healthcare Technology Management (HTM) activities.
	7.1.1: Integrate Healthcare Technology Management Monitoring need into the national M&E system including electronic logistic management information system (eLMIS) and mSupply.

4.6.3.8 Sub-Priority Area 8: Emergency Medical Services (EMS) and Blood Transfusion Services

8a: Blood Transfusion Services	
Strategic Objectives	**Strategic Interventions**
8.1: Promote and implement strategies that create an enabling environment for the sustained availability of adequate resources for blood transfusion Services at all levels of the health care delivery system	8.1.1: Advocacy for budgetary allocation and investment in blood transfusion services and strengthen collaboration, partnership (including public-private) for sustainability.
	8.1.2: Ensure availability of safe, quality blood and blood products in existing and new regional blood banks to adequately supply comprehensive, secondary and tertiary health care delivery with a phased approach from fragmented, paid and family donation-based to voluntary non-paid donations in an effort to improve blood transfusion services.
	8.1.3: Building capacity for human resource development in blood transfusion service management through education and training of staff working throughout the transfusion chain.
	8.1.4: Ensure effective national blood information system for haemovigilance activities.

	8.1.5: Ensure data management, monitoring, research and innovations related to transfusion medicine and technology for improved blood transfusion systems.
8b: Medical Emergency Services	
Strategic Objectives	**Strategic Interventions**
8b.1: To strengthen the production and distribution of medical oxygen to all health facilities in the country	8b.1: Strengthen the availability of oxygen sources (PSA plants, oxygen concentrators and cylinders) and other oxygen delivery devices and equipment at major health care facilities in the country.
	8b.2: Strengthen the implementation of the national roadmap on oxygen scale-up, oxygen guideline and policy, and data systems to generate oxygen administration information and other key metrics for decision making.
	8b.3: Strengthen the effectiveness, transparency, and accountability of the production and distribution of medical oxygen.
	8b.4: The MoH will explore strategies to decentralize the production and distribution of medical oxygen throughout the country.
	5: Enhance capacity building for the oxygen technicians and therapists.
8b.2: To ensure that the highest quality of emergency medical care is provided to the people of Liberia through an integrated and coordinated system of services and to foster the medical and health resilience of our community during disaster and emergencies	1: Engage multi sectorial stakeholders, including the private sectors, local and international NGO community to provide maximum collaboration, coordination and support to EMS services.
	2: Improve the EMS internal efficiencies, to enhance the EMS activities at the national and sub-national levels and to integrate all public ambulances and public health facilities for the management of medical emergencies and the referral pathways which is geared towards reducing additional injuries and or death as a result of an accident or incident.
	3: Improve the EMS external efficiencies and enhance EMS activities at the national and sub-national levels to integrate other ambulance response activities for the absorption of all ambulance responding institutions and agencies through a processes that is geared towards reducing additional injuries and or death as a result of an accident or incident.

	4: Co-develop with partners and implement a framework and policies for effective and sustainable emergency medical responses during disasters and emergencies.
	5: Develop strategies to strengthen the EMR-EMS/RT systems at national and sub-national levels for the recruitment and absorption of qualified EMS staff in the counties to efficiently run the EMS system as it is in Montserrado county, and subsequently pay them as per their qualification and job descriptions.
	6: Enhance all EMS systems activities in the counties and to establish a full emergency medical dispatch and communication chain between county to county, hospital to hospital and the National Emergency Medical Dispatch Centre in Monrovia.
8b.3. Strengthen and expand integrated rapid response system capable of safely and accurately responding to incidents and accidents	Strengthen multi-sectoral public health and other medical emergency response capacity to respond to priority events and emerging and re-emerging diseases

4.6.3.9 Sub-Priority Area 9: Quality of Care and Patient Safety

9a. Healthcare Quality Management	
Strategic Objectives	**Strategic Interventions**
9.1: To institutionalize healthcare quality management and improve healthcare quality and patient safety at all levels of the health system in both routine and public health emergencies	9.1.1: Strengthen quality of care activities through continuous training and refreshers for health care workers (HCWs), middle level managers and senior level managers in quality and safety measures to improve healthcare quality.
	9.1.2: Increase awareness of global antimicrobial resistance and to encourage best practice among the general public, health professionals and policy makers to avoid further spread and emergence of drug-resistant infections.
	9.1.4: Advocacy for health care facility infrastructure improvement required to support IPC implementation and to mobilize IPC resources, ensuring health care facilities (HCFs) have a designated budget line for IPC activities in their annual plans.

9.2: To improve patient and provider Safety	9.2.1: Ensure and implement **patient safety initiatives** at national, facility and community levels to promote and institute safety climate and patient safety culture 9.2.2: Build high reliability health systems and health organizations that protects patients from harm. 9.2.3: Promote and ensure the safety of every clinical process.
9.3: To improve clinical effectiveness and care outcomes (clinical practice)	9.3.1: Strengthen clinical audit and feedback. 9.3.2: Strengthen morbidity and mortality reviews. 9.3.3: Clinical standards, pathways and protocols to guide and facilitate quality of care in facilities.
9.4: To strengthen the engagement and empowerment of patients, families and communities for quality of care	9.4.1: Improve patient, family and community engagement. 9.4.2: Increase patient education and self-management. 9.4.3: Strengthen participation in governance and management of health service delivery/QI. 9.4.4: Roll out patient feedback on experience of care.
9.5: To strengthen health systems for quality improvement (systems environment)	9.5.1: Registration and licensing of doctors and other health professionals as well as facilities and organizations. 9.5.2: Performance-based financing and contracting. 9.5.3: Training and supervision of the workforce . 9.5.4: Strengthening coordination mechanisms and processes at all levels of the health system to facilitate integration. 9.5.5: Use measurement and data to guide and drive quality improvement and performance management.
9b. Nursing and midwifery	
Strategic Objectives	**Strategic Interventions**
9.2: To strengthen nursing and midwifery care practice and ethical standards within the health care delivery system for quality improvement	9.2.1: Strengthen the implementation of national guidelines and code of conduct for nursing and midwifery practice and standards.
	9.2.2: Ensure advocacy for career ladder development for the nursing and midwifery profession through improved partnership and collaboration.
	9.2.3: Strengthening linkages with national nursing and midwifery regulatory bodies and associations, training institutions and MoH mes and units for effective implementation of ethical standards.

4.6.3.10 Sub-Priority Area 10: Laboratory and diagnostic services

Strategic Objectives	Strategic Interventions
10.1: Ensure quality of laboratory and diagnostics services at all level of care	10.1.1: Strengthen capacity to ensure the accreditation of the national public health reference laboratory (NPHRL) and other laboratories in compliance with international standards.
	10.1.2: Improve capacity to ensure availability of quality laboratory and diagnostics supplies, equipment to provide laboratory and diagnostics services at various levels of the health care delivery in compliance with external quality assurance me.
	10.1.3: Improve and expand infrastructure of laboratories to ensure adequate geographical coverage.
	10.1.3: Strengthen human resource capacity through training of technical staff and ensure career development pathways (masters, PHDs) in laboratory management for improve the quality of laboratory services.
	10.1.4: Strengthen data management monitoring and research management for improved laboratory services.

4.6.3.11 Sub-Priority Area 11: County health services support

Objectives	Strategic Interventions
11.1: To strengthen linkages between county health teams, central level mes and stakeholders for effective coordination and quality implementation of the EPHS	11.1.2: Support effective planning for county level activities
	11.1.3: Lead coordination with partners and central MoH for county level activities.
	11.1.4: Lead advocacy for resource mobilization and equitable allocation for county health teams.
	11.1.5: Support the development of standards and metrics for county health team performance.
	11.1.6: Improve reporting mechanisms and feedback processes between central MoH and county health teams.
	11.1.7: Strengthen capacity to improve prison health in all counties.

