



DIGITAL REACH INITIATIVE STRATEGIC PLAN

2019-2028



DIGITAL REGIONAL EAST AFRICAN COMMUNITY HEALTH INITIATIVE
TOWARDS A REGIONAL COMMITMENT TO IMPROVE HEALTH OUTCOMES THROUGH DIGITAL TECHNOLOGY





EAST AFRICAN HEALTH RESEARCH COMMISSION
Research for Health and Prosperity

Digital REACH Initiative Strategic Plan 2019 – 2028

Table of Contents

Definition of Terms	4
Abbreviations	6
Acknowledgements	7
Foreword by Hon Amb Liberat Mfumukeko EAC Secretary General	8
Foreword by Professor Gibson Kibiki, The Executive Secretary of the EAHRC	9
Executive Summary	10
Introduction	19
A Call to Action: Supporting Digital REACH and Why It Matters Now	22
The Digital REACH Initiative	23
Digital REACH and Partner States	26
Strategic Alignment with EAC and Partner States	27
Approach to Implementation	32
Workstream 1: Initiative Management	35
Workstream 2: Health Programmes	41
Workstream 3: Infrastructure	60
Workstream 4: Services and Applications	63
Workstream 5: Leadership and Advocacy	66
Workstream 6: Strategy and Investment	69
Workstream 7: Legislation, Policy, and Compliance	72
Workstream 8: Workforce	75
Workstream 9: Standards and Interoperability	78
The Path Forward	81
Appendix A: Full Acknowledgements	88
Appendix B: Partner State Situation Analysis	102
Appendix C: EAC Digital REACH Initiative Supporting Documentation	104
Appendix D: EAC Strategic Priorities and Digital REACH Outcome Goals	113
Appendix E: Additional Workstream Activities	114
Appendix F: Skills and Capabilities Across Workstreams	115
Appendix G: EAHC Implementation Activities	116

Definition of Terms

DIGITAL HEALTH AND eHEALTH *(used interchangeably in this report)*

Umbrella terms to encompass all concepts and activities at the intersection of health and information and communications technologies (ICTs) — including mobile health (mHealth), health information technology, electronic health records, and telehealth — comprising three main functions:

- The delivery of health information, for health professionals and health consumers, through the internet and telecommunications media
- The use of ICTs to improve public health services (e.g., through the education and training of health workers)
- The use of health information systems (HIS) to capture, store, manage, or transmit information on patient health or health facility activities

DIGITAL HEALTH SOLUTION

An individual product or service, or combination of multiple products or services, created to serve a specific health system objective, often involving a combination of hardware, software, infrastructure, and services required to meet this objective.

DIGITAL HEALTH SYSTEM

The interrelated set of technologies, processes, and structures within a digital health ecosystem, typically including numerous solutions and organisations.

eLEARNING

Learning using electronic technologies to access educational curriculum outside of a traditional classroom.

ENVIRONMENTAL ENABLERS

Components of the ecosystem that support digital health, namely leadership and governance, strategy and investment, the workforce, harmonisation of standards and technical interoperability, and legislation, policy, and compliance.

FRAMEWORK

Conceptual structure guiding the Digital REACH Initiative components.

HEALTH PROVIDER/WORKER

The health professional whose key responsibility is the provision of healthcare services irrespective of their organisations.

HEALTHCARE SERVICES

Prevention and management of disease, illness, injury, and other physical and mental impairments delivered by healthcare provider to individuals through the healthcare system.

HEALTH SYSTEMS

All the activities whose primary purpose is to promote, restore, and maintain health, including the people, institutions, resources, and policies that governments put in place to improve public health.

INITIATIVE

The Digital Regional East African Community Health (REACH) Initiative, a new standing body with a defined governance structure set up to oversee the creation of an enabling environment for digital health across the EAC region and to implement digital health programmes to improve regional health in the EAC.

INTEROPERABILITY

The ability of different information technology systems and software applications to communicate, exchange data, and use the information that has been exchanged. Integration allows two applications to exchange information, interoperability allows many.

mHEALTH

The delivery of healthcare services through mobile networks and devices.

SOCIAL HEALTH PROTECTION

A series of public or publicly organised and mandated private measures against social distress and economic loss caused by the reduction of productivity, stoppage or reduction of earnings, or the cost of necessary treatment that can result from ill health.

STANDARDS

Rules or guidelines that ensure consistency in the context in which they are applied. Rules or guidelines that ensure consistency in the context in which they are applied.

TRANSFORMATIONAL TECHNOLOGIES

A new technology that replaces an established technology, or an innovative technology that creates a completely new industry.

TELEMEDICINE

The use of modern technologies to deliver health services to patients and to facilitate remote exchange and sharing of health information with healthcare providers within accepted jurisdiction.

UNIVERSAL HEALTH COVERAGE

All people and communities can use promotive, preventive, curative, rehabilitative, and palliative health services as needed without exposing the user to financial hardship.

Abbreviations

AMR	Antimicrobial resistance	LMICs	Low and middle-income countries
CBHU	Cross-Border Health Unit	M&E	Monitoring and Evaluation
CHW	Community Health Worker	MNO	Mobile Network Operator
CoE	Centre of Excellence	MoH	Ministry of Health
CPD	Continuous Professional Development	MoITC	Ministry of Information Technology and Communication
DHIS2	District Health Information System version 2	MOOC	Massive Open Online Course
EAC	East African Community	NCD	Non-communicable disease
EAACH	East African Academy for Community Health	NEAT	[Telemedicine] Networks for East African Tertiary [Healthcare Services]
EAHRC	East African Health Research Commission	NGO	Non-governmental Organisation
EAIDSNet	East African Integrated Disease Surveillance Network	OpenHIE	Open Health Information Exchange
EAHC	East African Health Cloud	OpenMRS	Open Medical Record System
EASTECCO	East African Science and Technology Commission	PMO	Project Management Office
ECOWAS	Economic Community of West African States	PPP	Public-private partnership
EWG	Expert Working Group	RAD	Regional Action through Data Consortium
GHSA	Global Health Security Agenda	REACH	Regional East African Community Health
GPO	Group Purchasing Organisation	READSCoR	Regional East Africa Disease Surveillance, Control, and Response
HMIS	Health Management Information System	RHO	Regional Health Observatory
HR	Human Resources	RFP	Request for Proposal
ICT or IT	Information and Communication Technology	SACIDS	Southern African Consortium for Infectious Disease Surveillance
ID	Identification	SOP	Standard Operating Procedure
IGAD	Inter-governmental Authority on Development	USAID	United States Agency for International Development
IUCEA	Inter-University Council for East Africa		

Acknowledgments

The concept for Digital REACH Initiative was created and commissioned by the East African Community (EAC) through the East African Health Research Commission (EAHRC). In developing the Strategic Plan, EAHRC received financial support and technical assistance from the EAC, the United States Agency for International Development (USAID), the Bill & Melinda Gates Foundation, Digital Square, Last Mile Health, the Rockefeller Foundation, and the Vitol Foundation. The document was written and edited by Vital Wave, Inc.

The EAHRC would like to thank the multiple stakeholders who have been engaged throughout the process of developing the costed Digital REACH Strategic Plan. Special thanks are extended to the following contributors for their contribution to the development of the costed Strategic Plan:

- Bill and Melinda Gates Foundation, Seattle, USA
- East African Community (EAC), Arusha, United Republic of Tanzania
- East African Centre of Excellence in Biomedical Engineering and eHealth, Republic of Rwanda
- East African Centre of Excellence for Cardiovascular Sciences, United Republic of Tanzania
- East African Centre of Excellence for Oncology, Republic of Uganda
- East African Centre of Excellence for Urology and Nephrology, Republic of Kenya
- East African Regional Centre of Excellence for Vaccines, Immunization and Health Supply Chain, Republic of Rwanda
- East African Health Research Commission (EAHRC), Bujumbura, Republic of Burundi
- East African Science and Technology Commission (EASTECO), Kigali, Republic of Rwanda
- Expert Working Groups of the East African Health Research Commission (EAHRC) in the EAC Partner States
- Hewlett-Packard, Palo Alto, USA
- Inter-University Council for East Africa (IUCEA), Kampala, Republic of Uganda
- Kamenge University Hospital, Republic of Burundi
- Kenya Medical Research Institute (KEMRI), Republic of Kenya
- Last Mile Health, Boston, USA
- Ministry of EAC Affairs, Republic of Burundi
- Ministry of EAC Affairs and Regional Development, Republic of Kenya
- Ministry of EAC Affairs, Republic of Rwanda
- Ministry of EAC Affairs, United Republic of Tanzania
- Ministry of EAC Affairs, Republic of Uganda
- Ministry of Public Health and Fight Against AIDS, Republic of Burundi
- Ministry of Health, Republic of Kenya
- Ministry of Health, Republic of Rwanda
- Ministry of Health, Republic of Uganda
- Ministry of Health, Community Development, Gender, Elderly and Children, United Republic of Tanzania
- Ministry of Higher Education and Scientific Research, Republic of Burundi
- Muhimbili University of Health and Allied Sciences (MUHAS), United Republic of Tanzania
- Muhimbili National Hospital, United Republic of Tanzania
- National Commission for Science, Technology, and Innovation, United Republic of Tanzania
- National Institute for Medical Research (NIMR), United Republic of Tanzania
- National Institute of Public Health, Republic of Burundi
- Management, Republic of Rwanda
- Rwanda Biomedical Centre, Republic of Rwanda
- The World Bank
- PATH/Digital Square, Seattle, USA
- Uganda National Health Research Organisation (UNHRO), Republic of Uganda
- University of Rwanda, School of Medicine and Health Sciences, Republic of Rwanda
- University Teaching Hospital of Kigali, Republic of Rwanda
- United States Agency for International Development (USAID)
- Vital Wave, Inc., USA

The full list of individuals who contributed to this Strategic Plan can be found in Appendix A.

Foreword by Hon Amb Liberat Mfumukeko EAC Secretary General

Health is a central pillar for the prosperity of the citizens of the East African Community (EAC). East African countries have been cooperating on matters of health for over a hundred years, denoting the value that health brings to socioeconomic prosperity. In its determination for regional integration, the EAC has opened borders to facilitate the free movement of people, services, and business. This free movement stands to contribute significantly to the socioeconomic agenda, but it requires robust health systems and collaboration across the region. This millennium the world has witnessed how Information and Communication Technology (ICT) can revolutionise socioeconomics; the delivery of financial services in East Africa has significantly improved through the use of digital technology. Given the power of the technology, the EAC has taken another step, to integrate technology into the health sector using digital health, as a way of strengthening regional healthcare services. In realising the value of digital health, the East African Health Research Commission (EAHRC), an institution of the EAC, established to guide the provision of evidence-based health services, conceptualised and coordinated the effort to develop the Digital Regional East African Community Health (Digital REACH) Initiative.

Digital REACH is an implementation science-led initiative. The Initiative will develop and implement regional health programmes that require economies of scale and regional capabilities which the EAC is uniquely positioned to address. The Initiative is designed to complement, improve, and strengthen country-specific work in digital health and has been developed in collaboration with Partner States to ensure alignment with national strategies and priorities. The EAHRC will coordinate all stakeholders to bring about the digital health best practices into the mainstream of the regional health system.

This initiative has come at the right time. A time when the EAC is grappling with multiple health challenges including the threat of disease outbreaks, the increasing impact of non-communicable diseases, and emerging infectious diseases. Through the Digital REACH Initiative, we are optimistic that health professional training will improve, continuity of care for EAC citizens will not be hampered by the movements of people across borders, and that communities in remote areas will be able to access specialised health services. In addition to this, the generation and use of data by the region will empower the EAC to establish a health system that is evidence-based and that allows citizens to take greater ownership of their own health.

The completion of this costed Digital REACH Initiative's Strategic Plan is an implementation of the priorities for health investment that were approved by the Heads of all the EAC Partner States. The Digital REACH Initiative marks a new era in health for EAC, and the world at large.

Sincerely,

Hon Amb. Liberat Mfumukeko
EAC Secretary General



Hon Amb Liberat Mfumukeko
EAC Secretary General



*Professor Gibson Kibiki, MD, MMed, PhD
Executive Secretary – East African
Health Research Commission*

Foreword by Professor Gibson Kibiki, Executive Secretary of the EAHRC

A healthy population is essential for the prosperity of the East African Community (EAC). Sustainable development is built on a productive society that is able to thrive in a healthy region, free of health threats, with equitable and effective care. East African leaders and citizens have shown determination to construct a powerful and sustainable East African regional economic and political bloc that allows free movement of people, services, and goods. Strengthening healthcare provision at all levels of the health system, from national all the way to the regional level, is critical to regional health security and to facilitate access to quality healthcare across the region.

Technology is an important part of this vision. There is a clear opportunity for East Africa to utilise digital technologies to advance the health and prosperity of the region and its citizens in ways that are more effective and efficient. While EAC Partner States have each made progress in incorporating technology in their provision of healthcare, there is work to be done so that all EAC countries can reap the rewards.

After a series of strategic planning discussions coordinated by the East African Health Research Commission (EAHRC), the EAC Partner States officially recommended on 22nd February 2018 in Kampala, Uganda that the region harness the potential of digital technology by scaling uptake and utilisation of digital technologies and solutions for improved health service delivery and health outcomes. The recommendation was approved as a health priority for investment by the Heads of the six EAC Partner States during the Joint EAC Heads of the State Retreat on Infrastructure and Health Development on 23rd February 2018 in Kampala, Uganda.

The Digital Regional East African Community Health Initiative (Digital REACH Initiative) is the vision for realising the recommended priority. This strategic plan builds on the Digital REACH Initiative roadmap, which was approved by the ministers of health of the six EAC Partner States during the 15th Ordinary Meeting of the EAC Sectoral Council of Ministers of Health from 13th to 17th November 2017 in Kampala, Uganda. The document details the approach to take this Initiative forward, along with further detail on the activities and implementations that will realise its mission of a strong digital health ecosystem in East Africa.

I would like to thank the representatives of the EAC Partner States, EAHRC Commissioners, EAHRC National Focal Points' experts, health experts, ICT and eHealth government officials from EAC Partner States, non-governmental organisations, and development partners for their valuable inputs and support to the EAHRC throughout this process. They have been essential to developing this innovative, first-of-its-kind strategy that supports the EAC Integration agenda towards "One People, One Health System" taking a regional perspective in advancing technology for health.

Sincerely,

Professor Gibson Kibiki, MD, MMed, PhD
Executive Secretary – East African Health Research Commission

Executive Summary

THE DIGITAL REGIONAL EAST AFRICAN COMMUNITY HEALTH INITIATIVE

A prosperous and healthy region is one in which each EAC Partner State can participate fully in trade and industry within an environment that sustains and nourishes its people, free of health threats and capable of providing universal care to all. Open borders and the continuous movement of people underscore the need for a regional approach to track and respond to regional health priority needs, while laying the groundwork for a robust and sustainable regional economy. Technology can help to strengthen regional health systems by bolstering the access, use, and performance of health services.

The Digital Regional East African Community Health (Digital REACH) Initiative will be a new, ground-breaking Initiative within the East African Community (EAC) that will implement regionally-focused, interoperable information and communications technology (ICT) across all dimensions of the health sector in East Africa, while leveraging existing country digital health investments. It has the power to support universal health coverage by improving healthcare delivery across the region, transforming the lives of over 160 million people.

The Initiative has been developed based on collaboration and inputs from representatives of the EAC Partner States and is supported by all Presidents of the EAC, specifically the Republic of Burundi, the Republic of Kenya, the Republic of Rwanda, the Republic of South Sudan, the United Republic of Tanzania, and the Republic of Uganda.

Each of the Digital REACH workstreams described in this document support the EAC's integration agenda of "One People, One Health System". This support of regional integration is what makes the Digital REACH Initiative unique and is why it has received the highest levels of political support in the EAC region.

CALL TO ACTION: SUPPORTING THE DIGITAL REACH INITIATIVE AND WHY IT MATTERS NOW

ICT adoption amongst all health stakeholders – from patients to health ministers – has occurred so quickly and thoroughly that the term *digital health* is losing its novelty. This signals its maturity and the need for coordination across the ecosystem, moving away from a fragmented approach to digital health – characterised by siloed applications, waste, and variable data – to a holistic digital health model with coordinated investments and common assets leveraged across multiple health programmes. Strong leadership, the right supportive, enabling environment, and alignment with the new Principles of Donor Alignment for Digital Health can propel this model to reality, preventing duplication of effort across the region and generating large-scale cost efficiencies.

The EAC has the opportunity to play a major role in creating and supporting the enabling environment for digital health and in the design and use of digital health implementations, to ensure sustainability and scale across the region. The purpose of the Digital REACH Initiative is to harness this opportunity through coordinated regional action.

PURPOSE OF STRATEGIC PLAN

Created and owned by the EAC, this Strategic Plan presents a ten-year plan for implementing the Digital REACH Initiative. It follows the EAC's approval of the [Digital REACH Roadmap](#) by Partner State Ministers of Health, presenting a common regional vision and strategic approach for regional collaboration in health. It also serves as a platform for development partners' and private-sector input to support coordination and shared investment. The plan will allow the EAC to pursue the funding necessary to launch the Initiative and plan for full-scale operations by early 2019. This is the first time an African Union region has come together to create an ambitious and coordinated approach to digital health that is prioritised for investment by all Presidents of the EAC Partner States.

A prosperous and healthy region is one in which each EAC Partner State can participate fully in trade and industry within an environment that sustains and nourishes its people, free of health threats and capable of providing universal care to all.

VISION AND MISSION

The Digital REACH Initiative is guided by the following vision and mission:

Vision 2028

Interconnected health systems
for a healthy and prosperous East Africa

Mission Statement

Maximise the power of digital health in East Africa by ensuring an enabling environment and by implementing scaled, coordinated, transformational, and innovative approaches.

DIGITAL REACH INITIATIVE OUTCOME GOALS

The specific outcome goals of the Digital REACH Initiative are listed below. These have been identified by EAC Partner State representatives through a series of workshops in 2017 and 2018.



Optimise the Prevention, Diagnosis, and Treatment of Priority Health Conditions

Improve quality, access, and continuity of care across EAC countries for communicable and non-communicable diseases.



Improve Health Worker Education and Training

Provide standardised and recognised healthcare training and capacity building for pre and in-service health workers.



Improve Supply Chain Efficiency

Take advantage of economies of scale for dealing with suppliers and vendors that impact the region.



Enhance Public Health Education and Awareness

Improve and support community health-related knowledge and provide patient education for preventive care, and behavior change.



Support Universal Access to Healthcare

Enhance social health protection in the region and the portability of health insurance.



Improve Disease Surveillance and Response

Build capacity and improve regional disease surveillance to prevent, detect, and respond to infectious diseases, emergencies, and outbreaks.



Optimise Human Resource Allocation and Management

Optimise health worker mobilisation and facilitate health worker knowledge sharing across the regions.

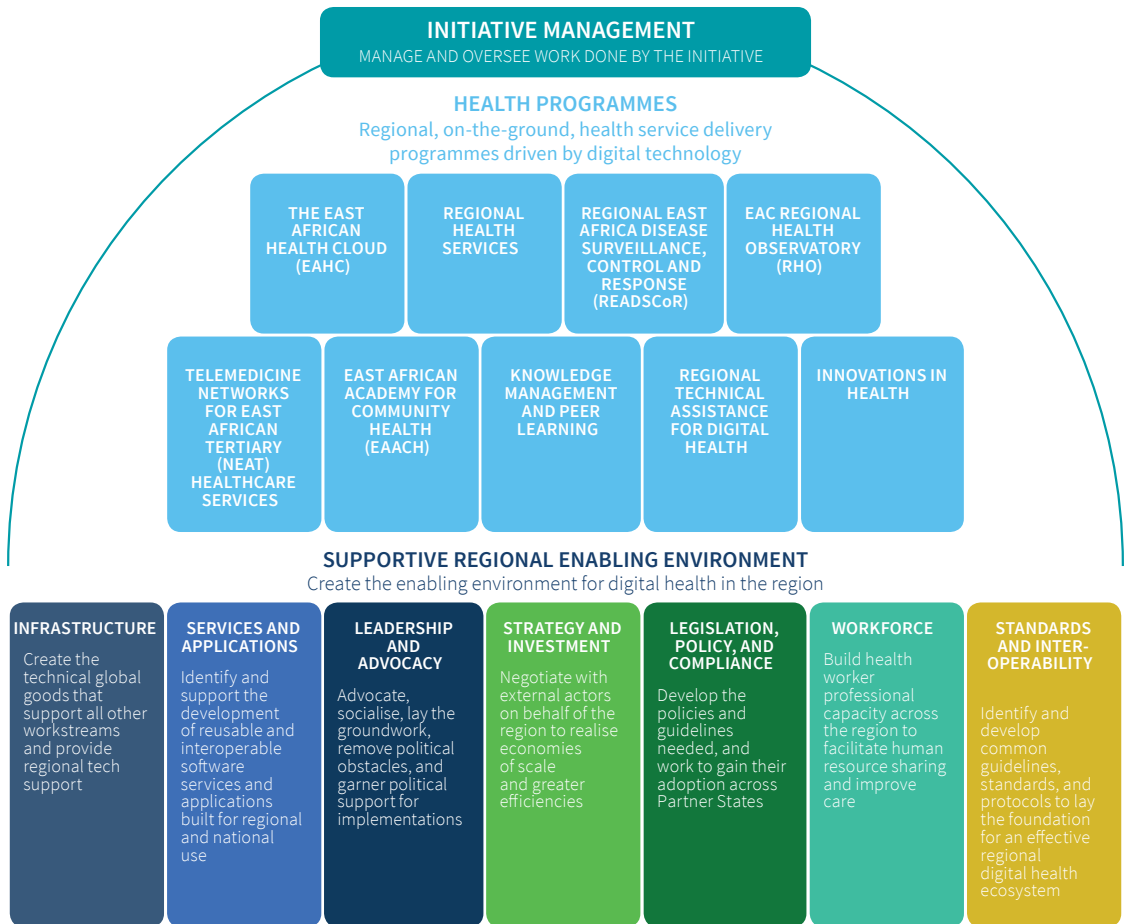


Monitor Population Health Status

Track regional priority health indicators and promote use of health research to support health policies and further the regional health agenda.

DIGITAL REACH INITIATIVE WORKSTREAMS

The Initiative has been structured into nine workstreams. They will run in parallel and support one another, starting with select priority activities and expanding into other areas of work as gains are made and resources become available. Implementation of workstreams will be staggered in line with these priorities. The Health Programmes Workstream will focus on the implementation of specific, strategic health programmes, while the seven Enabling Environment Workstreams will focus on the creation of an enabling environment for digital health that can be shared across Partner States and that supports health programme implementations. An overarching workstream for Initiative Management will lead and manage the Initiative. A summary of the different workstreams can be found below.



Much investment has already been made across a number of these workstreams by Partner States and development partners. An early scan of what already exists across the EAC region will be carried out once each workstream is set up, to build on and support existing initiatives and learn from previous implementations.

IMPLEMENTATION APPROACH

A key differentiator of the Digital REACH Initiative is that it takes an evidence-based approach, implementing targeted regional digital health programmes while also creating the supportive foundations that will make those programmes successful. This is a ground-breaking dimension of this Initiative. It makes it possible to not only identify evidence of impact, but also to apply that evidence in a way that structures and drives work on the enabling environment and subsequent health programme implementations.

The section below provides an overview of the different workstreams and the identified priority activities for each, selected based on input from EAC and Partner States, the feasibility and potential impact of implementation, the critical dependencies of these activities to other areas of works, and the importance of striking a balance between building foundations and establishing quick-wins towards progress and impact.

WORKSTREAM 1: INITIATIVE MANAGEMENT

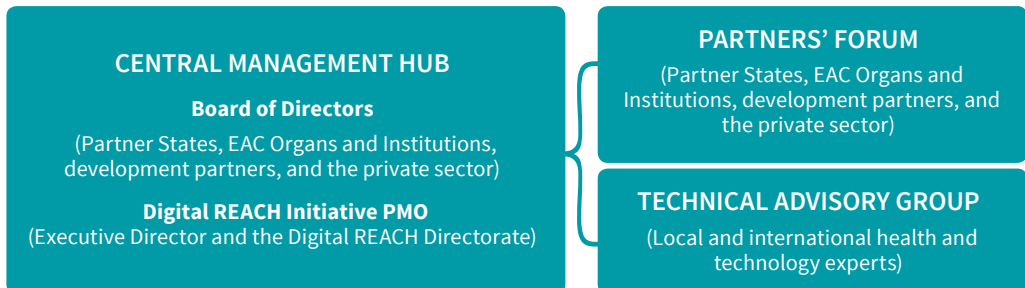
Workstream 1, the Initiative Management workstream, will holistically guide, coordinate, and maximise the impact of the other eight Initiative workstreams. It aims to **provide strategic organisational direction across the entire Initiative, create operational efficiencies, drive awareness of the Initiative through unified messaging and public relations, and ensure compliance with regulations and grant requirements.** It will coordinate across all other workstreams, making sure all are working towards the achievement of the vision and mission of the Initiative.

The Project Management Office (PMO) will reside in this workstream and will be the centralised management organisation of the Digital REACH Initiative, providing leadership and coordination across all other workstreams. The full Strategic Plan explains in further detail how this will be set up and managed. Example priority activities include:

PRIORITY ACTIVITIES

- 1.1 Set up the appropriate entity and structures to lead and manage the Initiative and provide ongoing operational support across workstreams
- 1.2 Provide leadership across all workstreams and encourage cross-workstream synergies
- 1.3 Assist other workstreams with hiring and training staff (legal support, human resources)
- 1.4 Manage grants and communications with grant partners for the Initiative
- 1.5 Coordinate amongst existing partners in the public and private sector and pursue new partnerships throughout the lifespan of the Initiative
- 1.6 Set up routine processes to report out on progress and financing of current activities and prioritise future workstream activities with EAC leadership and the Technical Advisory Group annually
- 1.7 Conduct M&E, thought leadership, and performance management across all workstreams
- 1.8 Share and duplicate best practices among Partner States and other regional organisations

DIGITAL REACH INITIATIVE MANAGEMENT WORKSTREAM



Oversight Across All Other Workstreams

Workstreams will have their own Workstream Lead, teams, management structure, and budget and report to the PMO. Workstream-specific partnerships will be managed at the workstream level

HEALTH PROGRAMMES

INFRASTRUCTURE

SERVICES AND
APPLICATIONS

LEADERSHIP
AND
ADVOCACY

STRATEGY AND
INVESTMENT

LEGISLATION,
POLICY, AND
COMPLIANCE

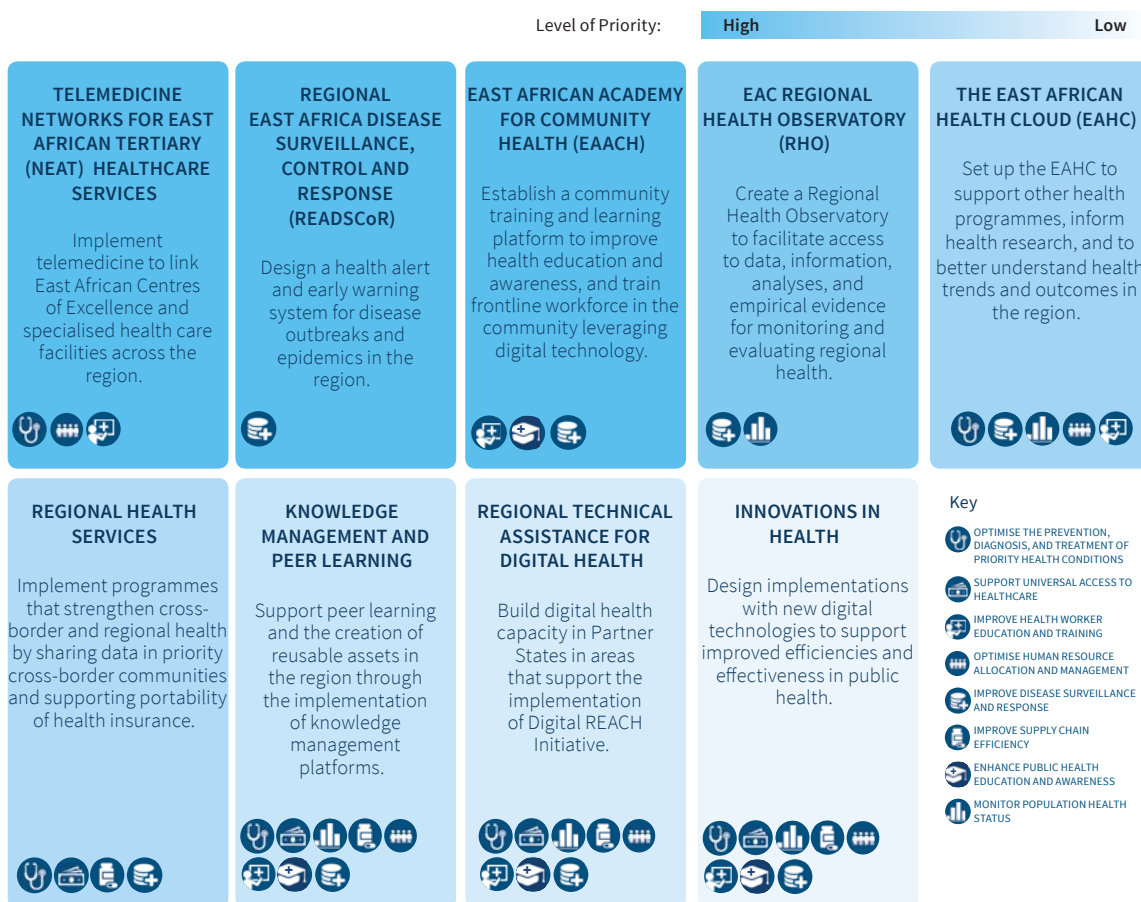
WORKFORCE

STANDARDS
AND INTER-
OPERABILITY

WORKSTREAM 2: HEALTH PROGRAMMES

The Health Programmes Workstream will focus on improving healthcare in the EAC through specific regional digital health implementations. Over the course of the Initiative this workstream will **oversee and implement nine health programmes**, as detailed below. Not all implementations will start at once; some have been identified as priorities by the EAC, while others will be started once the Initiative is underway and resources are available.

The Health Programmes workstream provides implementation oversight, M&E, and coordination across all Health Programmes implemented in this workstream.



Workstream 3 - 9: Creating an Enabling Environment

One of the major roles the Digital REACH Initiative will play in the region is to create and support the enabling environment for digital health, to ensure sustainability and scale. An enabling environment can also facilitate entry of the private sector and development partners for the provision of sustainable digital health systems and services. Part of the Digital REACH Initiative strategy is to create an ecosystem that is attractive to large companies as well as small, local entrepreneurs so that digital health can grow as an industry. It will do this by:

- Directly engaging and partnering with the private sector to implement workstream activities (e.g., through PPPs)
- Creating an enabling environment that will attract and stimulate investment in the region (e.g., through supportive regulatory framework and policies)

Workstreams 3 – 9 will work to create this enabling environment. Each workstream will play a key role in stimulating private sector investment. The Strategy and Investment workstream will lead the overall

engagement of the private sector but it will be the responsibility of each workstream to identify areas where the private sector can be brought in and engaged to support their activities.

WORKSTREAM 3: INFRASTRUCTURE

The overall goal of this workstream is to **identify, build, host, and implement common technological components** and systems that will allow other workstreams and health programmes to achieve the Digital REACH Initiative's outcome goals. This workstream also includes the technical support required to maintain systems over time. Priority activities are:

PRIORITY ACTIVITIES

- 3.1 Build the East African Health Cloud (EAHC) and set up a regional support team to maintain it over time to enable real-time storing, capturing, analysing, and retrieving of health data on priority diseases and outbreaks, and to support health research
- 3.2 Select and implement foundational technologies to enable regional information exchange (e.g., between EAHC and other regional and Partner State HIS) including a client registry, terminology services, and interoperability layer

WORKSTREAM 4: SERVICES AND APPLICATIONS

This workstream will identify and invest in **reusable and interoperable digital solutions for regional and national use** that support the realisation of Digital REACH Initiative goals. It will support the access and management of regional health-delivery services for the EAC region through specific digital solution offerings and software tools, identifying gaps in existing solutions and investing in common goods to address those gaps. Users include health workers, the general public, patients, and health and insurance providers. Priority activities are:

PRIORITY ACTIVITIES

- 4.1 Develop decision-support tools built into new or existing systems to support health workers dealing with cases of outbreaks and health emergencies (e.g., outbreak alerts, an alert to notify the regional body, care instruction, alerts with updates to protocols)
- 4.2 Support and promote implementation of interoperable unique ID systems
- 4.3 Support engagement with the relevant OpenHIE and other global communities to leverage best practices and external expertise in the design and implementation of digital health services and applications
- 4.4 Invest in software solutions that support the realisation of a regional digital portable health insurance product (e.g., claim submission, eligibility verification, mobile payments for reimbursements)
- 4.5 Provide support with contractual agreements with technology solutions vendors for Partner States and the Digital REACH Initiative and work with Strategy and Investment team for potential group pricing discounts

WORKSTREAM 5: LEADERSHIP AND ADVOCACY

Achieving the Digital REACH Initiative outcome goals will often require substantial change management and political buy-in. The Leadership and Advocacy workstream will **assist other workstreams to gain political support for their activities**, which is a necessary first step to facilitate such change.

