Ministry of Health
Republic of Liberia

National mHealth Strategy

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FOREWORD

Liberia as an underdeveloped nation is faced with numerous challenges in its developmental agenda. It has become increasingly clear that it is difficult to achieve all of our targets of the Sustainable Development Goals (SDGs) by the year 2030. Though we have made significant gains in our health sector over the last five years however, we are mindful that our health system is not yet strong to deal with the continuing challenges in developing and retaining the requisite human resource for health to fully contribute to the current level of performance of our health system. To overcome these challenges, we must obtain and maintain a faster and effective way to generate, share and translate knowledge into effective and affordable interventions and strategies that make health care accessible to the most needy and vulnerable communities across the country.

Liberia is struggling to meet the SDGs not because of the lack of solutions to our health problems, but because we lack the needed resources to apply the tested and well-rehearsed interventions in a sustained manner where it is needed. In almost all instances our inability to acquire and deploy the needed technology remains a major barrier.

Digital information is the core of an effective and quality healthcare system. The benefits for patients are significant and compelling: improved hospital record systems, better coordination of patient care, quality improvement of continued clinical education and patient care for Community Health Workers, to mention but a few.

We need to apply technology to generate the information required for the formulation of precise health policies to enable us to meet our needs. We need to apply technology to boost coverage of our public health interventions and to empower our populations to seek treatment and make healthier lifestyle choices. We must leverage technology in our quest for solutions in the surveillance and management of program specific diseases and the tracking and monitoring of preventative services (i.e., immunization programs).

As we implement this strategy, we want to see data driven decision making as the new normal of our healthcare system. We expect an efficient utilization of the human and material resources for essential care delivery. We look forward to technological driven logistics information up to the last mile of our health facilities and communities.

Finally, the implementation of this strategy will require collaborative support and investment by the Government, health partners, private sector, stakeholders and regulatory bodies among others.

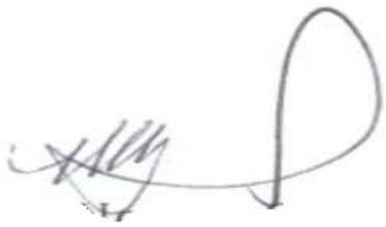
Wilhelmina S. Jallah
MINISTER

SPECIAL STATEMENT

As we thrive to build a resilient health system, there is a need to prioritize the use of technological advancement to enhance health workforce performance for effectiveness and efficiency in quality healthcare delivery.

To achieve this, accurate and quality data is key for making informed policy decisions. However, collaboration and coordination among line-ministries, regulatory bodies, development and implementing partners as well as other stakeholders is required for the success of this initiative.

The mHealth Strategy is significant in supplementing clinical and public health interventions to support health system strengthening as we transition to more electronic platforms for data collection and use. This document will provide strategic direction to mobilize resources for mhealth implementation and sustainability in Liberia.



Norwu G. Howard, MSN, FACDONA
Deputy Minister, Administration

ACKNOWLEDGEMENT

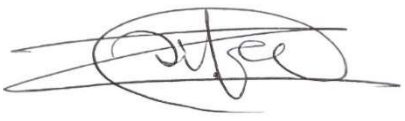
With the emergence of newer technologies to support health care delivery services and the introduction of some of these technologies into our health sector, we are on the right trajectory to improving the quality of care and increasing access to these services. This mHealth Strategy would not have been successfully developed without the contributions of everyone involved.

We are grateful to our partners, specifically the Last Mile Health (LMH) for providing the funding and technical support to the process as well as to other external parties who provided some technical insight into improving this strategy.

We appreciate all Directors, Heads of Units and Technical Staff of the Ministry of Health (MOH): Information Communication Technology Unit, National Community Health Service Program (NCHSP), HMER and the Policy and Planning Unit for their commitment and dedication during the strategy development, review and logical conclusion processes. Special thanks go to the Information Communication Technology (ICT) Unit for the leadership and collaborating effort in ensuring its finalization.

Finally, to our Senior Management Team (SMT) and development partners, we wish to extend our sincere thanks for believing and endorsing the vision and mission which drove the development of this strategic document.

With this current level of support and buy-in, we anticipate that this strategy will not only support mHealth development but will also ensure its sustainability over time.