4.6.3.12 Sub-priority 12: Traditional Complementary and Alternative (TCAM)

Objectives	Strategic Interventions
12.1: Advocate for safe and effective traditional and alternative/complementary medicine practice and products	12.1.1 Introduction of policy that will support safe, effective and evidence based TCAM practice and products.
	12.1.2 Promoting the rational use of herbal medicine.
12.2: Promote collaboration between traditional healers and conventional medicine practitioners	12.2.1 Enhance engagement with key stakeholders for the establishment of research and innovations for traditional medicine (practice, products, and practitioners).
	12.2.2 Promote referral mechanisms between traditional healers and conventional medicine practitioners.
12.3: Strengthening regulatory structures for traditional and alternative/complementary Medicine services	12.3.1 Enhance adherence to traditional and alternative/complementary medicine code of conduct among practitioners.
	12.3.2 Establish a robust monitoring and supervision mechanism for traditional and alternative/complementary medicines activities around the country.

4.6.3.13 Sub-Priority Area 13: National Tuberculosis Control Services

Strategic Objectives	Strategic Interventions
13.1: To provide high-quality TB preventive, diagnostic and treatment services to all patients without their having to incur catastrophic costs	13.1.1: Ensure that availability accessibility and utilization of TB treatment including DR-TB and expand coverage from 53 per cent in 2018 to 100 per cent in 2025 with high success rates through early diagnosis of TB including universal drug susceptibility testing, and systematic screening of contacts and high-risk groups in line with national guidelines.
	13.1.2 Strengthen capacity to increase ART among TB/HIV affected persons and communities through strengthening of TB and HIV collaboration.
	13.1.3: Ensure that the proportion of children among new and relapse TB cases access effective care with increase success rate through the provision of quality treatment and care for children and adolescent with TB.
	13.1.4: Strengthen capacity for community engagement and involvement in community-based prevention, case management and screening for TB in all counties.
	13.1.5: Reduce stock out of TB product to less than 5 per cent by 2025 through strengthening of the Procurement Supply Management (PSM) system and development of regulatory frameworks for quality rational use of TB medicines.
	13.1.6: Strengthen data management monitoring and operational research to optimize implementation of the NSP-TB 2020-2025, including promotion of innovation for impact.
	13.1.7: Strengthen, advocacy, resource mobilization and partnerships (including private-public partnerships) and improve coordination for quality delivery of TB services.

4.6.3.14 Sub-Priority Area 14: National Malaria Control Services

Strategic Objectives	Strategic Interventions
14.1: To reduce mobility, mortality	14.1.1: Strengthen malaria care and treatment services by increasing availability of quality malaria drugs and essential supplies.

and disability due to malaria conditions among children, adolescent and other population through gender responsive approaches	14.1.2: Strengthen health worker capacity at all levels (community, primary, secondary and tertiary) to prevent, diagnose and manage uncomplicated and complicated malaria cases.
	14.1.3: Improve national malaria strategies through strengthening of research and innovations to improve decision making.
	14.1.4: Reinforce advocacy strategies for development of continuous investment case and building gender-responsive and gender-inclusive health services.
	14.1.5: Strengthen existing strategies and introduce new measures of vector control to reduce incidence of malaria in the general population.
	14.1.6: Strengthen health promotion activities and strategies to reduce the incidence and prevalence of malaria cases especially among vulnerable groups including pregnant women and children aged under-five.

4.7 PRIORITY AREA 4: Health Infrastructure and Technology:

Increasing access to health facilities is integral to delivering health services equitably, efficiently and effectively. The quality of the health facility structure, its environment internal and external, and spaciousness is indispensable for optimizing utilization of services. It is important both private and public health infrastructure meet the MoH standard or prototype. In densely populated urban areas, a few larger facilities will serve large populations living near the facility. In sparsely populated rural areas, many small facilities and non-permanent service delivery points (SDPs) will provide services to rural communities. Where a privately-owned facility is providing services to the catchment population, formal partnership may be used to meet service delivery needs.

The Health Sector Performance Report outlined several key recommendations to strengthen health infrastructure:

- More effort should be made to implement the MoH infrastructure standards. There is a need to ensure that new construction of health facilities meet the MoH standard or prototype. Regulatory capacity in this area should be built up in order to reduce political interference.
- Develop and implement an infrastructure repair and maintenance plan.
- Review GoL investments in infrastructure and increase budgetary allocations to prioritize areas such as the construction of health facilities and staff housing in geographically disadvantaged areas; improvement of access to a safe water

supply; sanitation facilities; safe waste management; incinerators and electricity in existing facilities; renovation of dilapidated and make-shift health facilities; and upgrading of facilities without sound structures.

- To support supply chain management: Prioritize the implementation of policy recommendations in the sector reports targeted at addressing storage and warehouse management; quality assurance and control; integrated distribution; warehouse management information system; and logistics management information systems.
- To support epidemic preparedness and response: Accelerate implementation of permanent isolation units in key hospitals.

Strategic Objectives	**Strategic interventions**
1: Construct new facilities to ensure that 75 per cent of the rural population lives within 5km of a health facility by 2026	● Construction of new primary health facilities that meet the requirements, targeting underserved areas. ● Construction of new regional hospitals. ● Equip all newly constructed facilities
2: Rehabilitate existing health facilities to ensure that more facilities meet infrastructure standards (including essential basic amenities to provide health services and staff housing)	● Institute mechanisms to enforce infrastructure standards in both private and public sectors. ● Develop and implement an Infrastructure Repair and Maintenance Plan, including preventive maintenance. ● Develop a standardized list of minimum categories of medical and laboratory equipment for hospitals, health centres, and clinics for both public and private facilities. ● Provide basic utilities in all public health facilities (electricity, water, waste management/ IPC, communication equipment). ● Establish a clear outlined referral mechanism (including provision of ambulances). ● Encourage private sector investment in ambulance service. ● Develop and implement housing policy for health workers. ● Monitor the implementation of infrastructure policy and guidelines. ● Encourage private sector investment in equipment maintenance and repairs.

3: Support priority infrastructure investments in key health system functions, including diagnostic capacity, supply chain management, and epidemic response	● Develop infrastructure design for the creation of isolation units and other infection prevention and control mechanisms.
4: Build capacity and invest in appropriate ICT, mobile applications and web-based systems	● Build capacity and strengthen ICT for Health Management Information System (HMIS). ● Ensure that all technology used is safe, secure, and properly utilized through training, maintenance and renewal. This includes the utilization of proper asset management systems, helpdesk services, data security mechanisms, cybersecurity planning, and frameworks for ethical use. ● Provide all health facilities with the ICT systems and equipment necessary to complete their duties, including personal computing devices (computers, tablets, phones), high-speed network, software applications, and other ICT architectures and platforms for e-services.

4.8 PRIORITY AREA 5: Essential Medicines, Medical Supplies and Diagnostics

Public sector commodities flow through the Central Medicine Store (CMS) supply chain. It is an end-to-end delivery system which extends as a single chain from the procurement of pharmaceuticals and equipment by both internal elements of the MoH and external agencies and donors, to the point of use via an integrated distribution network. The pharmaceuticals and equipment are all received at the CMS in Monrovia prior to being distributed to the health facilities in the fifteen counties on a quarterly basis. Thirteen of the counties operate warehouses, which receive products in bulk from CMS to support a local delivery operation managed by the county health teams (CHTs). The health facilities in the other two counties receive products directly from the CMS.

Availability of equipment is critical to service delivery. Therefore, there is a need to develop a standardized equipment list and create budget lines for the maintenance of equipment and furniture at all levels. The optimal performance and longevity of equipment will be assured by establishing medical equipment and hospital furniture maintenance workshops across the country as well as exploring public private partnership in maintenance of medical equipment and hospital furniture.

1: The Central Medicine Store shall store and ensure end-to-end delivery while the supply chain unit of the MoH continue to quantify and request	• Revise the following strategic documents to reflect the new EPHS: essential drug list, the National Formulary and standard treatment guidelines. • Regulate and enforce pharmaceutical regulations as per the Liberia Medicine and Health Regulatory Authority Act. • Procure quality medicines and medical supplies through the public procurement system. • Strengthen community health commodity availability and accountability at all levels using standardized approaches in the supply of community health commodities and ensure timely reporting of consumption data, linking CHWs monthly restock and consumption data with the eLMIS at the health facility level, district, county, and national levels.