This workstream will be outward facing. Ambassadors (individuals with deep expertise and connections in the region) will interact with senior elected officials and government decision makers on behalf of the Digital REACH Initiative, collecting high-level feedback and rallying support from key government decision makers and elected officials for the Initiative's projects. Such support will greatly facilitate the participation of government officials and others in the changes being introduced through the Initiative's projects. Priority activities are:

PRIORITY ACTIVITIES

- 5.1 Advocate for agreement on data sharing and storage in a regional cloud
- 5.2 Advocate for regional agreement on health insurance portability for all EAC citizens
- 5.3 Advocate for a joint regional position on approach to public health emergencies to improve the efficiency and effectiveness of response in the event of a disease outbreak
- 5.4 Advocate with development partners for a reduced common set of priority reporting health indicators across all EAC Partner States to reduce data collection and reporting burden for health workers
- 5.5 Advocate for a holistic approach to use of digital technologies and solutions in the health sector within the EAC region

WORKSTREAM 6: STRATEGY AND INVESTMENT

This workstream will make use of skilled business analysts and negotiators to **develop the business cases** that will be used to engage with the private sector and the development community on behalf of the EAC in order **to realise economies of scale and greater efficiencies.**

This workstream will also work to engage with the private sector to develop an investment mechanism to expand communication infrastructure in areas with low connectivity and to negotiate and structure public-private partnerships (PPPs) that can be utilised across the Initiative. Priority activities are:

PRIORITY ACTIVITIES

- 6.1 Conduct feasibility assessment, develop business case, and identify opportunity for public private partnerships (PPPs) for the build and maintenance of the EAHC and NEAT
- 6.2 Conduct business case assessments and use for negotiating agreements with mobile network operators (MNOs) for affordable bandwidth and improved network connectivity to support priority health programmes (starting with prioritised telemedicine -supported facilities)
- 6.3 Support the development of a business case for regional insurance, partnering with private health insurers for favourable premium rates and packages
- 6.4 Aggregate demand based on Partner States' supply needs and develop a business case to support negotiation for reduced pricing with suppliers to reduce cost of healthcare for providers and patients

WORKSTREAM 7: LEGISLATION, POLICY, AND COMPLIANCE

Critical to the success of the Digital REACH Initiative will be the ability to put into place conducive regional policies that are embraced by Partner States. This workstream acts as the regional facilitator that works in the service of **creating a policy environment to promote digital health** on behalf of EAC Partner States.

The ability to work effectively with policy officials in Partner States is key. To do so, this workstream will form a Regional Policy Expert Working Group (EWG) made up of subject-matter experts and policy officials from Partner States, who will act together to scope and review policies and legislation drawn up by the workstream. Priority activities are:

PRIORITY ACTIVITIES

- 7.1 Design policy and legislation around remote data hosting (including data privacy and confidentiality standards and requirements)
- 7.2 Develop policy and legislation to support data sharing in cases of disease outbreaks and telemedicine to allow patients to benefit from continuity of care and improved health security and surveillance across the region
- 7.3 Establish a policy for managing public health emergencies (e.g., how to drive commitment of Partner States to mobilise resource in emergencies) to ensure efficiency and effectiveness of a regional response
- 7.4 Develop a shared policy that supports portability of health insurance to allow EAC citizens to access a regional insurance product

WORKSTREAM 8: WORKFORCE

The overall goal of this workstream is to **build the capacity of health workers in the region** to facilitate human resource sharing across countries, strengthen patient care and outcomes, and overcome shortages of skilled health workers. The workstream will work in close collaboration with professional bodies and academic institutions and work within existing regional frameworks (e.g., East African Qualifications Framework for Higher Education) and forums. The workstream will promote eLearning and support training institutions in East Africa. Its work will include a coordinated review of existing digital health training in the region and the harmonisation across Partner States of minimum standards in teaching curricula, which include the use of digital tools and ICT as well as data sharing and security. Priority activities are:

PRIORITY ACTIVITIES

- 8.1 Work with universities and training institutions to harmonise and make available eLearning course content and Massive Open Online Courses (MOOCs) for in-service and pre-service health professionals that can be shared within the East African region using an eLearning platform
- 8.2 Work with universities, training institutions, and global and regional partners to harmonise curricula for digital health and telemedicine for healthcare professionals and health IT professionals
- 8.3 Work with universities to embed digital learning methods in medical and healthcare worker training programmes to promote independent, student-centred learning
- 8.4 Train health care professionals on the use of digital health for health services provision (e.g. in public health emergencies)

WORKSTREAM 9: STANDARDS AND INTEROPERABILITY

This workstream will **identify and develop common guidelines, standards, and protocols** to lay the foundation for an **effective and interoperable regional digital health ecosystem** in East Africa. The workstream sets common and shared standards, while adhering to the Principles for Digital Development and working through existing global and regional efforts, to enable the realisation of the Digital REACH Initiative outcome goals. This effort includes developing and promoting regional principles that promote access to healthcare services and interoperability across the EAC region.

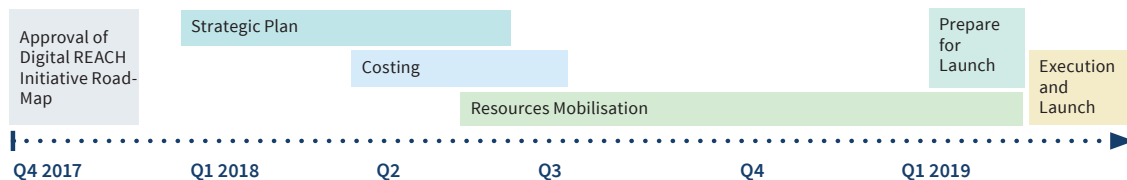
The workstream will form and be guided by a Standards and Interoperability EWG that is made up of workstream subject matter experts and Partner State officials acting together to scope and review standards developed by the workstream. The EWG will also play a compliance role, in that it will review Partner State progress with implementation of agreed-upon standards. Priority activities are:

PRIORITY ACTIVITIES

- 9.1 Develop data sharing, security, and management guidelines, protocols, and standards
- 9.2 Create a regional data dictionary, mapped to international standards, and supporting governance process, to support interoperable data exchange between Partner State HIS in the region (e.g., for insurance providers to allow EAC citizens to file claims, to exchange patient records among EAC Partner States)
- 9.3 Support and promote the exchange of unique IDs and patient health records across EAC Partner States for effective care delivery and continuity of care
- 9.4 Develop data exchange standards for portability of health insurance, to support claim submission, eligibility verification, and reimbursements
- 9.5 Provide regional guidelines for diagnosis, treatment, and standards of care to facilitate continuity and quality of care across the region

THE PATH FORWARD

The purpose of the strategic plan is to 1) inform implementation plans for each workstream and support foundational decisions that need to be made for each one, including the selection of appropriate partners, and 2) support resource mobilisation with potential partners and funders. The long-term success of the Digital REACH Initiative will rely on the availability and support of varied resources. Given the scope and timeline of this initiative it is understood that mobilising the necessary resources for implementation will be an ongoing and collaborative process. Good partnership requires an open mind among governments, development partners, and the private sector alike, and it is in this spirit that resource mobilisation for the Digital REACH Initiative will be conducted. It is expected to be an iterative process, that will require the identification of complementary priorities with potential partners. These materials provide the EAC and Partner States with the materials to mobilise the resources necessary to launch the Digital REACH Initiative in early 2019.



PARTNERSHIPS AND RESOURCE MOBILISATION

Engagement with a range of stakeholders is critical for the success of the Digital REACH Initiative. A multi-stakeholder engagement approach will ensure that critical international expertise is utilised and that the Initiative is structured in a way that ensures sustainability from the start. Priority will be given to partners who recognise the importance of putting local expertise at the forefront and addressing gaps in the region through knowledge transfer and capacity building, rather than providing long-term continuous support.

The figure below depicts some of the ways each sector can contribute to Digital REACH Initiative activities and the value they will derive from participation.

CHARACTERISATION OF DIGITAL REACH INITIATIVE PARTICIPATION BY SECTOR		
<p>DEVELOPMENT PARTNERS</p> <p>Support in the areas that align with their own agenda and goals through direct funding (e.g., grants, local or private-sector loss guarantees) and in-kind support (e.g., technical assistance, participation in advisory bodies, support with advocacy efforts)</p>	<p>FOR-PROFIT PRIVATE SECTOR</p> <p>Support in areas that support their business models through direct funding (e.g., grants or equity investment) and in-kind support (e.g., provision of airtime by MNOs, reduced pricing, software licences, participation in PPPs and advisory bodies)</p>	<p>REGIONAL AND PARTNER STATE GOVERNMENTS</p> <p>Support in areas that support national or regional health agendas through various methods, (e.g., political support, in-kind support technical assistance, participation in advisory bodies, support with advocacy efforts)</p>
<p>LOCAL SERVICE PROVIDERS AND CIVIL SOCIETY GROUPS</p> <p>Support in the areas that align with their own agenda and goals through in-kind support (e.g., technical assistance, participation in advisory bodies, support with advocacy efforts)</p>	<p>RESEARCH BODIES AND ACADEMIC INSTITUTIONS</p> <p>Support in areas that support knowledge exchange through in-kind support (e.g., research support, participation in advisory bodies, support with advocacy efforts)</p>	

CONCLUSION

Created and owned by the EAC, this is the first time an African Union Regional Economic Community (REC) has come together to create an ambitious and coordinated approach to digital health that is priori-tised for investment by all Presidents of the Partner States. A successful implementation of the Digital REACH Initiative will fully support the EAC’s integration agenda of “One People, One Health System”.

Introduction

Digital health is a way of augmenting health services with digital technologies. Technology can strengthen healthcare services by bolstering the access, use, and performance of health services in pursuit of improved health outcomes. It can support better healthcare by improving the efficiency and effectiveness of healthcare delivery services, creating a more skilled health workforce through targeted and relevant training and capacity building, supporting research through the availability and access to better and higher quality evidence, and improving governance using data to support policies and decision making. Digital technologies can also support health security by helping authorities prevent, track, and respond to health threats, such as infectious diseases and epidemics that can rapidly spread across borders.

Currently, the EAC region has a variety of digital health implementations amongst Partner States (Burundi, Kenya, Rwanda, South Sudan, Tanzania, and Uganda) addressing access to health services and improving health outcomes for citizens. Great advances are being made, yet there are many opportunities to act regionally, and for the EAC to lead and coordinate across Partner States, development partners, and private companies to improve health outcomes by implementing sustainable digital technologies that expand the ways patients seek quality care wherever they are in the EAC.

The Digital Regional East African Community Health (REACH) Initiative is seizing that opportunity. The Initiative provides a foundation for coordinated action. It builds upon collective momentum and understanding to create a regional strategy for digital health which allows the EAC Partner States to:

- Apply ICT across the entire health sector for the improvement of health outcomes and the benefit of patients and the general population, across East Africa
- Leverage existing assets and strengths across countries, allowing Partner States to take advantage of advances in other countries for sustainable development
- Harmonise standards and policies to support the free movement of services and people, allowing access to and continuity of care across the region
- Benefit from economies of scale with regards to the investment in and maintenance of shared infrastructure, resources, and applications
- Increase bargaining power with third parties like private companies and development partner organisations by negotiating as one and speaking with one regional voice on strategic digital health issues
- Maximise development partner and private-sector coordination and investment, reducing unnecessary duplication and fragmented implementations, and maximising the impact of external investment
- Enhance sustainability of health programmes and reduce dependence on development partner funding

This strategic plan builds on the [Digital REACH Initiative Roadmap](#), which was approved by the six heads of state during the 15th Ordinary Meeting of the EAC Sectoral Council of Ministers of Health from 13th to 17th November 2017 in Kampala, Uganda (see Appendix C). It presents the ten-year Strategic Plan for implementing the Digital REACH Initiative and will allow the EAC to pursue the resources necessary to launch the Initiative and plan for full-scale operations by early 2019. It is a forward-facing document that describes goals, key milestones, strategic approaches, considerations for implementation, and organising principles for advancing digital health in the EAC.

To realise the EAC's goal of becoming a globally competitive, upper-middle-income region with well-educated and healthy human resources that provide access to health services for every EAC citizen by 2050, East African governments and their partners must continue to promote and invest in resilient health systems and coordinated digital health programmes. The Digital REACH Initiative Strategic Plan will serve as a blueprint to that future.

WHY DIGITAL HEALTH?

As East African leaders develop their vision and strategies for digital health across the region, recognising the transformative potential of digital technology is important. Across sub-Saharan Africa, mobile phone ownership has soared, providing a new avenue for reaching citizens with services. According to the GSMA, unique mobile subscriber penetration in the region reached 44% in 2017 and is projected to increase to 50% by 2023.¹ African nations could use digital tools and ICT to 'leapfrog' legacy systems and maximise efficiency, impact, and accessibility. East Africa is already a recognised leader in demonstrating this potential, with digital

innovations like the mPesa mobile money system achieving success in increasing people's access to financial services. Governments in the region and organisations such as the ITU are seeking to leverage the power of digital technology through initiatives like Transform Africa.

Although there are inherent differences in the health sector, especially as it relates to the complexity of the ecosystem and issues related to data privacy and confidentiality, digital health solutions nonetheless have the potential to revolutionise service delivery and access to information. In Africa and other developing regions, digital health solutions deployed over the last decade have demonstrated promising results in patient behavior and health system functioning. For example, a nationwide programme called MomConnect in South Africa that sends information to expecting mothers has reached over a million women, with early results showing that enrolled mothers who are HIV positive have higher rates of antenatal visit attendance than those who do not.² Other solutions have improved patient access to telemedicine-based services (as in Kenya³) and health workers' ability to track supplies of medication and other commodities (for example, in Tanzania⁴). In many cases, solutions can address deficits in low and middle-income country (LMIC) health systems, including shortages of trained workforces and poor health infrastructure.

Although a stronger evidence base for the long-term impact of digital health is needed, these initial indicators build the case for investment by governments, development partners, and other ecosystem actors. Yet lessons from these implementations underscore the fact that obtaining a return on these investments requires strengthening the ecosystem in which solutions operate. Digital solutions that provide real-time decision support services for health workers at the point of care, for example, may be less effective if data networks are not functioning. The seven components of the WHO-ITU eHealth Toolkit⁵, which include areas such as a country's policy environment and physical infrastructure, provide a blueprint for political and digital health leaders to create an enabling environment in which digital health can thrive.

Given the importance of these elements and the scale of the investment needed in them, the EAC can play a positive role in advancing digital health in the region. From encouraging harmonisation of standards to the development of shared infrastructure and the deployment of regional solutions, cooperation by Partner States in the Digital REACH Initiative can help promising solutions avoid the pitfalls experienced elsewhere – while harnessing the resources and experience necessary for scale.

THE IMPORTANCE OF CREATING AN ENABLING ENVIRONMENT

Supporting the successful implementation of digital health programmes is an enabling environment that incorporates: **leadership and political buy-in; strategy and investment; a health workforce; legislation; policy and compliance; and harmonised standards and interoperability.** These environmental enablers help to ensure sustainability and scale. They can also facilitate the entry of parties like the private sector and development partners, in the provision of digital health systems and services, in a sustainable manner.

One of the major roles the Digital REACH Initiative will play in the region is to create and support the enabling environment for digital health. While it is possible for an individual country to create its own enabling environment, there are significant benefits to addressing these components in whole or in part at the regional or even global level. Infrastructure and service components – such as data clouds, training programmes, and health information systems – can be developed, refined, and used across multiple geographies, resulting in economies of scale and better-quality components. Additionally, the creation and application of internationally agreed-upon standards and policies enables cross-country health programming across the EAC region that is otherwise difficult to achieve by each Partner State independently.

¹<https://www.gsmainelligence.com/research/?file=809c442550e5487f3b1d025fdc70e23b&download>

²<http://www.health.gov.za/index.php/mom-connect>

³<https://www.itu.int/net4/uisis/stocktaking/projects/Project/Details?projectId=1430046887>

⁴<https://www.jsi.com/JSIInternet/Results/article/display.cfm?txtGeoArea=INTL&id=414&thisSection=Results&cid=na&cid=na&tid=20>

⁵https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-E_HEALTH.05-2012-PDF-E.pdf

CREATING AN ENABLING ENVIRONMENT FOR PRIVATE-SECTOR INVESTMENT

An important dimension and benefit of creating an enabling environment for digital health in the EAC is stimulating private-sector investment. The private sector can play an important role in addressing complex, systemic challenges that the public sector may be ill-suited to solve. It can also support the move towards the financial, operational, and technical sustainability of the Digital REACH Initiative and its programmes.

Tackling issues such as policies and infrastructure and making a clear business case for partnerships and investment can help bring the influence and strength of the private sector to bear on digital health. Part of the Digital REACH Initiative strategy is to create an ecosystem that is attractive to large companies as well as small, local entrepreneurs so that digital health can grow as an industry. The Digital REACH Initiative will stimulate private sector investment in two ways:

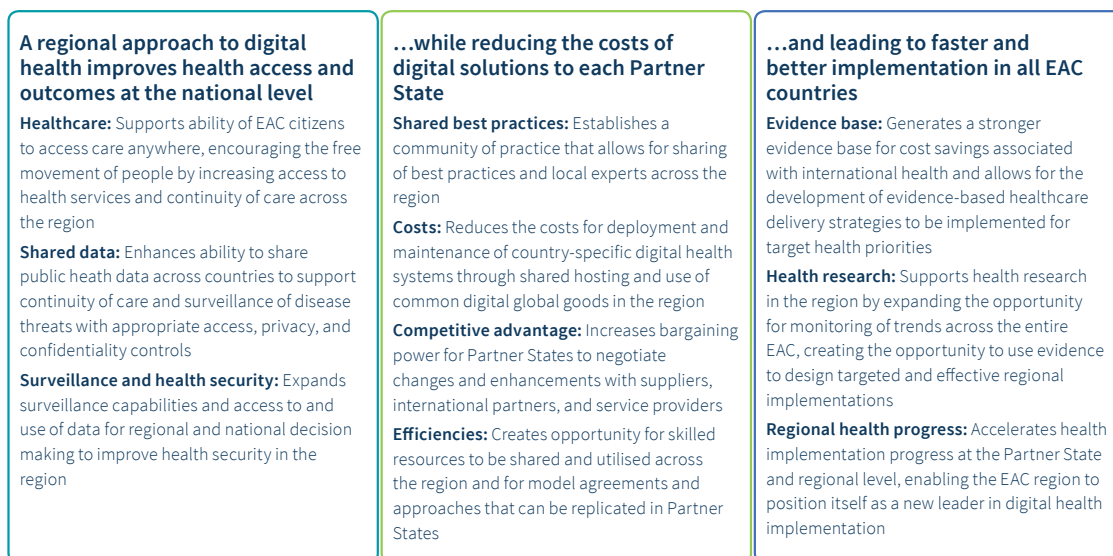
- By directly engaging and partnering with the private sector to implement key workstream activities
- By creating an enabling environment that will attract and stimulate more investment in the region

VALUE OF A REGIONAL APPROACH TO DIGITAL HEALTH

Coordinating digital health activities and programmes in the EAC with well-planned, intentional efforts will improve the quality of health-service delivery within and across the region, and create benefits and economies of scale that cannot be achieved by any one country alone. A robust, region-wide enabling environment will allow Partner States to deliver health services that are more effective than country-specific health initiatives, improving patients' experiences and outcomes. Examples of this are detailed in Figure 1 below.

A regional approach allows for economies of scale, improved services, shared engineering capacity, and lower support costs. For example, building, maintaining, and governing a shared services cloud that allows multiple countries to use the same software and support would enable each Partner State to share expertise and critical data. It would create large-scale efficiencies for the region, reducing costs for the deployment and maintenance of digital health systems. Coordinated and shared digitised systems also enable capabilities such as real-time disease surveillance, regional health records management, and access to insurance coverage. Regionally-aligned policies and data standards can advance interoperability of systems, which will facilitate the movement of medical data with a moving population. This can strengthen the health security and prosperity of the EAC and advance Partner State strategies and plans.

Figure 1: Value of a Regional Approach to Digital Health in East Africa



A Call to Action: Supporting Digital REACH and Why It Matters Now

The distinction between digital health and the broader health system is growing smaller by the year.

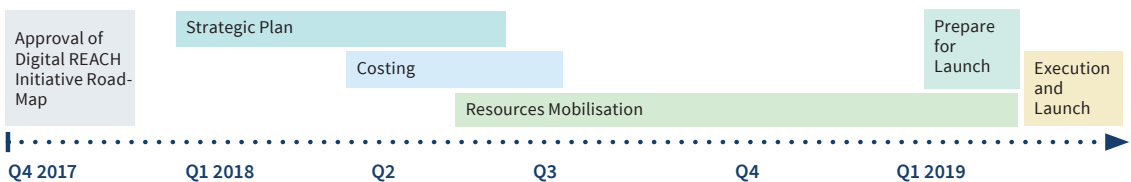
ICT adoption amongst all health stakeholders from patients to health ministers — has occurred so quickly and thoroughly that the term *digital health* is losing its novelty. This signals its maturity and the need for coordination across the ecosystem, moving away from a fragmented approach to digital health — characterised by siloed applications, waste, and variable data — to a holistic digital health model with coordinated investments and common assets leveraged across multiple health programmes. Strong leadership and governance can propel this model to reality, preventing duplication of effort across the region and generating large-scale cost efficiencies, improved health outcomes, and faster and better health programme implementations. The purpose of the Digital REACH Initiative is to harness this opportunity for digital health technologies through coordinated regional action.

Created and owned by the EAC through the EAHRC, this is the first time an African Union region has come together to create an ambitious and coordinated approach to digital health that is prioritised for investment by all Presidents of the EAC Partner States.

PATH TO IMPLEMENTATION

This Strategic Plan is an important step towards coordinated regional action in digital health. The Digital REACH Initiative Strategic Plan provides a common regional vision and strategic approach that is aligned with country plans. It also creates a platform for the mobilisation of resources for the specific implementation activities outlined in this document.

The figure below shows the timeline for the development of this Strategic Plan and costing plan which will position the EAC and Partner States to mobilise funding necessary to launch the Digital REACH Initiative, plan for full-scale operations, and move quickly into implementation mode starting in early 2019.



The Digital REACH Initiative

DIGITAL REACH INITIATIVE VISION AND MISSION STATEMENTS

The free movement of people, services, and goods across the EAC relies on a healthy population. Through digital technologies and political will, the region can realise seamless access to improved healthcare services for all EAC citizens, enhanced surveillance of diseases, real-time response to health security threats such as disease outbreaks, and market-driven distribution of the health workforce to achieve a healthy and wealthy East Africa. Additionally, the regional implementation of digital health infrastructure and other enabling components that can be shared by Partner States in their country-level strategies will create efficiencies and capabilities that would not be achieved otherwise.

This section lays out the goals, key milestones, strategic approaches, considerations for implementation, and organising principles for advancing digital health in the EAC. It offers a multidimensional, holistic view of how the region can move forward with digital health by laying out key roles and responsibilities for the region and for EAC Partner States. It also describes key approaches for how this Strategic Plan can be implemented through the Digital REACH Initiative. The Digital REACH Initiative is guided by the following vision and mission:

Figure 2: Digital REACH Initiative Vision and Mission

Vision 2028
Interconnected health systems
for a healthy and prosperous East Africa

Mission Statement
Maximise the power of digital health in East Africa by ensuring an enabling environment and by implementing scaled, coordinated, transformational, and innovative approaches.

Users of this Strategic Plan

EAC Staff and Planning Partners

will use this Strategic Plan to further define overall regional needs and capacities, make decisions on regional priorities, and develop actionable implementation plans. They will also use this Strategic Plan to secure financial support for the set up and implementation of the Digital REACH Initiative.

Partner States

will use this Strategic Plan to identify their role in supporting the Digital REACH Initiative, including any human resources and other assets that can support the Initiative.

Development Partners

will use this Strategic Plan and costing plan to identify opportunities to mobilise and provide support.

Private Sector

will use this Strategic Plan and costing plan to identify opportunities for investment and partnerships.

Initiative Staff

will use this Strategic Plan as a reference guide to set up and manage the Initiative and its workstreams and to develop implementations plans that work in concert towards common goals.

DIGITAL REACH INITIATIVE OUTCOME GOALS

The specific outcome goals of the Digital REACH Initiative are listed below. These have been identified by EAC Partner State representatives through a series of regional workshops in 2017 and 2018.

Figure 3: Outcome Goals of the Digital REACH Initiative

 <p>Optimise the Prevention, Diagnosis, and Treatment of Priority Health Conditions</p> <ul style="list-style-type: none"> • Improve the quality and efficiency of care across countries through clear and monitorable harmonised guidelines and protocols, and regional collaboration • Improve access and continuity of care across countries by ensuring the patients and their histories remain at the centre of care regardless of their location 	 <p>Support Universal Access to Healthcare</p> <ul style="list-style-type: none"> • Enhance regional social health protection (e.g., through the portability of health insurance)
 <p>Improve Health Worker Education and Training</p> <ul style="list-style-type: none"> • Support standardised and recognised healthcare training and capacity building across the region for pre and in-service health workers 	 <p>Improve Disease Surveillance and Response</p> <ul style="list-style-type: none"> • Strengthen regional health security by building capacity for effective detection, prevention, and response to health threats (e.g., disease emergencies, outbreaks) • Improve continuous disease surveillance across the region and in cross-border areas
 <p>Improve Supply Chain Efficiency</p> <ul style="list-style-type: none"> • Improve supply chain efficiency by taking advantage of economies of scale when negotiating with suppliers and vendors 	 <p>Optimise Human Resource Allocation and Management</p> <ul style="list-style-type: none"> • Facilitate health worker knowledge sharing across the region • Support harmonised health worker education in ways that enable mobilisation across the region
 <p>Enhance Public Health Education and Awareness</p> <ul style="list-style-type: none"> • Improve community health-related knowledge and patient education across the region through collaboration 	 <p>Monitor Population Health Status</p> <ul style="list-style-type: none"> • Track regional priority health indicators to support the creation of evidence-backed health policies • Support health research and use of evidence to promote the regional health agenda

Success against these goals will be measured by the regional nature of the outcomes. The illustration on the next page depicts the ambitious vision the Digital REACH Initiative will strive to achieve to improve the patient experience across the EAC through the above outcome goals.

IMPROVING HEALTHCARE THROUGH THE DIGITAL REACH INITIATIVE

ONSET OF SYMPTOMS: Mary feels unwell while traveling in Kenya. She decides to visit a local health facility...

Patient remembers SMS campaign explaining similar and encouraging presentation at clinic.

OUTCOME GOALS

She visits a local health facility and is registered.

Patient is able to access treatment in another Partner State and is able to pay for it because of a region EAC insurance product.

OUTCOME GOALS

Mary is triaged based on symptoms or availability of staff.

Health worker reviews standard regional task shifting protocols to identify appropriate level of care.

OUTCOME GOALS

She is seen by a doctor at the clinic.

Doctor accesses patient information using a regional health platform.

OUTCOME GOALS

Mary is diagnosed with a regional priority disease that cannot be treated at this facility.

Health workers access treatment and diagnosis tools to support diagnosis and confirms regional treatment protocols electronically; If diagnosis is a priority disease area health worker follows regional protocols and guidelines to share information with other Partner States.

OUTCOME GOALS

She is referred to a hospital that can treat her.

Health worker shares necessary data with referral hospital in a different Partner State; Health workers in the other Partner State have received the same training and are aware of necessary protocols.

OUTCOME GOALS

She is treated and discharged with medication or a prescription

Patient visit hospital in their own Partner State where telemedicine is used for a local specialist to consult with a specialist in another Partner State; Medication is affordable and available.

OUTCOME GOALS

Mary goes back home to Tanzania and follows the instructed treatment regimen

Health worker conducts real-time treatment compliance monitoring using electronic pillboxes and reminds patient to take medication by SMS if any missed; If patient travels prescriptions are recognized in other Partner States.

OUTCOME GOALS

She travels to her local health facility for follow up actions related to her treatment

Patient can visit hospital in other Partner State to manage condition. Relevant data like antibiotic resistance is recorded and reported to the region and Partner States.

OUTCOME GOALS

Mary is cured and goes home. Outcomes of her treatment are documented.

Health outcomes are documented and help to inform research and the development of evidence-based health policy; Researchers gather insights using data stored in the EAOSCH and utilise for research.

OUTCOME GOALS

- KEY**
- OPTIMISE THE DIAGNOSIS AND TREATMENT OF PRIORITY HEALTH CONDITIONS
 - IMPROVE HEALTH WORKER EDUCATION AND TRAINING
 - INCREASE SURVEILLANCE AND IMPROVE RESPONSE
 - ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
 - GUARANTEE UNIVERSAL ACCESS TO QUALITY HEALTH CARE
 - OPTIMISE RESOURCE ALLOCATION AND MANAGEMENT
 - IMPROVE SUPPLY CHAIN MANAGEMENT
 - IMPROVE POPULATION HEALTH STATUS

Digital REACH and Partner States

EAST AFRICAN SITUATION ANALYSIS AND IMPLICATIONS FOR DIGITAL REACH

Across the EAC region the health strategic plans of Partner States demonstrate commitment to universal health coverage as a cornerstone of national and regional development. An overview of the current status of digital health in the region indicates a wealth of existing assets that support a coordinated approach. There are several digital health assets across Partner States that can be leveraged to expand digital health throughout the region such as regional surveillance initiatives (e.g., EAIDSNet), systems (DHIS2, OpenMRS, National Observatories), Partner State commitments (e.g., GHSA and One-Health) and national assets (e.g., developed policies, insurance products). Partner States have also reported similar challenges, such as the lack of digital health expertise, limited infrastructure, unreliable connectivity, and fragmented eHealth initiatives with multiple development partners and misaligned time frames, which all present opportunities for coordinated regional action.

There are, however, distinctions between EAC Partner States which could pose a challenge to regional collaboration. Partner States are at different stages of development with regards to their digital health strategy and implementation, and clear governance structures for coordinating digital health have not been established in all countries. These distinctions create an opportunity for Partner States to share lessons, information, and reusable assets to close gaps across the region.

The current status of digital health for each Partner State can be found in Appendix B. Once launched, each workstream will conduct a baseline assessment of existing assets in each Partner State. Working with Ministries responsible for health and ICT, national research institutes, and other relevant national bodies, the Digital REACH Initiative will identify key assets to be leveraged for each workstream.

ROLE OF PARTNER STATES IN DIGITAL REACH	DIGITAL REACH BENEFITS FOR PARTNER STATES
<ul style="list-style-type: none">• Share information on existing assets and implementations• Agree on common approach to protocols, policies, standards, and other assets• Support regional implementations• Adopt common protocols, policies, and development of standards• Implement and use assets created with support from the region• Provide feedback on assets created and implementations to build evidence base• Participate in Digital REACH EWGs	<ul style="list-style-type: none">• Grow and develop a larger pool of local technical expertise that supports economic diversification beyond the health sector, as countries outside of the EAC seek to access digital health expertise• Benefit from the development of gold standard assets that support an improved digital health environment without having to develop individual assets in each country• Realise cost savings through economies of scale and the sharing of digital health resources across the region• Receive direct technical assistance for digital health through the Technical Assistance health programme• Support national efforts towards attaining universal health coverage by benefiting from improved healthcare services in the region• Receive guidance on the design and implementation of digital health solutions and the appropriate governance structures that support them

Strategic Alignment with EAC and Partner States

This strategic plan builds on the [Digital REACH Initiative Roadmap](#), which was approved by the six heads of state during the Council of Ministers in November 2017. It is fully aligned with the East African health investment priorities and serves as a complement to individual Partner State health strategies.

