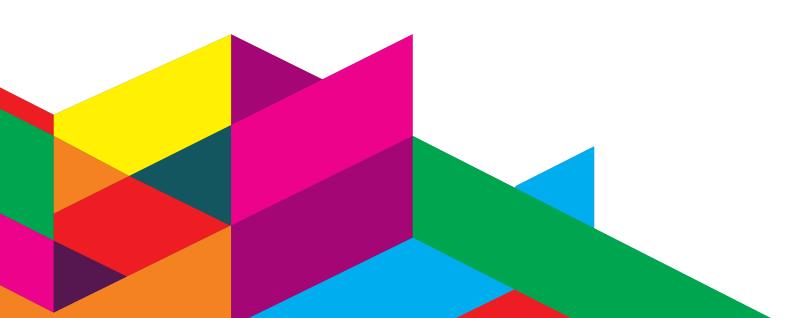# MALAWI MINISTRY OF HEALTH

Data and Digital Priorities:
Digital Health for Universal Health
Coverage

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HEALTH DATA
COLLABORATIVE

BACKGROUND

There is a high dependence on an outdated paper-based approach to health service delivery in Malawi. This causes several problems, namely poor availability of timely and actionable data for action.

Due to its ability to transform the quality of health services by, among other benefits, increasing access to health services and health sector data, digital health has been placed at the centre of attaining UHC by the Ministry of Health of Malawi. However, challenges in country remain. There is a lack of sustainability of digital health solutions, inadequate coverage of digital health solution, lack of interoperability between digital systems, lack of trust in data quality and lack of data use. Further, there is inadequate and unskilled workforce in digital health, as well as inadequate infrastructure in the form of connectivity, power, end user devices.

National EHR Taskforce

The address some of the challenges the country faces and to support the Health Sector Strategic Plan 2017-2022, formation of a national task force has been proposed to develop concrete roadmaps for the following:

• Review status of Electronic Health Records, E-Register, EMRs, e-Master cards and concretize the roadmap towards comprehensive patient level information management platform
• Review the status and concretize the iCHIS road map
• Review the status of ISS operationalization and concretize the ISS roadmap
• Review the status of selected HIS SOPs and concretize implementation roadmap
• Review the status of the Civil Registration and Vital Statistics and to develop a roadmap for the implementation of a comprehensive CRVS system
• Review the status of connectivity interventions and concretize roadmap for implementation

The Taskforce will also conduct a workshop to review and integrate all key partner activities in the 2021/2022 Digital Health Work Plan as well as review and establish MoUs all DH partners.

These reviews will support the development of the Health Sector Strategic Plan 2023-2028.

Key areas of alignment

The Ministry of Health calls on partners to align activities to the National Digital Health Strategy. In order to facilitate this, the Ministry requests support to;
• Finalize (proof read, design and print) and disseminate the Digital Health Strategy
• Conduct a partner/Investment mapping exercise
• Conduct a High Level Donor Symposium
• Facilitate implementation of key strategic areas
Further, there is a need to
• Align platforms to the Integrated Electronic Health Record system/Hospital Information System Blue Print Available
• Align platforms to the National Digital Interoperability Architecture and Platform
• Implement interoperability for additional systems eg Birth/Death registration platform, Laboratory Information System
• Establish a Digital Health Governance Structure – Digital Health Coordination, TWG, Steering Committee in country

DIGITAL HEALTH STRATEGY IMPLEMENTATION

The focus for the strategic implementation is based on the 2021 Annual Implementation Plan and Extract of Year 1 Activities from the Digital Health Strategy. Year 1 Activities are harmonized with the Digital Health Roadmap and the Ministry further seeks harmonization of partner activities into the implementation plan.

Funding Mechanism and Resources Required

A sustainable funding mechanism is seen to be a critical factor for sustainability. This however, hinges on donor confidence on our ability to manage the resources transparently and also accountably. As such there was a thought of creating our own PIU, although the Ministry is mindful of the government policy on PIUs. As such the Ministry has resolved to use the only existing PIU in the Ministry, which is the Global Fund PIU.

KEY DOCUMENTS

Malawi Health Sector Strategic Plan 2017-2022

Malawi National Health Information System Policy

Malawi Monitoring and Evaluation Taskforce Priorities

Malawi Monitoring, Evaluation and HIS Strategy 2017-2022

National Health Indicators Handbook

Malawi Digital Health Strategy 2020-2025

KEY INTERVENTIONS AND PARTNER MAPPING MATRIX

PRIORITY 1

OBJECTIVE: IMPROVED COORDINATION OF DIGITAL HEALTH INVESTMENTS TO INCREASE EFFICIENCY OF HEALTH INFORMATION SYSTEMS

DESCRIPTION: ESTABLISHING CLEAR LEADERSHIP AND SUPPORTING GOVERNANCE STRUCTURES WITHIN THE MINISTRY OF HEALTH WILL FACILITATE GOVERNMENT LED COORDINATION OF HIS ACTIVITIES

OUTCOME: COORDINATED AND ALIGNED TECHNICAL AND FINANCIAL INVESTMENTS IN HIS THAT ARE DRIVEN BY COUNTRY OWNED STRATEGIES

Proposed Activities	Key Deliverables
Strengthen leadership and governance structures for management of digital health interventions	Coordinate DH TWG and Sub TWGs, EHR Harmonization Taskforce, DHIS 2 Core Group
Create an enabling environment for effective implementation of digital health solutions through appropriate legislation, policies and compliance mechanisms	Develop the Digital Health Policy
Strengthen Sustainability mechanism for digital health solutions	Develop a common and coordinated investment framework for digital health interventions