4.9 PRIORITY AREA 6: Health Information System, Research and Communication

The overall objective of the health information, research and M&E pillar is to define a standard for health information systems (HIS), deployment of an interoperable system that promote sustainable, integrated information and communication infrastructure, research and monitoring and evaluation of the health sector performance.

The Research Unit of the MoH and the National Public Health Institute of Liberia (NPHIL) (established in 2017) supervise, monitor and facilitate the conduct of public health and health system research in the country. However, these two entities are faced with challenges that are impacting their operations.

Uncoordinated support for research has resulted in fragmentation, duplication and ineffective use of financial resources. Additionally, inadequate support for data quality improvement limits the analysis and utilization of routine data. Efforts shall be made to harness opportunities for improving data collection and management, in particular, the current pilot of the electronic laboratory information system (LIS) as well as the laboratory information management system at the NPHIL and Jackson F Doe hospital.

The MoH shall invest in building research capacity and providing research-related career pathways for individuals returning with advanced degrees especially in public health.

Strategic Objectives	**Strategic interventions**

6.1: To improve data quality, dissemination, and use of information in support of health services and health system functions at all levels	● Strengthen regulatory bodies oversight to enforce mandatory reporting by private providers. ● Advocate with MFDP and the National Legislature to prioritize Health Monitoring Evaluation and Research (HMER) activities through budgetary allocation. ● Identify and conduct tailor made trainings that are specific to Health Information System, Monitoring and Evaluation and Research (HMER) staff needs. ● Establish a system for real-time monitoring of the health sector performance including metadata definitions and comprehensive indicator lists. ● Work with partners to generate more precise population estimates for specific service delivery areas. ● Strengthen support for short and long term HIS related trainings mes. ● Standardize data collection, capturing and reporting tools to improve data quality, reduce fragmentation and workload of service providers. ● Enhance the capacity of service providers, stakeholders and policy makers on data use for informed decision making.
6.2: Strengthen HMER coordination mechanisms to improve integration and service interventions	● Functionalize the HMER technical working groups. ● Advocate for the adherence to one M&E system and the implementation of the International Health Partnership Plus. ● Encourage donors to adhere to the One M&E Approach.
6.3: To build HMER staff capacity to manage HIS functions and responsibilities including monitoring & evaluation, data collection, storage, management, analysis and research	● Provide logistics and equipment for the smooth operation of HMER activities. ● Mobilize resources for the conduct of me and the health sector evaluation and research. ● Develop the culture of data use for ming, planning and decision making.

6.4: Develop HIS architecture and adopt an interoperability framework and standards for data sharing across and beyond HIS sub-systems	• Develop a system and infrastructure for inter-operability. • Recruit the right mix of staff for inter-operability.
6.5: Improve birth and death registration as a component of vital and health statistics	• Integrate birth and death registration on the DHIS-2 platform as part of the data integration. • Mobilize resources for the decentralization of birth and death registration. • Advocate for the passage of the revised Public Health Law. • Build the capacity on the appropriate use of the Medical Certification of Cause of Death (MCCoD). • Introduce International Classification of Diseases (ICD-11). • Strengthen the capacity of MoH to reach universal birth and death registration. • Publish annual vital statistics on birth and death registration.

4.10 PRIORITY AREA 7: Sustainable Community Health and Engagement

The main of objective of the National Community Health me is to contribute to the reduction of maternal, neonatal, infant, child, and adolescent mortality and morbidity in remote communities and the creation of child-friendly communities through disease detection, prevention, and response. In addition to the existing community health structures to provide health care at a community level, there is a need for the catchment community to be involved in the planning and implementation of the services at the health facility. To ensure local control and retention of revenue for pharmaceutical availability including a reliable supply of low-cost essential medicines, it is important to work together with the communities on the introduction of the Revolving Drug Fund (RDF), cost-sharing and the Liberia Health Equity Fund schemes.

Strategic Objective	Strategic Interventions
7.1: To achieve a sustainable, integrated community health me that serves all Liberians through a standardized, professionalized, community health workforce whose services are complemented with digital health tools	• Strengthen community leadership and governance systems through community mobilization, engagement, and education to support the implementation of all community health services. • Develop community health workers' capacity to improve service delivery through pre-service (institutionalization of NCHP training curriculum in training institutions for career advancement) and in-service training (competency-based modular training package), including mentorship for knowledge and skills transfer. • Increase access to and utilization of quality, standardized, and sustainable package of essential community-health services. • Ensure that community health training modules are digitized and administered through blended learning processes. • Institute Mentorship, coaching, monitoring of accuracy, utilization of drugs and medical supplies, referrals, surveillance, and adherence to guidelines and protocols to ensure quality improvement of community-based information systems (CBIS). • Develop robust digital health tools and systems that will report on community-based surveillance, information, and M&E systems to report high-quality data for use to improve me implementation fidelity at the community level and engage in operational research and innovations to enhance the continued quality performance of the national me.

4.11 PRIORITY AREA 8: Sustainable Health Financing

The total government resource envelope remains constrained, and this will continue to challenge its ability to increase domestic resources for the health sector. During the period of implementation of the previous health policy and related financing strategy (2011–2021), the fiscal envelope (% government spending to GDP ratio) averaged was projected at a deficit of 6.1%t (a deficit of 19.9%) in 2019 up from a deficit of 4.8% (a deficit of 17.8%) in 2018[14]. The scope of increasing government revenue also remains constrained

[14] Ministry of Finance and Planning/GoL. 2020. *Liberia: Voluntary National Review on the Implementation Status of the 2030 Agenda for Sustainable Development*. https://www.mindbank.info/item/7145

as the government revenue (tax as % of GDP) at 12.4% is among the lowest within Sub-Saharan Africa (18.56% average).[15] The government has continued to rely significantly on deficit financing, with the current government debt estimated at 61% of a total US$ 5.2 billion over the five years[16]. It is expected that within the period of implementation of the planned policy, the debt will decline as the government continues to implement measures to ensure adherence to borrowing ceilings. The economic uncertainties resulting from the 2014 Ebola epidemic and 2020/2021 COVID-19 pandemic make the need to ensure health security an important consideration but also point to the need to address emerging health threats and underscore national commitment to strengthen mechanisms for prevention, detection, and response to public health threats due to the interface between humans, animals, and environment.

There are high levels of poverty. While Liberia has a high labour force participation of 77 percent, it is important to note that the population's employment structure shows a very high level of informality with only 7.3 per cent of the labour force in formal employment. This has implications in exploring financing mechanisms for health. At the moment, health care services are free at the primary and secondary levels of care. These services do not have the corresponding budget to provide the essential package of health services stipulated, therefore quality is seriously compromised.

GOAL: Ensure health coverage is universal and that health security is guaranteed through national frameworks that pool risk and support the health and wellbeing of all especially the sick and poor.

[15] World Bank. 2022. *International Monetary Fund, Government Finance Statistics Yearbook* and data files, and World Bank and OECD GDP estimates. https://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS

[16] Ministry of Finance and Planning/GOL. *Liberia: Voluntary National Review on the Implementation Status of the 2030 Agenda for Sustainable Development*.

Strategic Objectives	Strategic Interventions
8a: Improve resources mobilization for health with increased effort towards domestic resource mobilization	● Increase domestic resource mobilization with a plan to progressively build reliance on compulsory funding. ● Strengthen donors' coordination through UHC 2030 previously International Health Partnership plus (iHP+) framework for implementation harmonization and alignment. ● Strengthen civil society institutions to advocate for the roll out of Liberia Health Equity Fund (LHEF). ● Institutionalize efficiency analysis and explore actions for harmonization across health system functions ● Ensure Implementation of Revolving Drug Fund at primary care facilities and cost sharing at hospital with exempted targeted services in line with LHEF priorities.
8b: Establish a single pool for proposed LHEF to ensure income and risk cross subsidization	● Ensure complementarity of public and donor resources through ensuring implementation is guided by a single plan that is jointly implemented and monitored. ● Re-establish and institutionalize a pool fund to reduce duplications and fragmentations to ensure cost effectiveness. ● Harmonize policies across schemes (e.g., benefit entitlements, efficient co-payments, provider payments mechanisms, etc.).