Hon. A. Vaifee Tulay
Deputy Minister for Policy and Planning

ACRONYMS

CBIS	Community Based Information System
CHA	Community Health Assistants
CHSS	Community Health Services Supervisor
CHT	County Health Team
DHIS2	District Health Information System 2
DHS	Demographic Health Survey
EDEWS	Electronic Disease Early Warning System
eIDSR	electronic Integrated Disease Surveillance and Response
eLMIS	electronic Logistic Management Information System
EVD	Ebola Virus Disease
GOL	Government of Liberia
GovNet	Government Wide Area Network
HIS	Health Information Systems
ICT	Information Communication and Technology
IDSR	Integrated Disease Surveillance and Response
iHRIS	integrated Human Resource Information System
IMR	Infant Mortality Rate
IP	Implementing Partners
LDHS	Liberia Demographic Health Survey
LISGIS	Liberia Institute of Statistics and Geo-Information Services.
LMICS	Low-Middle-Income Countries
M&E	Monitoring and Evaluation
MACs	Ministries, Agencies and Commissions
MOH	Ministry of Health
MoPT	Ministry of Post and Telecommunication
NCHAP	National Community Health Assistant Program
NGO	Non-Governmental Organization
ODK	Open Data Kit
OOP	Out of Pocket
PDA	Personal Digital Assistants
SOP	Standard Operating Procedures
U5MR	Under Five Mortality Rate
UHC	Universal Health Coverage
WHO	World Health Organization

INTRODUCTION

GEOGRAPHY, POPULATION AND DEMOGRAPHY

Liberia is on the west coast of Africa, with a land surface area of 110,080 sq km and a coastline of 560 km that stretches along the Atlantic Ocean. The country is bordered by Sierra Leone to the west, Guinea to the northwest, and Côte d'Ivoire to the northeast and the Atlantic Ocean to the south. (Liberia Institute of Statistics and Geo-Information Services (LISGIS), 2009)

Despite increases in current government spending on health, per capita health expenditure remains low at 57US Dollars as of 2017. The current health system is financed through a tax-based system. Funding on health spending is still dependent on donors 29% and out of pocket payments (OOP) accounting for 46% of total health payments. With 83% surviving on less than 1.22 US dollars a day and 78% of the labor force without assured salaries.

OVERVIEW OF THE HEALTH SECTOR AND SYSTEM

Liberia has made significant progress in the provision of health care delivery prior to the Ebola outbreak and now the COVID-19 pandemic. These outbreaks among others have exposed several weaknesses in the health system and implementation of the Ministry's various policies and strategies.

The Investment Plan complements the National Health Policy and Plan which has nine investment areas that enable the health sector to become responsive and proactive in dealing with future outbreaks and public health emergencies. These areas include a fit for purpose health workforce, community engagement, leadership and governance, health information system, quality health service delivery, medicines and technology, emergency preparedness and response, health financing and health infrastructure.

There are 831 health facilities in Liberia, across the 15 counties. Public health facilities are majority (55%), followed by private (45%). There are few Hospitals (5%), and Health Centers (7%) but clinics are majority (88%) with almost equal distribution between rural (49.6%) and Urban (50.4%)[3]. Maternal mortality in Liberia remains one of the highest globally with a maternal death ratio 1072 deaths per 100,000 live births (DHS, 2013). Under-five mortality rates (U5MR) and infant mortality rates (IMR) both remain at 93 and 63 deaths per 1000 live births respectively as of 2020[4].

The Liberian population with improved sources of drinking water is currently at 85% while there is low access to improved sanitation at 48%. The availability and use of family planning is one of the key indicators to assess progress towards improving maternal mortality. According to the Liberia Demographic Health Survey (LDHS) 2019, the challenge faced with the unmet need for family planning has increased from 31% in 2013 to 33% in 2019. The LDHS 2019 recorded 84% of

births being attended by skilled health workers compared to 61% in 2013, while basic vaccination has improved from 55% to 65% in 2019.

WHAT IS mHEALTH?

Global uptake of mobile technology and the unprecedented spread of cellular infrastructure, mobile technologies, and advancements in their innovative applications have helped lead to the creation of the field of mHealth.

Globally, "mobile Health (mHealth)," refers to the widespread use of mobile telecommunication and multimedia technology involved in the delivery of health services and distribution of health information. However, WHO has defined mHealth as the delivery of health services and information through the use of mobile technologies that includes mobile phone, tablet, computers and Personal Digital Assistants (PDAs) (WHO, n.d).

As a supplement to clinical care, mHealth has tremendous potential to benefit people in low and middle income countries (LMICs). Many studies focused on the areas of reproductive, maternal, newborn and child health in LMICs have shown that mHealth can improve health and health systems. Governments are recognizing the possible benefits of mHealth, and have integrated it into their plans to meet their health system targets such as development goals.