ALIGNMENT WITH EAC HEALTH PRIORITIES

After a series of strategic planning discussions, the EAC Partner States officially recommended on 22nd February 2018 in Kampala, Uganda that the region (1) **harness the potential of digital technology** to address current and emerging health threats through stronger health management information systems, capacity building, diagnostics, and treatment; (2) establish **stronger partnerships with the private sector**, including in areas of local manufacturing of health products, through effective incentives such as affordable financing and enabling legal frameworks; and (3) facilitate **meaningful engagement** of key stakeholders. To achieve this, the following health-sector priorities for the East Africa region have been approved by all six heads of state after being presented to the Chair of the Council of Ministers of Health:

1. Expansion of access to specialised healthcare and cross-border health services
2. Strengthen the network of medical reference laboratories and the regional rapid response mechanism to protect the region from health security threats including pandemics, bio- terrorism, and common agents
3. Expansion of capacity to produce a skilled and professional workforce for health in the region based on harmonised regional training and practice standards and guidelines
4. Increase access to safe, efficacious, and affordable medicines, vaccines, and other health technologies focusing on prevalent diseases such as malaria, TB, HIV/AIDS and other high burden conditions
5. Upgrading of health infrastructure and equipment in priority national and sub national health facilities and hospitals
6. Establishment of strong primary and community health services as a basis for health promotion and diseases prevention and control
7. Expansion of health insurance coverage and social health protection
8. Improvement of quality of healthcare, health sector efficiency, and health statistics
9. Strengthening of health research and development
 - a. Sub priority 9.1: Establish an EAC Regional Health Research and Development Facilitation Mechanism
 - b. Sub priority 9.2: Establish an EAC Regional Observatory on health research and development
 - c. **Sub priority 9.3: Investment in digital health technology for better research for health, health services delivery, and health outcomes**

For the Official EAC Meeting Reports of the 15th Sectoral Council, the 35th Extra-Ordinary Meeting of the Council of Ministers, and the 17th Sectoral Council approving the Digital REACH Initiative Roadmap and Strategic Plan please see Appendix C.

All of the Digital REACH Initiative's outcome goals directly or indirectly support the above recommendations and priorities. For a mapping of the EAC health priorities and sub-priorities to Digital REACH Initiative outcome goals, please see Appendix D.

ALIGNMENT WITH PARTNER STATE PRIORITIES

Partner States have been heavily involved in the conceptualisation and creation of the Digital REACH Initiative Roadmap and this Strategic Plan.

In March 2017, the EAHRC presented the EAHRC Commissioners with a concept note entitled *Towards a shared commitment to improve health outcomes through digital technology*. The EAHRC Commissioners, and later the EAC Sectoral Council of Ministers of Health and the Full EAC Council, approved the concept. Following this, the EAHRC organised the Regional East Africa Digital Health Roadmap Conference in Kampala, Uganda in September 2017, where over 100 key stakeholders from across East Africa met and requested that the region take on a larger role in creating an enabling environment for digital health. During this meeting, stakeholders identified specific responsibilities for the region that would complement and support Partner State strategies in health. This was followed by workshops in Dar es Salaam, Tanzania and Entebbe, Uganda to further refine and socialise the roadmap with Partner State stakeholders. The EAC Sectoral Council of Ministers of Health approved the Digital REACH Initiative Roadmap at the 15th Ordinary Meeting of the EAC Sectoral Council of Ministers of Health that took place from 13th to 17th November 2017 in Kampala, Uganda. The EAHRC was directed to continue its work by developing the Strategic Plan for implementation of the Digital REACH Initiative.

This Strategic Plan serves as a further refinement of Digital REACH's activities. Officials from Partner States vetted the plan, confirmed that it was in alignment with each of their priorities, and provided detailed feedback during a five-day workshop in June 2018 hosted by the EAHRC in Arusha, Tanzania. This was followed by a series of in-country meetings with key health, education, ICT, and academic stakeholders across each of the EAC Partner States in July and August 2018.

A full list of the individuals who contributed to the Digital REACH Initiative Roadmap and Strategic Plan can be found in Appendix A.

VALUES AND STRATEGIC PRINCIPLES OF THE DIGITAL REACH INITIATIVE

The Digital REACH Initiative will operate in accordance with the strategic principles laid out below and adhere to the Principles for Digital Development, working through existing global and regional efforts where possible. These principles will be at the core of how each workstream is set up and run.

Figure 4: Values and Strategic Principles for Digital REACH Initiative

<p>1. Manage regionally and connect globally</p> <p>Conduct coordination and management with local hubs across the EAC. Regional management will also be connected with global resources to leverage existing international expertise, where appropriate.</p>	<p>2. Leverage existing assets where possible</p> <p>Build on what is working and avoid creating unnecessary new assets or silos. Leverage innovations, best practices, and investment made into other initiatives (e.g., RAD and Digital Square) and engage with regional experts and Partner States through EWGs to share lessons and utilise existing assets, where possible.</p>
<p>3. Ensure a multidisciplinary and gender-inclusive approach</p> <p>Practice gender inclusivity and multidisciplinary in every dimension of the Initiative, based on support from key ministries and digital health partners in all Partner States, as well as local and international health and ICT experts.</p>	<p>4. Create mechanisms for feedback</p> <p>Incorporate new and expert voices using Partner State and international technical advisers and consultative Partner State EWGs across the Initiative.</p>

<p>5. Be patient-centric and evidence-driven</p> <p>Adopt an implementation-science approach by using evidence generated by the Initiative to drive decision making and the health implementation agenda in ways that improve on-the-ground health-service delivery.</p>	<p>6. Pursue partnerships and financing</p> <p>Manage and pursue strategic partnerships and financing throughout the life of the Initiative through involvement of government, development partners, and the private sector.</p>
<p>7. Build for scale and sustainability</p> <p>Build and implement for scale and sustainability from the very beginning and in every dimension of the Initiative so that relevant infrastructure and assets can remain in place and be improved and adapted in the long term.</p>	<p>8. Focus on regional value</p> <p>Maintain focus across the Initiative on the unique value of a regional approach to digital health. This should be done primarily through each workstream strategy and activities.</p>
<p>9. Ensure technology solutions are flexible and can be locally managed</p> <p>Operations and support of technology used for the Initiative should not be bound to specific vendors allowing professional services to be obtained from multiple partners to best suit the individual context and prevent vendor lock-in.</p>	<p>10. Guarantee regional ownership, data protection, and privacy</p> <p>Develop a clear plan and associated legal frameworks to ensure data generated is owned by the region, that individual privacy is respected, and that health data is protected.</p>

A Note on Data Security and Privacy

Digital health data is exposed to high security risk and its protection is a high priority for the Digital REACH Initiative. It is of the utmost importance that data that is generated by or shared with Digital REACH be stored safely and securely. This will require hardware, software, and regulatory mechanisms that protect against unauthorised access, use, or disclosure of sensitive health data. The following are a list of considerations that the Digital REACH Initiative will integrate into all of its activities, through the creation of associated policies, data standards, and the design and build of infrastructure and digital solutions, to safeguard health data privacy and security.

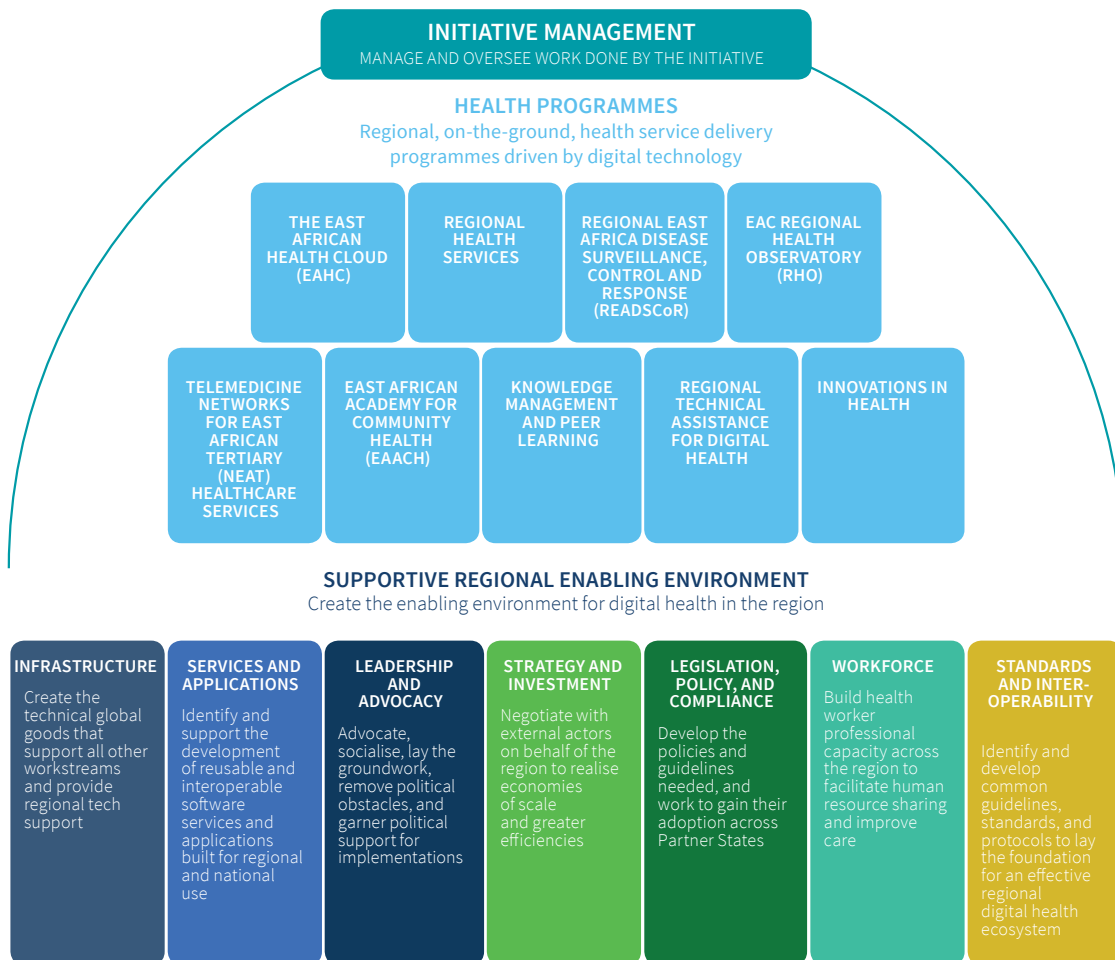
1. Provide secure identity management services and authentication mechanisms including use of multi-factor authentication and secure web portals
2. Provide variable user access roles for sensitive data (e.g., user roles, location, sensitivity of data, consent policies, expiration periods for access)
3. Use industry standard encryption algorithms (AES-256), at rest and in motion
4. Protect privacy of sensitive personal data through anonymisation, aggregation, and other statistical methods for obscuring identifiable information
5. Ensure compliance to informed consent policies for the collection and sharing of sensitive data
6. Provide comprehensive audit trail for all health records and use activity

A specialised audit function will be created to oversee and monitor compliance across the Initiative.

DIGITAL REACH INITIATIVE WORKSTREAMS

The ten principles identified in the figure above lay the organisational foundation for the Digital REACH Initiative. The Initiative has been structured into nine workstreams. They will run in parallel and support one another, starting with select priority activities and expanding into other areas of work as gains are made. The Health Programmes Workstream will focus on the implementation of specific, strategic regional health programmes, while the seven Enabling Environment Workstreams will focus on the creation of an enabling environment for digital health that can be shared across Partner States and that supports health programme implementations. An overarching workstream for Initiative Management will lead and manage the Initiative. A summary of the different workstreams can be found below.

Figure 5: Digital REACH Initiative Workstreams



The underpinnings of this Strategic Plan stem from the correlation and relationship between the Digital REACH Initiative workstreams and the outcome goals. Workstream strategies will focus on having a direct or indirect impact on achieving the outcome goals. Table 1 shows which outcome goals will be impacted by which workstream.

Figure 6: Outcome Goals and Associated Digital REACH Initiative Workstreams Matrix

Digital REACH Initiative Outcome Goal								WORKSTREAMS AND HEALTH PROGRAMMES	
Optimise the Prevention, Diagnosis, and Treatment of Priority Health Conditions	●	●	●	●	●	●	●		Initiative Management
Support Universal Access to Healthcare	●	●	●	●	●	●	●		Health Programmes
Improve Health Worker Education and Training	●	●	●	●	●	●	●		The East African Health Cloud (EAHC)
Improve Disease Surveillance and Response	●	●	●	●	●	●	●		Regional Health Services
Improve Supply Chain Efficiency	●	●	●	●	●	●	●		Regional East Africa Disease Surveillance, Control and Response (READSCoR)
Optimise Human Resource Allocation and Management	●	●	●	●	●	●	●		Telemedicine Networks for East African Tertiary (NEAT) Healthcare Services
Enhance Public Health Education and Awareness	●	●	●	●	●	●	●		East African Academy for Community Health (EAACH)
Monitor Population Health Status	●	●	●	●	●	●	●		EAC Regional Health Observatory (RHO)
	●	●	●	●	●	●	●		Knowledge Management and Peer Learning
	●	●	●	●	●	●	●		Regional Technical Assistance for Digital Health
	●	●	●	●	●	●	●		Innovations in Health
	●	●	●	●	●	●	●		Infrastructure
	●	●	●	●	●	●	●		Services and Applications
	●	●	●	●	●	●	●		Leadership and Advocacy
	●	●	●	●	●	●	●		Strategy and Investment
	●	●	●	●	●	●	●		Legislation, Policy, and Compliance
	●	●	●	●	●	●	●	Workforce	
	●	●	●	●	●	●	●	Standards and Interoperability	

Approach to Implementation

The section below details the Digital REACH Initiative's approach to implementation.

BUILDING AN EVIDENCE BASE

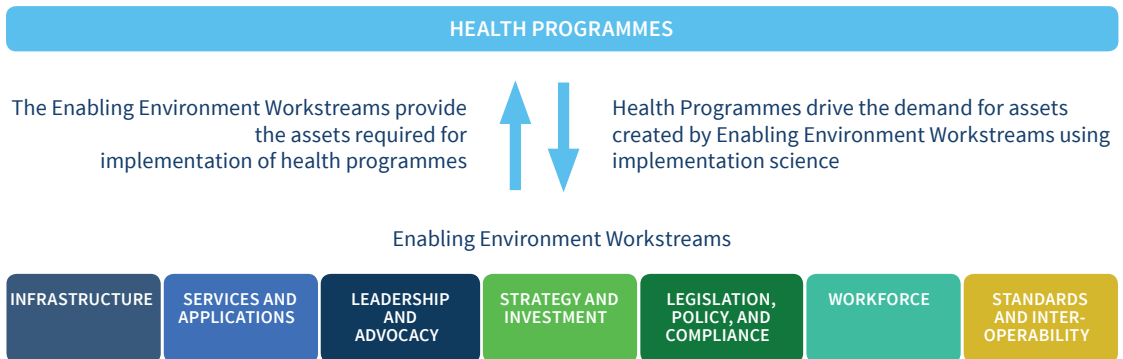
The Digital REACH Initiative will utilise an implementation-science approach to running the Initiative. This will include ongoing and careful M&E as well as the building of an evidence base to demonstrate the impact of health programmes and workstreams, all the while sharing learnings across workstreams.

Building an evidence base will be a fundamental element of all work done. This approach is especially important given the current lack of longitudinal data and evidence of digital health efficacy that is desired by the global health community.

RELATIONSHIP BETWEEN HEALTH PROGRAMMES AND ENABLING ENVIRONMENT WORKSTREAMS

A key differentiator of the Digital REACH Initiative is the dynamic approach described above to implement targeted regional digital health implementations while also creating the supportive foundations that will make those implementations and Partner State programmes successful. This is a ground-breaking dimension of this Initiative, making it possible to not only identify evidence of impact, but also to apply that evidence in a way that structures and drives work on the enabling environment and subsequent health programmes. A summary of this is shown in the figure below.

Figure 7. Relationship between Health Programme and Enabling Environment Workstreams

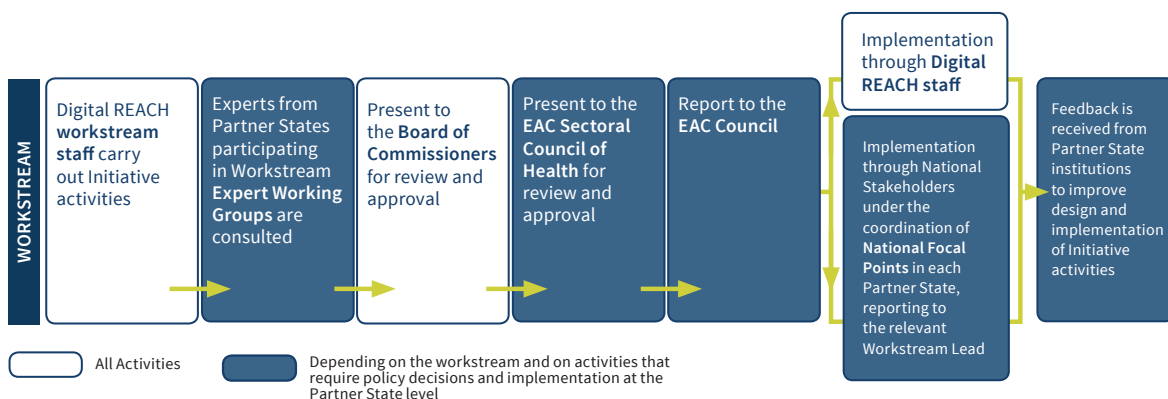


As health programmes are implemented, they will require and utilise assets created by Enabling Environment Workstreams (e.g., supportive policies, a capable workforce, data standards, the appropriate ICT infrastructure and solutions, political buy-in). Similarly, as implementations occur, new obstacles will be identified, and evidence will be generated, in ways that will drive the demand for new assets to be created by Enabling Environment Workstreams. In this way, the successful implementation of the Health Programmes Workstream is inextricably linked with the successful implementation of the Enabling Environment Workstreams. To do so, all workstreams must work closely together to identify synergies and dependencies throughout the duration of the Initiative.

WORKING WITH PARTNER STATES

The Digital REACH Initiative is designed to complement, improve, and strengthen country-specific work in digital health, not replace it. A robust, region-wide enabling environment will allow Partner States to deliver health services that are more effective than country-specific health initiatives. The Initiative seeks to leverage assets that already exist across the EAC in ways that will allow all countries in the region to improve their digital health capacity and service delivery. The activities listed in this document have been requested and vetted by Partner States through multiple in-person meetings in 2017 and 2018 to ensure alignment and synergy with national strategies.

Partner States will be a key part of workstream consultations and implementation. The process below details how regional and national governance of the Digital REACH Initiative's activities intersect and how specific assets created by the region are created and implemented. More detail on the role of Partner States to fulfil specific areas of work can be found in each workstream.



IDENTIFYING PRIORITY ACTIVITIES

Successful implementation will require a clear prioritising of key areas of work that are discreet and achievable to ensure quick-wins towards progress and impact and garner further support and enthusiasm for the Initiative, while also working on building foundations that are critical to the success of the Initiative as a whole. Using five criteria, priority activities have been identified for each workstream. These can be found in the section below and in each workstream. Additional activities that can be targeted once progress has been made on the priority activities can be found in Appendix E.

Throughout the creation of this document, input on priority activities for each workstream have been gathered from the EAC, Partner State experts, the development community, and the private sector.

Once these activities are underway, M&E will be conducted to monitor progress and document value and lessons learned. This will help to review and refresh priority activities on an annual basis and to identify additional areas of work that had not been considered before and to help mobilise funding for additional activities in future years. Details for this are described in Workstream 1 below.

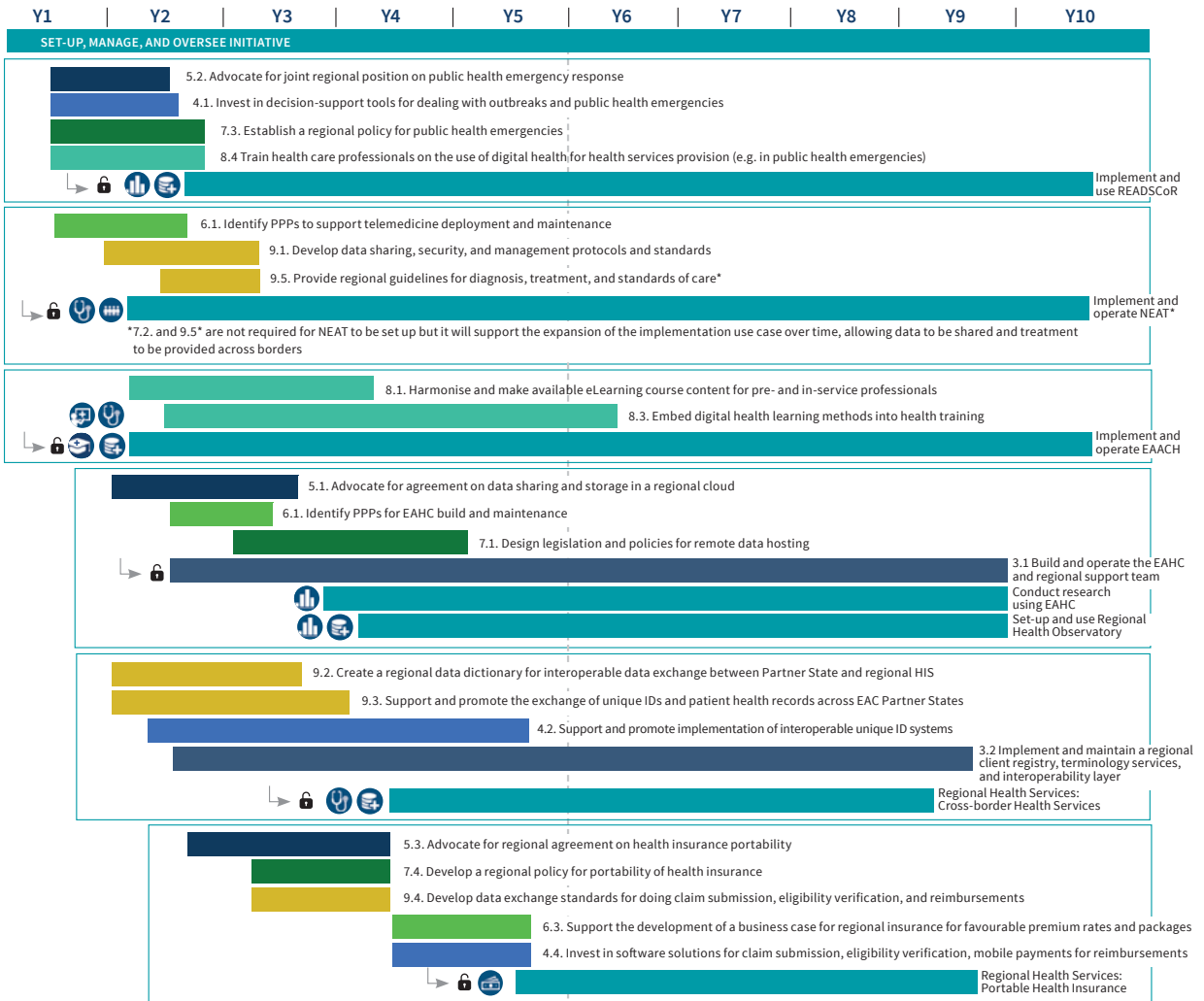
Criteria for Prioritisation of Activities

1. EAC and Partner State-identified areas of priority based on alignment with country priorities and regional value
2. Identified quick-wins, important for political buy-in and resource mobilisation
3. Defined and discrete activities that are achievable within first few years of activity
4. Identified as dependencies for implementing workstream and health programme priorities
5. Foundational piece of work with significant value for region

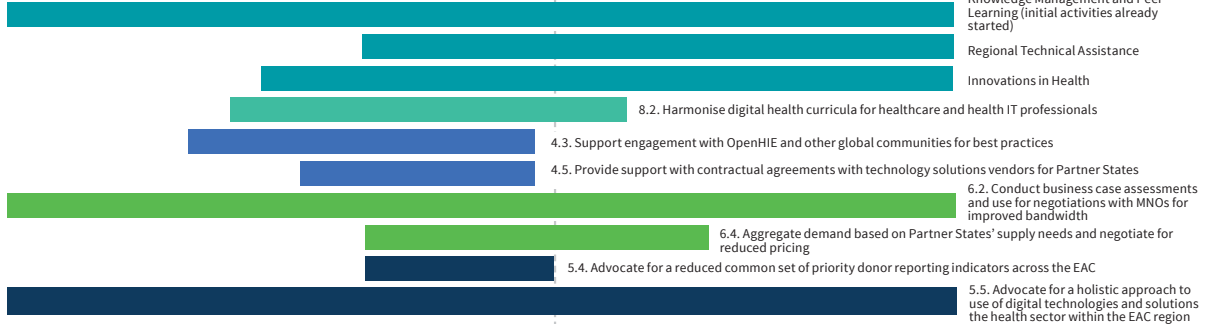
Digital REACH Initiative Priority Activities and Timeline

Given the depth and breadth of work laid out in this Strategic Plan it will be critical to prioritise workstream activities and health programmes. The timeline below breaks down the priority activities and dependencies for the first 5 years. This timeline is meant to serve as a starting point for discussions around implementation and resource mobilisation and may be adjusted depending on the resources and capacity of partners.

PRIORITY WORKSTREAM ACTIVITIES TIMELINE AND HEALTH PROGRAMME DEPENDENCIES



SYSTEMIC REGIONAL ACTIVITIES TO SUPPORT THE ENABLING ENVIRONMENT



- INITIATIVE MANAGEMENT
- HEALTH PROGRAMMES
- LEADERSHIP AND ADVOCACY
- STRATEGY AND INVESTMENT
- LEGISLATION, POLICY, AND COMPLIANCE
- STANDARDS AND INTEROPERABILITY
- INFRASTRUCTURE
- SERVICES AND APPLICATION
- 🔒 DEPENDENCY

MANAGEMENT AND OVERSIGHT

WORKSTREAM 1: INITIATIVE MANAGEMENT

WORKSTREAM 1: INITIATIVE MANAGEMENT

OVERVIEW

The Digital REACH Initiative is defined by a wide range of activities to be implemented across multiple workstreams. The ten-year time frame and aspirational set of goals associated with the Initiative require strong leadership. Coordination across the eight activity-based workstreams also presents the need for an additional, overarching workstream that will holistically guide, coordinate, and maximise the impact of the Initiative. This has been labelled Workstream 1.

Workstream 1, the Initiative Management workstream, establishes the essential structures required to implement the Digital REACH Initiative. It articulates the organisational and operating mechanisms to manage the Initiative, including the execution of the other eight workstreams. In addition, it provides strategic organisational direction, orchestrating and knitting together all the other workstreams, so that each workstream is moving in the same direction towards the Initiative outcome goals. As such, this workstream runs parallel to, and is integrated with, the other eight workstreams. It is a vehicle for managing change at both the regional and Partner State levels.

GOALS

- Achieve maximum impact of the overall Initiative through oversight and support of all workstream activities.
- Ensure compliance with the legal and regulatory framework and funding requirements across all workstreams.
- Create operational efficiencies where possible across the Initiative.
- Create awareness of the Initiative through unified messaging and public relations.
- Create value for the field of digital development, particularly digital health, and for other regions looking to improve healthcare services, through thought leadership.

Overall Strategic Approach

This workstream will provide experienced oversight by establishing a core staff that includes local leadership, experienced management, and technical expertise. In addition to the traditionally centralised management functions, human resources, communications and public relations, finance, IT, partnership management, and legal support will be provided by a mix of internal and contracted resources.

Management structures will be flexible and lean, contracting out resources for period of time when possible. Specialised functions such as M&E and thought leadership will draw on stakeholder contributions (e.g., universities, research bodies) as internal capacity is developed. This approach will maximise the collective impact of the Initiative through collaboration with various workstreams. The team will solicit and coordinate advisory input from experts across all other workstreams and Partner States to ensure that specific expertise (e.g., in capacity building, infrastructure development, standards creation) is embraced by the organisation overall, as well as in other individual workstream activities.

Potential efficiencies

This workstream could realise cost efficiencies by identifying resources like shared office space and EAC staff to reduce set-up and running costs.

WORKSTREAM ACTIVITIES

As the management hub of the Initiative, this workstream will oversee the activities listed below.

RESPONSIBILITY	ASSOCIATED ACTIVITIES
1. Organisation Building and Management	<ul style="list-style-type: none"> • Set up the appropriate entity and structures to lead and manage the Initiative (including staffing, legal contracts) • Conduct initial and ongoing governance development (set up, maintain, and potentially redesign governance structure) for the Initiative on an ongoing basis to ensure flexibility • Provide ongoing operational support for the Initiative • Create workstream strategy and operational plan
2. Grant Management and Reporting	<ul style="list-style-type: none"> • Manage administrative aspects of grants and funds as well as communications with grant and funding partners on behalf of the Initiative • Develop reports and briefs for updating key stakeholders and partners
3. Partnership Management	<ul style="list-style-type: none"> • Manage development partner and private-sector engagement for the Initiative • Liaise with grant partners, EAC stakeholders, Partner State government representatives such as Ministries of Health, digital health teams, and other relevant bodies • Coordinate amongst existing partners and pursue new partnerships throughout the lifespan of the Initiative
4. Leadership across Workstreams	<ul style="list-style-type: none"> • Provide leadership across all workstreams and encourage cross-workstream synergies where appropriate. Examples include joint projects or activities across different workstreams and opportunities for one workstream to provide expertise to another. • Uphold the values of the Initiative and set the tone across the organisation by upholding the Digital REACH Initiative Organisational Principles (Figure 6). This can be done by setting up aligned structures and policies across the Initiative and tracking adherence across workstreams. • Oversee support to Partner States from workstreams and ensure coordination between workstreams • Oversee an annual review of priority workstream activities with support from the EWGs, Workstream Leads, and the EAC
5. Thought Leadership	<ul style="list-style-type: none"> • Oversee and manage the knowledge management platform for the Initiative and share lessons learned internally and with external actors, as appropriate • Participate in regional events and share findings and data with other regional bodies seeking to learn from the Initiative model • Promote the Initiative at conferences, events, and public forums
6. M&E	<ul style="list-style-type: none"> • Create M&E plan for the Initiative, starting with priority activities and health programmes • Conduct M&E and performance management across all workstreams and coordinate with independent M&E partner • Use M&E data to mobilise funding based on tangible results and outputs

DIGITAL REACH INITIATIVE ORGANISATIONAL FRAMEWORK

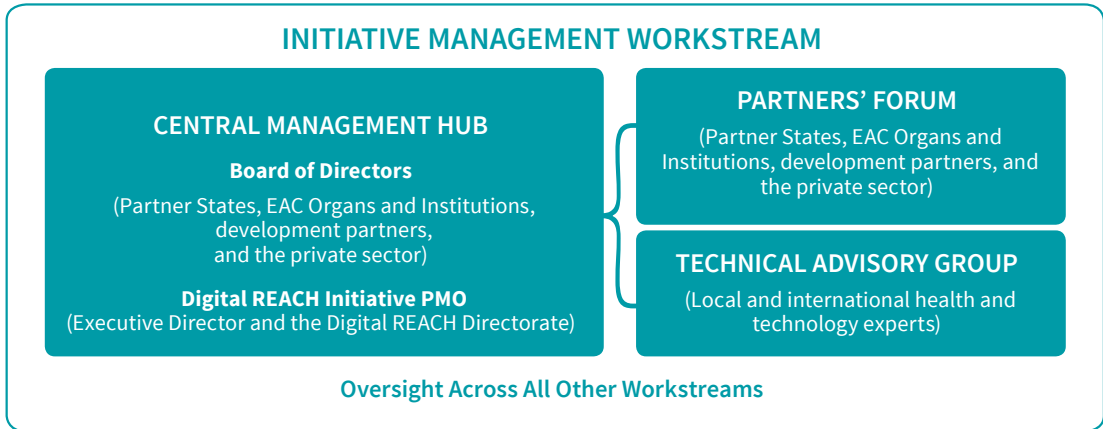
Managing and overseeing all workstreams requires creating a multidimensional team to provide a strong mechanism for collaboration, oversight, guidance, project management, resource mobilisation, and technical expertise. This multidisciplinary organisation will consist of a **Central Management Hub**, made up of a **Board of Directors** and a Digital REACH Initiative **Project Management Office (PMO)**. The PMO will oversee and manage the work done by the Initiative, and will report directly to the Board of Directors which will be made up of high-level Partner State and EAC representatives, the private sector, and development partners. The PMO will also manage key Initiative partnerships, including:

- A **Partners' Forum** made up of Partner States Ministries and departments for ICT and digital health, education and development, EAC Secretariat, EAC institutions, development partners, and the private sector will be kept up to date of the Initiative's progress and consulted throughout the life of the Initiative.