8c: Formulate provider payment mechanisms with appropriate results-based schemes aligned to the budget	● Strengthen civil society institutions to advocate for strategic purchasing (insurances schemes). ● Harmonize provider payment mechanisms and rates within and across purchasers to ensure coherence in incentives. ● Ensure equity in the allocation and utilization of resources. ● Expand performance-based financing (PBF) mechanisms to link payment to results. ● Establish administrative mechanism to improve governance and strategic purchasing. ● Ensure health implementation of health financing reforms in short, medium to long term interventions.
8d: Design an explicit benefit package with clear definition of entitlements (who is entitled to which services and what, if anything, they are meant to pay at the point of use) for LHEF	● Establish transparent mechanisms to regularly review and reprioritize the EPHS into a cost-effective package. ● Improve alignment of payment systems with benefit entitlements and data use to strengthen strategic purchasing across the health system. ● Engage the population to determine entitlements, cost-sharing objectives, service exclusion mechanisms and conditions of access of the services provided through benefit package (both EPHS and LHEF). ● Establish the referral pathway, gatekeeping mechanism) as a structure / condition of access. ● Establish a mechanism for monitoring and review of user charges/provider payment rates. ● Ensure contracts with non-state actors have clear mechanisms for ensuring accountability.

8e: Planning, budgeting, execution, accountability and reporting: Strengthen public finance management and implementation arrangements for effective utilization of public resources	• Strengthen the formulation of result-oriented health budgets that are aligned to the strategic plans and are implemented in an efficient, equitable and transparent manner within the country Public Financial Management (PFM) systems. • Ensure medium term estimates and projected costs of replacing donor resources and adequately plan for transitions from donor-dependent mes. • Strengthen resource mapping processes to routinely monitor contribution of various sources of financing. • Foster implementation of fiscal decentralization and provider autonomy.

4.12 PRIORTY AREA 9: Public Health Emergency Preparedness and Response

The country continues to make progress in outbreak detection and response within less than 48 hours as required by the International Health Regulations (IHR) Standards. Despite the immense progress, the emergency preparedness and response system still faces significant challenges at all levels. The recent 2021 midterm evaluation of the NAPHS indicate limited supportive supervision for IDSR activities, lack of operational funds for surveillance activities in counties, and attrition of the public health work force, particularly surveillance officers. To strengthen epidemic preparedness and response further, the country has developed the following goals and strategic objectives to enhance epidemic preparedness and response at all levels.

Strategic objectives	Strategic interventions
9.1: Strengthen existing public health surveillance platforms capable of detecting disease outbreaks in real time	● Develop new standards and guidelines for public health disease surveillance. ● Strengthen relevant public health surveillance infrastructure capacities at national, county and district levels. ● Expand and reinforce community events based surveillance (CEBS) to improve rumour verification and outbreak investigations. ● Strengthen implementation of routine public health risk assessment, surveillance evaluations, and me reviews. ● Establish interoperable and inter-connected electronic real time surveillance reporting platforms. ● Strengthen capacities at points of entry (PoEs) to detect and respond to public health emergencies at sea, airports, and key ground crossings. ● Introduce one health surveillance platforms at county and district levels.

9.2: Strengthen and expand comprehensive and integrated public health diagnostic system	● Facilitate the development and validation of the National Public Health Laboratory System Strategic Policy and Plan. ● Update and implement policy and standard operating procedures for secure laboratory data management system and interoperability. ● Develop and implement national regulations for biosafety and biosecurity. ● Expand and decentralize public health diagnostic capacities at regional labs ● Strengthen anti-microbial resistant pathogen detection capacities. ● Establish guidelines and system for coordination of specimen collection, transfer, testing, and reporting. ● Implement a laboratory quality management system for labs accreditation. ● Establish One Health lab for human, veterinary and environmental activities.
9.3: Strengthen and expand integrated rapid response system capable of safely and accurately controlling disease outbreaks, including known, re-emerging and novel threats	● Strengthen multi-sectoral public health emergency preparedness and response capacity to respond to priority events and emerging and re-emerging diseases. ● Train and establish functional multi-disciplinary rapid response teams at all levels, including ports of entry and emergency operation centres. ● Develop priority events specific contingency plans. ● Implement and maintain system to ensure the availability of essential emergency preparedness and response stocks at national, regional, and county levels. ● Enhance structures for multi-sectoral epidemic preparedness and response coordination during an outbreak. ● Collaborate with other agencies to develop multi-hazard emergencies plans.

	● Conduct regular simulation drills at national, county and district levels.

5. Implementation Framework and Arrangements

The implementation of this strategic plan will be in line with the National Health Policy (NHP), 2022-2031. The plan operationalizes the NHP for its first five years of implementation. The MoH and partners will develop Annual Operational Plans (AoPs) in line with this strategic plan at national and county levels taking into account the activities supported by partners.

The interventions/activities that are in the strategic plan and AoPs will be delivered using government systems and structures supported by partners and private sector at all levels of the health systems at national and sub national levels, including public and private facilities and at community level

The plan shall be implemented through the decentralized governance and health service delivery structures in Liberia across all the administrative levels. This will enable multi-sectoral collaboration, ownership, participation and oversight in service delivery at all levels.

Oversight and management of the implementation shall be provided by the MoH structures at national and sub-national levels.

The main actors and partners that will ensure health service delivery include government structures at national and sub national levels including MoH and other line ministries, commissions and agencies, donors, United Nations agencies, international and national NGOs, civil society organizations, the private sector, media, community based organizations, researchers, academia, communities, households and individuals among others.

The MoH management structures and teams with support from partners at national and sub-national levels will perform core functions and support the day to day running of the health mes and institutions. The core functions include but are not limited to: policy formulation, planning and resource mobilization, setting standards, support supervision, service delivery, coordination, regulation, monitoring and evaluation, and research.

Strategic partnership is key to ensuring successful implementation of the HSSP. Key partners include donors, UN agencies, international and national NGOs and CBOs have been strong partners in the funding, planning, management and provision of health care in government health facilities, through the contracting out mechanisms. Additionally, they have mobilized and provided resources, ensured implementation, and built capacity of the health force work to support health care delivery. These strong partnerships will be leveraged to support the implementation of the national health policy and strategy. This

implementation will be tracked through the national health accounts, to assist a gradual transfer of activities of NGOs to the GoL.

Coordination will be part and parcel of the implementation framework and arrangements of this strategy. Coordination will be strengthened and improved through existing coordination platforms and mechanisms. These include the Health Sector Coordination Committee (overall health sector coordination body), Health Coordination Committee (focuses on implementation and operations), other key coordination platforms and various technical working groups at national and sub national levels.

The Liberia health delivery system is currently grossly unfunded and heavily donor dependent. Liberia has employed a “Free-Health-Care for all” policy over the last 15 years. This policy has not only compromised the quality of care in public health facilities but has also made health care inaccessible, non-affordable and inequitable for vast majority of the population. The COVID-19 pandemic has worsened the situation in the health care delivery system and threatens the marginal progress on health and endangers long-term economic prospects. To mitigate the worsening situation in the health system, the GoL plans to implement a fee-for-service (FFS) and Drug Revolving Fund schemes at the primary and secondary levels of the health care delivery system in the next five years as part of this strategic plan.

Addressing the unmet medical needs or making the health care system efficient is a priority for the MoH. A strong partnership between the GoL and the private sector, particularly for-profit organizations, can help to bridge this gap. Liberians have had to travel to foreign countries such as Ghana and India for services that could be provided in country. Investors willing to invest in specialized health services such as cancer treatment centres, dialysis facilities etc., will be encouraged to do so. A good example of such arrangements is the presence of the Jahmale Medical Solution in Liberia. Jahmale Medical Solution has made diagnostic procedures more accessible and affordable for Liberians.