Similarly, the concept of mHealth in Liberia is the application and use of mobile technologies to deliver healthcare-related services at all levels of the healthcare system.

SCOPE

This strategy will apply to all institutions, organizations, individuals and other stakeholders involved with mHealth implementations in Liberia.

PURPOSE

This strategy aims to provide governance, coordination and strategic direction for mHealth implementations within the Health Sector. It will also provide a legal and regulatory framework and create an enabling environment for mHealth investment, development and sustainability.

MISSION, VISION AND GUIDING PRINCIPLES

MISSION

To create structures for mhealth development, integration and sustainability that will enhance healthcare service delivery, Health Information Systems (HIS), and health education in Liberia.

VISION

Improve healthcare for all, through the use of mHealth innovations for improving quality of service delivery through sustainable health systems.

GUIDELINES

This strategy adopts the following, in addition to the nine (9) principles of Digital Development;

- **Fit for purpose** - Interventions are designed and tailored to meet and satisfy the mHealth needs of Liberia.
- **Cost Effectiveness** - Systems are adopted to use affordable ICT infrastructures for health delivery systems by the MOH to ensure its sustainability.
- **Integration** - A core component of mhealth development and implementation that is supportive of all health information systems to avoid fragmentation and ensure interoperability.
- **Decentralization** - Implementations are designed to be standardized, equitable and accessible at all levels of the healthcare delivery system.

STRATEGIC OBJECTIVES

The primary objective of this strategy is to provide guidance for the development and implementation of a comprehensive and harmonized mHealth strategy that will:

1. Improve access to timely and accurate health data and information for decision making
2. Ensure a productive and sustainable health workforce in the use of mHealth platforms
3. Strengthen governance and coordination of mHealth interventions to avoid duplication and fragmentation.
4. Mobilize and consolidate investment for mHealth to ensure sustainability.

SITUATIONAL ANALYSIS

OVERVIEW

The Liberian health system has made progress in recent years in healthcare delivery since the introduction of free health care. However, this improvement has been hampered by multiple challenges including outbreaks, coupled with limited health system coordination, governance and management. mHealth technology has had slow progress and use in treating and managing the cases in the Liberian health care system. This had a huge negative impact on Liberia's infrastructural development, part of which is the information and communication sector until

approximately 2001. These challenges have exposed the fragility of the health system, which prompted the Government of Liberia to enhance it effort in building a resilient health system.

The Ministry of Health began the use of mobile technologies primarily for data collection prior to the Ebola Virus Disease (EVD) outbreak. The outbreak gave rise to the use of several mHealth platforms and applications which highlighted the need to strengthen Health Information Systems (HIS). This led to the development of other subsystems, such as the electronic Integrated Disease Surveillance and Response (eIDSR) system, electronic Logistic Management Information System (eLMIS), mobile Health-worker electronic response and outreach (mHero) and others to improve data collection, analysis for use within the health sector. The successes of these subsystems encouraged new and innovative developments in Liberia's Health Information Systems (HIS).

The Ministry of Health embarked on developing the Liberia HIS Strategy and Interoperability Roadmap, Health Information Systems & ICT Strategic Plan 2016-2021, Information and Communication Technology (ICT) Policy and Strategy (2018-2023) aimed at improving government ownership of National mHealth initiatives. Recently, multiple mHealth initiatives have been introduced at MOH to address different programmatic areas like Integrated Disease Surveillance and Response (IDSR) and Community Based Information System (CBIS) among others.

These initiatives have brought along new technologies and innovations that necessitated the Ministry of Health (MOH) to update its strategic plans and policies to align with current mHealth development.

CURRENT STATUS OF mHEALTH IN LIBERIA

The Ministry of Health as part of its strategy to build a resilient health system has transitioned from some paper-based systems to incorporating several electronic platforms for efficiency. These electronic platforms include eLMIS, DHIS2, iHRIS, eIDSR, UBR and UDR.

In recent years, technology has grown extensively in the financial (banking) and telecommunication sectors in Liberia which has increased the use of the technology across the various platforms to strengthen efficiency in the collection, monitoring, management and data use in various institutions.