- A **Technical Advisory Group** will also be set up to gather inputs regarding the implementation of the Digital REACH Initiative. Membership to this Technical Advisory Group may overlap with the Partners' Forum but members will be more heavily involved in the content of the Initiative, providing strategic advisory support to staff across the entire workstream, depending on their areas of expertise and the need.

Workstreams will have their own budget, leadership, team, management structure, and progress indicators, and report to the PMO. Partnerships that impact each workstream will be managed at the workstream level, including coordination with Partner State stakeholders involved in specific areas of work, through EWGs. Below is the high-level organisation structure.

Figure 8: Organisational Framework for Digital REACH Initiative



Workstreams will have their own Workstream Lead, teams, management structure, and budget and report to the PMO. Workstream-specific partnerships will be managed at the workstream level



The Initiative will be led by the **Executive Director** who will be responsible for creating, planning, implementing, and integrating the strategic direction and vision of the Digital REACH Initiative. The **Digital REACH Directorate** will report to the Executive Director and consist of a **Director of Programmes** with expertise in public and clinical health and digital health and technology, and a **Director of Operations**. The **Director of Programmes** will provide oversight and support to all technical experts and workstreams. Each workstream will have a Workstream Lead (and supporting staff) who will report to the Director of Programmes. M&E will also fall under this function. The **Director of Operations** oversee internal activities and includes legal, human resources, internal IT operations, finance, communications, public relations, and thought leadership. These functions will also provide support and oversight to each workstream.

At the start of the Initiative, the PMO will be expected to set up a smaller, leaner management structure while other workstreams are also set up. This will allow more resource allocation to the technical workstreams. As resource become available, staffing can become more specialised, allowing management structures to grow. This will allow the Initiative to get started on priority activities and demonstrate quick-wins that will attract further resources while putting the organisation in place. Sufficient time should also be allocated to hiring the right staff. Flexible structure will be important to ensure that work on priorities can begin, at least in part, while larger hiring efforts are ongoing.

As the Digital REACH Initiative is set up, its leadership will need to take a strategic approach to identifying and hiring the minimum capable team to launch and implement priority activities that will secure more long-term funding. The organisation will need staff with leadership and management skills, as well as those with the technical abilities (e.g., program managers, medical doctors, engineers, technical experts, coordinators) required for actual implementation. The table below, taken directly from the Digital REACH Costing tool, shows the anticipated headcount and hiring ramp up, for staff and consultants per workstream over the first five years of the initiative. It is based on the assumption that the majority of resources can be mobilised for the first year of the initiative to support all priority year 1 activities.

Table 1. Anticipated Headcount for Staff and Consultants (Years 1-5)

Workstream	Year 1	Year 2	Year 3	Year 4	Year 5
1: Initiative Management	8	13	13	12	12
2: Health Programmes	3	3	7	7	8
3: Infrastructure	0	5	10	10	10
4: Services and Applications	4	8	7	7	7
5: Leadership and Advocacy	4	6	6	5	5
6: Strategy and Investment	4	7	7	7	7
7: Legislation, Policy, and Compliance	4	8	8	8	8
8: Workforce	4	5	11	10	10
9: Standards and Interoperability	3	7	7	8	8

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the **Digital REACH Initiative Workstream Compendium**.

DIGITAL REACH INITIATIVE HEALTH PROGRAMME IMPLEMENTATIONS

WORKSTREAM 2: HEALTH PROGRAMMES

WORKSTREAM 2: HEALTH PROGRAMMES

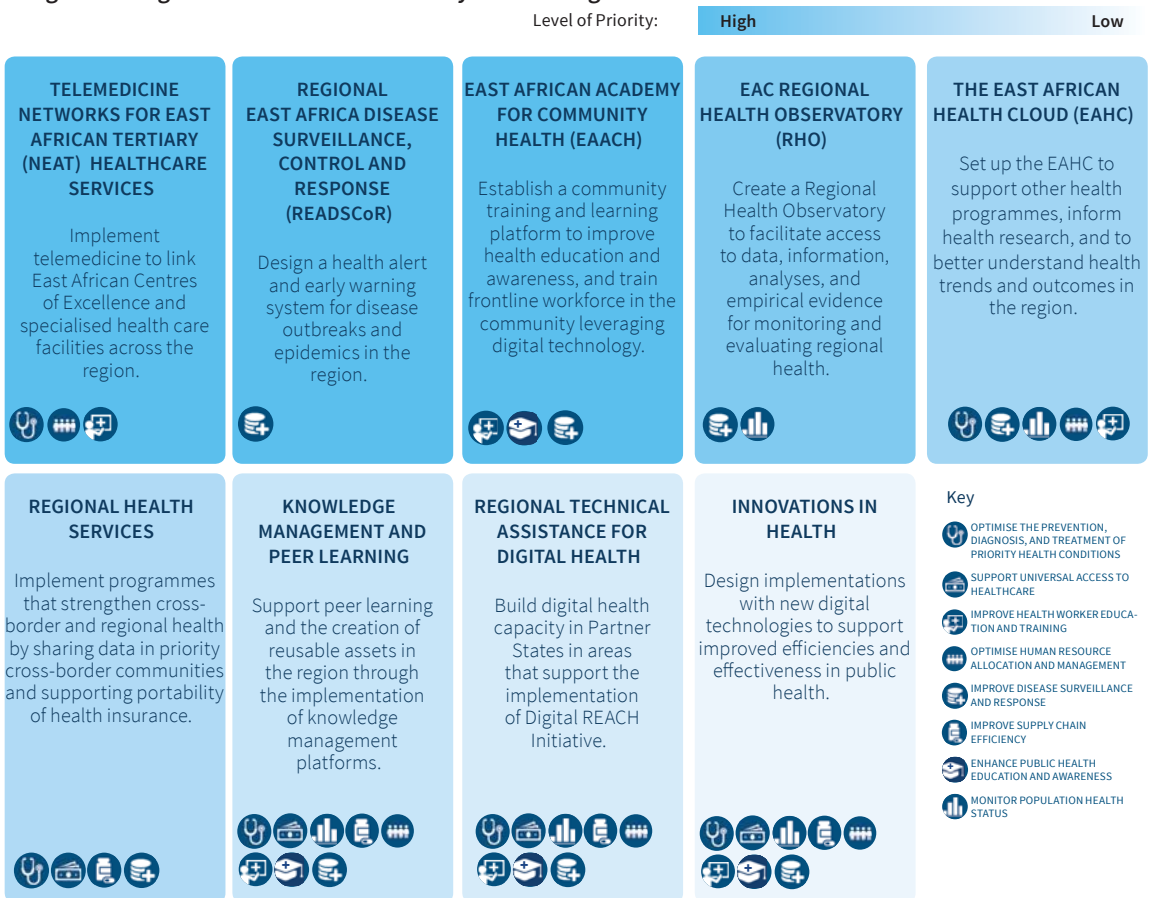
OVERVIEW

The Health Programmes Workstream oversees and manages the implementation of specific health programmes that seek to improve health-service delivery and outcomes while building the human, technical, and functional infrastructure to deliver the Digital REACH Initiative’s outcome goals. This workstream will focus on implementations that are regional and cross-border in nature and that improve the quality and access to healthcare services across the EAC, while also supporting the needs and mandates for the other seven activity-based workstreams.

GOALS

The workstream will focus on implementing health programmes that support cost-effective improvements to the quality of healthcare services in the EAC region while utilising the assets developed by other workstreams and building regional expertise to support the Digital REACH Initiative outcome goals. Nine priority health programmes that support the Initiative’s outcome goals have been identified by the EAC for implementation under the Digital REACH Initiative. These have been prioritised as shown in the figure below.

Figure 10: Digital REACH Initiative Priority Health Programmes



STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

At its core, the Digital REACH Initiative is an evidence-based, implementation science-led Initiative designed to use specific health projects to demonstrate cost efficiency, health benefits, and evidence of impact and to apply that evidence in a way that drives subsequent implementations.

Health programmes will place East African ownership at the forefront, with technical assistance provided in the background. Work on some of the health programmes has already begun (indicated in each health programme below), implementation on others will be staggered. Priority health programmes have been identified using the criteria on page 33.

The Health Programmes Workstream team will be responsible for prioritising implementation opportunities and coordinating resources amongst it, writing the overall workstream plan as well as specific plans for each implementation. Health programmes will be accomplished by both the core staff and outsourced implementation partners (e.g., private sector, development partners). The workstream team will be heavily involved in oversight, M&E, and alignment with regional and national health goals and funding. It will also be responsible for running the competitive RFPs to identify implementation partners.

Successfully architecting, implementing, and scaling the nine health programmes requires an overall process for integration and prioritisation. The digital health landscape has multiple examples of failed projects that either never worked or were never able to scale. The key principle for this workstream will be to rely heavily on an agile methodology that allows for rapid iterations and staged implementations built upon a solid architecture, identified through consultations with Partner States. Reuse of tools and best practices will provide cost efficiencies, but a maturity model where initial implementations are validated and then evolve based on experience, is essential to success.

The following are strategic guidelines for the operationalisation of this approach:

- All health programme implementations will involve an early scan of what work is already being done in related areas by Partner States and development partners
- Place emphasis on East African ownership and local capacity development, with international technical assistance provided where needed
- Ensure alignment with EAC health-sector priorities and secure political support for regional health-service implementations
- Coordinate with other workstreams to utilise supportive assets being developed (e.g., standards and policies) in ways that support health programme implementations
- Work closely with all other workstreams to request the creation of assets (e.g., policies, standards, software services) based on gaps and challenges experienced during implementation of health programmes

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the [Digital REACH Initiative Workstream Compendium](#).

Health Programme 1: The East Africa Health Cloud (EAHC)

OVERVIEW

The East Africa Health Cloud (EAHC) is a technology-driven, interoperable health information system (HIS) that will enable real-time storing, capturing, analysing, and retrieving of health data across the region, including data related to access to care and care delivery, health worker mobilisation and training, supply chain, public health statistics, and surveillance and response information.

Placed in a common EAC cloud and not in a single Partner State, the EAHC will allow users to securely access, analyse, and use health data across the region, following formal data sharing agreements with Partner States. Guided by ethical data practises including data security, privacy, and confidentiality, the EAHC will facilitate greater regional cooperation. It will initially provide insights and evidence into health system governance from the perspective of regional changes in demographics, socioeconomics, disease trends, and mobility. It will then provide the basis for case reporting and disease management to support regional health security and regional healthcare delivery.

The EAHC will be used to:

- Strengthen EAC capacity to formulate effective health policies;
- Provide health workers with relevant data and knowledge to improve health practice and decision making;
- Strengthen the potential of data to serve as early warning for timely and effective response (e.g., early diagnosis of deviations from expected disease behaviour, and/or new and unexpected health threats);
- Establish mechanisms for data utilisation, using clear criteria of ethical practice, to make data findable, accessible, interoperable, and reusable, driving policy decisions, the regional health agenda, and health research;
- Contribute to improved universal health coverage (UHC) and accessibility to quality healthcare services in remote areas and for low-income members of society, by using data to drive the regional health agenda.

The EAHC will help to strengthen the ongoing analyses of health-science data, regionally and for Partner States, by creating the common infrastructure, services, and skills needed to extract valuable insights from data.

Impacted Outcome Goals:



• Data on the regional health situation used to drive the regional health agenda



• Local health researchers are capacitated to analyse and use data



• Underlying cloud infrastructure supports all other outcome goals through various health programmes

Supporting Workstreams:

Infrastructure: Provides underlying infrastructure for programme to operate

Strategy and Investment: Helps to identify sustainable operating models for the cloud infrastructure through private sector engagement

Legislation, Policy, and Compliance: Designs the legislation and policies for remote data hosting

Leadership and Advocacy: Advocates for sharing of data across borders

The EAC Data Warehouse

The EAHC is complementary to current efforts to host health indicator data collected through DHIS2 in the EAC Data Warehouse. In addition to health indicator data, the EAHC will also act as a central repository for other types of data. Data inside the EAC Data Warehouse will be made available through the EAHC.

IMPLEMENTATION VALUE

By establishing a real-time, regional HIS for capturing, storing, retrieving, analysing, and managing deidentified national and regional health data, the EAHC will offer the opportunity to dramatically increase the evidence base with which health policy and services can be designed across the EAC. Priority data sets will be fed into the EAHC and analysed to create high-value common goods (e.g., algorithms to trigger outbreak alerts, routine analyses on comparative effectiveness of health programmes, standardised tools for data collection). Data will also be made available through secured electronic channels, such as a secure web portal or virtual private network (VPN), to stakeholders such as government personnel, qualified researchers, and academicians whose access will drive further insights and evidence for health in general.

The establishment of the EAHC will support the Digital REACH Initiative by providing the underlying infrastructure to store and analyse data necessary to:

- Examine the social dynamics of access to and utilisation of health services, including health systems governance and health financing (e.g., remittances) from the perspective of global changes in demographics, mobility, migration, and technology
- Strengthen the continuous, ongoing analyses, and sharing of health-science data to achieve lasting systems transformation through innovation, governance, and sustainable financing
- Promote and facilitate accessibility, sustainability, predictability, effectiveness, and quality of healthcare services in low-income, rural communities, post-conflict areas, displaced communities, cross-border communities, and amongst vulnerable groups (e.g., the elderly and children)
- Share and access health training and learning materials including health worker training
- Identify relevant regional events or trends to inform dissemination of tailored and timely public health messages to health workers and EAC citizenry through digital tools (e.g., alerts on outbreaks, alerts on disease trends and associated factors)

IMPLEMENTATION APPROACH

This health programme will work very closely with the Infrastructure workstream to build and implement the EAHC. The implementation approach will prioritise regional health security while rolling out incremental functionality to build a robust platform supporting all the use cases above. Design and development of the EAHC will begin by identifying an achievable use case. This will allow for building out the right security and privacy protocols to suit the use case, and embedding principles of patient-level protection, privacy, and data portability from the very start.

Once the EAHC is in place, local researchers (including PhD students and post-doctoral fellows) will then be able to utilise the database for research and analysis of health trends. This will also enhance the regional and global body of knowledge on health in the EAC region and build the capacity of local researchers and health professionals.

The EAHC architecture will be designed to receive and provide access to real-time data on diagnostics, treatment adherence, causes of ill-conditions, hotspots, and resources. The system will interconnect data on services from facilities and communities within selected areas in each Partner State and across the EAC, including:

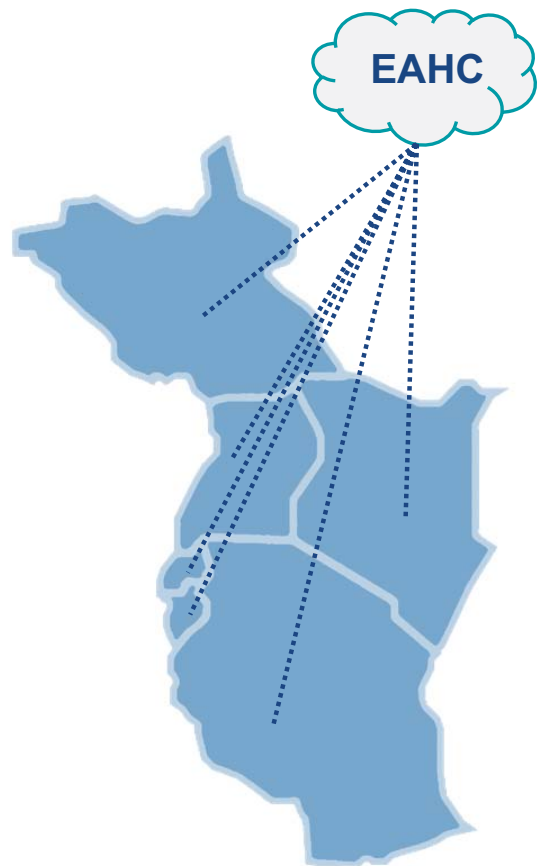
1. Routine health system indicators (e.g., Partner State HMIS, EAC Data Warehouse)
2. M&E survey data (e.g., Demographic and Health Surveys (DHS), Multiple Indicator Cluster Survey (MICS), Household Budget Survey (HBS) with MEASURE and the World Bank)
3. Country statistics (e.g., census)
4. Common data registries (e.g., master facility lists, diagnosis codes, client registry and shared health records for management of cross-border case-based surveillance)

This health programme will actively work with health programmes 2 to 9 described below to use data from health programme activities. For example, data available from the East African Cross-Border Health Services implementation in Health Programme 2 (Regional Health Services) can be used to inform the design and implementation of standardised digital HIV/TB workflows, algorithms, and protocols in selected sites to allow for comparative analyses of aggregate data on HIV/TB variables. The health programme team will also explore ways of optimising for regional use the architecture and designs of workflows, algorithms, and protocols developed and used by the EAC Partner States.

Real-time, data-driven, pilot studies will be designed and conducted by this health programme when the EAHC infrastructure and services have been optimised, and EAC Partner States skills to use EAHC tools and its data-driven insights have been developed. Examples of potential pilot studies include:

- Real-time treatment compliance monitoring for TB patients, capturing data through ICT using mobile phones and electronic pillboxes, also known as electronic directly observed therapy (eDOT). Additional applications include capture and analyses of diagnostics, cohort, MTB subtypes, MDR TB data, and hotspots of TB, MDR TB, TB/HIV coinfection.
- Analyses of HIV patient data (e.g., diagnostics, circulating HIV subtypes, trends of viral load, CD4 counts, clinical parameters, hotspots, and contacts) to identify best practices and improve cost effectiveness of treatment.
- Various implementations of digital health for disease preparedness, detection, and response to disease outbreaks (e.g., epidemics, pandemics, One Health, continuous data analytics, briefs)
- The impact of remittances and domestic financing on access to health services in cross-border communities.

EAHC will be a robust and effective tool to provide data that will complement and guide the delivery of health services by District Health Officers and the MoHs in Partner States. The EAC will work with other partners in this space (e.g., WHO and AU institutions).



Health Programme 2: Regional Health Services

OVERVIEW

To address the key and unique challenges associated with providing quality health services for mobile populations and communities residing along the EAC border areas, Health Programme 2 will develop or support health programmes that demonstrate the value of coordinating digital health and increasing public health security in the region.

IMPLEMENTATION VALUE

Freedom of movement results in an increasing need for cross-border access to healthcare. As mobility increases, people become further removed from their traditional medical support systems in their home countries, making them more vulnerable to health risks. Recent studies⁶ found that there is significant undocumented travel across porous borders in the EAC region, and that this includes travel for the purpose of accessing health services. In fact, people living in border communities have even indicated a preference for using cross-border facilities because of stigma and discrimination, particularly for diseases like HIV and TB, as well as perceived quality and distance. This creates a number of challenges for providers and patients including stock-outs, lack of data to support continuity of care across borders and health resource allocation, and lack of insurance to pay for services received in another country.

For a truly integrated EAC, it is important for people to be able to seek effective care anywhere in the region. The Health Programme 2 team will be responsible for identifying and implementing key regional and cross-border programmes that support continuity and access to healthcare across the region, along with the associated skills and performance indicators required.

IMPLEMENTATION APPROACH

Two implementations have already been identified for support under this health programme:

- **An East Africa Cross-Border Health Service:** To support the continuity of care for priority diseases along strategic border areas of East Africa
- **Social Health Protection:** Portable health insurance including a basic EAC benefits package

Both implementations have been conceptualised by the EAHRC. Work is currently underway to secure the political support and buy-in from key Partner State decision makers.

Impacted Outcome Goals:



- Supports continuity of care across the region



- Supports portability of health insurance



- Supports sharing of information across borders which can support surveillance

Supporting Workstreams:

Infrastructure: Builds client registry and shared health records to support cross-border health care

Services and Applications: Invests in unique ID systems and solutions to process insurance claims regionally

Standards and Interoperability: Supports development of data exchange standards

Policy, Legislation, and Compliance: Supports sharing of data across borders

Leadership and Advocacy: Advocates for sharing of data across borders

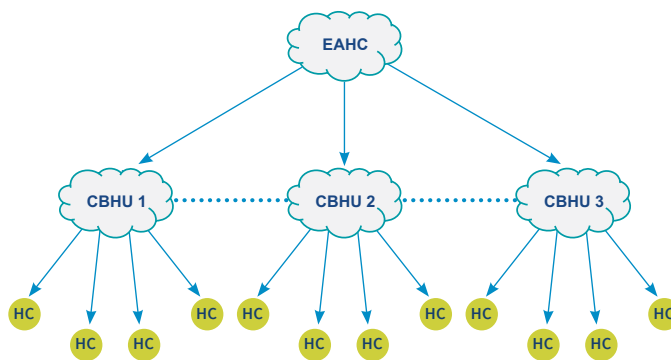
Potential Efficiencies and Partnerships: Partner with IGAD on shared border areas. Leverage lessons learned from other programmes on providing care for cross-border populations (e.g., from the RAD consortium)

⁶ROADS Project; AIHD Study; EAC Health and HIV Situation Analysis Report; CB-HIPP Baseline and Formative Assessments; MEASURE Evaluation/UNC's East Africa Cross-Border Integrated Health Study

IMPLEMENTATION 1: THE EAST AFRICA CROSS-BORDER HEALTH SERVICE

The East Africa Cross-Border Health Service (EACBHS) will strengthen cross-border healthcare and allow for continuous and real-time data exchange on priority health issues associated with mobile populations and communities residing along strategic border areas of East Africa, supporting the continuity

of care for priority diseases in those localities with a focus on serving the patient. The EACBHS will target 15 priority border sites⁷, starting with 5 in the first year and rolling out the additional 10 after that. It builds on the Cross-Border Health Integrated Partnership Program (CB-HIPP), a regional project funded by USAID/KEA and implemented by FHI 360 and partners. It will tap into learnings from cross-border pilot programmes being implemented elsewhere on the continent e.g., programme under the Regional Action through Data (RAD) Consortium that is being implemented in the countries that form the Inter-Governmental Authority on Development (IGAD), and the Economic Community of West African States (ECOWAS). Upon approval by EAC and its Partner States, implementation of the EACBHS will focus on the following areas:



- Real-time data sharing for decision making amongst cross-border health facilities
- Cross-border data collection and real-time data analysis, interpretation, reporting, and utilisation
- Continuous disease surveillance for priority diseases and identification of disease incubation hotspots and factors that influence diseases in cross-border communities
- Improvements in cross-border loss to follow-up, contact tracing, and treatment compliance of HIV and TB patients

Under this Health Programme, other regional health services programmes will also be established to address important regional health conditions such as non-communicable diseases (NCDs) (e.g., cancer, heart, lung, and kidney diseases) as well as road traffic accidents. The EACBHS will work closely with the Health Programme 1 team to utilise data stored in the EAHC. The EAHC will enable the integration of personal health records to allow for dashboards, cloud analytics, and reporting.

IMPLEMENTATION 2: SOCIAL HEALTH PROTECTION: PORTABLE HEALTH INSURANCE FOR THE EAC REGION

This implementation will work to support portability of health insurance across the EAC, in line with the EAC Social Health Protection (SHP) Portability Strategy and Roadmap developed by EAC Secretariat. This health programme will define a portable basic benefit package based on the EAC region's health priorities. It will also work closely with the enabling environment workstreams to design the supportive infrastructure needed to roll-out portable insurance, including the appropriate policy and standardised service delivery protocols and guidelines, development of harmonised unique ID, and the establishment of partnerships with public and private organisations.

⁷**Land Border Sites:** Busia (Kenya/Uganda), Namanga (Kenya/Tanzania), Rusumo (Rwanda/Tanzania/Burundi), Gatuna/Katuna (Rwanda/Uganda), Ruhwa (Rwanda/Burundi), Isebania/Sirari (Kenya/Tanzania), Eastern Equatoria/ Karamoja Region (Uganda/South Sudan/Kenya)

Wet Border Sites: Muhuru Bay/Kirongwe (Kenya/Tanzania), Port Victoria, Sio Port/Majanji (Kenya/Uganda), Kabonga/Lusolo (Burundi/Tanzania), Kasensero/Kagera Region (Uganda/Tanzania) 12. Mbita/Rusinga Island, (Kenya/Uganda)

Health Programme 3: Regional East Africa Disease Surveillance, Control and Response (READSCoR)

OVERVIEW

The READSCoR health programme aims to establish a digital mechanism for regional surveillance of disease outbreaks for early preparedness, including prediction, detection, and response. READSCoR will set up health alerts and an early warning system for disease outbreaks and epidemics. It will support regional health security by helping authorities prevent, track, and respond to health threats such as infectious diseases and epidemics that can rapidly spread across the region.

IMPLEMENTATION VALUE

Porous borders and the fluid movement of people, animals, and agricultural produce across the EAC Partner States underscore the need for a regional approach to tracking and responding to health needs and emergencies. A regionally integrated digital surveillance, alert, and early warning system will ensure the speed and efficiency of data collection, analysis, prevention, and public health response to outbreaks.

IMPLEMENTATION APPROACH

READSCoR will create the algorithms for continuous, real-time data generation, transmission, storage, and analyses, using the EAHC to identify potential outbreaks and generate alerts and early detection of and effective response to outbreaks. The system will provide regular updates on the general status of health in the region and priority health conditions including public health risks and threats.

The system will draw on existing surveillance systems such as the East African Integrated Surveillance Network (EAIDSNet), Southern African Consortium for Infectious Disease Surveillance (SACIDS) and other data collection systems used in Partner States, the EAC, and other data stored in the EAHC to generate information that will enable READSCoR to reliably predict, rapidly react, and effectively respond to and contain disease outbreaks, epidemics, and other health security threats.

READSCoR will utilise the EAHC as a central data warehouse for aggregate and case-based data, as applicable, and create and refine standard epidemiological algorithms to detect potential threats by analysing clinical and epidemiological characteristics of outbreaks. The programme will enhance existing surveillance tools in the region or deploy novel tools as needed to standardise data collection for analysis, for which the EAHC will also provide technical assistance.

READSCoR will partner with key stakeholders at the WHO and Africa CDC to assist with the development of algorithms and the creation of alert and response activities.

Impacted Outcome Goals:



- Supports timely surveillance of disease outbreaks and emergencies

Supporting Workstreams:

Services and Applications: Invests in decision support tools for dealing with outbreaks

Policy, Legislation, and Compliance: Establishes policy for regional surveillance and response

Leadership and Advocacy: Advocates for joint position on health emergencies

Potential Efficiencies and Partnerships: Partner with EAIDSNet and SACIDS on disease surveillance in the region.

Leverage work being done in participating countries to support GHSA and OneHealth, as well as surveillance tools, protocols, and best practices from the widespread implementation of the IDSR framework to create more predictive algorithms and alerts to prevent future outbreaks.

Look to lessons from the Regional Disease Surveillance Systems Enhancement Program (REDISSE) supported by the Bill and Melinda Gates Foundation, CDC, World Bank, and the WHO for strengthening regional health systems and collaboration of disease surveillance and epidemic preparedness in West Africa.

Illustrative data that could be used for READSCoR:

- Case incidents
- Supplies and stock-outs
- Weather patterns
- Behaviour patterns
- Agricultural and livestock abnormalities

Health Programme 4: Telemedicine Networks for East African Tertiary (NEAT) Healthcare Services

OVERVIEW

This health programme will implement telemedicine to link East African Centres of Excellence (CoE) and specialised healthcare facilities with other health and academic facilities across the region. The networks will provide advanced and specialised healthcare services and provide continuous medical education to health workers in the region.

IMPLEMENTATION VALUE

CoE have been set up across the region to provide specialised care to patients based on their relative areas of strength. However, CoEs are currently working in relative isolation. The Telemedicine NEAT Healthcare Services programme aims to link CoEs and their specialists to address the need for timely, high-quality specialty medical care in countries where such specialists may be lacking. Services will include patient care, education, research, and public health consultation and training.

IMPLEMENTATION APPROACH

This health programme will start by connecting CoEs with one another across the region, enabling medical practitioners to consult and share expertise. Once connections are established, operational and in use, the implementation can move into a second phase in which specialised healthcare facilities across the region will be linked with selected healthcare facilities within each Partner State. In the third phase, this link extends to other healthcare facilities across the region. This will enable CoEs to provide tertiary health services to facilities that lack the capacity to deal with emerging health conditions such as NCDs and (re)emerging diseases. While establishing these networks, emphasis will also be put on transforming the CoEs into digital-driven training and research centres to provide state-of-the-art training to next-generation health professionals and to conduct research.

The health programme will closely work with the East African CoEs, the Partner States, and EAC Institutions to develop the programme. It will also work with Partner States to identify other activities being conducted in this space to either learn or leverage from their experience.

Impacted Outcome Goals:

- Supports access and continuity of care across the region
- Allows resources to be shared across the region remotely
- Supports training of health workers remotely

Supporting Workstreams:

Strategy and Investment: Helps to identify sustainable operating models for the telemedicine network through private sector engagement

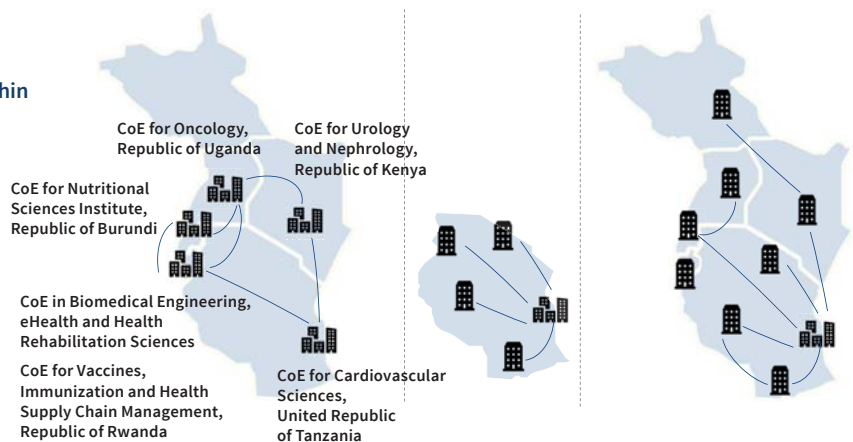
Standards and Interoperability: Establishes standards for care and data sharing

Policy, Legislation, and Compliance: Supports data sharing for patients seeking care

Potential Efficiencies and

Partnerships: Utilising existing CoE, and relevant grants to support their build, across the region

Connecting CoEs across the Region and within Partner States



Programme 5: East African Academy for Community Health (EAACH)

OVERVIEW

This health programme will establish the East African Academy for Community Health (EAACH), a community platform for improving health awareness and education to increase EAC citizen's ownership of the health agenda and their own wellbeing and provide training for community health workers (CHWs).

IMPLEMENTATION VALUE

The EAACH aims to make EAC citizens responsible for their own health, and for the health of their communities. The connection between care and timely continuing education is a key element of an integrated healthcare system. It is important for communities to be well equipped to manage their own health. The EAACH will be designed with the recognition that citizen participation is central to the promotion of sustainable community health and healthcare. The academy will bring awareness, ownership, and skilled CHWs to the community.

Implemented as a technological-driven learning platform, the EAACH will equip communities with the ability to prevent and manage diseases and provide education on disease prevention through the teaching of factors that influence ill health and health conditions. It will serve as a community platform for better understanding and learning about health matters in the region.

IMPLEMENTATION APPROACH

This health programme will oversee the establishment of a digital technology platform to support strong and efficient primary and community health services as a basis for accurate health data generation and transmission, efficient diseases surveillance (e.g., infectious diseases, NCD, re-and-emerging diseases) and effective health promotion. The academy will focus on education and awareness of entire communities and train CHWs, as the frontline health workforce, to be responsible for promoting, addressing, managing community health conditions, and reporting on health matters to the appropriate channels. EAACH will work together with other organisations conducting similar initiatives (e.g., Last Mile Health).

Impacted Outcome Goals:



- Builds capacity of community health workers



- Support public education and awareness among communities



- Capacitates health workers to better identify public health emergencies and outbreaks

Supporting Workstreams:

Workforce: Supports the integration of digital learning tools into health worker training and the harmonisation of digital health training curriculum

Potential Efficiencies and

Partnerships: Leverage lessons from Last Mile Health's Community Health Academy in West Africa

Learn from ongoing eLearning programmes in Partner States (e.g., the CHWs eLearning pilot implementation in Rwanda)

Programme 6: EAC Regional Health Observatory (RHO)

OVERVIEW

This health programme will set up the EAC Regional Health Observatory (RHO), which has been identified as a priority for the EAC (see page 27). It will provide a consolidated view of regional health and highlight trends using core indicators, database views, publications, information products, and other evidence-driven knowledge management platforms. It will serve as an EAC regional resource for monitoring and evaluating regional health.