Faith-based organizations (FBOs) have been strong partners in the provision of health care delivery in Liberia for many years. The FBOs have proven records of being able to reach populations in hard-to-reach districts. The MoH has excellent examples of FBOs taking over the management of health facilities originally intended to be public facilities and making the services accessible, available and affordable for vulnerable populations. Examples include the Star-of-Sea Health Centre in West Point, Monrovia. The MoH will continue to explore such collaborations.

The community and entire population of Liberia including vulnerable groups will be fully engaged and will play a critical role during the implementation of this strategy through

planning, service delivery, uptake and utilization, including feedback and active participation in health activities at facilities and communities.

5.1 Risk Management

The MoH is cognizant of the fact that some of the strategies proposed may have inherent/potential risks and once they materialize, there is need to mitigate their impacts. One strategy that may have political risk is the Fee for Services (FFS) scheme. It is a risk that is worth taking as it will make services accessible, available and affordable for the most vulnerable as well as improve the quality of services provided in the public sector.

Risk	Likelihood	Impact	Mitigation strategy
Lack of buy-in of key stakeholders to support implementation	Less likely	If key stakeholders do not buy-in to the new strategy, it will be difficult to implement/fund activities in the key priority areas.	Clear communication strategy and stakeholder involvement during the development, review and implementation of the policy and strategy.
Political risk of not accepting the FFS	Very likely	Scheme, will be unsuccessful, leading to unsustained and poor services. If not managed well, it can lead to catastrophic out-of-pocket spending.	Clear communication strategy and community involvement and ownership at every stage of planning, implementation and monitoring.
Global economic decline/crises that impact local economy as well as donor fatigue	Likely	Reduced funding will lead to poor financing of the strategy and therefore not meet the set objectives.	Monitor global economic situation and incomes. Restrategize and re-prioritize based on the available resources.

Risk	Likelihood	Impact	Mitigation strategy
Unexpected epidemics/pandemics/public health events	Likely	Increased demand on the budget for routine basic health services, impacting routine health service delivery.	Ensuring an appropriate epidemic preparedness and response plan is in place with contingency plans. Ensure continuity of essential services during epidemics/pandemics.
Lack of political support for the policy and strategy with change of political leadership	Less Likely	New political players may not have the same priorities regarding health service delivery, which may affect allocated resources and strategies.	Advocacy and dialogue to ensure continuity and the building of institutional knowledge and memory.

6. Financing the strategic plan: FINANCIAL IMPLICATIONS

6.1 Costing of NHSSP

In order to estimate the financial resources required to implement, monitor and evaluate the strategic plan over the five-year period (2022-2026), a costing exercise was undertaken by the MoH and partners. It included costs for scaling up of services/interventions from the current baselines to 2026 targets. The costing of the NHSSP was supported by the WHO through an expert costing consultant.

The objectives of the costing were to:

- Determine the level of investments required for full implementation of the planned strategies and interventions in the plan.
- Determine the funding gap based on projections so as to support efforts towards resource mobilization.

The One Health Tool was utilized for the costing which also a tool is recommended by the UN for the costing of national strategic plans.

The primary purpose of the tool is to assess health investment needs which can span over periods of three to ten years. The tool is recommended by the UN (including WHO) for the costing of national health sector strategic plans. Besides estimating investment needs to scale up essential services in the short to medium term, the tool has also been designed to be used for costing of national health sector strategic plans. The tool has components on health services (me areas e.g., child health, immunization, TB, HIV/AIDS, WASH) and health systems (infrastructure, human resources, health financing). It also has sections on fiscal space and can produce estimates on standard outputs outlining the costs for each area (e.g., me costs, HR, infrastructure, governance, health financing etc.).

One of the key requirements of the tool is the identification of baselines and targets hence the need to first confirm the indicators and targets highlighted in the HSSDP III and to ensure that these are annualized. The tool makes a distinction between the baseline and target coverage levels for the various priority interventions whilst the population in need comprises the relevant target groups, which are supposed to benefit from the prevention and care interventions. Its importance lies in the fact that it determines the size of the costs or the quantity of the resources required to implement the plan.

The tool makes a distinction between recurrent (direct and overhead) and capital costs. Further, recurrent costs are captured under “me Costs” and Intervention Costs”. The recurrent costs components would include the costs of drugs, supplies and salary for the

health service delivery areas while the capital costs comprise the capital investment costs in infrastructure and other health systems components (e.g., logistics, information systems, etc.).

6.2 Methodology

6.2.1 Desk review and Configuration of the OHT

The approach adopted involved undertaking a desk review including the draft NHSSP in order to understand its scope and content.

This was followed by the configuration of the OHT to the context of Liberia and preparation of an excel spread sheet for data collection covering key activities (linked to the interventions) with related unit costs as well as baselines and targets. “Unit cost” refers to the sum of all costs that are incurred to produce one unit of output, i.e., cost per case. In the context of the OHT this comprises average drug cost/supply per case.

The following specific steps were followed in costing the strategy:

a) Configuration of tool to the Liberian Context
b) Confirmation and finalization of baselines and indicators
c) Collecting input data to feed into the One Health Tool
d) Determining the relevant unit costs, emphasizing key assumptions
e) Populating the relevant sections of the tool

The costs of the interventions were analyzed for the plan period on the basis of the assumptions about the level of investments in capacity and infrastructure, ability to expand services and feasible levels of target coverage required to achieve set objectives.

A list of tracer medicines was obtained from the MoH in order to compare the prices with those in the OHT. The prices were found to be similar and where there were differences, these were negligible.

6.2.2 Stakeholders Consultation

The MoH was consulted to gather both primary and secondary information that was used to populate the tool. The method used for consultations was mostly emails whereby the data collection tool was sent to all me and department heads. This was complemented with one-on-one consultations and group discussions with some MoH officers responsible for each of the disease me areas and key departments. During the consultations, the officers were involved in an exercise to:

- Select relevant intervention coverage
- Verify/provide baseline and annual targets for selected interventions
- Provide details on the cost items for each intervention
- Indicate the year of implementation

The consultations also involved discussions on key activities related to each intervention.

6.2.3 Key assumptions

- Unit costs based on the current year, 2021
- Linear interpolation (gradual increase of coverage) of target scale-up per annum
- Unit costs for travel (internal and external) meetings, studies, media campaigns, consultancies and training are standard and thus applied across the board
- UN consultancy rates assumed for most activities (Master's level) with average duration of 30 days
- Inflation rate of 5 per cent annually adapted

6.2.4 Populating the OHT

The third stage of the costing exercise encompassed populating the tool with all the data that had been collected. Data had been entered into an excel spread sheet and this was then transferred into the One Health tool. Once the data were entered, analysis was then performed.

6.3 Limitations

1. There were challenges in terms of availability of reliable data including incidence and prevalence of some diseases, coverage rates or unit costs of interventions to determine the various costs of achieving health outcomes. As such, difficulties were encountered in populating both the me and Intervention Cost sections of the tool which inadvertently affected the requirements for drugs and supplies. Proxies were used to determine some baseline indicators based on secondary literature.
2. Intervention costs for Mental, Neurological and Substance Use Disorders module were not calculated because of the unavailability of secondary literature and also because interventions per area had not been defined.
3. Human resources baseline and targets were mostly estimated at the national level due to the difficulties in extracting facility-based HR, especially at clinic level. Further, baseline information was not available for most cadres as well as targets. As such, the projection was not comprehensive.