In the health sector, the use of mobile technology for healthcare gained momentum between 2009 and 2014; mostly focusing on the collection of data for vital statistics and health promotion (mass advertisement). During the Ebola crisis, several health Implementing Partners (IP) adopted the use of electronic data collection methods for infection prevention and control (reducing body contact during data collection). This idea was widely accepted and later adopted for surveillance, demonstrated by the deployment of EDEWS introduced by the World Health Organization (WHO) across the country which evolved into the electronic Integrated Disease Surveillance and Response (eIDSR).

The Ministry of Health and Implementing Partners (IPs) have invested in the use of different platforms such as Open Data Kit (ODK), Commcare and other open-source platforms for data collection and aggregation as pilot interventions. The major purpose of the piloted interventions was to document lessons learned (feasibility, challenges, recommendations) that would later be used for planning scale-up programs. Additionally, the MoH National ICT Policy and Plan (2018 - 2023) highlights the need for mhealth development but is yet to further elaborate a strategy to guide the implementation of the intervention. On this note, this strategy has been developed to serve as a guideline to streamline future and current mHealth interventions.

CHALLENGES IN THE IMPLEMENTATION OF mHEALTH PROGRAMS

ECONOMIC FACTORS

Most of the mHealth programs currently being implemented are donor driven and capital intensive, given the high upfront costs of product (e.g., mobile phones, servers) acquisition. When financial commitment from the donors come to an end, it becomes difficult for the MOH to sustain the mHealth implementations due to financial constraints, lack of coordination and leadership.

INFRASTRUCTURE

Global statistics show that Liberia is lagging behind in the global pace of ICT infrastructure; with 51.3% of network coverage, only 2.2% of households have access to computers, while 12.3% of Liberians use the internet. The majority of internet users have access to the internet through mobile network service providers. Also, coverage is mostly in urban communities which constitute about half of the country's population. It is certain that limitations in ICT infrastructure is a key challenge to scaling up mHealth interventions across the country. Additionally, only 12% percent of the total population have access to electricity. In the urban areas, 16% of the population has access to electricity while only 3% of the rural population have access to electricity.

HUMAN CAPACITY

Human and technical capacity in the areas of ICT, data management and use, and Health Informatics (HI) has been very limited within the health system, thus affecting the sustainability of past and ongoing interventions. According to the HIS/ICT Assessment Report of 2015, the Ministry of Health's current skills set for ICT is 25% for network maintenance, 50% for computer systems and 13% for Microsoft Windows system administration. There also exist visible gaps in core competencies like software engineering, development operations and ongoing maintenance in the country which could hugely impact sustainability of intervention programs for mHealth. Hence, there is a need for pre- and in-service training in ICT and HI as part of the national investment in health systems.

INTEROPERABILITY

Given that Implementing Partners (IPs) have used different platforms for mHealth activities, lessons learned from pilot mHealth interventions have highlighted the difficulties as well as recommendations to implement interoperability of the HIS platforms. Various data sets have been lost due to a lack of procedures and processes in sharing, hosting and the migration of valuable data that has been collected at various levels of the health system. Scale-up of current interventions depends a lot on how platforms can communicate and share data in a timely fashion.

OWNERSHIP

According to reports from past interventions, the MoH has not taken the lead in planning and managing mHealth interventions in Liberia, and skills transfer to Liberian professionals has been inadequate, with most of the expertise sourced from abroad. As a result, ownership of the interventions has been typically borrowed and has been lost over time, with several interventions lost to application developers and hosting companies out of the country; extra resources have also been invested in retrieving and migrating data. It is also important to note that Liberia lacks the infrastructure required to host the multiple HIS platforms.

ACHIEVEMENTS

- The Ministry of Health is in the process of digitizing the paper-based version of the National Community Health Service Program curriculum and other health-related materials. Over 3,700 community health workers have been digitally empowered and are able to download electronic learning contents on to their mobile phones.
- MoH through its partners has also procured, programmed and distributed electronic gadgets to 3,641 CHAs in fourteen counties (Sinoe, Lofa, Maryland, Bong, Nimba, Bomi, Margibi, Gbarpolu, Grand Cape Mount, Grand Bassa, Grand Gedeh, River Gee, Rivercess and Grand Kru Counties). The devices are currently being used for health education and promotion activities at the community level.
- More than 10 pilot interventions have been concluded, and lessons learned and recommendations have been documented as making recommendations for scaling up mHealth initiatives.
- The national IDSR program included the development of an electronic mobile package for communication, data management, an alert system for timely response to surveillance cases.
- The Government along with partners have launched mHero, an open-source application that is integrated with existing systems such as DHIS2, iHRIS, eIDSR and eLMIS with in-

built alert systems for health workers nationwide. The application kick-started in 2015 and is focused on automated information dissemination, outreach and response.