PRIORITY 2

OBJECTIVE: ESTABLISH A RELIABLE ICT INFRASTRUCTURE THAT ENABLES UTILIZATION OF DIGITAL HEALTH SYSTEMS

DESCRIPTION: CONNECT DISTRICT HEALTH OFFICES AND HEALTH FACILITIES TO THE GOVERNMENT WIDE AREA NETWORK (GWAN)

OUTCOME: ALL HEALTH FACILITIES CONNECTED TO GWAN

Proposed Activities	Key Deliverables
Improve availability of desktop computers and laptops at health facility level	All health facilities should have one desktop or laptop per 4 healthcare workers
Improve the availability of tablet computers and smartphones at community level	Every Village Clinic should have at least one tablet or smart phone
Improve medical diagnostics through deployment of digital enabled diagnostics equipment	
Improve capability of connectivity in poorly covered areas (i.e. areas with no or intermittent connectivity	Connect health facilities to Government Wide Area Network
Extend coverage of renewable and hybrid power solutions	
Improve availability of computing infrastructure and devices	Procure more end user devices for health facility staff

PRIORITY 3

OBJECTIVE: LEVERAGE TECHNOLOGY TO INCREASE ACCESS TO AND QUALITY OF SERVICE DELIVERY

DESCRIPTION: DESIGN AND IMPLEMENT A HOSPITAL WIDE DECISION SUPPORT DIGITAL HEALTH SOLUTION TO IMPROVE DELIVERY OF SERVICE AT THE POINT OF CARE

OUTCOME: 50% OF HEALTH FACILITIES PROVIDING SERVICES USING HOSPITAL WIDE SYSTEM

Proposed Activities	Key Deliverables
Use innovative digital health technologies to increase access and quality of health (Also refer to MEHIS Activity 3.6)	* Implement a Hospital Wide Information System * Implement the integrated Community Health Information System * Roll out Integrated Supportive Supervision to all districts and facilities * Implement a health research and data management information system
Leverage use of predictive analytics and big data to improve health service delivery	
Align digital health interventions with comprehensive digital health architecture	

PRIORITY 4

OBJECTIVE: 1. PROMOTE INTEROPERABILITY OF DIGITAL HEALTH SOLUTIONS TO ENABLE INFORMATION SHARING FOR CONTINUITY OF CARE.
2. STRENGTHEN THE SHARING AND ACCESSIBILITY OF DATA ACROSS SYSTEMS TO ENABLE USE

DESCRIPTION: EXTEND THE INTEROPERABILITY FRAMEWORK TO ENABLE EXCHANGE OF DATA BETWEEN HEALTH SYSTEMS

OUTCOME: ALL HEALTH SYSTEMS AT A MINIMUM ABLE TO SHARE DATA WITH THE NATIONAL DHIS 2 INSTANCE

Proposed Activities	Key Deliverables
Lead efforts to ensure that longitudinal and cross-sectional patient health records are accessible at the point of service delivery	* Finalize the EHR/HIS Blue Print * Extend the deployment and use of CRVS
Strengthen the identification of clients and staff across the health system	Develop the Master Patient Index based on National ID
Implement a standard framework as a national standard for interoperability	Develop and disseminate the Interoperability SoP
Implement interoperability among priority systems	Extend interoperability of HMIS to include birth and death registration system and other systems of national importance

PRIORITY 5

OBJECTIVE: BUILD THE CAPACITY OF CLIENTS, COMMUNITIES, HEALTH CARE WORKERS, AND IT PERSONNEL TO PARTICIPATE IN AND BENEFIT FROM DIGITAL HEALTH INTERVENTIONS

DESCRIPTION: INCREASE CAPACITY OF HEALTH WORKFORCE TO IMPLEMENT AND UTILIZE DIGITAL HEALTH INTERVENTIONS

OUTCOME: 50% OF HEALTH CARE WORKERS ARE ABLE TO COMPLETE THEIR CPD REQUIREMENT THROUGH E-LEARNING

Proposed Activities	Key Deliverables
Deploy e-learning solutions to provide Continuous Professional Development Courses	Introduce eLearning Platform for CPD
Develop capacity for human resources to deploy, support and use digital health solutions at national, district and health facility levels	* National level and each district has adequate ICT staff to support with delivery of digital solutions * 50% healthcare workers have received standardized digital health training

PRIORITY 6

OBJECTIVE: IMPROVE SECURITY OF INFORMATION AND ICT SYSTEMS

DESCRIPTION: ENSURE THAT DIGITAL HEALTH INFORMATION AND USERS ARE PROTECTED FROM UNDE-SIRABLE THREATS INCLUDING PHYSICAL THREATS(FRAUD AND THEFT), MALWARES, BREACH OF PRIVACY, MISUSE OF INFORMATION

OUTCOME: BETTER HEALTH DATA GOVERNANCE AT ALL LEVELS OF THE HEALTH SYSTEM

Proposed Activities	Key Deliverables
Ensure continuity of service delivery in all service delivery points in cases of disasters and loss of property	* Establish system data back up sites to provide redundancy and replicate data in the southern and northern regions
Develop and deploy standardized security management process in health sector to promote acceptable use of data and related tools, including hardware and software	
Address ethical issues in digital health in order to promote privacy and security of clients data	* Implement and enforce Data Access and Release SOPs * Develop a tracking system of all authorized data accesses and disposal policy for ease follow up

UNITY AND FREEDOM

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