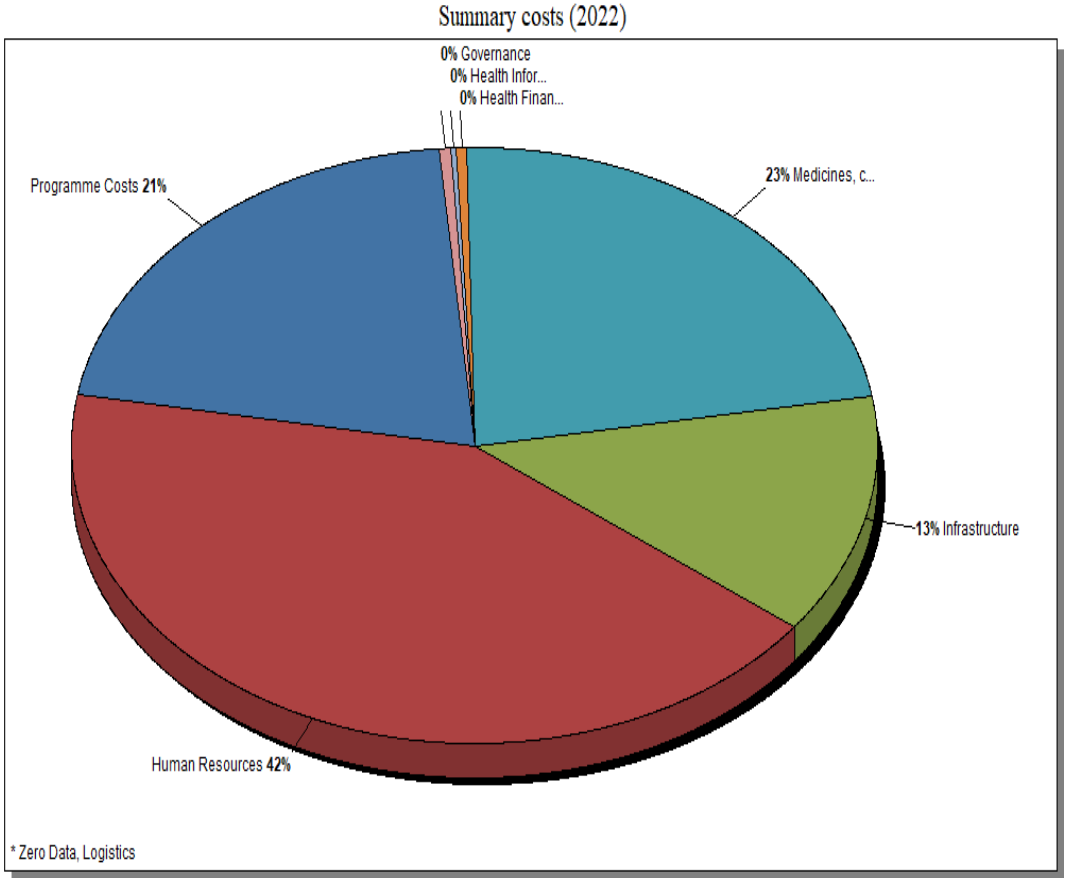
6.4 Overview of Results

The analysis only projects one scenario and other scenarios would be produced after validation by stakeholders. As shown in Figure 5 below, the results of the costing analysis (Scenario 1) show that the NHSSP would cost approximately US$844 million over the five-year period with annual costs starting from US$181 million in year one and reaching US$186 million in year five.

Figure 5: NHSSP Total Costs

As shown Figure 6 below, human resources claim a large share of the total costs (42 per cent) followed by medicines, commodities, and supplies (23 per cent) and programme costs (21 per cent).

Figure 6: Share of total costs



The table below shows the detailed total costs by each health systems investment areas over a period of five years**.**

Table 3: Disaggregated costs by health system investment area

	2022	2023	2024	2025	2026	Total
Programme Costs						
Human Resources	76,416,408	74,731,964	77,941,261	81,248,894	84,701,309	395,039,836
Training	6,981,247	2,412,360	4,547,504	1,325,959	3,111,194	18,378,264
Supervision	1,060,905	735,635	1,087,417	811,040	1,182,337	4,877,334
Monitoring and Evaluation	235,100	27,300	28,665	30,098	31,603	352,766
Medicines, Commodities and Supplies	40,945,443	38,613,791	40,381,756	44,362,184	41,715,308	206,018,482
Infrastructure and Equipment	23,548,253	27,868,540	28,637,250	33,947,250	26,391,150	140,392,443
Transport	73,000	8,400	8,820	9,261	9,724	109,205
Health Information Systems	421,600	105,630	101,983	67,722	71,109	768,044
Communication, Media and Outreach	1,582,940	590,102	1,570,634	650,584	1,681,698	6,075,958
Advocacy	1,784,490	1,748,496	1,801,795	1,754,070	1,896,901	8,985,752
Governance	782,500	540,015	542,211	467,219	523,396	2,855,341
Health Financing	828,800	127,470	84,231	78,024	109,152	1,227,677
General Programme Management	25,990,217	2,457,801	2,580,694	2,606,954	24,870,388	58,506,054
Total Programme Costs	**180,650,903**	**149,967,504**	**159,314,221**	**167,359,259**	**186,295,269**	**843,587,156**

The relatively high proportion of human resources costs takes into account future increases in the number of health professionals. Infrastructure and equipment claims the third largest share of health system costs due to the plans to rehabilitate/expand several health facilities. Construction of new health facilities was not included since the data was not available. General programme management which claims the fourth largest share consists of situation analysis (assessments/reviews), consultancies and programme meetings.

Child health will require more investments compared to other health service costs. Other health service areas that would require more investment, comparatively, would be maternal and neonatal health, reproductive health, immunization, malaria, HIV/AIDS, TB, NCDs and NTDs. The breakdown of costs by health services area is presented in the table below:

Table 4: Breakdown of Costs by Health Service Area

Health Services Delivery Area	2022	2023	2024	2025	2026	TOTAL
MN+RH	10,514,792	6,531,924	10,251,270	6,880,336	10,136,037	**44,314,358**
Child health	19,925,148	21,134,924	22,514,949	22,211,839	22,308,248	**108,095,108**
Immunization	7,691,143	7,380,780	6,893,634	6,368,493	5,815,564	**34,149,613**
Malaria	3,056,197	685,724	832,912	3,786,512	1,242,039	**9,603,384**
TB	22,936,099	1,706,316	1,800,150	1,844,023	23,560,798	**51,847,386**
HIV/AIDS	5,447,044	3,348,446	3,753,197	4,175,197	4,611,453	**21,335,337**
Nutrition	651,397	461,380	500,630	600,255	546,750	2,760,411
NCDs	1,600,868	1,490,809	1,687,857	1,896,163	2,115,900	**8,791,597**
Mental disorders	201,330	148,082	155,487	163,259	171,424	839,582
Adolescent health	443,641	232,294	269,905	308,631	348,470	1,602,941
NTDs	1,923,354	1,452,835	1,532,936	1,615,267	1,857,283	**8,381,676**
Eye Health	88,200	35,910	37,706	39,591	41,571	242,978
Oral health	66,330	6,332	6,648	6,980	7,330	93,620
Comm. Health	372,900	201,600	211,680	222,265	233,377	1,241,822
EPR	969,400	152,250	100,328	74,088	77,792	1,373,858
Elderly	349,800	163,170	171,329	6,251	6,564	697,114
Health Promotion	1,140,250	753,518	568,504	596,930	626,776	3,685,978
Injured and PWDs	231,930	6,332	6,648	6,980	7,330	259,220
EMS and Blood Transfusion	333,130	277,022	290,873	305,415	320,688	1,527,128
HTM	177,300	42,525	19,845	20,837	21,879	282,386
Quality Assurance	138,330	131,072	137,625	144,506	151,732	703,265
Nursing and Midwifery	158,400	166,320	174,637	183,367	192,536	875,260
County Health Services Support	247,760	84,320	88,537	92,964	97,612	611,193
TOTAL	**78,664,742**	**46,593,885**	**52,007,285**	**51,550,150**	**74,499,153**	**303,315,215**

The projected costs are subject to change after review and validation by the MoH and stakeholders.