IMPLEMENTATION VALUE

Using data collected, the RHO will monitor regional health priorities. It will contribute to the identification of gaps and opportunities for health research and development priorities. It will support coordinated actions on health research and development in ways that are aligned with regional public health demands and needs. To do this successfully, the RHO will:

- Gather, analyse, synthesise, share, and utilise quality information on health and health services.
- Take social relationships and sociological factors into account including cultural, economic, geophysical, and geographical factors.
- Monitor high-level health events and trends using objectives and verifiable methods and assess progress towards agreed-upon health-related targets and provide empirical evidence for monitoring and evaluating the population health situation of the region.

IMPLEMENTATION APPROACH

The RHO will use the EAHC and work with Partner States to obtain access to relevant country data sources, (e.g., routine HMIS) and data in the EAC Data Ware-house, master facility lists, and statistical databases that include aggregate demographic data. The EAHC will facilitate analysis of cross-country data sources through standardisation of data and creation of database views to facilitate queries by the RHO. Further technical assistance will be provided to improve each Partner State's data systems to capture standardised data that allows for more comprehensive analyses of regional health indicators.

The RHO will be organised by priority health thematic areas. Outputs will include routine reports and other information products such as objective recommendations to harmonise quality and access to care across EAC Partner States. Technical briefs and recommendations will be generated to support decision making and information products will be published and disseminated via the EAHC knowledge repository, further driving uptake of the EAHC as a central platform for data and knowledge. An EWG made up of international and Partner State experts will advise on priorities for new health investments based on information provided by the RHO. The EAC will also contribute to global knowledge by collaborating with other regional or international bodies and organisations under-taking similar initiatives (e.g., WHO Global Health Observatory, Africa CDC).

Impacted Outcome Goals:



- Track regional health priority indicators to drive the health agenda

Supporting Workstreams:

Infrastructure: Provides underlying infrastructure for programme to operate

Strategy and Investment: Helps to identify sustainable operating models for the cloud infrastructure through private sector engagement

Potential Efficiencies and Partnerships: Coordinate with Partner States and the WHO to learn from experience of setting up national (e.g., Kenya) and global health observatories.

Programme 7: Knowledge Management and Peer Learning

OVERVIEW

This health programme will support ongoing efforts carried out by the EAHRC in areas of peer learning and knowledge management in the region.

IMPLEMENTATION VALUE

By creating a platform for the sharing of knowledge across the region, this health programme will provide Partner States with the ability to learn about and apply lessons and tools already developed by others in the region, avoiding duplication of efforts. It will serve as a hub for promoting work being done in the region, sharing evidence generated by the Digital REACH Initiative and other health research, supporting capacity building of future health professionals and researchers, and using digital technology to disseminate and manage health related information in the region.

IMPLEMENTATION APPROACH

Work will be divided into two categories: peer learning and knowledge management.

Peer Learning and Network Platforms

This area of work will connect researchers, government leaders, and health professionals across the region to provide a forum for decision making and learning.

Impacted Outcome Goals:

- Learnings shared through the platforms can cover any area of the outcome goals



Supporting Workstreams:

Infrastructure: Provides underlying infrastructure for programme to operate

All other workstreams: Generate data and knowledge that can be shared through these platforms and networks

Potential Efficiencies and

Partnerships: Leverage existing activities being carried out by the EAHRC.

PLATFORM	DESCRIPTION
Young East African Health Research Scientists' (YEARS) Forum	This forum mentors next-generation health leaders through a structured approach using digital technology, workshops, and mentoring. YEARS was launched in 2018 and is being implemented by the EAHRC.
East African Government Leaders, Legislators, and Legal Executives' Health (EAGLES) Forum	This forum brings together East African government leaders and parliamentarians from the EAC Secretariat and Partner States, members of the East African Legislative Assembly (EALA), and Partner State judiciary systems, with the aim of sharing information on pertinent health issues, gaining consensus, and making collective decisions on the best path forward.
East African Health and Scientific Conference (EAHSC)	The biennial EAHSC, coordinated by the EAHRC, strengthens regional cooperation in health in line with the articles of the Treaty for the establishment of EAC and relevant provisions of the EAC Common Market Protocol. It brings together stakeholders of the health sector from EAC (EAC PMO, East African Legislative Assembly, East African Court of Justice, members of the EAC council of ministers, members of the summit, and EAC institutions); EAC Partner States including ministers of health, finance, higher education, science and technology; members of parliament from national assemblies; government officials; researchers; scientists; practitioners; civil society; media; development partners; and the general public.

Knowledge Management Platforms

This area of work will implement regional knowledge management platforms that allow capturing, distributing, and effectively using knowledge about health policy, governance, and services in the region. The platforms listed below can also be used as a vehicle for disseminating and socialising evidence generated through the Digital REACH Initiative.

PLATFORM	DESCRIPTION
WEB PORTAL	
<p>East African Web Portal:</p> <p>The official comprehensive compendium of health information in East Africa</p>	<p>The web portal www.eahealth.org will be a comprehensive single-point-of-access knowledge management platform for EAC health information. It will be dynamic and interactive with an intuitive interface that allows users to browse through categories of health information that range from healthcare services, academics, research, databases, health indicators, medical industry, profile of health and research professionals, job opportunities, and the mapping of health and health research capacity. The web portal aims to improve the accessibility and utilisation of health services, medical products, and study and career opportunities for the citizens of East Africa.</p> <p>The portal will also provide the global citizenry with a one-stop centre for comprehensive health information about East Africa. Health journals, news, events, conferences, and health-related social media will be available through the portal. Opportunities to utilise technology to support automated knowledge management will also be explored.</p>
EAHRC JOURNALS	
<p>East African Health Research Journal (EAHRJ): <i>The Basis for Better Policy and Practice</i></p>	<p>The EAHRJ focuses on strengthening national and regional health policy and practice, developing human resource capacities and skills, promoting exchange and dissemination of health research information, advocating for evidence generated from health research, and accessing research and scientific work from East Africa.</p> <p>The journal aims to represent the East African perspective on the health sector and provide information that is relevant to the EAC. It will be an engine for knowledge production and dissemination and provide a forum for sharing ideas and knowledge in the region. It will also serve as an avenue for closing the 'knowledge gap' in health research that exists between high-income countries and LMICs. Creating a forum for researchers from EAC to be more visible globally will enable scholarly recognition of professionals and institutions and support the career development of health research professionals, contributing to the economic and social development of the region.</p> <p>Finally, by supporting health research, the EAHRJ will be able to provide direction based on evidence for the setting of health research priorities in the region.</p>
<p>East Africa Science (EASci): <i>Search, Discover, Develop</i></p>	<p>EASci aims to contribute to the economic and social development of the EAC through research innovation and development in health by representing East African innovations in the health sector. The EASci will serve as a forum for sharing innovations and knowledge in health through research, discovery, and development of solutions to priority EAC issues.</p> <p>It will focus on showcasing research and technology innovations in health, health research and development in the region. By doing this, the EASci will serve as a catalyst for innovation and use of science and technology including digital health technologies and solutions and guiding the development of products and services in health that harness the advancement of science and technology.</p>

Programme 8: Regional Technical Assistance for Digital Health

OVERVIEW

EAC Partner States have requested aid to provide additional and complementary support to country-level digital health implementations. Health Programme 8 sets up a fund whereby Partner States can apply to receive technical assistance directly from the Digital REACH Initiative.

While it is difficult to project what kind of support is needed, the purpose of this health programme is to create a fund and mechanism to provide specific digital health-related support to each Partner State.

IMPLEMENTATION VALUE

The purpose of Health Programme 8 is to provide digital health support to EAC Partner States in areas where there is clear benefit from regional involvement. This health programme offers Partner States the opportunity to tap into digital health expertise and create national assets that support the implementation of the Digital REACH Initiative. This will help to improve the enabling environment for digital health in East Africa and support the achievement of Digital REACH's outcome goals.

IMPLEMENTATION APPROACH

Partner States will apply for support in areas where regional involvement brings the highest value, and not on areas that countries can implement on their own. Three types of support have been identified: strategy and advocacy, implementation and management, and optimisation and institutionalisation.

To ensure fairness amongst EAC Partner States, each country will be allocated a maximum amount of support. Partner States will solicit up to that amount to fund Digital REACH Initiative staff and any outsourced support that is needed. Over the course of five years, each country can receive a total of USD \$3 million, which can be spent in any of the three support types. Partner States will submit a request for support in collaboration with the Health Programme 8 coordinators.

Learnings for how to set-up and run this fund will be taken from the West Africa Health Informatics Team (WAHIT) programme team from the West African Health Organisation (WAHO).

Examples of the type of support and the estimated costs associated with each type are shown in the table below. The examples provided are not exhaustive, and it is expected that over the course of the five years new areas will be identified at the request of Partner States.

Impacted Outcome Goals:

- Technical assistance provided can cover any area of the outcome goals



Supporting Workstreams:

All workstreams: Support to Partner States supports implementation of assets created by all workstreams

Potential Efficiencies and

Partnerships: Learnings for how to set-up and run this fund will be taken from other similar programmes (e.g., the West Africa Health Informatics Team (WAHIT) programme team from the West African Health Organisation (WAHO)).

Table 7: Health Programme 8 — Support Types, Examples, and Estimated Cost

TYPE	ILLUSTRATIVE EXAMPLES OF SUPPORT	ESTIMATED COST (\$USD)
Strategy and Advocacy	<ul style="list-style-type: none"> • Development of standards and policies for digital health that align with regional objectives • Development of a strategy for electronic patient record implementation • Academic curriculum development and aligning accreditation • Update of country digital health plan • Technical assistance for the development of strategies for private sector engagement • Support with change management and business process engineering for digital health implementations 	\$250,000
Implementation and Management	<ul style="list-style-type: none"> • Technical assistance for country implementations that use shared regional assets or provide a model that can be replicated by other Partner States • Implementation support for national ID that aligns with a regional unique ID • Implementation support for telemedicine infrastructure across Partner States for remote medical consultations • Local capacity building for areas that align with Digital REACH Initiative workstream activities 	\$750,000
Optimisation and Institutionalisation	<ul style="list-style-type: none"> • Capacity building for a new workforce in digital health, including education and training at the university level and through peer-learning and sharing • Support for interoperability and standards creation in ways that support regional interoperability 	\$500,000

It is important to note that knowledge transfer will be an explicit part of all support provided under Health Programme 8. This is essential for sustainability of implementations and is important for capacity building in the region. Knowledge transfer mechanisms should be suggested by Partner States when they apply for support under Health Programme 8, and a knowledge transfer plan will be part of the grant contract.

Grants will be managed and overseen by the health programme team. M&E data will be collected by the workstream team and shared with Workstream 1 for analysis. Once awarded a grant, Partner States must adhere to the M&E requirements for continuation of the grant.

Programme 9: Innovations in Health

OVERVIEW

While most health programmes will emphasise effective use of tested technologies, Health Programme 9 will set up a group dedicated to understanding and piloting new potential applications of technology for health. Where appropriate, this group will also support the integration of those technologies into specific activities and programmes across the Initiative and advise on the degree to which they should be used.

IMPLEMENTATION VALUE

Given the ten-year time frame of this Initiative and the rapidly changing technology landscape, it is critical that Digital REACH keep up to date on the latest technological innovations and the impact it can have on realising efficiencies in the health sector.

Designed to function like an incubator, this health programme will actively integrate technologies into selected test implementations. It will support the design of and provide funding for innovative implementations, testing potential efficiencies for the health sector and other health programmes.

IMPLEMENTATION APPROACH

Suggestions for new technology implementations will be received and reviewed by the Health Programme 9 workstream governance group through a joint submission by a Partner State Ministry of Health or ICT and other Digital REACH Initiative workstreams. Up to two new concepts per year will be selected.

The Health Programme 9 team will then design and test the concept over a two-year period. Depending on the concept, implementation can be done in collaboration with Partner States or at the regional level in collaboration with other implementations being carried out by Workstream 2. The following approaches will be part of this programme's work:

- **Robust and continuous M&E:** Implementations will be subject to robust M&E to test and measure their success. If, following a successful implementation, a technology is deemed scalable, applicable, and successful, it will be integrated into other Initiative-backed health programmes and workstreams. Partner States will have the opportunity to provide feedback on the innovative implementations to build the evidence base. A mechanism for standardising the collection and dissemination of evidence from implementations will be developed to allow for comparable insights across findings. Findings will be published in peer-reviewed journals (e.g., the EASci).
- **Risk-taking culture:** Health Programme 9 will encourage a risk-taking and innovative culture within its team. Success will not be measured by the number of successful implementations but by the evidence collected and the lessons learned.
- **Proven technologies:** To maximise the potential for impact, the group will prioritise technologies that have proven ability to scale in other contexts.
- **Periodic assessments:** : The group will develop a plan for running nine health programmes which will include an initial assessment of the technology landscape, followed by annual refresher assessments.

Impacted Outcome Goals:

- Innovations implemented can impact any of the outcome goals



Supporting Workstreams:

All Health Programmes: Generates evidence of innovative technologies that can support the implementation of all health programmes

Potential Efficiencies and

Partnerships: Function like a start-up with a small, lean team overseeing select pilot implementations

Identify opportunities for coworking spaces within EAC institutions or in the region

Coordinate on incubating digital health with EAC Institutions, the East African CoE for eHealth in Rwanda, and Science and Technology institutions in EAC Partner States

POTENTIAL APPLICATIONS OF TRANSFORMATIONAL TECHNOLOGIES FOR HEALTH

Some examples of innovative applications of technology in health are listed in the table below. This list offers potential targets for early implementation, starting with technologies that have been proven elsewhere, including global goods being developed under Digital Square to reduce the risk of “pilotitis” — the inability to break out of pilot stage — and stretching resources too thin.

Table 8: Examples of Innovative Applications of Technology for Health

INNOVATION	GOOD FOR...	ESTIMATED COST
Big Data Analytics	<ul style="list-style-type: none"> • Automating data mining and modelling for early disease outbreak alerts • Monitoring for disease surveillance red flags • Tracking travel pattern trends and linking to disease outbreaks • Tracking of online health information-seeking behaviour among citizens 	\$ - \$\$
Blockchain	<ul style="list-style-type: none"> • Validating the delivery of physical and non-physical assets at each stage to the end user (supply chain management) • Streamlining procurement activities through smart contracts • Creating an indelible record and audit trail (medical health record) 	\$\$
Internet of Things (IoT)	<ul style="list-style-type: none"> - Tracking smaller physical assets moving through delivery systems - Monitoring the state of target goods and structures through sensors, over time 	\$ - \$\$
Mobile Money	<ul style="list-style-type: none"> • Insurance premium payments 	\$ - \$\$
Spatial Analysis	<ul style="list-style-type: none"> • Modelling predictive risk for surveillance and response 	\$
Social Media (WhatsApp, Facebook, Twitter)	<ul style="list-style-type: none"> • Monitoring red flags for disease outbreaks • Engaging citizens directly for outreach and public health messaging • Soliciting specific feedback proactively on programme experience 	\$ - \$\$

Costs shown in US Dollar estimates: \$ (10,000 - \$99,000), \$\$ (100,000 - \$999,999)

Note: Given the rapidly changing technology landscape, this assessment should be renewed every year once Health Programme 9 has been launched.

CREATING AN ENABLING ENVIRONMENT THROUGH THE DIGITAL REACH INITIATIVE

WORKSTREAM 3: INFRASTRUCTURE

WORKSTREAM 4: SERVICES AND APPLICATIONS

WORKSTREAM 5: LEADERSHIP AND ADVOCACY

WORKSTREAM 6: STRATEGY AND INVESTMENT

WORKSTREAM 7: LEGISLATION, POLICY, AND COMPLIANCE

WORKSTREAM 8: WORKFORCE

WORKSTREAM 9: STANDARDS AND INTEROPERABILITY

ESTABLISHING FOUNDATIONAL TECHNOLOGY COMPONENTS

WORKSTREAM 3: INFRASTRUCTURE

WORKSTREAM 3: INFRASTRUCTURE

OVERVIEW

The Infrastructure workstream will develop the foundational technical components and global goods needed to support all other workstreams in the Digital REACH Initiative. The workstream creates the foundation for a regional approach to digital health through the building and facilitation of improved connectivity and digital health infrastructure, allowing for timely data access and sharing and enabling services and applications to function. It also includes the technical support required to maintain systems over time.

Potential Efficiencies and Partnerships:

Identify sustainable operating models for the cloud infrastructure through private sector engagement
Look to OpenHIE Implementation Guides to support build and roll-out of assets

GOALS

The overall goal of this workstream is to identify, build, host, and implement common technological components and systems that will allow other workstreams and health programmes to achieve the Digital REACH Initiative's outcome goals.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

This workstream will be responsible for establishing the technological infrastructure and platforms that support the Initiative's work. Where possible, this workstream will make sure to utilise existing infrastructure that already exists in the region and across Partner States. In cases where such infrastructure does not already exist, new infrastructure will be built.









Made up of engineers, software developers, and technologists, the team will work closely with relevant partner organisations in the development community and the private sector, Partner State officials, and other workstreams to provide and build the infrastructure needed to support the Initiative's outcome goals. The workstream team will also provide pooled technical expertise across Partner States to build and support Digital REACH Initiative platforms.

The team will also work with the PMO to coordinate with other workstreams and identify infrastructural needs and services (e.g., hosting, data security, integration, technical support).

The following are strategic guidelines for the operationalisation of this approach:

- Focus on the development and adoption of consistent, interoperable technologies and operating models across Digital REACH activities and encourage Partner States to adopt similar technologies and models.
- Establish a trusted, regional hosting environment and secure data access a portal with appropriate regional and national cybersecurity policies, standards, and safeguards.
- Develop regional platforms and services for prioritised regional and national use cases, promoting common applications and global goods where appropriate.
- Implement pooled software engineering support and regional 24-hour technical support and establish maintenance guidelines for software and hardware.
- Implement with sustainability in mind, so that relevant infrastructure can remain in place and be improved and adapted in the long term.
- Operations and support of technologies should comply with the Principles for Digital Development and not be bound to specific vendors, allowing professional services to be obtained from multiple partners to prevent vendor lock-in.
- Work with relevant workstreams, including Legislation, Policy, and Compliance and Standards and Interoperability, to create an enabling environment for data to be hosted in the regional cloud, including data protection.
- Work in support of the health programme workstream by providing technical assistance and by prioritising infrastructure based on health programme implementation needs.

IMPROVING HEALTHCARE THROUGH INFRASTRUCTURE

INFRASTRUCTURE PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<div style="display: flex; flex-direction: column; gap: 10px;">         </div> <p>3.1 Build the EAHC and set up a regional support team to maintain it over time to enable real-time storing, capturing, analysing, and retrieving of health data on priority diseases and outbreaks, and to support health research</p> <p>3.2 Select and implement foundational technologies to enable regional information exchange (e.g., between EAHC and other regional and Partner State HIS) including a client registry, terminology services, and interoperability layer</p>	<ul style="list-style-type: none"> • Agree on information to be uploaded to the digital health regional services cloud • Revisit national ICT strategies and guidelines and provide an enabling framework that allows for the sharing of up-to-date information to the regional cloud and the adoption and use of regionally hosted components • Set aside resources for maintenance of platforms in national budgets • Contribute to the development, adoption, and use of platforms through the contribution of resources and content and the integration of national systems

Key

-  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
-  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
-  IMPROVE HEALTH WORKER EDUCATION AND TRAINING
-  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
-  IMPROVE DISEASE SURVEILLANCE AND RESPONSE
-  IMPROVE SUPPLY CHAIN EFFICIENCY
-  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
-  MONITOR POPULATION HEALTH STATUS
-  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F. Given the priority of the EAHC further detail on specific implementation activities once the Digital REACH Initiative is launched can be found in Appendix G.

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the **Digital REACH Initiative Workstream Compendium**.

SUPPORTING THE ACCESS, EXCHANGE, AND MANAGEMENT OF DATA AND CONTENT

WORKSTREAM 4: SERVICES AND APPLICATIONS

OVERVIEW

The Services and Applications workstream will support the development of common, reusable, and interoperable digital solutions and global goods for regional and national use. It supports the products and services that provide tangible means for enabling digital health services and systems to exchange and manage information and content.

GOALS

The overall goal of this workstream is to design, make available, foster, and invest in the use of shared services and applications that are built for regional and national use in ways that support the achievement of Digital REACH Initiative's outcome goals and associated health programmes.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

Made up of engineers, software developers, and technologists, the team will work with other workstreams to identify what tools and services are needed to support activities and health programme implementations. The team will work with the Digital REACH Initiative PMO to identify where it can lend support.

Where possible, the team will identify and leverage existing assets (e.g., national assets, services and applications in place) that can be used and scaled across the region and encourage the use of common design principles to facilitate usability of new tools developed.

The following are strategic guidelines for the operationalisation of this approach:

- Implement a regional service provision team to support Partner States in configuring and using regional services and applications.
- Develop guidelines for usability of regional services and applications and establish data ownership and data-sharing agreements to protect and codify allowable access of data.
- Choose common software applications (global goods) based on potential value to Partner States, and document potential cost savings and value unlocked by their adoption.
- Set up standard operating procedures (SOPs) and processes for the prioritisation of solutions to work on, criteria for selection of existing solutions to invest in, and the creation of software development roadmaps.
- Support Partner States in selecting and standardising national use of optimal software applications for specific use cases (i.e., switching over from several disconnected applications to a single, scalable application for which this workstream could provide better support), based on national interest.
- Ensure compliance with agreed-upon data standards, align national applications to use data standards for reporting, and enable interoperable exchange of data with other regional services and applications.
- Encourage regional software sharing through internationalisation of software and provision of local translation where needed.

Definitions:

Services can be provided by the government or the private sector (e.g., software as a service, data analysis).

Applications include point-of-care systems used by health staff to deliver care.

Users include the general public, patients, and health and insurance providers.

Potential Efficiencies and Partnerships:

Identify promising existing tools and invest in global goods that improve their effectiveness or expand the use cases they are currently able to serve

Set up a community of practice to optimise funds received, reduce redundant work and technology fragmentation, and provide an open forum for collaboration, new partnerships, and sharing of knowledge and best practices

Utilise data available from Partner States and the EAC on eHealth readiness e.g., the eHealth Readiness survey being conducted by EASTECO

- Operations and support of technology should not be bound to specific vendors allowing professional services to be obtained from multiple partners to prevent vendor lock-in.
- Work with the Standards and Interoperability workstream to choose standards regionally, publish them, and support their adoption (e.g., national health indicators, diagnosis codes, patient record formats, civil registration IDs, disease surveillance alerts, process for referrals).
- Work in support of the health programme workstream by providing technical assistance and by prioritising the development of services and applications based on health programme needs.
- Work with the Legislation, Policy, and Compliance workstream to ensure data protection and confidentiality and that intellectual property rights are supported.

IMPROVING HEALTHCARE THROUGH SERVICES AND APPLICATIONS

SERVICES AND APPLICATIONS PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<p> 4.1 Develop decision-support tools built into new or existing systems to support health workers dealing with cases of outbreaks and health emergencies (e.g., outbreak alerts, an alert to notify the regional body, care instruction, alerts with updates to protocols)</p> <p>  4.2 Support and promote implementation of interoperable unique ID systems</p> <p> 4.3 Support engagement with the relevant OpenHIE and other global communities to leverage best practices and external expertise in the design and implementation of digital health services and applications</p> <p>  4.4 Invest in software solutions that support the realisation of a regional digital portable health insurance product (e.g., claim submission, eligibility verification, mobile payments for reimbursements)</p> <p>  4.5 Provide support with contractual agreements with technology solutions vendors for Partner States and Digital REACH and work with Strategy and Investment team for potential group pricing discounts.</p>	<ul style="list-style-type: none"> • Share information on current tools being used and help to document key gaps • Provide input on any functional requirements for tools being invested in and/or developed • Adopt and integrate with regional services and applications

Key

-  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
-  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
-  IMPROVE HEALTH WORKER EDUCATION AND TRAINING
-  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
-  IMPROVE DISEASE SURVEILLANCE AND RESPONSE
-  IMPROVE SUPPLY CHAIN EFFICIENCY
-  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
-  MONITOR POPULATION HEALTH STATUS
-  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F. Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the **Digital REACH Initiative Workstream Compendium**.

ADVOCATING FOR DIGITAL REACH

WORKSTREAM 5: LEADERSHIP AND ADVOCACY

OVERVIEW

The activities of the Leadership and Advocacy workstream will be outward facing, and the workstream will interact with senior elected officials and government decision makers on behalf of the Digital REACH Initiative. In so doing, it will collect high-level feedback and rally support from key government decision makers and elected officials for the Initiative's projects. Such support will greatly facilitate the participation of government officials and others in the changes being introduced through the Initiative.

Potential Efficiencies and Partnerships:

The workstream lead for Leadership and Advocacy will also function as the Lead Advocate during the first few years of the Initiative

The workstream team will also use the EAGLES Forum to conduct advocacy on behalf of the Initiative

GOALS

The overall goal of this workstream is to advocate for the Digital REACH Initiative and socialise its efforts across Partner States, EAC PMO, EAC Sectoral Council on Health, and the EAC Council of Ministers to lay the groundwork, remove obstacles, and garner political support for the Initiative at the Partner State and regional level.







STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

Achieving the Digital REACH Initiative outcome goals will often require substantial change management. Political support is a necessary first step to facilitate such change. The Leadership and Advocacy workstream will assist other workstreams to gain such support for activities.

This workstream will target high-level political figures and decision makers (e.g., ministers, EAC staff) to lay the groundwork for specific projects, continue consultations during the development phase if necessary, and conduct high-level socialisation for projects nearing completion. Digital REACH Initiative methodologies will be designed in line with EAC policies and procedures and will work through EAC channels. The following are strategic guidelines for the operationalisation of this approach:

- Identify and advocate with relevant decision makers and high-level politicians.
- Build good consultative relationships with stakeholders in Partner States, EAC PMO, EAC Sectoral Council on Health, and EAC Council of Ministers.
- Build awareness of and commitment to the value of digital health amongst stakeholders.
- Interact with stakeholders on specific digital health issues and activities.
- Build agreement on approaches and collect feedback about the Initiative to ensure projects are acceptable and useful.
- Work in support of the Health Programme Workstream by prioritising advocacy targets based on health programme implementation needs.
- Create positive incentives for Partner States that support Digital REACH Initiative activities (e.g., highlight work and publicly acknowledge support and success stories).

IMPROVING HEALTHCARE THROUGH LEADERSHIP AND ADVOCACY

LEADERSHIP AND ADVOCACY PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<p> 5.1 Advocate for agreement on data sharing and storage in a regional cloud</p> <p>  5.2 Advocate for regional agreement on health insurance portability for all EAC citizens</p> <p> 5.3 Advocate for a joint regional position on approach to public health emergencies that strengthens the ability of national health systems to respond to disease outbreaks</p> <p> 5.4 Advocate with development partners for reduced common set of priority reporting health indicators across all EAC Partner States to reduce data collection and reporting burden on health workers⁸</p> <p> 5.5 Advocate for a holistic approach to the use of digital technologies and solutions in the health sector within the EAC region</p>	<ul style="list-style-type: none"> • Integrate EAC initiatives into country strategies • Effectively advocate for regional coordination in the areas of Digital REACH Initiative workstream activities • Advocate with regulatory authorities to provide frameworks and platforms to allow cross-border sharing of information and implement by regional agreement • Establish and advocate for frameworks, guidelines, and regulations that allow sharing and harmonisation of data

- Key
-  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
 -  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
 -  IMPROVE HEALTH WORKER EDUCATION AND TRAINING
 -  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
 -  IMPROVE DISEASE SURVEILLANCE AND RESPONSE
 -  IMPROVE SUPPLY CHAIN EFFICIENCY
 -  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
 -  MONITOR POPULATION HEALTH STATUS
 -  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F.

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the **Digital REACH Initiative Workstream Compendium**.

⁸To avoid the risk of restricting opportunities for funding this activity will be carried out in partnership with development partners. Once progress is made over time and buy-in for a reduced set of indicators is achieved this activity can be moved to the Strategy and Investment Workstream to drive it forward.

NEGOTIATING ECONOMIES OF SCALE

WORKSTREAM 6: STRATEGY AND INVESTMENT

WORKSTREAM 6: STRATEGY AND INVESTMENT

OVERVIEW

The Strategy and Investment workstream will negotiate with the private sector and development partners, based on common Partner State positions and on behalf of the region, to realise economies of scale and greater efficiencies.

GOALS

The overall goal of this workstream is to create economies of scale at the regional level, by obtaining access for Partner States to cheaper bulk procurement and speaking with one voice in strategic negotiations with private sector, local industries, and development partners.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

The workstream will function as a Group Purchasing Organisation (GPO), leveraging the economies of scale and larger market achieved through the regional bloc to obtain a greater negotiating position, discounts, and better service from vendors and development partners.

It will make use of skilled business analysts and negotiators to prepare business cases, based on common regional positions, that will be used to engage with the private sector, industries and the development community on behalf of Partner States.

The following are strategic guidelines for the operationalisation of this approach:

- Bring together relevant Partner State officials, whose involvement will be critical from initial discussions through to business case development and negotiation.
- Work with Partner State ministries (e.g., Health, ICT, Finance) to come to common positions on which to base negotiations.
- Work with the relevant government ministries in Partner States to ensure allocation of budget for procurement of negotiated goods and services by making sure that investments align with regional and Partner State priorities.
- Develop business cases based on aggregate demand data collected from Partner States, and highlight benefits or economies of scale and reduced costs of a regional approach.
- Structure partnerships to be mutually beneficial while avoiding dependence on a single partner for specific roles. Build accountability into partnership models.
- Develop clear prioritisation for investment areas based on input from other workstreams.
- Negotiate with third parties using data developed through business case modelling. Partner States' procurement regulations will be factored in to business cases and deals negotiated.
- Hand process and agreements over to Partner State officials once deals are negotiated, if they are the purchasing agencies.
- Work in support of the Health Programme Workstream by providing technical assistance and by prioritising negotiations and investments that support health programme implementation needs.
- Work closely with the Infrastructure workstream to engage closely with the private sector to develop an investment mechanism that will allow Partner States to expand communication infrastructure in areas with low connectivity and negotiate and structure PPPs that can be utilised across the Initiative.
- Look to GPO models in the private sector for guidance on SOPs and policies.





Potential Efficiencies and Partnerships:

Look to best practices and guidelines from GPOs to reduce the costs of set-up and operationalisation

Partner with the East African Communications Organisation to work with MNOs

Learn from past experiencing of working with MNOs to expand connectivity through loss-guarantees (e.g., USAID Lab's partnership with Google to bring fiber broadband to Monrovia)

IMPROVING HEALTHCARE THROUGH STRATEGY AND INVESTMENT

STRATEGY AND INVESTMENT PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<p> 6.1 Conduct feasibility assessment, develop business case, and identify opportunity for PPPs for the build and maintenance of the EAHC and NEAT</p> <p> 6.2 Conduct business case and use assessments for negotiating agreements with MNOs for affordable bandwidth and improved network connectivity to support priority health programmes (starting with prioritised telemedicine-supported facilities)</p> <p> 6.3 Support the development of a business case for regional insurance, partnering with private health insurers for favourable premium rates and packages</p> <p> 6.4 Aggregate demand based on Partner States' supply needs and develop a business case to support negotiation for reduced pricing with suppliers to reduce cost of healthcare for providers and patients</p>	<ul style="list-style-type: none"> • Shift from bilateral to regional negotiations on per-issue basis • Commit to using negotiated goods and services • Assess needs that will inform strategy to expand communication infrastructures nationwide • Develop business models to support digital health • Effectively guide strategy and investment in line with local and regional priorities

Key

-  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
-  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
-  IMPROVE HEALTH WORKER EDUCATION AND TRAINING
-  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
-  IMPROVE DISEASE SURVEILLANCE AND RESPONSE
-  IMPROVE SUPPLY CHAIN EFFICIENCY
-  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
-  MONITOR POPULATION HEALTH STATUS
-  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F.

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the [Digital REACH Initiative Workstream Compendium](#).

ESTABLISHING COMMON GUIDELINES, POLICIES, AND PROTOCOLS

WORKSTREAM 7: LEGISLATION, POLICY, AND COMPLIANCE

WORKSTREAM 7: LEGISLATION, POLICY, AND COMPLIANCE

OVERVIEW

The Legislation, Policy, and Compliance (LPC) workstream will develop the policies needed to support the Digital REACH Initiative and to gain policy adoption across Partner States. It will also work with Partner States to ensure that country policies and legislation are amended to facilitate the implementation of Digital REACH Initiative interventions and technologies.

GOALS

The overall goal of this workstream is to create a policy environment across the EAC that facilitates the implementation of digital health and creates a supportive regional enabling environment for better health infrastructure and policies. It will also support Partner States in their adoption of new policies and promote compliance across the region.