- In collaboration with partners, the MoH has embarked on digitizing the Community Triggers and Referral Tool to support existing community-level disease surveillance systems. The tool provides real time nationwide information sharing on detection and response to surveillance cases at community level.
- MOH has successfully mobilized resources to support the development of robust ICT governance. This is evidenced by the Partner and Government support in the development of this mHealth Strategy.

STRATEGIC OBJECTIVE 1

IMPROVE ACCESS TO TIMELY AND ACCURATE HEALTH DATA THROUGH RESEARCH, INNOVATION AND DEVELOPMENT

STRATEGIC INTERVENTIONS:

- Strengthen mHealth platforms through research, innovations and development for interoperable health information systems to improve access to data.
    - Strengthen telemedicine as part of mHealth services to link specialized medical experts at all levels
- Adopt sustainable and secure ICT infrastructure that support effective mHealth implementation and monitoring
- Explore and adopt technologies to promote access and compliance for health services at all levels

STRATEGIC OBJECTIVE 2

STRENGTHEN AND MANAGE INSTITUTIONAL AND MATERIAL CAPACITY FOR mHEALTH

STRATEGIC INTERVENTIONS:

- Build health sector capacity for wider application of mHealth solutions
- Collaborate with implementing partners, academic Institutions and the global digital health network in workforce education to:
    - Develop resources and curricula to ensure all healthcare providers are exposed and trained in mHealth technologies and their use.
    - Develop a comprehensive toolbox that clearly documents evidence for how, when and where mHealth should be used.
    - Build a network of health informatics change agents that will drive cultural change and awareness of mHealth.

STRATEGIC OBJECTIVE 3

STRENGTHEN GOVERNANCE AND COORDINATION OF mHEALTH INTERVENTIONS TO AVOID DUPLICATION AND FRAGMENTATION

STRATEGIC INTERVENTIONS:

- Formulate and strengthen mechanisms and structures to govern mHealth strategy at all levels of the health sector.
    - Establish regulations for privacy, confidentiality and security for mHealth
    - Establish mHealth technical working group that reports to MOH leadership
    - Establish structures at County level to ensure County Health Team (CHTs) inclusion and participation in mHealth interventions
    - Develop and approve a National Digital Health policy.
- Strengthen partnership for mHealth implementation and coordination.
    - Conduct stakeholder mapping for mHealth interventions
    - Engage stakeholders for mHealth scale up among all Ministries, Agencies and Commissions (MACs)Develop and cost mHealth implementation plan

STRATEGIC OBJECTIVE 4

ENSURE ADEQUATE INVESTMENT AND FINANCING FOR mHEALTH DEVELOPMENT AND SUSTAINABILITY

STRATEGIC INTERVENTIONS:

- Establish mechanisms for resource mobilization activities for mHealth implementations
- Budget mHealth costs into national budgets, including data costs, software upgrades or development costs, and maintenance costs

ROLES AND RESPONSIBILITIES

To achieve the stipulated objectives of this strategy, it is critical to establish a coordinated and functioning institutional framework. As such, the roles of key institutions and partners are paramount to ensuring successful implementation of this strategy.

Ministry of Post and Telecommunication (MoPT)

The Ministry of Post & Telecommunication has the statutory mandate for ICT governance, within the country and at such responsible for the following:

1. To support mHealth development and innovation that is interoperable with e-government platforms (Portal, Government Wide Area Network (GovNet), Centralized Email System, etc.).

2. Facilitate mHealth utilization across all sectors (i.e., rural community access, e-government, business communities and private sector.
3. Support advocacy for national investment in mHealth infrastructure and technical capacity development and sustainability.

Ministry of Health Senior Management Team

1. Review and approve mHealth Strategy.
2. Review and endorse mHealth technical working group
3. Ensure compliance with mHealth Strategy.
4. Mobilize and allocate adequate resources for mHealth

MoH ICT Unit

1. Lead and coordinate the implementation of the mHealth Strategy of the MoH
2. Monitor and enforce adherence to the mHealth Strategy and SOPs
3. Serve as custodian of all mHealth equipment and assets of the MoH
4. Coordinate mHealth capacity building programs

Implementing Partners

1. Provide technical support for mHealth development and innovations
2. Support resource mobilization for investment in mHealth
3. Support mHealth capacity building programs

INSTITUTIONAL ARRANGEMENTS AND PREREQUISITES

There are institutional arrangements and certain prerequisites which needs to be addressed and put in place to successfully implement the National mHealth Strategy