With regard to the priority areas as stated in the NHSSP, the priority 2 (Fit for Purpose Health Workforce) claims higher costs at 46.7 per cent followed by Priority 1 (Quality and equitable health care service) and Infrastructure and Technology (16.6 per cent). The detailed breakdown is presented in the table below:

Table 5: Breakdown of costs by priority area

NHSSP PRIORITY AREAS	2022	2023	2024	2025	2026
1. Quality and equitable health care service	78,664,742	46,593,885	52,007,285	51,550,150	74,499,153
2. Fit for purpose Health Workforce	76,416,408	74,731,964	77,941,261	81,248,894	84,701,309
3. Epidemic Preparedness and Response	969,400	152,250	100,328	74,088	77,792
4. Infrastructure and technology	23,548,253	27,868,540	28,637,250	33,947,250	26,391,150
5. Information, research and communication	421,600	105,630	101,983	67,722	71,109
6. Sustainable Community Health and Engagement	372,900	201,600	211,680	222,265	233,377
7. Leadership and Governance	782,500	540,015	542,211	467,219	523,396
8. Sustainable Health Financing	828,800	127,470	84,231	78,024	109,152
TOTAL	**182,004,603**	**150,321,354**	**159,626,229**	**167,655,612**	**186,606,438**

It should be noted that the priority area on medical equipment and diagnostics was merged with the priority area on infrastructure and technology.

6.5 Available financing (projections and ear-marked funds)

According to the draft National Health Financing Policy and Strategy (2021), the budget allocated to the health sector increased from US$32.4 million in FY 2010/2011 to US$75.7 million in FY 2020/2021. It was estimated that the budget averaged US$72million annually. In FY 2017/2018, it was projected that approximately US$88.8 million would be available from off-budget grants and loans for the health sector.

It is estimated that government contributes 16 per cent to current total health expenditure, with 27 per cent coming from donors and 53 per cent contributed by households through direct out-of-pocket payments. Further, 80 per cent of the total government allocation is utilized to cater for personnel costs and the remainder goes to funding service delivery.

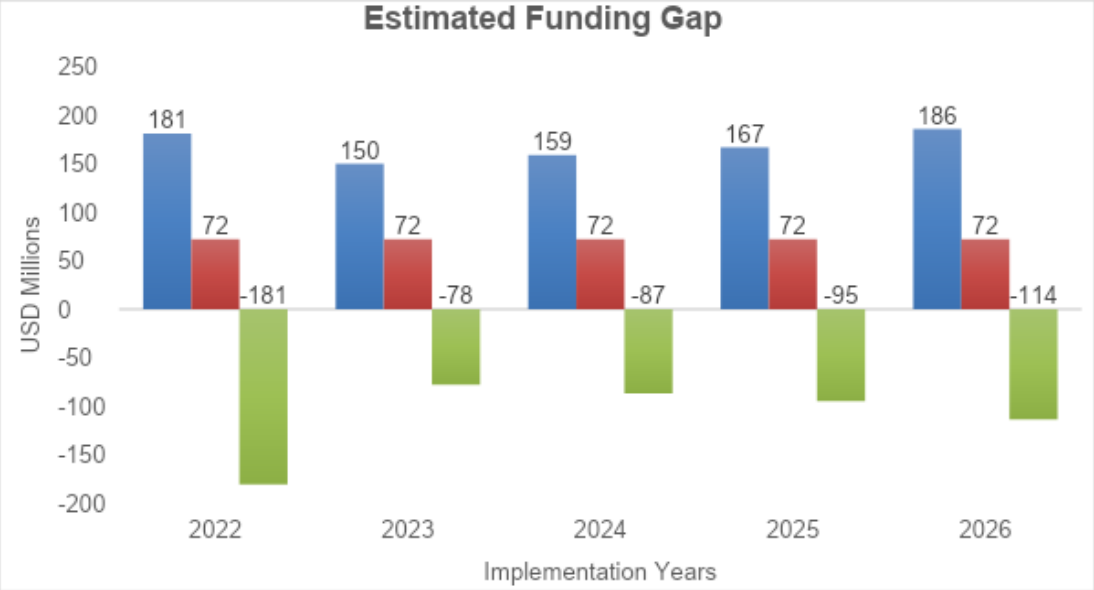
The NHSSP costing shows that the average health expenditure per capita is US$30 which is much higher than the current spending levels estimated to be US$13 per capita. This is significantly lower than the WHO recommended figure of US$86 per capita. (WHO, 2016).

The draft National Health Financing Policy and Strategy (2021) notes that despite increases in donor funding and government allocations (which quadrupled in recent years from US$100 million to US$392.8 million), available funding remains short of meeting the needs of the health sector. Indeed, this is approximately 50 per cent less than the estimated total costs of the NHSSP over five years.

6.6 Financial gaps and resource mobilization strategy

The estimated costs are much higher than available resources. There would be a need to significantly increase government budgetary allocations and donor inflows in order to fill financing gaps and fully implement the strategic plan while simultaneously reduce the high out-of-pocket expenditure on health. The figure below depicts the costs of the plan and the estimated funding gap.

Figure 7: Estimated funding gap



According to the figure above, a total of US$555 million would need to be mobilized over the next five years.

It is envisaged that the funding for the HSSP will come from an increased government allocation and funding through health donors. However, to ensure sustainable financing mechanisms, the government will mobilise substantial revenues and introduce key reforms over the medium to long term.

The draft National Health Financing Strategy (2021) estimates that only US$3.8 million is allocated for essential medicines annually. The costs of this strategic plan indicate this at roughly US$41.2 million. The financial gaps will be closed through policy and advocacy to government and partners including donors to commit more investments to health sector. These will include:

- Government increasing MoH budget allocation
- Policy dialogue with the government central agencies and donors to increase funding to address the gaps
- Funding through UN agencies resident in-country.
- Re-introduction of revolving drugs fund (RDF) and cost-sharing scheme.

The MoH would also focus on improving efficiency in health spending and resource use with particular focus on reducing wastage and other inefficiencies.

7. Monitoring and Evaluation Framework

The monitoring and evaluation framework highlighted in the table below will be used to track implementation of this strategic plan. Data to inform the input, output and outcome indicators will be obtained mainly from the HMIS and from me assessments and service coverage surveys. In addition, the impact indicators will rely more on surveys such as the Liberia Demographic and Health Survey (DHS).

Supervision and monitoring will be undertaken on a regular basis by the central level to the counties; by the county health teams to the districts; by district health teams to the facilities; and facilities and districts to communities. The Quality Assurance me of the MoH will facilitate the supervision and monitoring of activities.

All implementing levels will be required to report on implementation of the strategic plan through annual operational plans on a quarterly basis. Both quarterly and annual reports will be compiled based on an agreed overall MoH M&E framework. The annual reports will inform the annual health sector reviews that will involve all the key stakeholders. The performance indicators and the respective targets for monitoring are reflected in the table below.

Table 6: MONITORING AND EVALUATION FRAMEWORK

No.	Indicator Group	Indicator	Baseline	Year	Source	Target 2026
1	Indicators associated with SDG 3	3.1.1 Maternal mortality ratio	742	2019-2020	LDHS	520
2		3.1.2 Proportion of births attended by skilled health personnel	0.84	2019-2020	LDHS	0.9
3		3.2.1 Under-five mortality rate	93	2019-2020	LDHS	70
4		3.2.2 Neonatal mortality rate	37	2019-2020	LDHS	27
5		3.3.1 Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	TBD	TBD	TBD	TBD
6		3.3.2 Tuberculosis incidence per 1,000 population	3.14	2020	World Bank Data	3.0
7		3.3.3 Malaria incidence per 1,000 population	188.45	2021	MoH Service Statistics	118.5
8		3.3.4 Hepatitis B incidence per 100,000 population	2365.2	2019	GBD	2152.332
9		3.3.5 Number of people requiring interventions against neglected tropical diseases	2,960,000	2016	Mass Treatment Coverage for NTDs, Liberia (2016)	2,486,400
10		3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	0.178	2019	World bank Data (Trending Economics)	0.1335
11		3.4.2 Suicide mortality rate per 100,000 population	4.5	2019	WHO Global Health Observatory data	4.23
12		3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	TBD		The Liberia NCD & Injuries (NCDI) Poverty Commission Report	TBA
13		3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol	0.127	2016	Global Status Report on Alcohol and Health, 2018	0.1
14		3.6.1 Death rate due to road traffic injuries per 100,000 population	10.5	2019	IHME-GBD	10.0
15		3.7.1 Proportion of women aged 15-49 years who have their needs for family planning satisfied with modern methods	0.25	2019-2020	LDHS	0.4
16		3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	0.25	2019-2020	LDHS	0.23
17		3.8.1 Coverage of essential health services (UHC coverage index)	42	2019	Index Mundi	65
18		3.8.2 Number of people covered by health insurance or a public health system per 1,000 population	*112	2019-2020	LDHS	115.36
19		3.9.1 Mortality rate attributed to household and ambient air pollution	170	2016	WHO - Global Health Observatory	165.1
20		3.9.2 Mortality rate attributed to unsafe water, unsafe sanitation and lack of hygiene (exposure to unsafe Water, Sanitation and Hygiene for All (WASH) services)	41.5	2016	WHO-Global Health Observatory	29.1
21		3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older	0.082	2020	World Bank Data	0.0615