Potential Efficiencies:

Leverage existing policies and lessons learned from Partner States and use as a starting point for policy and legislation development where appropriate.

Reference existing international guidelines, best practices, and frameworks to guide the development of policies and legislation.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION




Critical to the success of the work of the LPC workstream will be its ability to work effectively with policy officials in Partner States. The workstream can be seen as a think tank and regional facilitator that works in the service of creating a policy environment to promote digital health on behalf of EAC Partner States. It thus is essential that the workstream does not work in isolation.

The workstream will form and be guided by a Regional Policy EWG that is made up of workstream subject matter experts and legal, health, and policy officials from Partner States, who will act together to scope, and review policies and legislation drawn up by the workstream. The EWG will also play a compliance role in that it will review Partner State progress with implementation of agreed-upon policy and legislation.

The following are strategic recommendations for the operationalisation of this approach:

- Monitor existing, relevant policy initiatives in the EAC to align with their processes, rather than unnecessarily creating new and parallel processes. Where possible, amend and harmonise existing policies.
- Identify and partner with relevant Partner State policy staff (e.g., data policy, health information policy) and consult during policy development.
- Actively focus on socialisation of new policies (e.g., with private and development sectors and EAC Partner States) so that policies are known and used. Create policies that are easy to understand and communicate to diverse stakeholders.
- Support Partner States in adopting new policies and legislation.
- Promote compliance through consultation, advocacy, and showcasing of successful examples. Dashboards could be created to allow Partner States to track and monitor their progress towards certain activities and commitments.
- Work closely with the Leadership and Advocacy workstream to advocate for the adoption of new regional policies and legislation. If possible, these two workstreams will be physically located close to each other to ensure sharing of information.
- Work in support of the Health Programme Workstream by providing technical assistance and by prioritising the development of policies and legislation based on the health programme.

IMPROVING THE HEALTHCARE THROUGH LEGISLATION, POLICY, AND COMPLIANCE

LEGISLATION, POLICY, AND COMPLIANCE PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<p> 7.1 Design policy, legislation, and regulatory frameworks around remote data hosting (including data privacy and confidentiality standards and requirements)</p> <p> 7.2 Develop policy, legislation, and regulatory frameworks to support data sharing in cases of disease outbreaks and telemedicine to allow patients to benefit from continuity of care and improved health security and surveillance across the region</p> <p>   7.3 Establish a policy and the associated regulatory frameworks for managing public health emergencies (e.g., how to drive commitment of Partner States to mobilise resource in emergencies) to ensure efficiency and effectiveness of a regional response</p> <p>  7.4 Develop a shared policy and supporting regulatory framework to support portability of health insurance</p>	<ul style="list-style-type: none"> • Contribute to development of regional and country policies and legislation • Implement common policies, regulations, and best practices • Create the regulatory and compliance requirements to match the regional guidelines using the regional testing and certification tools

Key

-  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
-  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
-  IMPROVE HEALTH WORKER EDUCATION AND TRAINING
-  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
-  IMPROVE DISEASE SURVEILLANCE AND RESPONSE
-  IMPROVE SUPPLY CHAIN EFFICIENCY
-  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
-  MONITOR POPULATION HEALTH STATUS
-  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F.

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the [Digital REACH Initiative Workstream Compendium](#).

BUILDING HEALTH WORKER CAPACITY

WORKSTREAM 8: WORKFORCE

OVERVIEW

This workstream focuses on establishing a workforce capable of acquiring, maintaining, designing, creating and implementing, customising, and evaluating research and development (R&D) and digital health programmes which are needed by the EAC region to enhance healthcare. Technology can play a key role in building this capacity and in delivering harmonised training. Building capacity and harmonising training regionally is an investment for the medium and long term, and the EAC can be a leader in Africa in the use of technology for a transformed and flexible health workforce in ways that also support the sustainability of digital health investments in the long term.

GOALS

The overall goal of this workstream is to build the capacity of health workers in the region to facilitate the sharing of human resource and evidence-based best health practices across countries with the aim of harmonising and enhancing patient care and outcomes as well as overcoming the shortages of skilled health workers. By increasing digital health capacity of the EAC workforce, this workstream will also support the sustainability of the Digital REACH Initiative and its associated long-term activities. To do this, the workstream will support pre- and in-service capacity building by leveraging technology for teaching, learning, research, and clinical practice in ways that improve the continuity and quality of healthcare across the EAC. To achieve this, the Workforce workstream will:

- Create a digital-ready health workforce in East Africa that has the skills to use digital health during pre-service training of new health workers and for CPD training for in-service health professionals.
- Facilitate support for the recognition and accreditation of pre-service training and CPD activities of healthcare credentials across the region to improve resource allocation and allow health workers to move freely from one country to another, based on demand.
- Put the tools in place so that eLearning can become a mainstream way that EAC health workers strengthen, expand, adapt their skills, and share best practices.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

The workstream will be implemented in close collaboration with professional bodies and educational institutions and will work within existing regional frameworks and forums, where possible. This will include a coordinated review of existing digital health training approaches in the region and the harmonisation across Partner States of minimum standards in teaching curricula, which include the use of digital tools and ICT as well as data sharing and security. The following are strategic guidelines for the operationalisation of this approach:

- Avoid duplication with other Partner State universities, the private-sector, or non-profit organisations that are already providing digital health training; partner with existing initiatives.
- Draw on and add to existing training bodies and models already used in EAC Partner States. The workstream will be a partner, not a new training institution.
- Partner with the private sector to build training capacity by introducing new ways of training trainers and health workers.

Potential Efficiencies and Partnerships:

Partner with academic and training institutions in the region and leverage curriculum and guidelines already developed (e.g., eLearning at MUHAS and the East African CoE in Supply Chain Management, the East African Qualifications Framework for Higher Education developed by the IUCEA)

Coordinate with the WHO AFRO and ITU effort to create a global goods curriculum and eLearning.

Partner with and learn from existing Learning platforms (e.g., the World Bank's Open Learning Campus (OLC) and the Humanitarian Leadership Academy.

- Coordinate with the IUCEA to ensure that all curriculum developed is aligned with the East African Qualifications Framework for Higher Education.
- Integrate with existing medical and health worker training programmes (e.g., health-related undergraduate programmes (medicine, nursing, pharmacy, laboratory, other allied health programmes), post-graduate programmes (MSc, MMed, MPhil), introduce post-graduate programmes in digital health and promote PhD-based research programmes on digital health.
- Work with the relevant regulatory bodies to conduct a needs assessment and develop eLearning demand-driven CPD courses for in-service health professionals.
- Set up and manage a Workforce Partners' Forum that involves medical universities and relevant professional bodies (e.g., doctor and nurse associations) to facilitate cohesive inclusion of digital health in medical training, strategise optimal delivery of eLearning content, and advise on content.
- Work with the EAACH Health Programme to support workforce for community health, adapt their skills, and share best practices.
- Work in support of the Health Programme Workstream by providing technical assistance and by prioritising the development of content based on health programme implementation needs.

IMPROVING THE PATIENT EXPERIENCE THROUGH WORKFORCE

WORKFORCE PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE	Key
<p> 8.1 Work with universities and training institutions to harmonise and make available eLearning course content and Massive Open Online Courses (MOOCs) for in-service and pre-service health professionals that can be shared within the East African region using eLearning and telemedicine</p> <p> 8.2 Work with universities, training institutions, and global and regional partners to harmonise curricula for digital health and telemedicine for healthcare professionals and health IT professionals</p> <p> 8.3 Work with universities to embed digital learning methods in medical and healthcare worker training programmes to promote independent, student-centred learning</p> <p> 8.4 Train health care professionals on the use of digital health for health services provision (e.g. in public health emergencies)</p>	<ul style="list-style-type: none"> • Agree on credentials per health subject and develop, review, and update national training curricula to align with harmonised regional digital health curricula • Mutually recognise certification for training • Create bilateral agreements and protocols to facilitate sharing of human resources for health, including workers with disease specialisations; this will include agreed-upon recognition of equivalent academic qualifications • Make existing eLearning course content available to be shared across the region digitally • Work with other Partner States to develop appropriate content 	<ul style="list-style-type: none">  OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS  SUPPORT UNIVERSAL ACCESS TO HEALTHCARE  IMPROVE HEALTH WORKER EDUCATION AND TRAINING  OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT  IMPROVE DISEASE SURVEILLANCE AND RESPONSE  IMPROVE SUPPLY CHAIN EFFICIENCY  ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS  MONITOR POPULATION HEALTH STATUS  ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F. Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the **Digital REACH Initiative Workstream Compendium**.

SETTING COMMON AND SHARED STANDARDS FOR DIGITAL HEALTH

WORKSTREAM 9: STANDARDS AND INTEROPERABILITY

WORKSTREAM 9: STANDARDS AND INTEROPERABILITY

OVERVIEW

This workstream will identify and develop common guidelines, standards, protocols, common manuals, SOPs, and templates to lay the foundation for an effective and interoperable regional digital health ecosystem. The workstream researches and sets common and shared standards that enable the realisation of the Digital REACH Initiative outcome goals. This effort includes developing and promoting regional principles that promote access to healthcare services and interoperability across the EAC region.

GOALS

The overall goal of this workstream is to develop and implement regional interoperability standards, while adhering to the Principles for Digital Development and working through existing global and regional efforts, to support prioritised Digital REACH Initiative data exchange use cases. It will also work to ensure that best practices for interoperability, data sharing, and integration are in place and used regionally in a way that support the realisation of the Digital REACH Initiative's outcome goals.

STRATEGIES AND GUIDELINES FOR IMPLEMENTATION

This workstream will be responsible for developing and setting standards that support the Initiative. Primarily composed of subject-matter experts, the team will work closely with relevant partner organisations, Partner State officials, and other workstreams, providing and soliciting input as needed. The team will work with the PMO to coordinate advisory input from experts across all other workstreams to ensure that specific expertise on standards is provided.

The workstream will form and be guided by a Standards and Interoperability EWG that is made up of workstream subject-matter experts and Partner State officials acting together to scope and review standards developed by the workstream. Supported by internal auditors, the EWG will also play a compliance role, in that it will review progress with implementation of agreed-upon standards across Partner State and Digital REACH Initiative workstreams.

The following are strategic recommendations for the operationalisation of this approach:

- Get political buy-in for new standards and protocols by gathering inputs from Partner States and facilitating common agreement through EWGs.
- Develop standards and protocols based on stakeholder inputs.
- Socialise protocols and standards to ensure use and gather inputs to inform iteration over time.
- Advise other workstreams on appropriate world-class digital standards and protocols (e.g., data security, design).
- Conduct internal auditing to monitor compliance across workstreams to ensure that all workstreams

What are Standards?

Standards are common rules that information abides by in order to make it easier to interact with and share. This workstream will work to harmonise three different type of standards.

Technical standards describe predefined characteristics about how information is represented within a technology to enable external understanding, exchange, or interaction with that information (e.g., diagnosis codes, disease surveillance alerts).

Content standards describe specific content (e.g., curriculum, case definition, protocol) that health workers should be taught and have access to in order to support their work.

Data standards describe rules for how data is described and recorded to enable external understanding, exchange, comparison, and interaction with that data (e.g., standardised indicators, data dictionaries). This can also include protocols for ensuring data is safe and secure when it is stored and shared (e.g., data security standards, data integrity, responsible data practices).

Potential Efficiencies:

Leverage existing interoperability assessments carried out in the region and within Partner States (e.g., Uganda's work on harmonising standards to support interoperability domestically).

promote interoperability in all their activities. Use internal auditing as an opportunity to receive feedback periodically and to provide support.

- Learn from other regions that have implemented shared standards and protocols.
- Work closely with the Legislation, Policy, and Compliance workstream on relevant regulation that impacts the development and compliance of interoperability standards.
- Work in support of the Health Programme Workstream by providing technical assistance and by prioritising the development of standards based on health programme implementation needs.
- Work with the Infrastructure and Services and Applications workstreams to identify areas where standards can help to support interoperability in the region.

IMPROVING THE PATIENT EXPERIENCE THROUGH STANDARDS AND INTEROPERABILITY

STANDARDS AND INTEROPERABILITY PRIORITY ACTIVITIES (2019 – 2023)	PARTNER STATE ROLE
<p>9.1 Develop data sharing, security, and management guidelines, protocols, and standards</p> <p>9.2 Create a regional data dictionary, mapped to international standards, and supporting governance process to support interoperable data exchange between Partner State HIS in the region (e.g., for insurance providers to allow EAC citizens to file claims, to exchange patient records among EAC Partner States)</p> <p>9.3 Support and promote the exchange of unique IDs and patient health records across EAC Partner States for effective care delivery and continuity of care</p> <p>9.4 Develop data exchange standards for portability of health insurance, to support claim submission, eligibility verification, and reimbursements</p> <p>9.5 Provide regional guidelines for diagnosis, treatment, and standards of care to facilitate continuity and quality of care across the region</p>	<ul style="list-style-type: none"> • Contribute to the development of standards, guidelines, and protocols • Review, adopt, and implement standards that are developed • Agree on regional reference interoperability architecture and adopt best practices sharing common global good software • Commit to drafting policies or regulations and passing legislation based on approved regional standards and guidelines

Key

- OPTIMISE THE PREVENTION, DIAGNOSIS, AND TREATMENT OF PRIORITY HEALTH CONDITIONS
- SUPPORT UNIVERSAL ACCESS TO HEALTHCARE
- IMPROVE HEALTH WORKER EDUCATION AND TRAINING
- OPTIMISE HUMAN RESOURCE ALLOCATION AND MANAGEMENT
- IMPROVE DISEASE SURVEILLANCE AND RESPONSE
- IMPROVE SUPPLY CHAIN EFFICIENCY
- ENHANCE PUBLIC HEALTH EDUCATION AND AWARENESS
- MONITOR POPULATION HEALTH STATUS
- ALL OUTCOME GOALS

The priorities listed here will be reviewed annually by Workstream 1 and its partners. Additional activities for this workstream that can be targeted at later stages can be found in Appendix E. The specific skills and capabilities required for this workstream can be found in Appendix F.

Further detail on the management and operations of this workstream, including organisation structures, responsibility areas, key performance indicators, risks and mitigation strategies, and specific implementation activities can be found in the [Digital REACH Initiative Workstream Compendium](#).

The Path Forward

RESOURCE REQUIREMENTS

An important goal of this strategic planning process is to build support for resource mobilisation among potential funding partners. The resources required for the Digital REACH Initiative will come from a variety of sources and will include both financial and non-financial forms of support, as summarised in the table below. Further detail on each of these can be found in this section.

Table 5. Resource Sources and Categories Needed for Success

RESOURCE CATEGORIES	RESOURCE SOURCES
<ul style="list-style-type: none"> • Financial contributions (e.g., grants and loans) • Technical expertise • Political and public support and commitment • Civil society buy-in and engagement • In-kind and direct financial contributions 	<ul style="list-style-type: none"> • Development Partners • For-profit Private Sector • Regional and Partner State Governments • Local Health Providers and Civil Society Groups • Research Bodies and Universities

It is important to note that while this Strategic Plan lays out what is needed to achieve the Digital REACH Initiative, an important part of resource mobilisation and implementation will be to identify opportunities for efficiencies that reduce the cost of implementation over time. Examples of such efficiencies include the use of readymade assets where they exist, identification of strategic partnerships with overlap in activities, and leveraging opportunities for operational cost savings (such as sharing office space with other EAC units). These opportunities have been highlighted across the plan in various workstreams.

The financial resource requirements for the first five years of running the Digital REACH Initiative, by workstream, are detailed below. Further detail is available in the Digital REACH Initiative Costing tool.

Table 6: Summary of Resources Required

#	WORKSTREAM	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
1	Initiative Management	\$2,388,169	\$2,993,217	\$2,997,509	\$3,038,247	\$2,950,551	\$14,367,693
2	Health Programmes	\$2,294,869	\$10,696,936	\$12,682,206	\$25,365,618	\$36,249,356	\$87,288,985
2.1	The EAHC	\$ —	\$1,125,509	\$2,379,410	\$1,287,368	\$771,777	\$5,564,064
2.2	Regional Health Services	\$1,500,000	\$2,832,500	\$3,182,700	\$3,824,545	\$2,251,018	\$13,590,762
2.3	READSCoR	\$ —	\$1,030,000	\$2,652,250	\$2,185,454	\$5,064,790	\$10,932,494
2.4	Telehealth NEAT Healthcare Services	\$1,500,000	\$5,407,500	\$3,182,700	\$3,746,493	\$2,894,166	\$16,730,858
2.5	EAACH	\$ —	\$1,373,333	\$2,121,800	\$2,185,454	\$5,064,790	\$10,745,377
2.6	EAC RHO	\$ —	\$ —	\$ —	\$5,600,226	\$5,064,790	\$10,665,016
2.7	Knowledge Management and Peer Learning	\$1,000,000	\$2,769,910	\$2,499,374	\$3,067,515	\$2,496,644	\$11,833,444
2.8	Regional Technical Assistance for Digital Health	\$ —	\$ —	\$ —	\$983,454	\$2,701,221	\$3,684,675
2.9	Innovations in Health	\$ —	\$ —	\$ —	\$2,185,454	\$4,502,035	\$6,687,489
3	Infrastructure	\$ —	\$1,268,431	\$2,370,034	\$2,793,062	\$4,050,790	\$10,482,316
4	Services and Applications	\$658,050	\$3,182,681	\$3,117,724	\$2,377,825	\$2,232,499	\$11,568,780
5	Leadership and Advocacy	\$594,795	\$1,407,166	\$2,070,775	\$1,901,658	\$1,714,390	\$7,688,784
6	Strategy and Investment	\$1,158,559	\$2,186,374	\$2,053,602	\$2,150,653	\$2,091,816	\$9,641,004
7	Policy, Legislation, and Compliance	\$ 820,138	\$1,985,290	\$2,333,351	\$2,579,995	\$2,535,727	\$10,254,501
8	Workforce	\$2,503,400	\$4,119,531	\$3,513,438	\$3,411,082	\$3,386,344	\$16,933,795
9	Standards and Interoperability	\$ 429,784	\$1,802,807	\$2,242,935	\$2,499,781	\$2,452,833	\$9,428,141
	Total	\$12,847,764	\$34,623,473	\$38,254,135	\$47,576,748	\$53,766,614	\$187,068,734

PARTNERSHIPS AND RESOURCE MOBILISATION

Engagement with a range of stakeholders is critical for the success of the Digital REACH Initiative. A multi-stakeholder engagement approach will ensure that critical international expertise is utilised and that the Initiative is structured in a way that ensures sustainability from the start. Priority will be given to partners who recognise the importance of putting local expertise at the forefront and addressing gaps in the region through knowledge transfer and capacity building, rather than providing long-term continuous support. The development community is already involved in multiple activities related to the Initiative, and private-sector companies may be interested in different areas of support depending on their relative business models.

Strategic Approach to Resource Mobilisation

Given the scope and timeline of this initiative it is understood that mobilising the necessary resources for implementation will be an ongoing and collaborative process. Good partnership requires an open mind among governments, development partners, and the private sector alike, and it is in this spirit that resource mobilisation for Digital REACH will be conducted. It is expected to be an iterative process, that will require the identification of complementary priorities with potential partners. Table 7 below lays out some of the potential approaches for this, while the Table 8 below provides more detail on the value and likely opportunities for partnership across a range of stakeholders.

Table 7: Strategic Approaches to Mobilising Resources for Digital REACH

APPROACH	EXAMPLES
Target Phased Funding	<ul style="list-style-type: none"> Take a phased approach to funding, starting with support to mobilise resources and set-up the Initiative and discreet, priority activities and quick-wins. This can be followed by funding for short-term and eventually longer-term activities
Leverage Ongoing and Planned Activities	<ul style="list-style-type: none"> Partner State commitments (OneHealth, GHSA) Existing development partner activities in the region Partners aligned with new Principles of Donor Alignment for Digital Health
Build Fundraising into Initiative Operations	<ul style="list-style-type: none"> Allocate resources to support ongoing fundraising for the Initiative Start with implementation of priority activities and use success from quick-wins and evidence generated to secure additional resources
Align with Health Priorities	<ul style="list-style-type: none"> Identify and articulate alignment with development partners' and Partner States' health agendas through the course of the Initiative and existing investments that can be leveraged
Look for Partnerships with the Private Sector	<ul style="list-style-type: none"> Identify private sector organisations that have aligned agendas and look for ways to structure PPPs and other partnerships

Table 8: Characterisation of Digital REACH Initiative Participation by Sector

	DEVELOPMENT PARTNERS	FOR-PROFIT PRIVATE SECTOR	REGIONAL AND NATIONAL GOVERNMENT	LOCAL SERVICE PROVIDERS AND CIVIL SOCIETY GROUPS	RESEARCH BODIES AND UNIVERSITIES
PRIORITY SEGMENTS OF THE SECTOR	<ul style="list-style-type: none"> International development partners with aligned agendas 	<ul style="list-style-type: none"> Health multinational corporations (e.g., insurers, health management firms) Pharmaceutical companies Medical device companies Hardware, software, and professional services firms MNOs, local entrepreneurs/SMEs, and private sector forums 	<ul style="list-style-type: none"> EAC Partner State governments Other regional bodies (e.g., African Union, European Union) 	<ul style="list-style-type: none"> Health and education service providers (e.g., hospitals, clinics, medical provider groups, faith-based providers, NGOs) Professional health worker associations Advocacy groups 	<ul style="list-style-type: none"> Local and international health, education and research institutions

	DEVELOPMENT PARTNERS	FOR-PROFIT PRIVATE SECTOR	REGIONAL AND NATIONAL GOVERNMENT	LOCAL SERVICE PROVIDERS AND CIVIL SOCIETY GROUPS	RESEARCH BODIES AND UNIVERSITIES
VALUE FOR THE SECTOR	<ul style="list-style-type: none"> • Support of activities that align with organisational goals and agendas 	<ul style="list-style-type: none"> • Benefit from enabling environment and market entry • Market development • Direct funding or loss guarantees from development partner community • Capacity building of staff in the area of digital health 	<ul style="list-style-type: none"> • Progress towards national health agendas and targets • Potential for increased influence (e.g., replication of EU regional cooperation models) • Capacity building of staff in the area of digital health 	<ul style="list-style-type: none"> • Support of activities that align with organisational goals and agendas • Potential for increased influence (e.g., opportunity to lobby governments or development partners) • Capacity building of staff in the area of digital health 	<ul style="list-style-type: none"> • Knowledge exchange and expertise building • Increased exposure for published research • Increased pool of academic talent
POTENTIAL TYPES OF SUPPORT	<ul style="list-style-type: none"> • Direct funding or investment (e.g., grants, loans, private-sector loss guarantees) • In-kind support and contributions (e.g., technical assistance) • Participation in advisory bodies • Advocacy efforts (e.g., lobbying) 	<ul style="list-style-type: none"> • Direct funding or investment (e.g., grants or equity investments) • Participation in PPPs and advisory bodies • In-kind support and contributions (e.g., provision of airtime by MNOs, reduced or highly subsidised pricing, software licences) • Advocacy efforts, speaker bureaus, thought leadership exposure, and access to networks and influence 	<ul style="list-style-type: none"> • Direct funding or investment • Political support and technical expertise and assistance • In-kind support and contributions (e.g., seconded staff) • Participation in advisory bodies • Advocacy efforts 	<ul style="list-style-type: none"> • In-kind support and contributions • Provision of technical assistance • Participation in advisory bodies • Advocacy efforts 	<ul style="list-style-type: none"> • In-kind support and contributions (e.g., research support, training support) • Participation in advisory bodies • Advocacy efforts

PRIVATE SECTOR ENGAGEMENT IMPLICATIONS FOR DIGITAL REACH

Attracting private sector investment will require a concerted effort across the Digital REACH Initiative workstreams and activities. Workstream team should work together to see how best to attract investment and coordinate efforts and partnerships. Each workstream will play a key role in stimulating private sector investment. The Strategy and Investment workstream will lead the overall engagement of the private sector but it will be the responsibility of each workstream team lead to identify areas where the private sector can be brought in and engaged to support activities. The table below details the opportunities in each workstream to engage the private sector.

Table 9: Role of the Private Sector in Digital REACH Across Enabling Environment Workstreams

WORKSTREAM	HOW THE PRIVATE SECTOR CAN SUPPORT THIS WORKSTREAM	HOW THIS WORKSTREAM CAN STIMULATE INVESTMENT
INFRASTRUCTURE	<ul style="list-style-type: none"> • Valuable expertise, technical assistance, and support through secondment of staff, preferential pricing for required software licences and hardware, and design and R&D assistance. • Direct investment for technical or commercial pilots. • Outsourcing of activities including the building and maintenance of platforms and the technical call centre or tiered technical support for the region. • Expansion of connectivity infrastructure in the region through strategic PPPs. 	<ul style="list-style-type: none"> • Foundational infrastructure creates an opportunity for additional value-added services and applications to be created. • Further develops technical expertise in the region. • Example regional technical implementations signals clear, unambiguous opportunities to create other regional and national services and applications. • Better connectivity infrastructure makes it easier for the private sector to invest and function and creates opportunities for new products to enter the market.
SERVICES AND APPLICATIONS	<ul style="list-style-type: none"> • Valuable expertise, technical assistance, and support through secondment of staff, preferential pricing for required software licences and hardware, and design and R&D assistance. • Direct investment for technical or commercial pilots. • Outsourcing of activities including the design and implementation of services and applications. 	<ul style="list-style-type: none"> • Expands the opportunities for partnering with the private sector from potential in-house technical assistance to wholly outsourced development of services and applications. • Creates an opportunity for additional value-added services and applications to be created. • Further develops technical expertise in the region. • Better connectivity creates opportunities for new products.
LEADERSHIP AND ADVOCACY	<ul style="list-style-type: none"> • Expertise and technical assistance (e.g., through secondment of staff) for the development of harmonised standards and best practices on interoperability. • Lending their brand through sponsorship of regional events and making introductions within their network. 	<ul style="list-style-type: none"> • Technologically-savvy, “ready for business”, senior elected officials and government decision makers who want to support a business-friendly environment will encourage investors to enter the region.
STRATEGY AND INVESTMENT	<ul style="list-style-type: none"> • Expertise and technical assistance for feasibility studies that make the case for private investment and strategy development for private sector engagement. • In-kind contributions through preferential pricing for insurance products, bulk SMS for health education messaging, and medical devices and equipment. • PPPs to expand network infrastructure and connectivity in the region. 	<ul style="list-style-type: none"> • Bulk purchasing increases market size and makes the region more attractive to investors. • Example PPPs can encourage the private sector to replicate successful models in the region. • Better connectivity creates opportunities for new products. • Feasibility studies indicating positive opportunities and making the case for private sector investment.
POLICY, LEGISLATION, AND COMPLIANCE	<ul style="list-style-type: none"> • Expertise and technical assistance (e.g., consultation services) for policies that support private sector investment for the development of digital health in the region. 	<ul style="list-style-type: none"> • Companies will have a clearer and more harmonised policy and regulatory environment that is conducive to business and encourages private sector investment (e.g., taxation and fiscal policies).
WORKFORCE	<ul style="list-style-type: none"> • Expertise and technical assistance (e.g., through secondment of staff) for training content. • Provision of services (e.g., as provider of eLearning platforms or curator of digital health short courses and continuous professional development (CPD) courses). • Build training capacity by introducing new, innovative, and tested ways of training trainers and health workers. 	<ul style="list-style-type: none"> • A well-trained workforce that is technically literate and skilled in the use of digital health increases the pool of qualified workers and demonstrates the benefits of the goods and services they provide.

STANDARDS AND INTEROPERABILITY

- Expertise and technical assistance (e.g., through secondment of staff) for the development of harmonised standards and best practices on interoperability.
- Companies will have a clearer and more harmonised standards environment in which to do business.
- Better data that can be compared regionally to support better health products and services.
- Interoperability increases the opportunity for new value-added products and services to enter the market.

Looking across all workstreams, there is a clear opportunity for the private sector to provide investment in the form of **expertise and technical assistance** through seconded staff, **in-kind contributions** like preferential pricing, and implementation support in the form of **commercial or technical pilots** and the **provision of services** for the Initiative. The Initiative should place a strong focus on these types of support to reduce the cost of running the Initiative and ensuring the sustainability of its activities in the region.

In the way the success of M-PESA has created a digital financial services industry in East Africa by creating jobs and attracting investment, there is an opportunity for the Digital REACH Initiative to plant the seed for the **development of a new digital industry** in the region with regards to health. The Digital REACH Initiative has the potential to create a **digital health hub in East Africa** by building the **capacity and infrastructure** of the region to support greater investment and sustainability in the long-term.

A Note on Public-Private Partnerships

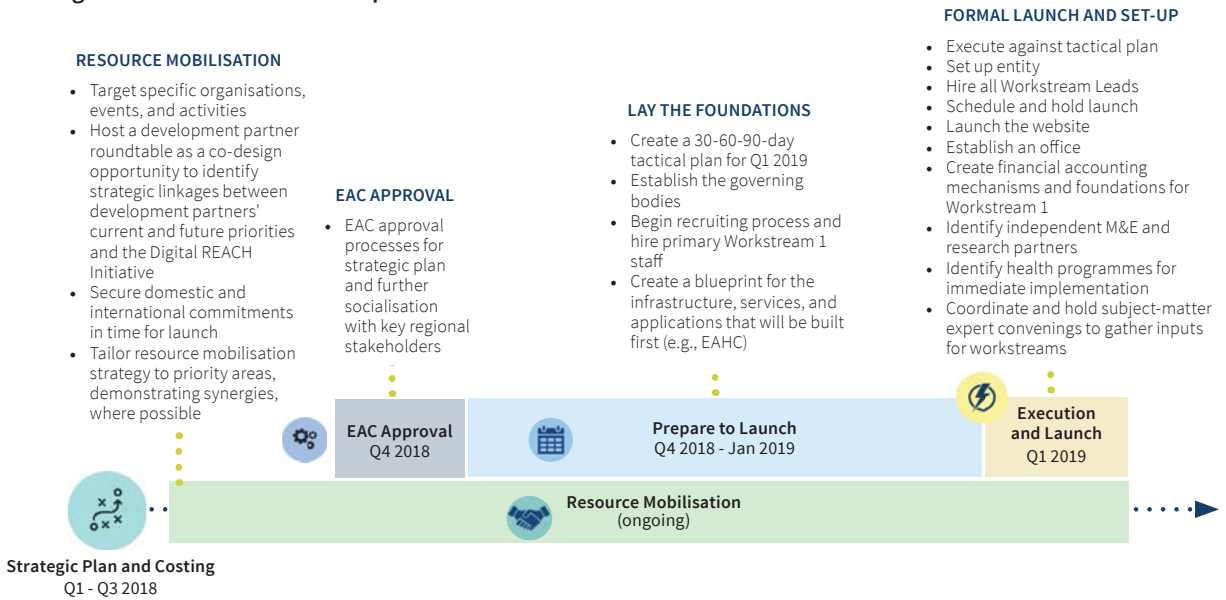
Public-private partnerships (PPPs) are agreements between two or more public and private entities. PPPs present the opportunity to utilise private sector resources for sustainable development through access to relevant expertise and market-based solutions. PPPs can be formed with local and international companies who share common interests and values, leveraging the strengths and assets of each partner and mitigating implementation risks.

PPPs can facilitate the introduction of private-sector technology and innovation to strengthen public goods and services. Local private- and public-sector capacity can also be increased through involving international parties.

There are multiple models for how to structure a PPP, such as USAID's premier model, [Global Development Alliance \(GDA\)](#), which partners with corporations, local businesses, financial institutions, investment firms, and foundations to drive development outcomes globally.