- Constitute and institutionalize mHealth sub-committee to govern the implementation of the strategy
- Strengthen mHealth at MOH and staff it with skill mix human resources
- The strategy requires resources and technical assistance to ensure full implementation
- Develop prioritized mHealth operational plan with budget and captured in subsequent annual work plan and budget
- Develop the monitoring framework and review the implementation status of mHealth strategy using existing review platforms, including midterm reviews

MONITORING AND EVALUATION FRAMEWORK

For programs to succeed, needs assessments, monitoring systems and outcomes evaluations should be thoughtfully designed from the outset onset of integration. Appropriate measures of evaluation ought to be integrated into the implementation process to assess the impact of interventions to help inform future programming and policy development (Shields, Chetley, & Davis, 2005).

The Ministry of Health shall develop a monitoring framework with key performance indicators to facilitate effective monitoring of the mHealth strategy implementation and document lessons learned to enhance future mHealth platforms. The mHealth strategy shall be reviewed regularly to align with emerging policy documents or decisions and to assure compliance with best technological standards.

An mHealth sub-committee shall be established with clearly defined terms of reference, for effective mHealth governance, collaboration and coordination of activities among MOH stakeholders involved with its implementation.

Monitoring of the mHealth Strategy and Operational Plan will be carried out through regular technical supportive supervision on all aspects of mHealth implementation at all levels. A mid-term and final evaluation exercise will also be conducted to assess the extent to which the objectives will have been achieved. The M&E matrix shown in Table XX below shows the indicators and targets that will enable monitoring and self-assessment of progress towards results and facilitate reporting on mHealth performance. However, the ICT sub-committee periodically shall work and amend the indicators and targets of this M&E matrix where/when necessary.

The mHealth sub-committee shall be established to be supported by the ICT TWG and will be responsible for ensuring that an M & E plan with clear activities is developed.

LEGAL FRAMEWORK

This strategy shall be guided by the Liberia Telecommunication Act of 2007, National Telecommunication Policy and Strategy 2010-2015, Liberia eGovernment Strategy 2014 –2018, the GOL ICT Handbook (2015) and other relevant regulations that may be established nationally. The Information and Communication Technology (ICT) Policy and Strategy (2018-2023) also forms the legal basis for the formulation and implementation of this strategy. Therefore, this strategy is intended to be implemented in line with the aforementioned instruments. In the event any of the provisions of this strategy comes in conflict with any provision/s of any of the said national instruments, the provisions of the subject parent instrument will prevail.

APPENDIX

mHEALTH PLAN

Strategic Objective	Specific Objectives	Interventions	2023				2024				2025				2026				2027			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
1	IMPROVE ACCESS TO TIMELY AND ACCURATE HEALTH DATA THROUGHT RESEARCH, INNOVATION AND DEVELOPMENT	Strengthen mHealth platforms through research, innovations and development for interoperable health information systems to improve access to data.		x	x	x																
		Adopt sustainable and secure ICT infrastructure that support effective mHealth implementation and monitoring	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X
		Explore and adopt technologies to promote access and compliance for health services at all levels	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X
2	STRENGTHEN AND MANAGE INSTITUTIONAL AND MATERIAL CAPACITY FOR mHEALTH	Develop a sustainable fiscal strategy that captures long term investment in mHealth (eHealth)	x				x				x				x				x			
		Develop the appropriate human resources, and ICT support including. infrastructure, application and capacity development, capacity building, etc.) to support healthcare delivery	x	x	x	x	x	x	x	X	x	x	x	x	x	x	x	x	x	x	x	x
		Leverage existing global mHealth (eHealth) investment strategies to refine the Liberia model.																				
3	STRENGTHEN GOVERNANCE AND COORDINATION OF mHEALTH INTERVENTIONS TO AVOID DUPLICATION AND FRAGMENTATION	Build health sector capacity for wider application of mHealth solutions	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	X
		Collaborate with implementing partners, academic Institutions and the global digital health network in workforce education to		x		x		x		x		x		x		x		x		x		X
4	ENSURE ADEQUATE INVESTMENT AND FINANCING FOR mHEALTH DEVELOPMENT AND SUSTAINABILITY	Establish mechanisms for resource mobilization activities for mHealth implementations			x				x				x				x				X	
		Budget mHealth costs into national budgets, including data costs, software upgrades or development costs, and maintenance costs	x			x	x			x	x			x	x			x	x			x