No.	Indicator Group	Indicator	Baseline	Year	Source	Target 2026
22		3.b.1 Proportion of the population with access to affordable medicines and vaccines on a sustainable basis	0.37	2022	HHFA 2022	0.629
23		3.b.2 Total net official development assistance to medical research and basic health sectors measure in US Dollars	$62.94 m	2019	Our Data Our World	$ 64.79
24		3.c.1 Health worker density and distribution per 10,000 population	11.8	2016	Liberia Health Workforce Census	16
25		3.d.1 International Health Regulations (IHR) capacity and health emergency preparedness	36	2021	Global Health Security Index Report (2021)	38.6
Indicators monitoring Liberia's goal of improved health status						
(*These indicators are not conclusive of the health sector and should be measured every 5 years*)						
26	Indicators monitoring Liberia's goal of improved health status	Infant mortality rate (per 1,000 live births)	63	2019-20	LDHS	45
27		Crude death rate (per 1,000 population)	7.3	2020	UN*	5
28		Life expectancy at birth (years)	65	2019	UNDP-HDR	70
29		Fertility rate (average children per woman)	4.2	2019-20	LDHS	3
30		AIDS related mortality rate	45	2021	World Data Atlas	17.9
31		Malaria mortality rate (age adjusted mortality rate per 100,000)	52.62	2020	WHO	42.1
32		TB mortality rate (age adjusted deaths per 100,000 people)	8.89	2020	WHO	6.6
33		Malaria parasite prevalence (mRDTs or microscopy) among children 6-59months	45%	2016	MIS	25%
34		HIV prevalence rate	1.10%	2021	World Data Atlas	0.3%
35		New cases of IHR-notifiable diseases and other notifiable diseases per year	0	0	0	0
Indicators monitoring Health System's goals (health systems performance to be monitored every 1-3 years, are specific for the health system)						
36	indicators monitoring Health financings	Out-of-pocket expenditures on health (as % of total health spending)	54%	2019	World Data Atlas	15%
37		Proportion of the population with impoverishing health expenditure	37%	FY 2019/2020	NHA	33%
38		Per capita health expenditure	$16.90	2019-20	MFDP	$20
39		Public expenditure in health as % of total public expenditure	14%	2021-22	MFDP	15%
40		Total current expenditure on health as % of gross domestic product	8.47%	2019	World Bank Data	12%
41		% of execution of annual allocation of GoL budget for health	90%	2018-19	MFDP	95%
42	Indicators monitoring access to health	% of population living within 5 km from the nearest health facility	71%	2013	LDHS	85%
43		Health Facility density (# of health facilities per 10,000 population	1.9	2016	Health Workforce Census, Liberia	2
44		Hospital bed density	1.22	2022	Harmonized Health facility Survey	2
45		% of facilities with no stock-out of tracer drugs during the period	35%	2018	SARA	90%
46		Percentage of children under age 5 whose births were registered at the time of the survey.	66%	2019-2020	LDHS	80%
47		Completeness of death registration with cause-of-death information (%)	TBD	TBD	TBD	45%

No.	Indicator Group	Indicator	Baseline	Year	Source	Target 2026
48		Perioperative mortality rate	7.4%	2015	Surgical Care in Liberia and Implications for Capacity Building	2
49		ART retention rate	47%	Mar-22	Liberia adherence and loss-to-follow-up in HIV and AIDS care and treatment	70%
50		Health Service Readiness Index	56%	2018	SARA	80%
Indicators monitoring Health System Performance (Service coverage/utilization)						
(These indicators are to be monitored annually with focus on the system's components and their performance. Most should be used also at the County level)						
51	Indicators monitoring Health System Performance (Service coverage/utilization)	OPD consultations per inhabitant per year	0.76	2020	HMIS	2
52		% of pregnant women that received antenatal 4+ visits	87%	2019-20	LDHS	90%
53		% of deliveries that are assisted by skilled birth attendant	84%	2019-2020	LDHS	90%
54		Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group	Girls (10-14): 4 Women (15-19): 128	2019-2020	LDHS	Girls: 2; Adolescents: 120
55		Post partum care coverage mother	80%	2019-2020	LDHS	90%
56		Post natal care coverage new born	66%	2019-2020	LDHS	75%
57		Couple-years of protection with family planning methods	104,189	2021	HMIS	177,121
58		Demand for family planning satisfied with modern methods	40.9	2019-2020	LDHS	55
59		Modern Contraceptive Prevalence rate among all women (mCPR)	24%	2019-20	LDHS	30%
60		Proportion of infants fully immunized	51%	2019-20	LDHS	75%
61		% of children under 1yr who received DPT3/penta-3 vaccination	69%	2019-20	LDHS	90%
62		Care seeking for symptoms of pneumonia	78%	2019-20	LDHS	85%
63		Coverage of dairrhoea treatment	66%	2019-20	LDHS	75%
64		Vitamin A supplementation coverage	46%	2019-20	LDHS	60%
65		% of pregnant women provided 3rd dose of IPT for malaria	40%	2019-20	LDHS	80%
66		Use of ITN: Proportion of population who slept under ITN the night before survey	39%	2019-2020	LDHS	50%
67		Percentage of malaria cases treated with ACT	63.90%	2022	HMIS	85%
68		Malaria parasite prevalence (mRDTs or microscopy) among children 6-59months	45%	2016	LMIS	25%
69		Malaria incidence rate (per 1000 pop)	188	2021	HMIS	169.2
70		Malaria case fatality rate (age adjusted) per 100,000 pop	52.62	2020	World Health Ranking	42.1
71		Mental health incidence rate	75.42	2022	HMIS	169.2
72		Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders	TBD	TBD	TBD	TBD
73		% of health facilities providing NCDs services	30%	2018	SARA	50%
74		Coverage for services for severe mental disorders	44%	2022	HHFA	55%
75		% of health facilities providing NTDs services	31%	2018	SARA	50%

No.	Indicator Group	Indicator	Baseline	Year	Source	Target 2026
76		Number of smear positive TB cases notified per 100,000 population (TB notification rate)	308	2020	HMIS	231
77		TB treatment success rate	78%	2020	HMIS	85%
78		% of children under 5 who are stunted	30%	2019-20	LDHS	25%
79		% of children under 5 who are overweight	4%	2019-20	LDHS	1%
80		Exclusive breast-feeding rate 0-5months	55%	2019 - 2020	LDHS	62%
81		Incidence of low birth weight among new borns	17.3%	2022	HMIS	14%
82		Anemia prevalence in children	71%	2019-2020	LDHS	63.9%
83		Anemia prevalence in women of reproductive age	44.5%	2019-2020	LDHS	37.8%
84		Population using safely managed drinking-water services	84.0%	2019-2020	LDHS	88.2%
85		Population using safely managed sanitation services (i.e households in Liberia use improved toilet facilities)	47%	2019-2020	LDHS	53%
86		Alcohol consumption per capita (_among persons aged 15 years and above)	6.10%	2018	World Bank Data	5.4%
87		Tobacco among persons aged 15 years and above	1% Women 7% men	2019-2021	LDHS	0.1% women 3% Men
88		Overweight and obesity in adults (women)	37%	2019-2022	LDHS	20%

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