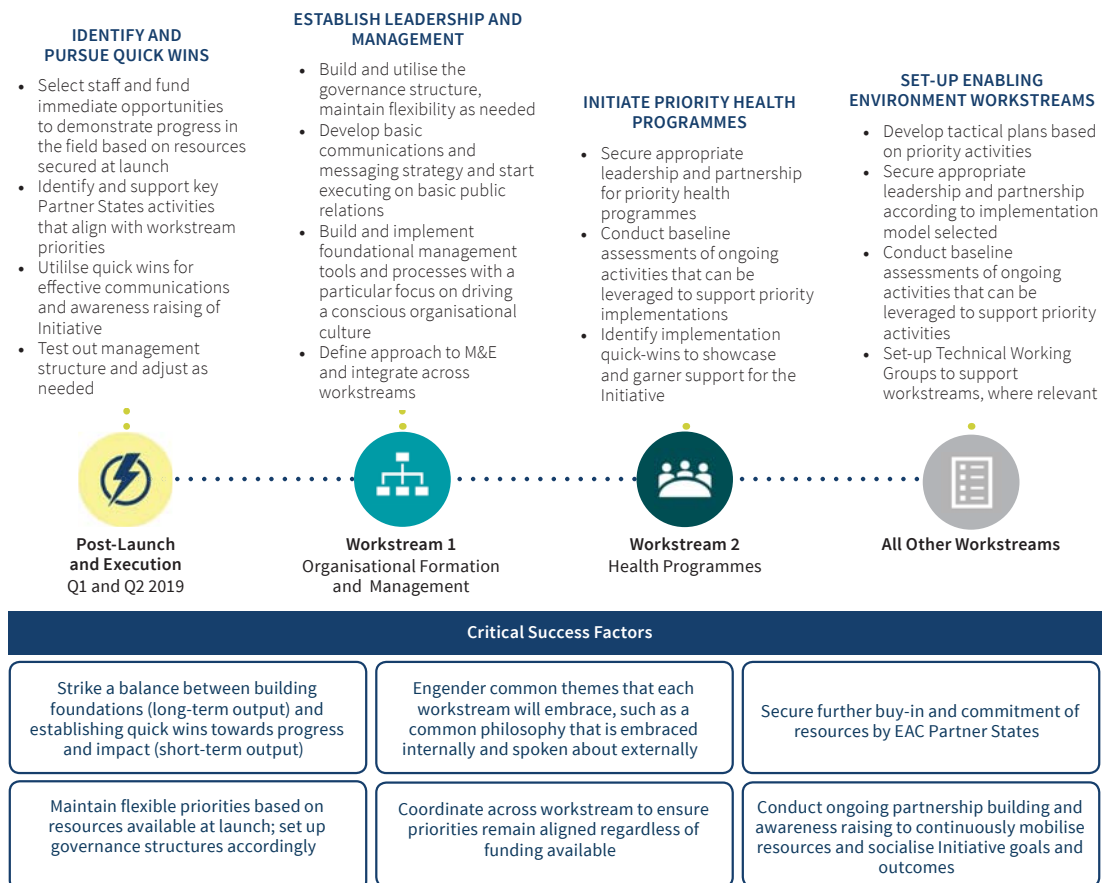
The figure below lays out the immediate next steps to securing support and funding for the Digital REACH Initiative.

Figure 11: Immediate Next Steps for Resources Mobilisation and Initiative Launch



Following formal launch of the Initiative in the first quarter of 2019, each workstream will need to quickly demonstrate progress while also building the critical foundations for long-term success. The figure below identifies the post-launch steps.

Figure 12: Immediate Steps Following the Initiative's Launch



APPENDICIES

APPENDIX A: FULL ACKNOWLEDGEMENTS

APPENDIX B: EAST AFRICA SITUATION ANALYSIS

APPENDIX C: EAC DIGITAL REACH INITIATIVE SUPPORTING
DOCUMENTATION

APPENDIX D: EAC PRIORITIES AND DIGITAL REACH
INITIATIVE GOALS

APPENDIX E: ADDITIONAL WORKSTREAM ACTIVITIES

APPENDIX F: SKILLS AND CAPABILITIES ACROSS WORKSTREAMS

APPENDIX G: EAHC IMPLEMENTATION ACTIVITIES

Appendix A: Full Acknowledgements

The Strategic Plan was developed in a highly consultative and collaborative way and involved inputs from key decision makers in East Africa. The following are members of the EAHRC who oversaw and lead the creation of this document.

NAME	DESIGNATION	INSTITUTION
Prof. Gibson Kibiki	Executive Secretary	EAHRC
Dr. Jean de Dieu Ngirabega	Deputy Executive Secretary	EAHRC
Dr. Novat Twungubumwe	Principal Health Officer	EAHRC
Dr. Fabian Mashauri	Principal Health Officer	EAHRC

The EAHRC would like to thank the multiple stakeholders who have been engaged throughout the process of developing the costed Digital REACH Strategic Plan. Special thanks are extended to the contributors listed below.

DIGITAL REACH STRATEGIC PLAN WORKSHOP, 4TH- 8TH JUNE 2018, ARUSHA, TANZANIA

NAME	DESIGNATION	INSTITUTION	PARTNER STATE/ COUNTRY
Prof. Gibson Kibiki	Executive Secretary	EAHRC	EAHRC - EAC
Dr. Jean de Dieu Ngirabega	Deputy Executive Secretary	EAHRC	EAHRC - EAC
Dr. Novat Twungubumwe	Principal Health Officer	EAHRC	EAHRC - EAC
Dr. Fabian Mashauri	Principal Health Officer	EAHRC	EAHRC - EAC
Betty Nankya	Senior Personal Secretary	EAHRC	EAHRC - EAC
Dr. Asmini Hassan	Director of HMIS	Ministry of Health	Republic of Burundi
Dr. Ntibazomumpa Jean Marie	HMIS/DHISR	Ministry of Health	Republic of Burundi
Alice Wangui Githumbi	Assistant Chief Health Administrative Officer	Ministry of Health	Republic of Kenya
Jean Pierre Musabyimana	NFP Coordinator	Rwanda Biomedical Centre	Republic of Rwanda
Ngenzi Joseph Lune	Academic Associate of CEBE	University of Rwanda	Republic of Rwanda
Dr Isaac Kadowa	Principal Health Officer	Ministry of Health	Republic of Uganda
Dr. Elias M Kwesi	EAC Coordinator	Ministry of Health	United Republic of Tanzania
David Edward Lenga	Statistician	Ministry of Health	United Republic of Tanzania
Dr. Mary B Charles	Public Health Specialist	Ministry of Health and Muhimbili National Hospital	United Republic of Tanzania
Ali Omar Ali	Public Health Epidemiologist	Ministry of Health - Zanzibar	United Republic of Tanzania
Mr. Hassan Buda Juma	ICT Officer	Ministry of Health - Zanzibar	United Republic of Tanzania
Brendan Smith	VP of Professional Services and Facilitator	Vital Wave, Inc.	USA
Katherine de Tolly	Lead Analyst and Facilitator	Vital Wave, Inc.	USA
Leah Gatt	Director of Professional Services and Facilitator	Vital Wave, Inc.	USA

BILATERAL PARTNER STATE MEETINGS, JULY AND AUGUST 2018

During the months of July and August 2018, the EAHRC travel to Partner States in order to meet with key stakeholders and gather inputs for the Strategic Plan. Special thanks are extended to the following individuals or their contributions.

NAME	DESIGNATION	INSTITUTION
REPUBLIC OF BURUNDI		
Dora Simbare	Senior Official Health	Ministry of EAC Affairs
Aimable Nkurunziza	Senior Official Health	Ministry of EAC Affairs
Dr. Isaac Minani	DG Health services	Ministry of Health
Dr. Asmini Hassan	Director of HMIS	Ministry of Health
Dr. Pierre Claver Kazihise	DG INSP	Institut National de Sante Publique
Yvonne Ndayikeza	Director of Training	Institut National de Sante Publique
Dr. Pontien Ndabashinze	Director	Kamenge Teaching Hospital
Claude Ndayishimiye	Head of ICT	Kamenge Teaching Hospital
Prof. Nyongabo Aloys	Coordinator	East African CoE Nutrition, Kamenge Teaching Hospital
Dr. Claver Nijimbere	Coordinator	East African CoE Nutrition, Kamenge Teaching Hospital
Prof. Bangirinama Frederic	Director of Scientific Research	Ministry of Higher Education and Scientific Research
Ngendakuriyo Jovith	Director of Promotion of Science, Technology and Innovation	Ministry of Higher Education and Scientific Research
REPUBLIC OF KENYA		
Dr. Peter Cherutich	Director of Preventive and Promotional Programs	Ministry of Health
Mwangi Sammy	Senior Assistant Director Regional Integration	Ministry of EAC Affairs and Regional Development
George Otieno	Principal Integration Officer	Ministry of EAC Affairs and Regional Development
Dr. Jackson Kioko	Director of Medical Services	Ministry of Health
Dr. Anthony Were	Deputy Director EAKI	East African Kidney Institute
Winfred Chitene	Administrator EAKI	East African Kidney Institute
Dr. Cyrus Kamau	Deputy Director of ICT	NACOSTI
Dr. James Kimotho	Head of Production Department	Kenya Medical Research Institute
Anthony Kamigwi	ICT Department	Kenya Medical Research Institute
James Kariuki	Senior Research Officer	Kenya Medical Research Institute
Dr. Josaphat Nyangweso	Director of Research, Innovation and Consultancy	AMREF International University/ AMREF Health Africa
Onesmus Kamau	Head of e-Health Development	Ministry of Health
Professor Peter Wagajo	Head of Health ICT Project	University of Nairobi
Raphael Pundo	eHealth	University of Nairobi

BILATERAL PARTNER STATE MEETINGS, JULY AND AUGUST 2018 (CON'T)

NAME	DESIGNATION	INSTITUTION
REPUBLIC OF RWANDA		
Jonathan Kirabo	Senior Official Health	Ministry of EAC Affairs
Dr. Zuberi Muvunyi	DG Health Services	Ministry of Health
Michelle Kayiganwa	eHealth Regulator Officer	Ministry of Health
Edith Munyana	Director of ICT	Ministry of Health
Dr. Albert Tuyishime	M&E Division Manager	Rwanda Biomedical Centre
Clarissa Musanabaganwa	Director of Medical Research Center	Rwanda Biomedical Centre
Dr. Alne Umubyeyi	Dean School of Public Health	University of Rwanda
Prof. Kayumba PC	Vice Dean School of Medicine	University of Rwanda
Jean d'Amour Habagusenga	Coordinator	East Africa CoE for Health Supply Chain Management, University of Rwanda
Ngenzi Joseph Lune	Academic Associate	East Africa CoE for Biomedical Engineering and eHealth, University of Rwanda
Alpha Marara	Director of ICT	Kigali Teaching Hospital
Dr. Martin Nyundo	Director of Clinical Services	Kigali Teaching Hospital
Gertrude Ngabirano	Executive Secretary	EASTEKO
Dr. Saidi Kibeya	Deputy Executive Secretary	EASTEKO
Moses Ndahiro	Principal ICT Officer	EASTEKO
Fortunate Muyambi	Principal Officer, Innovation, Technology, Adaptation and Development	EASTEKO
UNITED REPUBLIC OF TANZANIA		
Dr. Paul Kazyoba	Chief Research Scientist	National Institute for Medical Research (NIMR)
Dr. Khadija Malima	Director of Life Sciences	Tanzania Commission for Science and Technology
Prof. Muhammad B. K.	Chief Medical Officer	Ministry of Health
Prof. Yunus D. Mgya	Director General	National Institute for Medical Research (NIMR)
Dr. Felix Sukums	Director of ICT	Muhimbili University of Health and Allied Sciences MUHAS
Prof. Eligius F. Luyamuya	Professor in the Department of Microbiology and Immunology	Muhimbili University of Health and Allied Sciences MUHAS
Dr. Pilly Chillo	Coordinator	East African CoE for Cardiovascular Sciences
Dr. Doreen Mloka	Director, Directorate of Continuing Education and Professional Development	Muhimbili University of Health and Allied Sciences MUHAS

BILATERAL PARTNER STATE MEETINGS, JULY AND AUGUST 2018 (CON'T)

NAME	DESIGNATION	INSTITUTION
Jean d'Amour Habagusenga	Coordinator	East Africa CoE for Health Supply Chain Management, University of Rwanda
Ngenzi Joseph Lune	Academic Associate	East Africa CoE for Biomedical Engineering and eHealth, University of Rwanda
Alpha Marara	Director of ICT	Kigali Teaching Hospital
Dr. Martin Nyundo	Director of Clinical Services	Kigali Teaching Hospital
Gertrude Ngabirano	Executive Secretary	EASTECO
Dr. Saidi Kibeya	Deputy Executive Secretary	EASTECO
Moses Ndahiro	Principal ICT Officer	EASTECO
Fortunate Muyambi	Principal Officer, Innovation, Technology, Adaptation and Development	EASTECO

REPUBLIC OF UGANDA

Dr. Jackson Orem	Director	Uganda Cancer Institute
Julius Ssali	ICT Manager	Uganda Cancer Institute
Alfred Bagenda	Head of ICT	Ministry of Health
Caroline Kyozira	Head of eHealth and Acting Assistant Commissioner for HMIS	Ministry of Health
Dr. Sam Okware	Director General	UNHRO
Dr. Henry Mwebesa	Ag. Director General Health Services	Ministry of Health
Dr. Cosam Chawanga Joseph	Chief Principal, Quality Assurance and Qualifications Framework	IUCEA
Samson Ojesi	M&E Officer for ACE II	IUCEA
Alvin Masko	ICT Officer	IUCEA
Dr. Jonathan S. Mkwambo	Regional Coordinator for ACE II	IUCEA

EAHRC meet with EAC senior officials from the ministries responsible for EAC affairs, and ministries responsible for health for inputs into the mid-term review of the EAHRC strategic plan and inputs into the EAHRC strategic programmes and initiatives.

ARUSHA 13TH – 14TH SEPTEMBER, 2018

NAME	DESIGNATION	INSTITUTION/ MINISTRY AND PARTNER STATE
Dr. Minani Isaac	Director General	Ministry of Health, Burundi
Dr Jean Baptiste Nzorironkankuze	Permanent Secretary	Ministry of Health, Burundi
Ms. Dora Simbare	Director of Social Affairs	Ministry of EAC Affairs, Burundi
Aime Nkurunziza	Technical Advisor Department of Social Affairs	Ministry of EAC Affairs, Burundi
Dr Charles M. Nzioka	Senior Deputy Director Medical Services	Ministry of Health, Kenya
Dr Evans Amukoye	Assistant Director Research Admin/ CRO	Kenya Medical Research Institute, Kenya
Dr. Alice J.O. Yalla	Director	Ministry of EAC Affairs, Kenya
Samuel Mwangi Kahenu	Senior Assistant Director	Ministry of EAC Affairs, Kenya
Walimbi Aliyi	Senior Health Planner	Ministry of Health, Uganda
Dr Isaac Kadowa,	Principal Medical Officer	Ministry of Health, Uganda
Edward Sebina	Commissioner	Ministry of EAC Affairs, Uganda
George Lwevoola	Principal Integration Officer	Ministry of EAC Affairs, Uganda
Bernard P. Mtuta	Deputy Director of Administration	Zanzibar Health Research Institute, Tanzania
Dr Mohamed A Mohamed	Director – HQA	Ministry of Health, Tanzania
Dr Ndekyia Oriyo	Director – ICT	National Institute for Medical Research, Tanzania
Edward A. Komba	Health Coordinator	Ministry of EAC Affairs, Tanzania

Thanks are also extended to the members of the Digital REACH Steering Committee, which was formed by the EAHRC to support the process and provide inputs. who provided key inputs into the Strategic Plan.

STEERING COMMITTEE MEMBERS

NAME	DESIGNATION	INSTITUTION
Adele Waugaman	Senior Advisor, Digital Health	USAID, DC
Brooke Partridge	CEO and Executive Oversight	Vital Wave
Carl Leitner	Deputy Director, Global Goods for Digital Square	USAID, DC
Henry Mwanyika	Regional Director, Africa	PATH
Ishrat Husain	Senior Health Advisor	USAID, DC
Kendra Givens	Program Assistant	PATH / Digital Square
Kristina Celentano	Digital Health Advisor	USAID, DC
Leah Gatt	Director, Professional Services and Engagement Manager	Vital Wave
Lesley-Anne Long	Strategist	
Magnus Conteh	Executive Director, Community Health Academy	Last Mile Health
Merrick Schaefer	Development Informatics Lead, Global Development Lab	USAID, DC
Peter Arimi	Senior Regional Health Specialist - Care and Treatment	USAID / Kenya and East Africa
S. Skye Gilbert	Deputy Director, Digital Health Solutions	PATH / Digital Square
Tim Wood	Senior Program Officer	Bill and Melinda Gates Foundation

CONTRIBUTIONS TO DIGITAL REACH ROADMAP

The roadmap that preceded this Strategic Plan and determined the areas of work for the Digital REACH Initiative was also developed through inputs from key decision makers through conferences and smaller workshops. Special thanks are extended to the contributors to this roadmap listed below.

THE 6TH EAST AFRICAN HEALTH AND SCIENTIFIC CONFERENCE IN ON 28TH – 30TH MARCH 2017, BUJUMBURA, BURUNDI

NAME	DESIGNATION	INSTITUTION	PARTNER STATE/COUNTRY
Dr. Jamala Adam Taib	EAHRC Commissioner Director General and Chair	Zanzibar Medical Research Council	United Republic of Tanzania
Dr. Joseph Nyandwi	EAHRC Commissioner Lecturer & Researcher	University of Burundi, Faculty of Medicine	Republic of Burundi
Dr. Pierre Claver Kazihise	EAHRC Commissioner Director General	National Institute of Public Health	Republic of Burundi
Dr. Isaac Minani	EAHRC Commissioner Director General	Ministry of Public Health and Fight Against AIDS	Republic of Burundi
Dr. Gerald Mkoji	EAHRC Commissioner Director General	Kenya Medical Research Institute (KEMRI)	Republic of Kenya
Dr. Jackson Kioko	EAHRC Commissioner Director of Medical Services	Ministry of Health	Republic of Kenya
Prof. Fabian Esamai	EAHRC Commissioner Professor of Child Health and Pediatrics	Moi University College of Health Sciences	Republic of Kenya
Dr. Sam Okware	EAHRC Commissioner Director General	Uganda National Health Research Organization (UNHRO)	Republic of Uganda
Prof. Pauline Byakika-Kibwika	EAHRC Commissioner Associate Professor	Makerere University College of Health Sciences	Republic of Uganda
Prof. Yunus Mgaya	EAHRC Commissioner Director General	The National Institute for Medical Research (NIMR)	United Republic of Tanzania
Prof. Eligius Francis Lyamuya	EAHRC Commissioner Deputy Vice Chancellor Academics, Research & Consultancy	Muhimbili University of Health & Allied Sciences (MUHAS)	United Republic of Tanzania
Prof. Dr. Mohamed Bakari Kambi	EAHRC Commissioner Chief Medical Officer	Ministry of Health	United Republic of Tanzania
Dr. Mohammed J. U Dahoma	EAHRC Commissioner Director of Hospitals and Member of the Zanzibar Research Council	Zanzibar Medical Research Council	United Republic of Tanzania

REGIONAL EAST AFRICA DIGITAL HEALTH ROADMAP CONFERENCE IN KAMPALA, 6TH - 8TH SEPTEMBER 2017, KAMPALA, UGANDA

NAME	INSTITUTION	DESIGNATION	PARTNER STATE/COUNTRY
------	-------------	-------------	-----------------------

HONORARY GUEST

Hon. Opendi Achieng Sarah	Ministry of Health	Chair EAC Sectoral Council of Health Minister of State for Health (General Duties)	Republic of Uganda
---------------------------	--------------------	--	--------------------

EAHRC

Prof. Gibson Kibiki	Executive Secretary	EAHRC	EAHRC - EAC
Dr. Jean De Dieu Ngirabega	Deputy Executive Secretary	EAHRC	EAHRC - EAC
Dr Fabian Mashauri	Principle Health Officer	EAHRC	EAHRC - EAC
Nankya Betty	Senior Personal Secretary	EAHRC	EAHRC - EAC
Dr. Novat Twungubumwe	Principle Health Officer	EAHRC	EAHRC - EAC

EAC

Daniel Murenzi	EAC	Principal Information Technology Officer	EAC
Gertrude Ngabirano	East African Science and Technology Commission (EASTECO)	Executive Secretary	EAC
Stanley Sonoiya	Department of Health	Principal Health Officer	EAC

EAHRC COMMISSIONERS

Dr. Jackson Kioko	EAHRC Commissioner	Director of Medical Services, Ministry of Health	Republic of Kenya
Dr. Jamala Adam Taib	EAHRC Commissioner	Director General and Chair of the Zanzibar Medical Research Council	United Republic of Tanzania
Dr. Joseph Nyandwi	EAHRC Commissioner	Vice Dean, Faculty of Medicine, University of Burundi	Republic of Burundi
Dr. Leon Mutesa	EAHRC Commissioner	School of Medicine and Health Sciences, University of Rwanda	Republic of Rwanda
Dr. Mohammed J. U Dahoma	Director of Hospitals and Member of the Zanzibar Research Council	Zanzibar Medical Research Council	United Republic of Tanzania
Dr. Pierre Claver Kazihise	EAHRC Commissioner	Director General, Institut Nationale de Santé Publique	Republic of Burundi
Dr. Sam Okware	EAHRC Commissioner	Director General, Uganda National Health Research Organization	Republic of Uganda
Prof. Muhamad Bakari Kambi	EAHRC Commissioner	Chief Medical Officer, Ministry of Health	United Republic of Tanzania
Prof. Pauline Byakika	EAHRC Commissioner	College of Health sciences, Makerere University	Republic of Uganda

REGIONAL EAST AFRICA DIGITAL HEALTH ROADMAP CONFERENCE IN KAMPALA, 6TH -8TH SEPTEMBER 2017, KAMPALA, UGANDA (CON'T)

NAME	INSTITUTION	DESIGNATION	PARTNER STATE/COUNTRY
------	-------------	-------------	-----------------------

EXPERTS FROM PARTNER STATES

Alpha Marara	University Teaching Hospital of Kigali	Director of ICT	Republic of Rwanda
Andrew Musiime	Ministry of East African Community Affairs - Uganda	Director	Republic of Uganda
Dr. Anna Nswilla	President's Office Regional Administration and Local Government, Tanzania	Representative of Deputy Permanent Secretary, Health	United Republic of Tanzania
Dr. Benedict Mtasiwa	Inter-University Council for East Africa (IUCEA)	Chief Principal Exchange Links & Partnerships	Republic of Uganda
Carol Kyoziira	Ministry of Health	Principal Biostatistician	Republic of Uganda
Dr. Celestin Twizere	Regional Centre of Excellence in Biomedical Engineering and eHealth	Director	Republic of Rwanda
Claudette Irere	Ministry of Information Technology and Communications	Director General	Republic of Rwanda
Claver Nijimbere	Ministry of Information, Communication Technology (ICT)	Director General of Science, Technology and Research	Republic of Burundi
Cyrus Kamau	National Commission for Science, Technology and Innovation (NACOSTI)	Head of ICT Unit	Republic of Kenya
David M Waititi	East African Kidney Institute (EAKI) College of Health Sciences (CHS)	Project Coordinator	Republic of Kenya
Dr. David Ooko Soti	Ministry of Health	Head Department of Preventive and Promotive Health	Republic of Kenya
Eric Beda	Southern African Centre for Infectious Disease Surveillance (SACIDS)	ICT Specialist	United Republic of Tanzania
Erick Gaju	Ministry of Health	Head of e-health / EMR unit	Republic of Rwanda
George Okurut	New Mulago Hospital	Head of ICT	Republic of Uganda
Hermes Sotter Rulagirwa	Ministry of Health	Director of ICT	United Republic of Tanzania
Dr. Isaac Kadowa	Ministry of Health	Principal Medical Officer	Republic of Uganda
Jean Claude Ndayishimiye	Kamenge University Hospital, Burundi	ICT Administrator	Republic of Burundi
Jean Claude Nshimirimana	Ministry of Public Health and Fight Against AIDS	IT Specialist	Republic of Burundi
Dr. Jean Paul Niyoyita	University of Rwanda	Head of Department, Health Bioinformatics Department	Republic of Rwanda
Jeannick Mudorogo	University of Burundi, Faculty of Medicine	Head of ICT	Republic of Burundi

REGIONAL EAST AFRICA DIGITAL HEALTH ROADMAP CONFERENCE IN KAMPALA, 6 -8 SEPTEMBER 2017, KAMPALA, REPUBLIC OF UGANDA (CON'T)

NAME	INSTITUTION	DESIGNATION	PARTNER STATE/COUNTRY
Modou Gaye	Muhimbili National Hospital	Director of ICT	United Republic of Tanzania
Dr. Nabudeere Harriet	Uganda National Health Research Organisation	Deputy Director General	Republic of Uganda
Patrick Kibaya	Uganda Chartered HealthNet	Head	Republic of Uganda
Dr. Peter Cherutich	Ministry of Health	Head Division of Strategic Health Information	Republic of Kenya
Dr. Pilly Chillo	Muhimbili University of Health & Allied Sciences (MUHAS)	Lecturer	United Republic of Tanzania
Richard Tumwesigye	Uganda Cancer Institute	Coordinator	Republic of Uganda
Dr. Simon Langat	National Commission for Science, Technology and Innovation (NACOSTI)	CS	Republic of Kenya
Prof. Steve de Cliff	National Commission of Science and Technology	Chair	Republic of Burundi
Steven Wanyee	IntelliSOFT	Director	Republic of Kenya
Dr. Zacharia Mtema	Digital Health Ifakara Health Institute	In-charge of Health Informatics	United Republic of Tanzania

DEVELOPMENT PARTNERS AND PRIVATE SECTOR

Adam Lane	Huawei Technologies	Senior Director of Public Affairs	Republic of Kenya
Dr. Agnes Gatome-Munyua	Abt Associates	Health Care Finance Advisor, CB-HIPP	Republic of Kenya
Dr. Amit Thakker	East Africa Healthcare Federation	Director	Republic of Kenya
Prof. Barend Mons	European Commission, Belgium/Leiden University Medical Centre, The Netherlands	Chair of the High-Level Expert Group on the European Open Science Cloud	The Netherlands
Bissyande Tegawande Francois D'assise	SnT University of Luxemborg	ICT Specialist/Research Scientist	Luxembourg
Boniface Kitungulu	FHI360	Director of Research	Republic of Kenya
Charles Kuria	Fio Corporation	Regional Director	Republic of Kenya
Chris Seebregts	RAD Consortium		South Africa
Doroty Muroki	FHI360	Chief of Party, CB-HIPP	Republic of Kenya
Florence Gaudry-Perkins	Novartis/Digital Health Partnership	Representative Novartis/ Founder DHP	France
Dr. Grace Miheso	USAID, Kenya and East Africa	Senior Regional Maternal and Child Health Specialist	Republic of Kenya

REGIONAL EAST AFRICA DIGITAL HEALTH ROADMAP CONFERENCE IN KAMPALA, 6 -8 SEPTEMBER 2017, KAMPALA, REPUBLIC OF UGANDA (CON'T)

NAME	INSTITUTION	DESIGNATION	PARTNER STATE/ COUNTRY
DEVELOPMENT PARTNERS AND PRIVATE SECTOR			
Ian Fine	Fio Corporation	Chief Technology Officer	Canada
James Odoi	FHI 360	Systems Analyst	Republic of Uganda
Jeff Weiser	RAD Consortium	Deputy Chief of Party	South Africa
Judy Mugoya	Uganda Health Care Federation	Board Member	Republic of Uganda
Lesley-Ane Long	PATH	Director of Digital Square	USA
Lillian Nabunya	HealthEnabled	Digital Health Programme Manager	Republic of Uganda
Merrick Schaefer	Global Development Lab, USAID	Lead, Development Informatics	USA
Dr. Michael Greenberg	Fio Corporation	Chairman and CEO	USA
Prof. Mirjam Van Reisen	Leiden University Center for Data Science	Director	The Netherlands
Missie Oindo	FHI360	Senior Health Systems Policy Analyst	Republic of Kenya
Moses Bagyenderaa	WHO	Health Informatics	Republic of Uganda
Dr. Nyirinkwaya Jean Chrysostome	Rwanda Healthcare Federation	Chairman	Republic of Rwanda
Peggy D'Adamo	USAID	IT and Knowledge Management Advisor	USA
Dr. Peter Arimi	USAID, Kenya and East Africa	Senior Regional Health Specialist	Republic of Kenya
Dr. Peter Benjamin	HealthEnabled	Executive Director	South Africa
Peter Nganga	FHI360	Finance Manager	Republic of Kenya
Prince Bahati	International AIDS Vaccine Initiative (IAVI)	Director	Republic of Kenya
Sam Wambugu	MEASURE Evaluation	Health informatics Advisor	USA
Sean Blashke	UNICEF	Health Systems Strengthening Specialist	Republic of Uganda
Sherri Haas	K4Health Project	Technical Advisor, Digital Health and Health Economics	USA
Sionhan Coreen	Sonjara, Inc.	CEO	USA
Dr. Stephen Kinoti	Fio Corporation	Vice President	USA
Dr. Subhashini Chandrasekharan	HealthEnabled	Consultant	USA
Tim Wood	Bill and Melinda Gates Foundation	Senior Program Officer	USA

REGIONAL EAST AFRICA DIGITAL HEALTH ROADMAP CONFERENCE IN KAMPALA, 6 -8 SEPTEMBER 2017, KAMPALA, REPUBLIC OF UGANDA (CON'T)

NAME	INSTITUTION	DESIGNATION	PARTNER STATE/COUNTRY
------	-------------	-------------	-----------------------

DEVELOPMENT PARTNERS AND PRIVATE SECTOR

Wairimu Gakuo	USAID, Kenya and East Africa	Regional Deputy Chief	Republic of Kenya
Dr. Wale Akinyemi	Powertalks International	CEO	Republic of Kenya
Wenqing Yin	Leiden University Center for Data Science	Digital Health PhD candidate	The Netherlands

FAITH-BASED HEALTH SERVICES PROVIDERS

Ernest Rwagasana	BUFMAR	Director	Republic of Rwanda
Godlisten Moshi	Christian Social Services Commission (CSSC)	Manager	United Republic of Tanzania
Jacinta Mutegi	Kenya Conference of Catholic Bishops (KCCB)	National Executive Secretary	Republic of Kenya
Jenard Ntacyotugira	Uganda Catholic Medical Bureau	IT Manager	Republic of Uganda
Dr. Josephine Balati	Christian Social Services Commission (CSSC)	Director	United Republic of Tanzania
Nathan Nshara	Farst Africa	Consultant	Republic of Uganda
Dr. Samuel Mwenda	Christian Health Association of Kenya (CHAK)	General Secretary	Republic of Kenya
Dr. Tonny Tumwesigye	Uganda Protestant Medical Bureau (UPMB)	Executive Director	Republic of Uganda

FACILITATORS

Brooke Patridge	Vital Wave, Inc.	CEO	USA
Chris Lukolyo	Vital Wave, Inc.	Consultant	Republic of Uganda
Derek Treatman	Vital Wave, Inc.	Director of Technology Solutions	USA
Leah Gatt	Vital Wave, Inc.	Director of Research	USA

REGIONAL EAST AFRICAN DIGITAL HEALTH ROADMAP WORKSHOP, 27TH- 28TH SEPTEMBER 2017, DAR ES SALAAM, TANZANIA

NAME	DESIGNATION	INSTITUTION	PARTNER STATE/ COUNTRY
Daniel Murenzi	Principal IT Officer	EAC	EAC
Betty Nankya	Senior Personal Secretary	EAHRC	EAHRC - EAC
Dr. Fabian Mashauri	Health Officer	EAHRC	EAHRC - EAC
Prof. Gibson Kibiki	Executive Secretary	EAHRC	EAHRC - EAC
Dr. Jean De Dieu Ngirabega	Deputy Executive Secretary	EAHRC	EAHRC - EAC
Dr. Novat Twungubumwe	Health Officer	EAHRC	EAHRC - EAC
Bukuru Pamphile	Head of Communications Department	Ministry of Public Health and Fight Against AIDS	Republic of Burundi
Jean Claude Nshimirimana	Head of eHealth and ICT Specialist	Ministry of Public Health and Fight Against AIDS	Republic of Burundi
Dr. Ndagijimana Benjamin	Medical Director	Ministry of Public Health and Fight Against AIDS	Republic of Burundi
Dr. Peter Cherutich	Head of HMIS	Ministry of Health	Republic of Kenya
Dr. Harriet Nabudere	Principal Research Scientist	Uganda National Health Research Organisation	Republic of Uganda
Dr. Isaac Kadowa	Principal Medical Officer	Ministry of Health	Republic of Uganda
Hermes Sotter Rulagirwa	Director of ICT	Ministry of Health, Community Development, Gender, Elderly, and Children	United Republic of Tanzania
Dr. Ndekya Oriyo	Principal Research Scientist	National Institute for Medical Research (NIMRI)	United Republic of Tanzania
Brooke Partridge	CEO and Lead Facilitator	Vital Wave, Inc.	USA
Leah Gatt	Director of Research and Engagement Manager	Vital Wave, Inc.	USA
Merrick Schaefer	Global Development Lab, USAID	Lead, Development Informatics	USA




FINAL REGIONAL EAST AFRICAN DIGITAL HEALTH ROADMAP WORKSHOP, 3RD NOVEMBER 2017, ENTEBBE, UGANDA




NAME	DESIGNATION	INSTITUTION	PARTNER STATE/ COUNTRY
Daniel Murenzi	Principal IT Officer	EAC	EAC
Betty Nankya	Senior Personal Secretary	EAHRC	EAHRC - EAC
Dr. Fabian Mashauri	Principal Health Officer	EAHRC	EAHRC - EAC
Prof. Gibson Kibiki	Executive Secretary	EAHRC	EAHRC - EAC
Dr. Jean de Dieu Ngirabega	Deputy Executive Secretary	EAHRC	EAHRC - EAC
Jean Claude Nshimirimana	Head of eHealth and ICT Specialist	Ministry of Public Health and Fight Against AIDS	Republic of Burundi
Prof. Steve de Cliff	Chair	National Commission of Science and Technology	Republic of Burundi
Dorothy Muroki	Chief of Party for CB-HIPP	FHI360	Republic of Kenya
Dr. Evans Amukoye	Ag Deputy Director Research and Development	Kenya Medical Research Institute	Republic of Kenya
Francis Oduor Ouma	Assistant Director ICT	Ministry of Health	Republic of Kenya
Dr. Peter Cherutich	Head HMIS	Ministry of Health	Republic of Kenya
Erick Gaju	Head of eHealth	Ministry of Health	Republic of Rwanda
Jean Pierre Musabyimana	Senior Officer - Clinical Research	Rwanda Biomedical Center	Republic of Rwanda
Alfred Bagenda	Head of HMIS	Ministry of Health	Republic of Uganda
Caroline Kyoziira	Principal Biostatistician, HMIS	Ministry of Health	Republic of Uganda
Dr. Harriet Nabudere	Deputy Director General	Uganda National Health Research Organisation	Republic of Uganda
Dr. Khadija Malima	Chief Research Officer	Tanzania Commission for Science and Technology	United Republic of Tanzania
Dr. Ndekya Oriyo	Ag. Director for Research	National Institute for Medical Research	United Republic of Tanzania
Brooke Patridge	CEO and Lead Facilitator	Vital Wave, Inc.	USA
Leah Gatt	Director of Research and Engagement Manager	Vital Wave, Inc.	USA
Sherri Haas	Technical Advisor, Digital Health and Health Economics	MSH, K4Health Project	USA

Appendix B: Partner State Situation Analysis

The figure below provides an overview of the current state of digital health programs and systems in each EAC Partner State. It describes the strategies in place, as well as services and applications that support those strategies. It also presents the challenges that each country is facing for expanding digital health implementations. Challenges were identified by Ministry of Health and Ministry of ICT staff in each country. This is a non-exhaustive landscape overview. A detailed landscape assessment will be conducted by each workstream once the Initiative is set up to identify what assets already exist in each of the Partner States that can be utilised for the Digital REACH Initiative.

TABLE 9. CURRENT STATE OF DIGITAL HEALTH IN EAC PARTNER STATES

	Current Status of Digital Health	Strategy and Illustrative Services and Applications	Self-Identified Challenges
The Republic of Burundi 	<p><i>Strategy in early implementation stages</i></p> <ul style="list-style-type: none"> • Recently implemented DHIS2 scaled to health centre level • In a stage of country-wide program adoption • Implementation plan for eHealth in place • Implementation of a Laboratory Information System (Labware) 	<p>Strategy in Place</p> <ul style="list-style-type: none"> • National Health Policy • National Development Plan on Health Informatics • National Plan for the Development of eHealth <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> • DHIS2 • OpenClinic • OpenPharmacy • eHealth Learning Portal • OpenRBF System 	<ul style="list-style-type: none"> • Poor infrastructure and unreliable connectivity • Insufficient technical skills • Low levels of computer literacy among staff in some health facilities • Lack of ICT coordination by MoH • Numerous initiatives in place, mainly run by development partners
The Republic of Kenya 	<p><i>Plans to expand digital health implementations over coming year</i></p> <ul style="list-style-type: none"> • Nationwide implementation of DHIS2 • No governance structure in place, but proposed Health Sector Coordination Committee • ICT, interoperability, and EMR standards developed and implemented • Plans to implement Unique ID 	<p>Strategy in Place</p> <ul style="list-style-type: none"> • Kenya National eHealth Policy 2016 – 2030 <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> • DHIS2 • EMR 	<ul style="list-style-type: none"> • Fragmented systems and interoperability • Poor support and maintenance of ICT infrastructure in remote areas • Low levels of computer literacy
The Republic of Rwanda 	<p><i>Comprehensive strategy with strong governance structures in place</i></p> <ul style="list-style-type: none"> • Nationwide implementation of DHIS2 • Comprehensive digital health strategy • Technical Working Group reviews existing and new initiatives and provides recommendations to MOH • High coordination between MoH and MITECH • OpenHIE framework implemented 	<p>Strategy in Place</p> <ul style="list-style-type: none"> • Smart Rwanda Smart Plan 2020 • eHealth Policy and Strategic Plan • Rwanda eHealth Framework • ICT Security Policy <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> • RHMIS (using DHIS2) • EMR (OpenMRS) • ERP • Health Information Exchange • Alert system (Rapid SMS) • Financial Management Systems 	<ul style="list-style-type: none"> • Fragmented systems and interoperability • Poor support and maintenance of ICT infrastructure in remote areas • Low levels of computer literacy • Electricity and ICT infrastructure

	Current Status of Digital Health	Strategy and Illustrative Services and Applications	Self-Identified Challenges
<p>The Republic of South Sudan</p> 	<p><i>Nascent strategy. Implementation plan still under formulation</i></p> <ul style="list-style-type: none"> Nascent strategy and DHIS2 implementation Governance structure unclear 	<p>Strategy in Place</p> <ul style="list-style-type: none"> National Health Policy 2016 - 2025 <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> DHIS2 partial implementation 	<ul style="list-style-type: none"> Political instability Poor infrastructure No clear eHealth strategy in place
<p>The United Republic of Tanzania</p> 	<p><i>Ambitious digital strategy and clear roadmap in place</i></p> <ul style="list-style-type: none"> Nationwide implementation of DHIS2 Health facility registry in place eHealth Steering Committee with several technical working groups Implementation of telemedicine Implementation of OpenHIE currently ongoing (Health Information Mediator and Data Repository, client registry, Shared Health Records) 	<p>Strategy in Place</p> <ul style="list-style-type: none"> eHealth Strategy 2013 – 2018 (being reviewed) ICT Policy Guideline for Health Digital Health Investment Roadmap 2017 – 2023 Standards and guidelines for integrated health facility electronic management system (iHFeMS) <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> DHIS2 iHFeMS (including ERP) EMR Health training institutions information system (TIIS) Human resources for health information system (HRHIS) Medical and dental practitioners register and licensing system (MCTIS) 	<ul style="list-style-type: none"> Inadequate coordination in MDAs Fragmented landscape of pilot projects Inadequate infrastructure and unreliable connectivity Inadequate funding Inadequate knowledge and skills on digital health
<p>The Republic of Uganda</p> 	<p><i>Early adopter seeking organised approach to implementing digital health technologies</i></p> <ul style="list-style-type: none"> Nationwide implementation of DHIS2 eHealth Technical Working Group – meets monthly and reports to MoH policy and decision makers Consolidation of various systems (ongoing) Development of eHealth enterprise architecture and HIE framework (ongoing) 	<p>Strategy in Place</p> <ul style="list-style-type: none"> National eHealth Strategy National eHealth Policy eGovernment Policy Framework <p>Illustrative Services & Applications</p> <ul style="list-style-type: none"> DHIS2 RapidPro OpenMR UgandaEMR (OpenMRS) iHRIS Community HW Registry (Pilot in 11 districts) MTrac (essential medicines monitoring) Laboratory Information System (LIS) Pharmacy Information Portal (PIP) Logistics Management Information System (LMIS) Knowledge Management Portal (KMP) Doctors registration status with the Uganda Medical and Dental Practitioners Council through mobile SMS 	<ul style="list-style-type: none"> Hiring and retaining eHealth and IT professionals Lack of interoperability and standardisation between existing systems Infrastructure and unreliable connectivity Lack of digital health curriculum and health education content for local languages and cultures Poor support and maintenance practice of ICT infrastructure Noncompliance to national and international regulations; data management, security and privacy



EAST AFRICAN COMMUNITY

**15TH ORDINARY MEETING OF THE EAC SECTORAL COUNCIL OF
MINISTERS OF HEALTH**

17TH NOVEMBER 2017

IMPERIAL ROYALE HOTEL, KAMPALA, UGANDA

MINISTERIAL SESSION

**REPORT OF THE MEETING
(Ref: EAC/HEALTH/SCM15/2017)**

**EAC SECRETARIAT,
EAC HEADQUARTERS BUILDING,
P.O. BOX 1096,
ARUSHA, TANZANIA
NOVEMBER 2017**

Handwritten signature and initials

The Sectoral Council took note of the report of the fourth meeting of the Commissioners of the EAHRC.

4.3 Digital Regional East African Community Health Initiative Roadmap

The Sectoral Council were informed that EAHRC is currently implementing its five year strategic plan 2016-2021, of which among its strategic objectives is to harness advancement of Science, Technology and ICT.

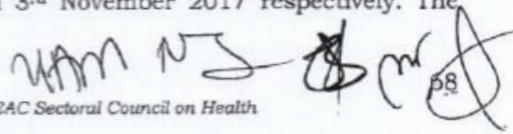
The Sectoral Council was also informed that the high level ministerial dialogue meeting of the ministers responsible for finance and ministers responsible for health on sustainable financing for universal health coverage for the EAC region held in Arusha on 23rd June, 2016, has highlighted the importance of ICT in health systems and that this has been emphasized by the 6th East African Health and Scientific Conference (EAHSC) held in Bujumbura from 29th -31st March, 2017 that recommended "digital health technology" as one of the four thematic areas requiring in-depth discussion, and comprehensive implementable roadmap.

The Sectoral Council noted that the 3rd meeting of EAHRC Commissioners held in KEMRI in March 2017, considered to organize an East Africa Digital Health Summit and pledged support to the EAHRC Secretariat.

The 14th Sectoral Council of Ministers of Health held in Bujumbura on 28th March 2017 took note of the concept note of the East African Digital Health Summit that was expected to be held in September 2017.

The Sectoral Council also noted that the EAHRC Secretariat had organized a regional digital health conference to establish a regional roadmap which will guide the regional implementation of digital Health initiative and commitment towards institutionalizing application of digital health and facilitate collaboration and coordination among countries and stakeholders as well as to discuss the eco-system, policies, regulations, infrastructure, and costs necessary for the successful scaling up of digital technology in the EAC region. The conference brought together government officials, development partners, private sector partners, faith based organisations, national, regional and international experts and participants from EAC, Africa, Europe, and North America.

A regional digital health roadmap was developed and reviewed EAC partner states experts during two meetings held in Dar es Salam from 27th -28th September 2017 and in Entebbe on 3rd November 2017 respectively. The



Report of the 15th Meeting of the EAC Sectoral Council on Health

- 6 regional digital health roadmap was considered and endorsed by the 4th
- 4 meeting of EAHRC Commissioners held in Arusha from 11th to 13th October
- 8 2017.

The Digital REACH Initiative:

- i. is a plan coordinating regional action that brings together stakeholders from the EAC, EAC Partner States, the private sector, donors, and other key partners to improve health outcomes across the EAC through the creation of a robust enabling environment and the implementation of strategic regional health programs supported and facilitated by digital health.
- ii. has been developed based on collaboration and inputs from representatives of each of the EAC Partner States
- iii. will achieve economic efficiencies through cost savings, economies of scale, and shared digital health resources across the region
- iv. will support improved health systems by enhancing data sharing, policies and standards, access to and continuity of health care, disease surveillance, and use of data
- v. will yield faster and better implementation by positioning the region as a digital health leader, accelerating implementation progress within and across partner states, supporting use of evidence for decision-making, and sharing best practices.

Furthermore, the digital REACH roadmap introduces a unifying framework to organize the initiative's focus and work streams; the framework features digital health programs at the center.

The Permanent/Principal Secretaries were informed that the health programs at the center are:

- i. The East African Open Science Cloud for Health (EAOSCH) aiming to establish a real-time regional data warehouse for capturing, storing, retrieving, analyzing and managing national and regional health in EAC
- ii. The Regional and cross-border program implementations that address key challenges associated with delivering quality health services to mobile populations and border communities including the use of innovative health technology for disease surveillance, detection and response.
- iii. Country-specific program implementation to provide technical assistance for country specific implementations in individual partner states to enable integration with regional digital health programs.
- iv. implementations using disruptive technologies by leading the development, testing , and use of new, disruptive technologies in


Report of the 15th Meeting of the EAC Sectoral Council on Health

regional or country-specific health programs to identify new efficiencies.

The Digital Regional East African Community Health Roadmap is hereto attached as **Annex G-VI**.

The Sectoral Council:

- a) approved the Digital Regional East African Community Health Initiative Roadmap (EAC/Health/15SCM/Decision 21); and
- b) directed the EAHRC Secretariat to develop a strategic plan to implement the Digital Regional East African Community Health Roadmap (EAC/Health/15SCM/Directive 43).

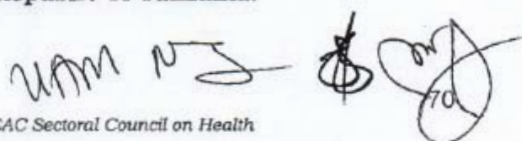
4.4 Preparations for the 7th East African Health and Scientific Conference (EAHSC)

The Sectoral Council noted that 14th Sectoral Council of Ministers of Health directed the EAHRC to convene the 7th East African Health and Scientific Conference from 27th to 29th March 2019 in the United Republic of Tanzania (EAC/Health/14SCM/Directive 40); and directed the URT and EAHRC to commence mobilization of the necessary resources for the convening of 7th East African Health and Scientific Conference (EAC/Health/14SCM/Directive 41).

The Sectoral Council was informed that an inception meeting between the URT Ministry of Health, National Institute for Medical Research (NIMR) and EAHRC Secretariat was held on 8th November 2017. A check list of activities to be conducted in preparations for the 7th EAHSC was adopted. The United Republic of Tanzania has initiated the process to appoint the National Steering Committee and its sub committees.

The Sectoral Council was further informed that the 4th meeting of EAHRC Commissioners considered the concept note of the 7th East African Health and Scientific conference whose main theme will be "Technology for health systems transformation and attainment of the UN-Sustainable Development Goals" and subthemes and symposia to build on the known pillars of the health system. The Concept note is under finalization.

The Sectoral Council took note of the progress on the preparations for the 7th East African Health and Scientific Conference to be held from 27th to 29th March 2018 at the Julius Nyerere International Convention Centre, Dar es Salaam, The United Republic of Tanzania.



Report of the 15th Meeting of the EAC Sectoral Council on Health



EAST AFRICAN COMMUNITY
(ISO 9001:2008 CERTIFIED)
Certificate No. IND 15.7368 U/Q)

35TH EXTRA-ORDINARY MEETING OF THE COUNCIL OF MINISTERS

15th - 20th FEBRUARY, 2018
KAMPALA, UGANDA

REPORT OF THE MEETING
(Ref: EAC/EX CM/35/2018)

SECRETARIAT
ARUSHA, TANZANIA
FEBRUARY, 2018

Report of the 35th Extra-Ordinary Meeting of the Council, 15th – 20th February, 2018

- (ii) Approved that the meeting in (a) above also includes legislative draftspersons from the EAC Partner States (EAC/Health/15SCM/Decision 19);
- (jj) Directed the EAHRC Staff to relocate to Bujumbura, Burundi by 15th December 2017.
- (kk) Approved the concept note of the new East African Health Science journal whose title is the "East Africa Health Science" and acronym "EASCI" (EAC/Health/15SCM/Decision 20).
- (ll) adopted the schedule, host countries and the keynote speakers for the forthcoming East African Health and Scientific Conference as indicated below.

Dates	Host Country	Keynote Speaker
27 th - 29 th March 2019	United Republic of Tanzania	Republic of Rwanda
24 th - 26 March 2021	Republic of Kenya	Republic of Uganda
29 th - 31 st March 2023	Republic of Rwanda	Republic of Kenya
26 th - 28 th March 2025	Republic of Uganda	Republic of South Sudan
24 th - 26 th March 2027	Republic of South of South Sudan	Republic of Burundi
28 th - 30 th March 2029	Republic of Burundi	United Republic of Tanzania

- (mm) approved the Digital Regional East African Community Health Initiative Roadmap (EAC/Health/15SCM/Decision 21); and
- (nn) directed the EAHRC Secretariat to develop a strategic plan to implement the Digital Regional East African Community Health Roadmap (EAC/Health/15SCM/Directive 43).
- (oo) Took note of the progress on the preparations for the 7th East African Health and Scientific Conference to be held from 27th to 29th March 2018 at the Julius Nyerere International Convention Centre, Dar es Salaam, and the United Republic of Tanzania.
- (pp) approved the concept document on the organization of the East African Health and Scientific Conference (EAC/Health/15SCM/Decision 22).

The Council:

- (a) directed the Republic of Burundi, the Republic of Kenya and Republic of Uganda and the Republic of Rwanda to establish Food and Drug Authorities (EAC/EX-CM/35/Directive 10);
- (b) appointed the Republic of Uganda as the host to the "EAC Regional Centre of Excellence (RCE) for the Preparation, Characterization, Storage and Distribution of Chemical Reference Substances (CRS)"; (EAC/EX-CM/35/Decision 17); and
- (c) approved the Digital Regional East African Community Health Initiative Roadmap, and develop a strategic plan for its implementation (EAC/EX-CM/35/Decision 18).

Report of the 35th Extra-Ordinary Meeting of the Council, 15th - 20th February, 2018

[Signature]

[Signature]

[Signature]

[Signature] 31



EAST AFRICAN COMMUNITY

**17TH ORDINARY MEETING OF THE EAC SECTORAL
COUNCIL OF MINISTERS OF HEALTH**

**26TH OCTOBER 2018
GRAND LEGACY HOTEL
KIGALI, RWANDA**

**REPORT OF THE MEETING
(Ref: EAC/SCHealth17/2018)**

**EAC SECRETARIAT,
EAC HEADQUARTERS BUILDING,
P.O. BOX 1096,
ARUSHA, TANZANIA.**

OCTOBER 2018

Digital Regional East African Community Health (Digital REACH) Strategic Plan 2019-2028

The Sectoral Council noted that the 15th Sectoral Council on Health (*EAC/Health/15SCM/Decision 21*) and subsequently the 35th Extra-ordinary Council of Ministers (*EAC/EX-CM/35/Decision 18*) approved the Digital Regional East African Community Health roadmap (Digital REACH roadmap) and recommended the EAHRC Secretariat to develop a strategic plan for its implementation.

Digital REACH Initiative is a novel and ground-breaking approach for shaping the future of health and development in East Africa. Digital Health was approved by the 19th Ordinary Summit of the EAC Heads of State as one of the health sector investment priorities for the region for the next 10 years.

Digital REACH Initiative, an implementation science-led, will develop and implement regional health programmes that support economies of scale and regional capacity for socio-economic transformation. The initiative is designed to complement, improve and strengthen country specific work in Digital Health. It aligns with national programmes and priorities. The Digital Regional East African Community Health Strategic Plan (Digital REACH Strategic Plan) is a tool to implement the Digital REACH initiative.

The Sectoral Council were informed that the activities of the Digital REACH Initiative have outcome goals that were identified by EAC Partner State representatives in a series of workshops. These outcome goals will be used to measure the Initiative's success over the ten-year period. To achieve the outcome goals above, the activities of Digital REACH have been divided into nine workstreams which will run in parallel to each other and focus on the implementation of specific, strategic health programmes and on the creation of an enabling environment for digital health.

The nine work streams are:

- i. Initiative management
- ii. Health Programmes
- iii. Infrastructure
- iv. Services and applications
- v. Leadership and Advocacy
- vi. Strategy and investment
- vii. Legislation, policy and compliance
- viii. Workforce
- ix. Standards and interoperability.

The Sectoral Council noted that the strategic plan has been reviewed by experts from EAC Partner States as well as international experts in the field. The version from this review has been presented to relevant experts in EAC Partner States and relevant EAC Institutions during the months of July and August 2018 for final validation. The total cost

of the implementation strategy of the Digital REACH initiative for the first five years is **USD 187,068,734.00**.

The costed 10-year Digital REACH Strategic Plan 2019-2028 is attached hereto as **Annex H-VI, Annex H-VII** and has been endorsed by the 5th meeting of EAHRC Commissioners.

The Sectoral Council:

- a) approved the costed Digital REACH Strategic Plan 2019-2028 and its resource mobilization strategy (EAC/SCHealth/17/Decision/024), ; and
- b) directed the EAHRC Secretariat to mobilize resources to implement the Digital REACH strategic Plan (EAC/SCHealth/17/Directive/059).

Appendix D: EAC Strategic Priorities and Digital REACH Outcome Goals

# Digital REACH Initiative Outcome Goal Health-Focused Outcomes	Associated EAC Regional Health Sector Investment Priorities
<p>1. Optimise the Prevention, Diagnosis, and Treatment of Priority Health Conditions</p> <ul style="list-style-type: none"> • Improve quality of care across countries (e.g., by improving communication of diagnosis/treatment best practices, providing clear and monitorable harmonised guidelines, and allowing for collaboration and sharing of information.) • Improve efficiency of care across countries (e.g., by improving management of care while carefully tracking of results/outcomes, harmonised drug treatment protocols) • Improve continuity of care across countries (e.g., by ensuring the patients and their histories remain at the centre of care regardless of location of that care) • Improve access to healthcare services 	<ul style="list-style-type: none"> • Expansion of access to specialised healthcare and cross border health services • Upgrading of health infrastructure and equipment in priority national and sub national health facilities/hospitals • Establishment of strong primary and community health services as a basis for health promotion and diseases prevention and control • Expansion of health insurance coverage and social health protection
<p>2. Support Universal Access to Healthcare</p> <ul style="list-style-type: none"> • Provide universal health insurance to anyone in the region • Identify everyone with a right to quality healthcare (full registration) 	<ul style="list-style-type: none"> • Expansion of access to specialised healthcare and cross border health services • Expansion of health insurance coverage and social health protection
<p>3. Improve Health Worker Education and Training</p> <ul style="list-style-type: none"> • Provide standardised and recognised healthcare training and capacity building for health workers 	<ul style="list-style-type: none"> • Expansion of capacity to produce skilled and professional work force for health in the region based on harmonised regional training and practice standards and guidelines
<p>4. Improve Disease Surveillance and Response</p> <ul style="list-style-type: none"> • Strengthen regional health security by building capacity for effective detection, prevention, and response to health threats (e.g., disease emergencies, outbreaks) • Improve continuous disease surveillance across the region and in cross-border areas 	<ul style="list-style-type: none"> • Strengthen the network of medical reference laboratories and the regional rapid response mechanism to protect the region from health security threats including pandemics, bio-terrorism and common agents
<p>5. Improve Supply Chain Efficiency</p> <ul style="list-style-type: none"> • Improve supply chain efficiency • Improve management of procurement and supplies, including the ability to monitor and evaluate quality of health products • Achieve economies of scale through bulk purchasing • Facilitate logistics tracking 	<ul style="list-style-type: none"> • Increase access to safe, efficacious and affordable medicines, vaccines, and other health technologies focusing on prevalent diseases such as malaria, TB, HIV/AIDS and other high burden conditions • Upgrading of health infrastructure and equipment in priority national and sub national health facilities/hospitals
<p>6. Optimise Human Resource Allocation and Management</p> <ul style="list-style-type: none"> • Optimise health worker mobilisation and deployment, especially in rural and remote areas* • Facilitate work planning and human resource tracking 	<ul style="list-style-type: none"> • Expansion of access to specialised healthcare and cross border health services • Establishment of strong primary and community health services as a basis for health promotion and diseases prevention and control
<p>7. Enhance Public Health Education and Awareness</p> <ul style="list-style-type: none"> • Improve community health-related knowledge (e.g., awareness, drive demand for services and care, knowing when to seek care) • Provide patient education for preventive care and behaviour change (e.g., health promotion services prevention education, adherence) 	<ul style="list-style-type: none"> • Improvement of quality of healthcare, health sector efficiency and health statistics
<p>8. Monitor Population Health Status</p> <ul style="list-style-type: none"> • Support the creation of evidence-backed health policies • Support health research and use of evidence to promote health agenda • Elevating and prioritising contemporary population health issues into the health research agenda 	<ul style="list-style-type: none"> • Improvement of quality of healthcare, health sector efficiency and health statistics • Strengthening of Health Research and development

Appendix E: Additional Workstream Activities

The table below lays out additional activities by workstream that can be targeted for implementation once progress has been made on the priority activities.

WORKSTREAM	ADDITIONAL ACTIVITIES
3: Infrastructure	<ul style="list-style-type: none"> • Work with the Strategy and Investment team to identify priority areas for expanded network connectivity in the region based on priority use cases • Development of further digital foundational technologies (e.g., regional facility registry, shared health record)
4: Services and Applications	<ul style="list-style-type: none"> • Work with the Workforce team to support linking regional knowledge management platforms to content in national knowledge repositories and eLearning systems that support the regional mission • Develop tools to support decision planning, tracking, and decision support for supply chain, budget, and financial analysis • Improve and integrate human resource information systems to improve human resource allocation • Implement a communications system to reach subgroups of the patient population with targeted public health messaging
5: Leadership and Advocacy	<ul style="list-style-type: none"> • Advocate to support better governance structures • Advocate to facilitate inclusion and recognition of digital health in curricula to ensure all health workers are trained and knowledgeable on digital health • Advocate for messaging services to public and private facilities to improve public education and awareness • Advocate across countries for bulk purchasing of medical supplies to reduce cost of healthcare to providers and patients
6: Strategy and Investment	<ul style="list-style-type: none"> • Develop business cases for negotiation with MNOs for affordable bandwidth and improved network connectivity to support other implementations • Manage and negotiate bulk purchasing of supplies across states to reduce cost of provision of health
7: Legislation, Policy, and Compliance	<ul style="list-style-type: none"> • Create manpower policies to improve health worker productivity • Achieve accreditation and recognition of eLearning courses provided by the Initiative (e.g., by nursing and doctors associations and Partner States) to allow health workers to travel in the region and to ensure patient receive the same standard of care
8: Workforce	<ul style="list-style-type: none"> • Promote eLearning as means of reaching a broader group of healthcare professionals that in the long run reduces training cost and time away from duty stations • Share best practices on digital methods including use of social media platforms for public health education and awareness • Build capacity of health professionals for areas of Digital REACH Initiative activities (e.g., data sharing, supply chain management tools, public health messaging tools, monitoring of population health trends). Prioritise according to needs.
9: Standards and Interoperability	<ul style="list-style-type: none"> • Create standards for compensation across region to ensure fair premiums and repayment • Harmonise regional data standards for health insurance to support the insurance market • Create a common standardised template to collect Partner States' supply needs to support demand aggregation • Create nonbinding guidelines on the recognition of prescriptions across borders to allow EAC citizens to access necessary medication • Create minimum data set for diagnostic algorithms and clinical referral guidelines to support continuity of care • Define protocols for public health messaging (to include timing and content) to ensure a unified single message is received by EAC citizens to avoid confusion and create frameworks and templates to increase speed and efficiency of communications • Develop guidelines for cross-border health research with regional universities and research bodies to encourage and support regional research • Set service delivery standards and harmonise service delivery guidelines

Appendix F: Skills and Capabilities Across Workstreams

WORKSTREAM	ADDITIONAL ACTIVITIES	TECHNICAL SKILLS
1: Initiative Management	<ul style="list-style-type: none"> • Leadership • Management • Project coordination • Stakeholder and partnership management • Change management • Operations (finance, HR, legal, ICT) 	<ul style="list-style-type: none"> • Communications and public relations • Knowledge management • Expertise in global health, digital health, and regional policy • M&E
2: Health Programmes	<ul style="list-style-type: none"> • Management and oversight • Operational support 	<ul style="list-style-type: none"> • Public health expertise • Technology expertise • M&E
3: Infrastructure	<ul style="list-style-type: none"> • Management and oversight • Operational support • Product ownership • Enterprise IT management • Partnership management 	<ul style="list-style-type: none"> • Database administration • Server administration • Software development • Human-centred design • IT security • IT system architecture • M&E
4: Services and Applications	<ul style="list-style-type: none"> • Management and oversight • Operational support • Product ownership • Partnership management 	<ul style="list-style-type: none"> • Public health • Medical informatics • Requirements gathering • User interface/user experience (UI/UX) design • Software development • Human-centred design • M&E
5: Advocacy	<ul style="list-style-type: none"> • Management and oversight • Operational support • Stakeholder management 	<ul style="list-style-type: none"> • Consultation and negotiation expertise • Expertise working via EAC channels and structures • M&E
6: Strategy and Investment	<ul style="list-style-type: none"> • Management and oversight • Operational support 	<ul style="list-style-type: none"> • PPP expertise • Business analysis • Negotiation • M&E
7: Legislation, Policy, and Compliance	<ul style="list-style-type: none"> • Management and oversight of workstream by health professionals with both managerial and technical skills • Operational support • Stakeholder management 	<ul style="list-style-type: none"> • Policy and legislation analysis and drafting expertise • Digital health, particularly at the policy level • M&E
8: Workforce	<ul style="list-style-type: none"> • Management and oversight • Operational support • Coordination across all workstreams • Partnership management 	<ul style="list-style-type: none"> • Health professional education expertise • Public health expertise • Digital health expertise • Capacity building, training, CPE and content creation expertise • M&E
9: Standards and Interoperability	<ul style="list-style-type: none"> • Management and oversight • Operational support • Stakeholder management • Implementation 	<ul style="list-style-type: none"> • Public and clinical health • ICT expertise • Standards development • Solution development • Research and analysis • M&E

Appendix G: EAHC Implementation Activities

This appendix provides further detail on the implementation activities to be carried out by the Infrastructure workstream and the EAHC Health Programme. To realise the EAHC, three sub-workstreams will be employed. These three sub-workstreams will function in parallel. The table below provides more detail on the specific activities in each sub-workstream.

SUB-WORKSTREAM	ACTIVITIES
Insights and Content	<ul style="list-style-type: none"> • Advocate for buy-in from all the EAC Partner States for the EAHC • Create shared vision for EAHC • Obtain feedback from EAC Partner States on what they need to optimise their value from the EAHC (e.g., what data to include, what database views to make available, how to ensure easy access for approved researchers, academics, and government officials) • Analyse EAHC data to create common goods (e.g., algorithms to trigger outbreak alerts, routine analyses on comparative effectiveness of health programmes, standardised tools for data collection and use) • Liaise between the EAC Partner States and the Initiative’s PMO regarding thought leadership and implementation learnings
Technology	<ul style="list-style-type: none"> • Implement and manage the EAHC, its data, and the database views that are accessible by relevant users (e.g., researchers, academicians, and government officials) • Establish and maintain secure and reliable flows of data from contributing EAC Partner • State systems into EAHC and then out to users in the proper format • Establish SOPs and data/alerting workflows from the EAHC to EAC Partner States • Support the design and deployment by EAC Partner States and other health programmes of standardised tools and standards for data collection and use, directly linked to the EAHC architecture • Apply industry standards for data security, interoperability, and efficiency
Operations	<ul style="list-style-type: none"> • Agree on location of EAHC • Identify opportunity for PPPs for the build and maintenance of the EAHC • Establish and enforce security protocols for accessing system data • Establish a user support system for accepting, tracking, and resolving requests for support, system issue reports, and new feature requests • Monitor system usage and data access • Inform users of any new system features or data sets, changes to access protocols, or disruptions to service • Maintain a public roadmap of current and planned feature development

The Infrastructure team will be responsible for ensuring that all health programmes that are dependent on EAHC to operate will feed into the functional requirements so that they are able to store the data they need in the cloud.

The Leadership and Advocacy workstream team, working with the Infrastructure team and the PMO as needed, will familiarise the EAC Partner States on EAHC for better understanding among countries of the need and value of its establishment. Furthermore, to gain buy-in from EAC Partner States and stakeholders, emphasis will be put on processes and controls related to data security, privacy, confidentiality, and management of the information. This programme’s implementation approach will be as much about advocacy and buy-in as it is about generating knowledge, research insights, and building the technology. Success will also require working closely with the Legislation, Policy, and Compliance workstream to ensure the right policies are in place for sharing data securely and safely.

A country-by-country approach, using EWGs and consultative meetings, will be taken to elicit concerns, input, and approval for the programme. Early adoption from select countries will aid the EAHC’s full adoption across the EAC by providing a subgroup of intensively reviewed and evaluated implementations to inform further expansion. The EAHC will need to be designed to be compatible with country systems.